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

January 24, 2019

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

RE: Closure Request
James Ranch Unit #124H
Remediation Permit Number 2RP-5053
Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following letter report detailing excavation and soil sampling activities at the James Ranch Unit #124H well pad (Site) in Unit F, Section 17, Township 23 South, Range 31 East, in Eddy County, New Mexico (Figure 1). The purpose of the excavation and soil sampling activities was to address impacts to soil after a release occurred on site.

On October 26, 2018, the stuffing box packing on the well head failed and 3.6 barrels (bbls) of crude oil and 41.3 bbls of produced water were released. A vacuum truck was dispatched and recovered approximately 3.2 bbls of crude oil and 36.8 bbls of produced water. The packing was replaced, and the well was returned to production. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 on November 9, 2018, and was assigned Remediation Permit (RP) Number 2RP-5053 (Attachment 1).

BACKGROUND

The source of the release is located at latitude 32.305001 degrees (°) and longitude -103.803765°. The release occurred after August 14, 2018; therefore, LTE characterized the Site and 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 greater than 100 feet below ground surface (bgs) based on the nearest water well data. The nearest permitted water well with depth to water data is C 03389, located approximately 1,175 feet southwest from the source. Ground surface elevation at the water well location is approximately 3,311 feet, which is 10 feet lower in elevation than the Site. The water well has a depth to groundwater of 150 feet and a total depth of 300 feet.

The closest continuously flowing water or significant watercourse to the Site is an unnamed dry wash located approximately 8,003 feet west of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. Based on these criteria, the following NMOCD Table 1 Closure Criteria apply: 10 milligrams per kilogram (mg/kg) benzene; 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX); 2,500 mg/kg total petroleum hydrocarbons (TPH); 1,000 mg/kg TPH-gasoline range organics (GRO) and TPH-diesel range organics (DRO); and 20,000 mg/kg chloride. A closure criteria of 600 mg/kg chloride was applied to the off-pad pasture area that was impacted by the release, per NMAC 19.15.29.13.D (1) for the top 4 feet of areas that will be reclaimed following remediation.

SITE INVESTIGATION

Following the release, LTE personnel arrived on site on October 30, 2018, to inspect and evaluate the release extent. The release was identified visually by dark soil staining and mapped using a Global Positioning System. The release extent is depicted on Figure 2. Eight preliminary soil samples (SS01 through SS08) were collected within the release area from a depth of 0.5 feet bgs. The soil samples were screened for volatile aromatic hydrocarbons and chloride using a photo-ionization detector (PID) and Hach® chloride QuanTab® test strips. The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler, method of analysis, and immediately placed on ice. The soil samples were shipped at 4 degrees Celsius (°C) under strict chain-of-custody procedures to Xenco Laboratories (Xenco) in Midland, Texas, for analysis of BTEX by United States Environmental Protection Agency (USEPA) Method 8021B, TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) by USEPA Method 8015M/D, and chloride by USEPA Method 300.0.

Preliminary soil samples SS01 through SS04 were collected in the release area on the well pad. Laboratory analytical results for soil samples SS01 and SS02 indicated that TPH and GRO/DRO concentrations exceeded the NMOCD Table 1 closure criteria. Laboratory analytical results for SS04 indicated that GRO/DRO, TPH and chloride concentrations exceeded the NMOCD Table 1 closure criteria. Soil sample SS03 exceeded the NMOCD Table 1 closure criteria for chloride.

Preliminary soil samples SS05 through SS08 were collected from a depth of 0.5 feet bgs in the off-pad release area in the pasture and on the road north of the well pad. For these areas, chloride concentrations detected in soil samples collected in the top four feet of the subsurface are compared to a 600 mg/kg closure standard in accordance with NMAC 19.15.29.13.D (1). Laboratory analytical results for soil samples SS05 through SS07 indicated that GRO/DRO and/or TPH concentrations exceeded the NMOCD Table 1 closure criteria and chloride concentrations exceeded 600 mg/kg. Soil sample SS08 was compliant with applicable closure criteria. Laboratory analytical reports are presented on Figure 2 and summarized in Tables 1 and 2. The

laboratory analytical reports are included in Attachment 2. Based on the soil sample analytical results, excavation of impacted soil was required.

EXCAVATION ACTIVITIES

On December 7 and December 19, 2018, LTE personnel were on site to oversee excavation of impacted soil identified by preliminary soil sampling. To direct excavation activities, LTE screened soil using a PID and Hach® chloride QuanTab® test strips. The excavation measured approximately 6,480 square feet and was completed to depths ranging from 1 foot to 4 feet bgs, with the northern portion of the excavation being the deepest (Figure 3). The release began at the well head and flowed north across the well pad and into the pasture, then across the road and into the pasture area north of the road. There were two separate excavations: the first was located on the well pad and the pasture between the well pad and the road, while the second excavation was located in the pasture north of the road. LTE was not authorized to excavate soil located in the road way. The excavation extents are depicted on Figure 3. Approximately 400 cubic yards of impacted soil were removed from the excavation. The impacted soil was transported and properly disposed of at the R360 Landfill located in Hobbs, New Mexico.

Following removal of impacted soil, LTE collected 5-point composite soil samples from the floor and sidewalls of the excavation. Each composite soil sample represented 200-square feet of the excavation. Composite soil samples FS01 through FS28 were collected from the floor of the excavation from depths ranging from 1 foot to 4 feet bgs. Composite soil samples SW01 through SW10 were collected from the sidewalls of the excavation. The 5-point composite samples were collected by depositing 5 aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thorough mixing. The soil samples were collected and submitted to Xenco using procedures as previously described.

Within the road way, soil samples SS06A and SS07A were collected as discrete delineation samples to characterize potential subsurface impact. These samples were handled as previously described and were collected in the same location, but at greater depths, as preliminary samples SS06 and SS07, respectively.

RESULTS

Laboratory analytical results indicated excavation confirmation soil samples were compliant with the applicable NMOCD closure criteria for benzene, BTEX, GRO/DRO, TPH, and chloride, with the exception of soil samples SW04, SW10, FS04, FS21, and FS22. Further excavation north of and below sample location FS04 was limited by the presence of active pipelines and electrical lines. XTO safety policy restricts soil disturbing activities to a 2-foot radius of any active pipelines or electrical lines. These XTO safety policies are established to protect workers and to reduce the likelihood of compromising equipment and equipment foundations, as well as the integrity of the roadway and the safety of drivers.

Further excavation north of sample location SW04 and south of sample location SW10 was limited by the access road that LTE was not authorized to excavate, however laboratory analytical results for these samples are compliant below 4 feet bgs. Results are presented on Figure 3 and in Tables 1 and 2, and laboratory reports are included in Attachment 2.

Excavation confirmation samples FS21 and FS22 were collected at 4 feet bgs, with all soil above 4 feet being removed. Once the top 4 feet of soil are removed, chloride concentrations can be compared to the NMOCD Table 1 Closure Criteria of 20,000 mg/kg.

Delineation samples SS06 and SS07, collected just beneath the roadway surface, exceeded the applicable NMOCD closure criteria for GRO/DRO, TPH, and/or chloride. Samples collected at depth in these locations were compliant with NMOCD closure criteria and represent vertical delineation of impacted soil beneath the road.

CONCLUSIONS

Impacted soil identified by preliminary soil sampling was removed by excavation activities, except for the areas immediately adjacent to the wellhead and the road. Approximately 400 cubic yards of impacted soil were excavated from the Site; however, residual impacted soil was left in place for compliance with the XTO safety policy regarding earth-moving activities within two feet of pipelines, electrical lines, and the roadway. Laboratory analytical results for soil samples SW10, FS04, and SW04 indicated that soil with chloride, GRO/DRO and/or TPH exceeding the NMOCD Table 1 closure criteria and NMAC 19.15.29.13.D (1) were left in place within two feet of equipment or the road way.

An estimated 45 cubic yards of soil with TPH and/or chloride concentrations exceeding applicable standards remains in place where the release impacted the road in the areas of sample locations SW04 and SW10. LTE is assuming a maximum depth of 4 feet bgs around sample location SW04 and shallower impacts on the road are delineated to 1-foot bgs and 2.5-feet bgs based on delineation samples SS06A and SS07A, respectively, which were compliant with the NMAC 19.15.29.13.D (1). Near the well head, remaining impacted soil is delineated by excavation confirmation samples SW01, FS03, and FS05. LTE assumes a maximum depth of 2 feet for the residual soil.

XTO requests no further action at this time and to backfill the existing excavation. Final remediation will occur during any future major well pad construction/alteration or final plugging and abandonment, whichever occurs first. LTE and XTO do not believe deferment will result in imminent risk to human health, the environment, or groundwater. Free-standing fluids were recovered during initial response activities; therefore, no saturated soil remains in place.

Upon approval of the closure request, XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions. An updated NMOCD Form C-141 is included as Attachment 1. A photographic log of the Site is included as Attachment 3.

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, M.S., P.G.
Senior Geologist

cc: Kyle Littrell, XTO
Jim Amos, BLM
Shelly Tucker, BLM
Robert Hamlet, NMOCD

Attachments:

Figure 1	Site Location Map
Figure 2	Soil Sample Locations
Figure 3	Final Confirmation Soil Samples
Table 1	On-Pad Soil Analytical Results
Table 2	Off-Pad Soil Analytical Results
Attachment 1	Initial/Final NMOCD Form C-141 (2RP-5053)
Attachment 2	Laboratory Analytical Reports
Attachment 3	Photographic Log

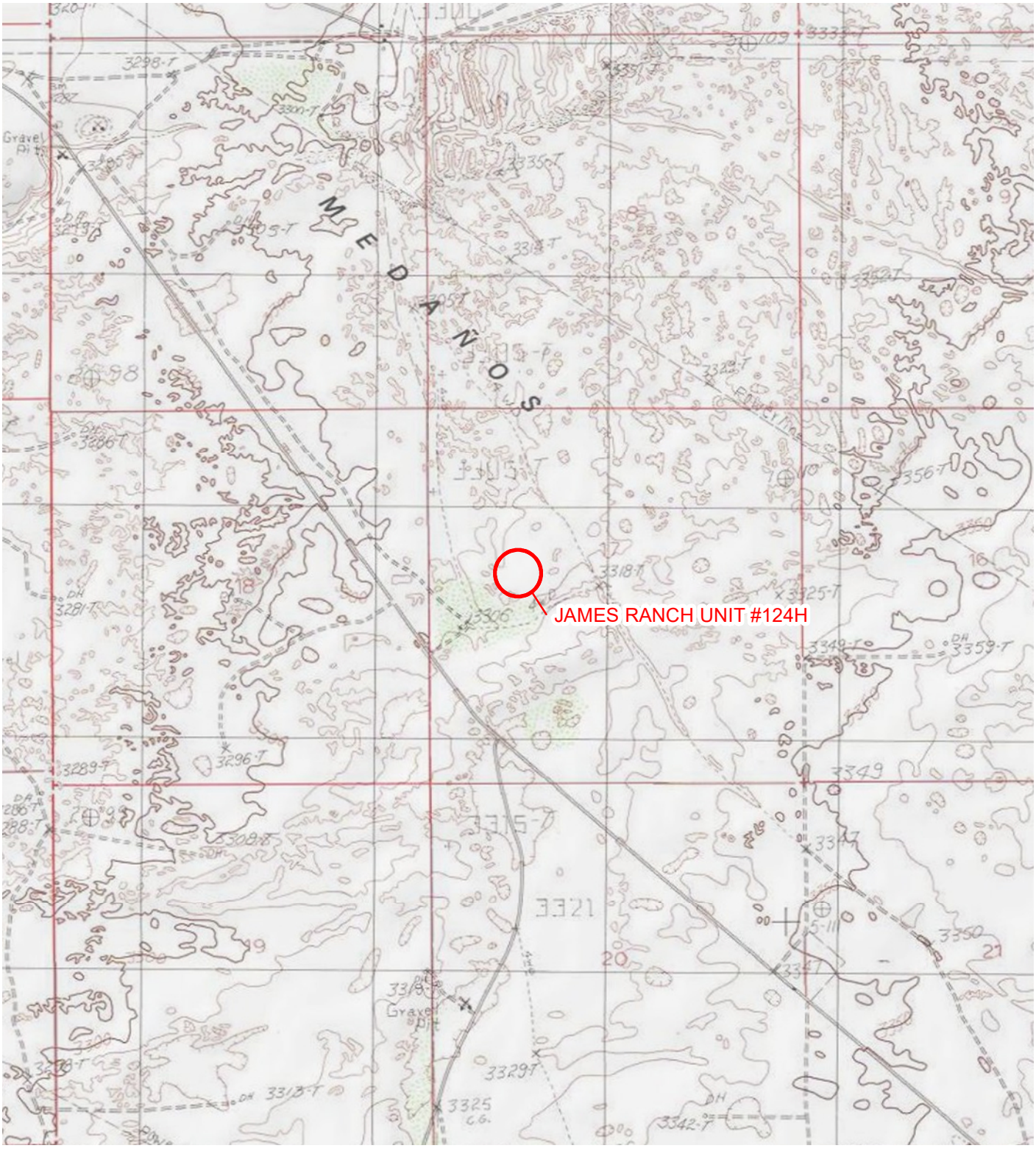

IMAGE COURTESY OF ESRI/USGS

LEGEND

SITE LOCATION

0 2,000 4,000

Feet

N

NEW MEXICO

NOTE: REMEDIATION PERMIT NUMBER 2RP-5053

FIGURE 1
SITE LOCATION MAP
JAMES RANCH UNIT #124H
UNIT F SEC 17 T23S R31E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

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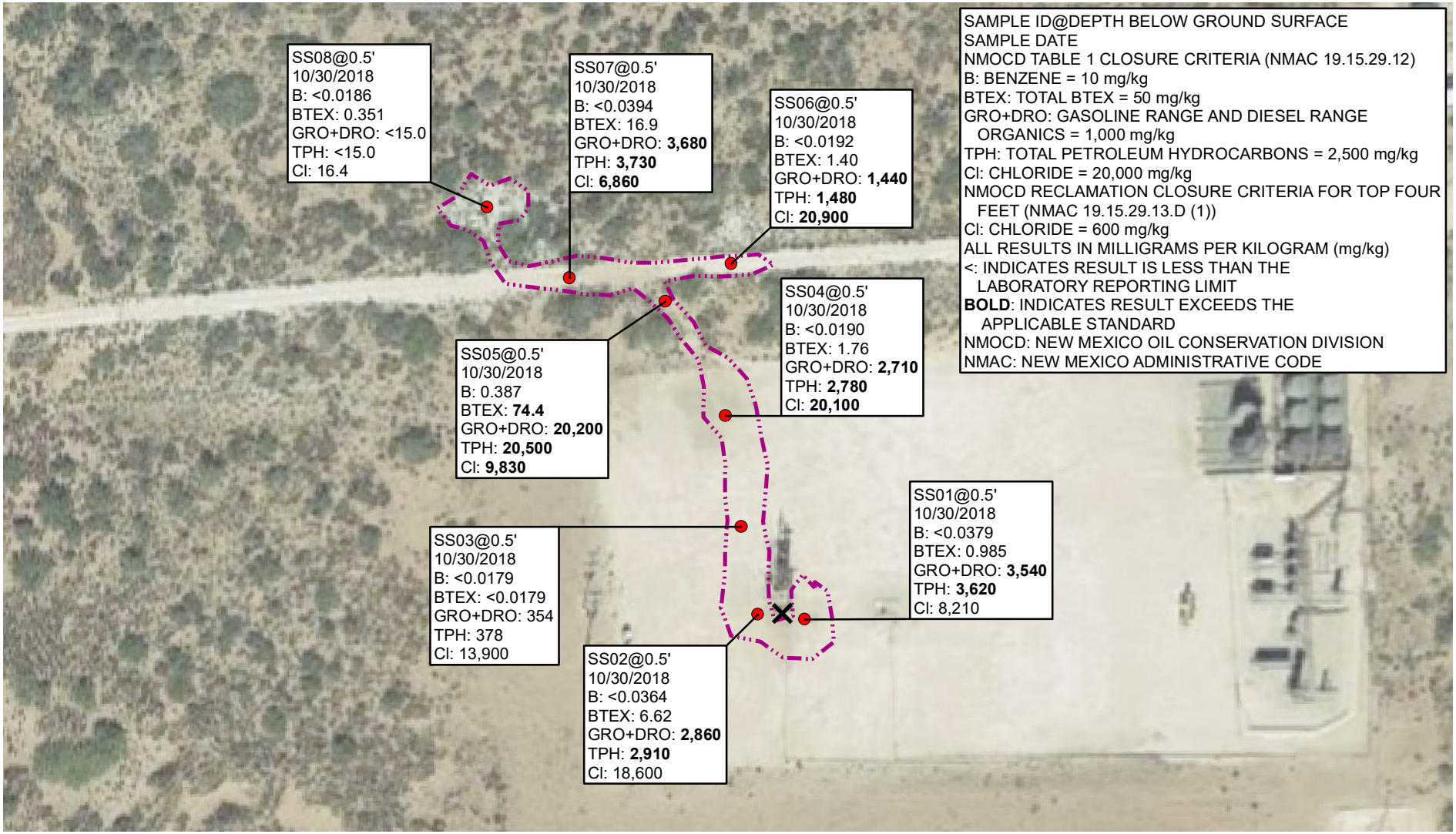

IMAGE COURTESY OF GOOGLE EARTH 2017

LEGEND

- RELEASE LOCATION
- PRELIMINARY SOIL SAMPLE
- RELEASE EXTENT

0 100 200
Feet

N

NOTE: REMEDIATION PERMIT NUMBER 2RP-5053

FIGURE 2
INITIAL SOIL SAMPLE LOCATIONS
JAMES RANCH UNIT #124H
UNIT F SEC 17 T23S R31E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

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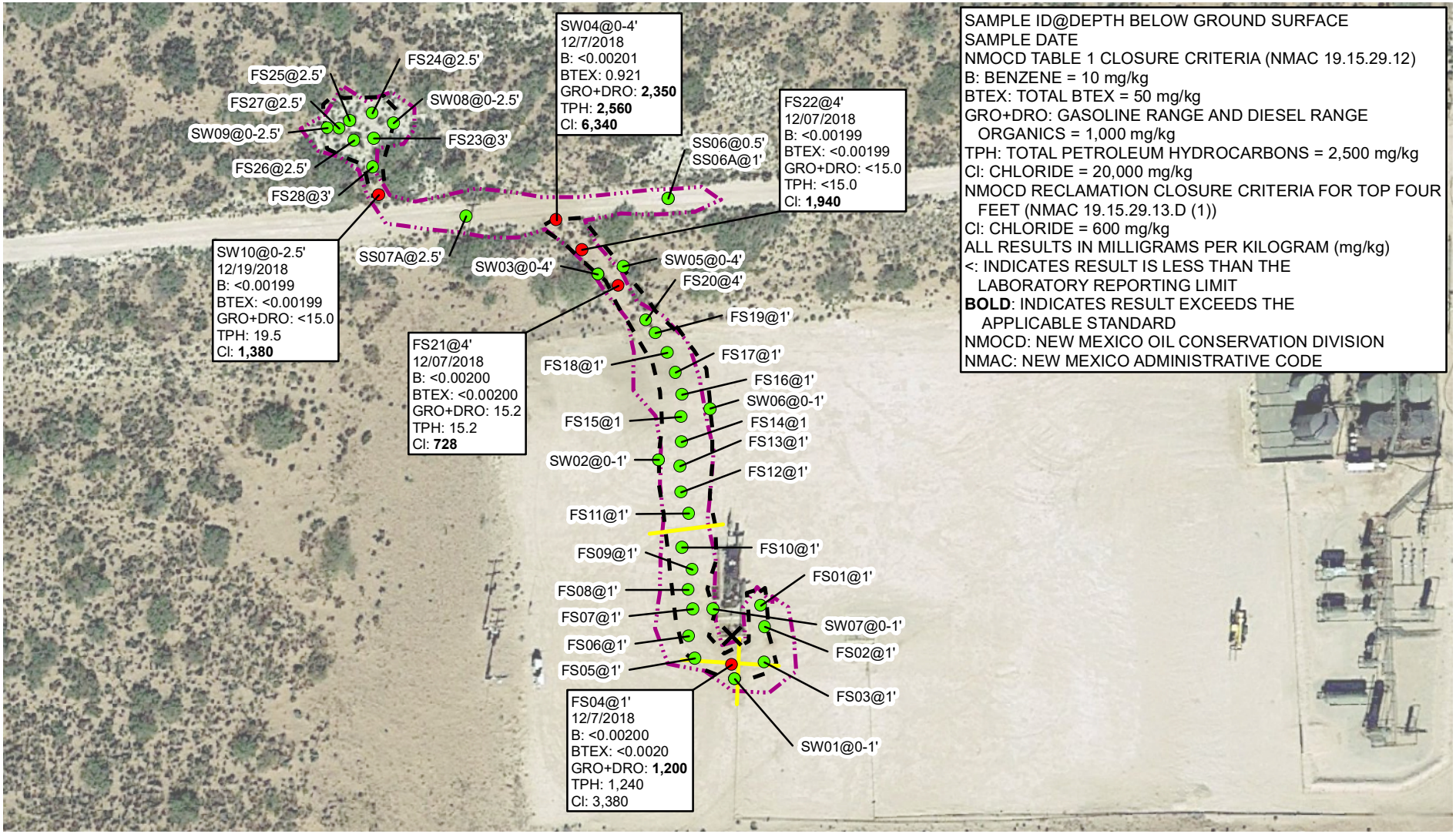

SAMPLE ID@DEPTH BELOW GROUND SURFACE
SAMPLE DATE
NMOCD TABLE 1 CLOSURE CRITERIA (NMAC 19.15.29.12)
B: BENZENE = 10 mg/kg
BTEX: TOTAL BTEX = 50 mg/kg
GRO+DRO: GASOLINE RANGE AND DIESEL RANGE ORGANICS = 1,000 mg/kg
TPH: TOTAL PETROLEUM HYDROCARBONS = 2,500 mg/kg
Cl: CHLORIDE = 20,000 mg/kg
NMOCD RECLAMATION CLOSURE CRITERIA FOR TOP FOUR FEET (NMAC 19.15.29.13.D (1))
Cl: CHLORIDE = 600 mg/kg
ALL RESULTS IN MILLIGRAMS PER KILOGRAM (mg/kg)
<: INDICATES RESULT IS LESS THAN THE LABORATORY REPORTING LIMIT
BOLD: INDICATES RESULT EXCEEDS THE APPLICABLE STANDARD
NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
NMAC: NEW MEXICO ADMINISTRATIVE CODE

IMAGE COURTESY OF GOOGLE EARTH 2017

LEGEND

- RELEASE LOCATION
- SOIL SAMPLE EXCEEDING APPLICABLE REGULATORY STANDARD
- SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE REGULATORY STANDARD
- FLOW LINE
- RELEASE EXTENT
- EXCAVATION EXTENT

0 80 160
Feet

N

NOTE: REMEDIATION PERMIT NUMBER 2RP-5053

FIGURE 3
FINAL CONFIRMATION SOIL SAMPLES
JAMES RANCH UNIT #124H
UNIT F SEC 17 T23S R31E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

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TABLE 1
ON-PAD SAMPLES
SOIL ANALYTICAL RESULTS

JAMES RANCH UNIT #124H
REMEDIATION PERMIT NUMBER 2RP-5053
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	10/30/2018	<0.0379	0.140	0.178	0.667	0.985	52.5	3,490	77.4	**3,540**	**3,620**	8,210
SS02	0.5	10/30/2018	<0.0364	0.811	1.23	4.58	6.62	203	2,660	51.5	**2,860**	**2,910**	18,600
SS03	0.5	10/30/2018	<0.0179	<0.0179	<0.0179	<0.0179	<0.0179	<15.0	354	23.7	354	378	13,900
SS04	0.5	10/30/2018	<0.0190	0.0724	0.518	1.17	1.76	90.0	2,620	69.5	**2,710**	**2,780**	**20,100**
FS01	1	12/07/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	317
FS02	1	12/07/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	48.8	<15.0	48.8	48.8	9.47
FS03	1	12/07/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	45.8	<14.9	45.8	45.8	212
FS04	1	12/07/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	1,200	42.0	**1,200**	1,240	3,380
FS05	1	12/07/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	119	<15.0	119	119	807
FS06	1	12/07/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	370
FS07	1	12/07/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	907	20.2	907	927	1,200
FS08	1	12/07/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	43.4
FS09	1	12/07/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	143
FS10	1	12/07/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	1,320
FS11	1	12/07/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	178
FS12	1	12/07/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	1,460
FS13	1	12/07/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<4.95
FS14	1	12/07/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	56.1
FS15	1	12/07/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	31.6
FS16	1	12/07/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	259
FS17	1	12/07/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	52.2
FS18	1	12/07/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	<14.9	8.83
FS19	1	12/07/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	21.8	<15.0	21.8	21.8	975
FS20	4	12/07/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	20.0	<15.0	20.0	20.0	1,770
SW01	0 - 1	12/07/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	262	38.2	262	300	1,710
SW02	0 - 1	12/07/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	140

TABLE 1 (Continued)
ON-PAD SAMPLES
SOIL ANALYTICAL RESULTS

JAMES RANCH UNIT #124H
REMEDIATION PERMIT NUMBER 2RP-5053
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)
SW06	0 - 1	12/07/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	135
SW07	0 - 1	12/07/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	844	25.8	844	870	1,360
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000

Notes:
bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
mg/kg - milligrams per kilogram
NE - not established
NMOCD - New Mexico Oil Conservation Division
DRO - diesel range organics
GRO - gasoline range organics
ORO - oil range organics
TPH - total petroleum hydrocarbons
< - indicates result is below laboratory reporting limits
Bold - indicates result exceeds the applicable regulatory standard
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018
NMAC - New Mexico Administrative Code

TABLE 2
OFF-PAD SAMPLES
SOIL ANALYTICAL RESULTS

JAMES RANCH UNIT #124H
REMEDIATION PERMIT NUMBER 2RP-5053
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)
SS05	0.5	10/30/2018	0.387	8.72	13.1	52.2	**74.4**	2,720	17,500	264	**20,200**	**20,500**	**9,830**
SS06	0.5	10/30/2018	<0.0192	0.0345	0.456	0.910	1.40	76.1	1,360	45.3	**1,440**	1,480	**20,900**
SS07	0.5	10/30/2018	<0.0394	1.69	3.15	12.1	16.9	567	3,110	49.2	**3,680**	**3,730**	**6,860**
SS08	0.5	10/30/2018	<0.0186	<0.0186	<0.0186	0.351	0.351	<15.0	<15.0	<15.0	<15.0	<15.0	16.4
FS21	4	12/07/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	15.2	<15.0	15.2	15.2	**728**
FS22	4	12/07/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	**1,940**
SW03	0 - 4	12/07/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	151
SW04	0 - 4	12/07/2018	<0.00201	0.0430	0.112	0.766	0.921	282	2,070	208	**2,350**	**2,560**	**6,340**
SW05	0 - 4	12/07/2018	<0.00199	<0.00199	0.00328	0.00709	0.0104	<14.9	<14.9	<14.9	<14.9	<14.9	<5.00
FS23	3	12/19/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	31.7
FS24	2.5	12/19/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	44.1
FS25	2.5	12/19/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	<4.98
FS26	2.5	12/19/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	<5.01
FS27	2.5	12/19/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<5.00
FS28	3	12/19/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	64.1
SS06	0.5	12/19/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	14.8
SS06A	1	12/19/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	262
SS07A	2.5	12/19/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	460
SW08	0 - 2.5	12/19/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	29.8
SW09	0 - 2.5	12/19/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	83.6
SW10	0 - 2.5	12/19/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	19.5	<15.0	<15.0	<15.0	19.5	**1,380**
NMOCD Table 1 Closure Criteria and NMAC 19.15.29.13.D (1)			10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	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
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018
NMAC - New Mexico Administrative Code

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	NAB1832358581
District RP	2RP-5053
Facility ID	
Application ID	pAB1832358200

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)* NAB1832358581
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.305001 Longitude -103.803765

(NAD 83 in decimal degrees to 5 decimal places)

Site Name James Ranch Unit #124H	Site Type Production Well
Date Release Discovered 10/26/2018	API# *(if applicable)* 30-015-38113

Unit Letter	Section	Township	Range	County
F	17	23S	31E	Eddy

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 3.6	Volume Recovered (bbls) 3.2
☒ Produced Water	Volume Released (bbls) 41.3	Volume Recovered (bbls) 36.8
	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

Fluids were released from the well head due to a stuffing box packing failure. A vacuum truck recovered free standing fluids. The packing was replaced and the well was returned to production.

State of New Mexico
Oil Conservation Division

Incident ID	NAB1832358581
District RP	2RP-5053
Facility ID	
Application ID	pAB1832358200

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 by Amy Ruth to Maria Pruett, Mike Bratcher, and Jim Griswold (NMOCD), Shelly Tucker and Jim Amos (BLM), on 10/27/2018 by email

Initial Response

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

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Kyle Littrell Title: SH&E Coordinator

Signature: [signature] Date: 11-9-18

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

OCD Only

Received by: [signature] Date: 11/19/2018

State of New Mexico
Oil Conservation Division

Incident ID	NAB1832358581
District RP	2RP-5053
Facility ID	
Application ID	pAB1832358200

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.

Oil Conservation Division

Incident ID	NAB1832358581
District RP	2RP-5053
Facility ID	
Application ID	pAB1832358200

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: 11-9-18

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

OCD Only

Received by: Date: 11/19/2018

State of New Mexico
Oil Conservation Division

Incident ID	NAB1832358581
District RP	2RP-5053
Facility ID	
Application ID	pAB1832358200

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: SH&E Coordinator

Signature:  Date: 01-24-2019

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: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAB1832358581
District RP	2RP-5053
Facility ID	
Application ID	pAB1832358200

Closure

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

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

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

[X] Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

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

[X] Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Coordinator

Signature: Date: 01-24-2019

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

OCD Only

Received by: Date:

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

Closure Approved by: Date:

Printed Name: Title:

Location:	JRU 124 (30-015-38113) pasture	
Spill Date:	10/26/2018	

Length of Spill=	35.00	feet
Width of Spill=	10.00	feet
Saturation (or depth) of Spill=	5.00	inches
Approximate Oil %	8	
Porosity Factor=	0.15	
Volume Recovered=	40.00	bbls

VOLUME OF LEAK		
Total Oil=	3.5	barrels
Total Produced Water=	40.4	barrels

VOLUME RECOVERED		
Total Oil=	3.2	barrels
Total Produced Water=	36.8	barrels

Location:	JRU 124 (30-015-38113) well pad	
Spill Date:	10/26/2018	

Length of Spill=	85.00	feet
Width of Spill=	25.00	feet
Saturation (or depth) of Spill=	1.00	inches
Approximate Oil %	8	
Porosity Factor=	0.03	
Volume Recovered=	-	bbls

VOLUME OF LEAK		
Total Oil=	0.1	barrels
Total Produced Water=	0.9	barrels

VOLUME RECOVERED

Total Oil=	-	barrels
Total Produced Water=	-	barrels

ATTACHMENT 2: LABORATORY ANALYTICAL REPORTS

Analytical Report 604236

for

LT Environmental, Inc.

Project Manager: Adrian Baker

JRU 124H

08-NOV-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)

08-NOV-18

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

Reference: XENCO Report No(s): **604236**
JRU 124H
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) 604236. 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. 604236 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 604236

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	10-30-18 15:05	6 In	604236-001
SS02	S	10-30-18 15:10	6 In	604236-002
SS03	S	10-30-18 15:15	6 In	604236-003
SS04	S	10-30-18 15:20	6 In	604236-004
SS05	S	10-30-18 15:30	6 In	604236-005
SS08	S	10-30-18 15:45	6 In	604236-006
SS06	S	10-30-18 15:35	6 In	604236-007
SS07	S	10-30-18 15:40	6 In	604236-008

CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: JRU 124H

Project ID:
Work Order Number(s): *604236*

Report Date: *08-NOV-18*
Date Received: *11/01/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3068437 TPH by SW8015 Mod
Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 604236-001,604236-002,604236-008,604236-005,604236-004.

Batch: LBA-3068679 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Surrogate a,a,a-Trifluorotoluene recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7665564-1-BKS,7665564-1-BLK,604075-018 S,604236-003,604236-006,604236-007,604236-008.
Surrogate 4-Bromofluorobenzene recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7665564-1-BKS,7665564-1-BLK,604075-018 S,604236-005,604236-006,604236-004,604236-003,604236-002,604236-007,604236-008.

Certificate of Analysis Summary 604236

LT Environmental, Inc., Arvada, CO

Project Name: JRU 124H

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

Date Received in Lab: Thu Nov-01-18 02:57 pm
Report Date: 08-NOV-18
Project Manager: Jessica Kramer

Analysis Requested	*Lab Id:*	604236-001		604236-002		604236-003		604236-004		604236-005		604236-006	
	Field Id:	SS01		SS02		SS03		SS04		SS05		SS08	
	Depth:	6- In		6- In		6- In		6- In		6- In		6- In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-30-18 15:05		Oct-30-18 15:10		Oct-30-18 15:15		Oct-30-18 15:20		Oct-30-18 15:30		Oct-30-18 15:45	
BTEX by EPA 8021B SUB: T104704219-18-18	*Extracted:*	Nov-02-18 12:00		Nov-02-18 12:00		Nov-02-18 12:00		Nov-02-18 12:00		Nov-02-18 12:00		Nov-02-18 12:00	
	Analyzed:	Nov-02-18 22:46		Nov-02-18 23:10		Nov-02-18 23:34		Nov-02-18 23:58		Nov-03-18 00:23		Nov-03-18 00:47	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.0379	0.0379	<0.0364	0.0364	<0.0179	0.0179	<0.0190	0.0190	0.387	0.193	<0.0186	0.0186
Toluene		0.140	0.0379	0.811	0.0364	<0.0179	0.0179	0.0724	0.0190	8.72	0.193	<0.0186	0.0186
Ethylbenzene		0.178	0.0379	1.23	0.0364	<0.0179	0.0179	0.518	0.0190	13.1	0.193	<0.0186	0.0186
m,p-Xylenes		0.436	0.0758	3.06	0.0727	<0.0358	0.0358	0.770	0.0381	35.4	0.387	0.276	0.0372
o-Xylene		0.231	0.0379	1.52	0.0364	<0.0179	0.0179	0.400	0.0190	16.8	0.193	0.0745	0.0186
Total Xylenes		0.667	0.0379	4.58	0.0364	<0.0179	0.0179	1.17	0.0190	52.2	0.193	0.351	0.0186
Total BTEX		0.985	0.0379	6.62	0.0364	<0.0179	0.0179	1.76	0.0190	74.4	0.193	0.351	0.0186
Inorganic Anions by EPA 300	*Extracted:*	Nov-05-18 13:00		Nov-05-18 13:00		Nov-05-18 13:00		Nov-05-18 13:00		Nov-05-18 13:00		Nov-05-18 13:00	
	Analyzed:	Nov-05-18 22:20		Nov-05-18 22:26		Nov-05-18 22:31		Nov-05-18 22:36		Nov-05-18 22:42		Nov-05-18 22:47	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		8210	99.0	18600	248	13900	99.4	20100	248	9830	99.8	16.4	4.97
TPH by SW8015 Mod	*Extracted:*	Nov-02-18 13:00		Nov-02-18 13:00		Nov-02-18 13:00		Nov-02-18 13:00		Nov-02-18 13:00		Nov-02-18 13:00	
	Analyzed:	Nov-03-18 00:11		Nov-03-18 00:29		Nov-03-18 00:48		Nov-03-18 01:07		Nov-03-18 01:25		Nov-03-18 01:44	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		52.5	15.0	203	15.0	<15.0	15.0	90.0	15.0	2720	74.8	<15.0	15.0
Diesel Range Organics (DRO)		3490	15.0	2660	15.0	354	15.0	2620	15.0	17500	74.8	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		77.4	15.0	51.5	15.0	23.7	15.0	69.5	15.0	264	74.8	<15.0	15.0
Total TPH		3620	15.0	2910	15.0	378	15.0	2780	15.0	20500	74.8	<15.0	15.0

Certificate of Analysis Summary 604236

LT Environmental, Inc., Arvada, CO

Project Name: JRU 124H

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

Date Received in Lab: Thu Nov-01-18 02:57 pm
Report Date: 08-NOV-18
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	604236-007		604236-008					
	Field Id:	SS06		SS07					
	Depth:	6- In		6- In					
	Matrix:	SOIL		SOIL					
	Sampled:	Oct-30-18 15:35		Oct-30-18 15:40					
BTEX by EPA 8021B	***Extracted:***	Nov-02-18 12:00		Nov-02-18 12:00					
SUB: T104704219-18-18	***Analyzed:***	Nov-03-18 01:11		Nov-03-18 01:36					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.0192	0.0192	<0.0394	0.0394				
Toluene		0.0345	0.0192	1.69	0.0394				
Ethylbenzene		0.456	0.0192	3.15	0.0394				
m,p-Xylenes		0.584	0.0383	8.09	0.0787				
o-Xylene		0.326	0.0192	4.00	0.0394				
Total Xylenes		0.910	0.0192	12.1	0.0394				
Total BTEX		1.40	0.0192	16.9	0.0394				
Inorganic Anions by EPA 300	***Extracted:***	Nov-05-18 13:00		Nov-06-18 15:30					
	Analyzed:	Nov-05-18 22:52		Nov-06-18 19:35					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		20900	250	6860	49.7				
TPH by SW8015 Mod	***Extracted:***	Nov-02-18 13:00		Nov-02-18 13:00					
	Analyzed:	Nov-03-18 02:03		Nov-03-18 02:21					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		76.1	14.9	567	15.0				
Diesel Range Organics (DRO)		1360	14.9	3110	15.0				
Motor Oil Range Hydrocarbons (MRO)		45.3	14.9	49.2	15.0				
Total TPH		1480	14.9	3730	15.0				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 604236

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	11.01.18 14.57
Lab Sample Id:	604236-001	Date Collected:	10.30.18 15.05	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 13.00	Basis:	Wet Weight
Seq Number:	3068694				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8210**	99.0	mg/kg	11.05.18 22.20		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 13.00	Basis:	Wet Weight
Seq Number:	3068437				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**52.5**	15.0	mg/kg	11.03.18 00.11		1
Diesel Range Organics (DRO)	C10C28DRO	**3490**	15.0	mg/kg	11.03.18 00.11		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**77.4**	15.0	mg/kg	11.03.18 00.11		1
Total TPH	PHC635	**3620**	15.0	mg/kg	11.03.18 00.11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.03.18 00.11	
o-Terphenyl	84-15-1	158	%	70-135	11.03.18 00.11	**

Certificate of Analytical Results 604236

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	11.01.18 14.57
Lab Sample Id:	604236-001	Date Collected:	10.30.18 15.05	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.02.18 12.00	Basis:	Wet Weight
Seq Number:	3068679			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0379	0.0379	mg/kg	11.02.18 22.46	U	2
Toluene	108-88-3	**0.140**	0.0379	mg/kg	11.02.18 22.46		2
Ethylbenzene	100-41-4	**0.178**	0.0379	mg/kg	11.02.18 22.46		2
m,p-Xylenes	179601-23-1	**0.436**	0.0758	mg/kg	11.02.18 22.46		2
o-Xylene	95-47-6	**0.231**	0.0379	mg/kg	11.02.18 22.46		2
Total Xylenes	1330-20-7	**0.667**	0.0379	mg/kg	11.02.18 22.46		2
Total BTEX		**0.985**	0.0379	mg/kg	11.02.18 22.46		2

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	68-120	11.02.18 22.46	
a,a,a-Trifluorotoluene	98-08-8	116	%	71-121	11.02.18 22.46	

Certificate of Analytical Results 604236

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	11.01.18 14.57
Lab Sample Id:	604236-002	Date Collected:	10.30.18 15.10	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 13.00	Basis:	Wet Weight
Seq Number:	3068694				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18600**	248	mg/kg	11.05.18 22.26		50

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 13.00	Basis:	Wet Weight
Seq Number:	3068437				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**203**	15.0	mg/kg	11.03.18 00.29		1
Diesel Range Organics (DRO)	C10C28DRO	**2660**	15.0	mg/kg	11.03.18 00.29		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**51.5**	15.0	mg/kg	11.03.18 00.29		1
Total TPH	PHC635	**2910**	15.0	mg/kg	11.03.18 00.29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	11.03.18 00.29	
o-Terphenyl	84-15-1	139	%	70-135	11.03.18 00.29	**

Certificate of Analytical Results 604236

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	11.01.18 14.57
Lab Sample Id:	604236-002	Date Collected:	10.30.18 15.10	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.02.18 12.00	Basis:	Wet Weight
Seq Number:	3068679			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0364	0.0364	mg/kg	11.02.18 23.10	U	2
Toluene	108-88-3	**0.811**	0.0364	mg/kg	11.02.18 23.10		2
Ethylbenzene	100-41-4	**1.23**	0.0364	mg/kg	11.02.18 23.10		2
m,p-Xylenes	179601-23-1	**3.06**	0.0727	mg/kg	11.02.18 23.10		2
o-Xylene	95-47-6	**1.52**	0.0364	mg/kg	11.02.18 23.10		2
Total Xylenes	1330-20-7	**4.58**	0.0364	mg/kg	11.02.18 23.10		2
Total BTEX		**6.62**	0.0364	mg/kg	11.02.18 23.10		2

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	192	%	68-120	11.02.18 23.10	**
a,a,a-Trifluorotoluene	98-08-8	117	%	71-121	11.02.18 23.10	

Certificate of Analytical Results 604236

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	11.01.18 14.57
Lab Sample Id:	604236-003	Date Collected:	10.30.18 15.15	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 13.00	Basis:	Wet Weight
Seq Number:	3068694				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13900**	99.4	mg/kg	11.05.18 22.31		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 13.00	Basis:	Wet Weight
Seq Number:	3068437				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	11.03.18 00.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	**354**	15.0	mg/kg	11.03.18 00.48		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**23.7**	15.0	mg/kg	11.03.18 00.48		1
Total TPH	PHC635	**378**	15.0	mg/kg	11.03.18 00.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	11.03.18 00.48	
o-Terphenyl	84-15-1	120	%	70-135	11.03.18 00.48	

Certificate of Analytical Results 604236

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	11.01.18 14.57
Lab Sample Id:	604236-003	Date Collected:	10.30.18 15.15	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.02.18 12.00	Basis:	Wet Weight
Seq Number:	3068679			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0179	0.0179	mg/kg	11.02.18 23.34	U	1
Toluene	108-88-3	<0.0179	0.0179	mg/kg	11.02.18 23.34	U	1
Ethylbenzene	100-41-4	<0.0179	0.0179	mg/kg	11.02.18 23.34	U	1
m,p-Xylenes	179601-23-1	<0.0358	0.0358	mg/kg	11.02.18 23.34	U	1
o-Xylene	95-47-6	<0.0179	0.0179	mg/kg	11.02.18 23.34	U	1
Total Xylenes	1330-20-7	<0.0179	0.0179	mg/kg	11.02.18 23.34	U	1
Total BTEX		<0.0179	0.0179	mg/kg	11.02.18 23.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	146	%	68-120	11.02.18 23.34	**
a,a,a-Trifluorotoluene	98-08-8	138	%	71-121	11.02.18 23.34	**

Certificate of Analytical Results 604236

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	11.01.18 14.57
Lab Sample Id:	604236-004	Date Collected:	10.30.18 15.20	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 13.00	Basis:	Wet Weight
Seq Number:	3068694				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**20100**	248	mg/kg	11.05.18 22.36		50

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 13.00	Basis:	Wet Weight
Seq Number:	3068437				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**90.0**	15.0	mg/kg	11.03.18 01.07		1
Diesel Range Organics (DRO)	C10C28DRO	**2620**	15.0	mg/kg	11.03.18 01.07		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**69.5**	15.0	mg/kg	11.03.18 01.07		1
Total TPH	PHC635	**2780**	15.0	mg/kg	11.03.18 01.07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	11.03.18 01.07	
o-Terphenyl	84-15-1	147	%	70-135	11.03.18 01.07	**

Certificate of Analytical Results 604236

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	11.01.18 14.57
Lab Sample Id:	604236-004	Date Collected:	10.30.18 15.20	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.02.18 12.00	Basis:	Wet Weight
Seq Number:	3068679			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0190	0.0190	mg/kg	11.02.18 23.58	U	1
Toluene	108-88-3	**0.0724**	0.0190	mg/kg	11.02.18 23.58		1
Ethylbenzene	100-41-4	**0.518**	0.0190	mg/kg	11.02.18 23.58		1
m,p-Xylenes	179601-23-1	**0.770**	0.0381	mg/kg	11.02.18 23.58		1
o-Xylene	95-47-6	**0.400**	0.0190	mg/kg	11.02.18 23.58		1
Total Xylenes	1330-20-7	**1.17**	0.0190	mg/kg	11.02.18 23.58		1
Total BTEX		**1.76**	0.0190	mg/kg	11.02.18 23.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	152	%	68-120	11.02.18 23.58	**
a,a,a-Trifluorotoluene	98-08-8	115	%	71-121	11.02.18 23.58	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	11.01.18 14.57
Lab Sample Id:	604236-005	Date Collected:	10.30.18 15.30	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 13.00	Basis:	Wet Weight
Seq Number:	3068694				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9830**	99.8	mg/kg	11.05.18 22.42		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 13.00	Basis:	Wet Weight
Seq Number:	3068437				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**2720**	74.8	mg/kg	11.03.18 01.25		5
Diesel Range Organics (DRO)	C10C28DRO	**17500**	74.8	mg/kg	11.03.18 01.25		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**264**	74.8	mg/kg	11.03.18 01.25		5
Total TPH	PHC635	**20500**	74.8	mg/kg	11.03.18 01.25		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	11.03.18 01.25	
o-Terphenyl	84-15-1	383	%	70-135	11.03.18 01.25	**

Certificate of Analytical Results 604236

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	11.01.18 14.57
Lab Sample Id:	604236-005	Date Collected:	10.30.18 15.30	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.02.18 12.00	Basis:	Wet Weight
Seq Number:	3068679			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.387**	0.193	mg/kg	11.03.18 00.23		10
Toluene	108-88-3	**8.72**	0.193	mg/kg	11.03.18 00.23		10
Ethylbenzene	100-41-4	**13.1**	0.193	mg/kg	11.03.18 00.23		10
m,p-Xylenes	179601-23-1	**35.4**	0.387	mg/kg	11.03.18 00.23		10
o-Xylene	95-47-6	**16.8**	0.193	mg/kg	11.03.18 00.23		10
Total Xylenes	1330-20-7	**52.2**	0.193	mg/kg	11.03.18 00.23		10
Total BTEX		**74.4**	0.193	mg/kg	11.03.18 00.23		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	173	%	68-120	11.03.18 00.23	**
a,a,a-Trifluorotoluene	98-08-8	112	%	71-121	11.03.18 00.23	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS08**	Matrix:	Soil	Date Received:	11.01.18 14.57
Lab Sample Id:	604236-006	Date Collected:	10.30.18 15.45	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 13.00	Basis:	Wet Weight
Seq Number:	3068694				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16.4**	4.97	mg/kg	11.05.18 22.47		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 13.00	Basis:	Wet Weight
Seq Number:	3068437				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	11.03.18 01.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	11.03.18 01.44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	11.03.18 01.44	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	11.03.18 01.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	11.03.18 01.44	
o-Terphenyl	84-15-1	98	%	70-135	11.03.18 01.44	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS08**	Matrix:	Soil	Date Received:	11.01.18 14.57
Lab Sample Id:	604236-006	Date Collected:	10.30.18 15.45	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.02.18 12.00	Basis:	Wet Weight
Seq Number:	3068679			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0186	0.0186	mg/kg	11.03.18 00.47	U	1
Toluene	108-88-3	<0.0186	0.0186	mg/kg	11.03.18 00.47	U	1
Ethylbenzene	100-41-4	<0.0186	0.0186	mg/kg	11.03.18 00.47	U	1
m,p-Xylenes	179601-23-1	**0.276**	0.0372	mg/kg	11.03.18 00.47		1
o-Xylene	95-47-6	**0.0745**	0.0186	mg/kg	11.03.18 00.47		1
Total Xylenes	1330-20-7	**0.351**	0.0186	mg/kg	11.03.18 00.47		1
Total BTEX		**0.351**	0.0186	mg/kg	11.03.18 00.47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	145	%	68-120	11.03.18 00.47	**
a,a,a-Trifluorotoluene	98-08-8	132	%	71-121	11.03.18 00.47	**

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS06**	Matrix:	Soil	Date Received:	11.01.18 14.57
Lab Sample Id:	604236-007	Date Collected:	10.30.18 15.35	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 13.00	Basis:	Wet Weight
Seq Number:	3068694				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**20900**	250	mg/kg	11.05.18 22.52		50

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 13.00	Basis:	Wet Weight
Seq Number:	3068437				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**76.1**	14.9	mg/kg	11.03.18 02.03		1
Diesel Range Organics (DRO)	C10C28DRO	**1360**	14.9	mg/kg	11.03.18 02.03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**45.3**	14.9	mg/kg	11.03.18 02.03		1
Total TPH	PHC635	**1480**	14.9	mg/kg	11.03.18 02.03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	11.03.18 02.03	
o-Terphenyl	84-15-1	124	%	70-135	11.03.18 02.03	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS06**	Matrix:	Soil	Date Received:	11.01.18 14.57
Lab Sample Id:	604236-007	Date Collected:	10.30.18 15.35	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.02.18 12.00	Basis:	Wet Weight
Seq Number:	3068679			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0192	0.0192	mg/kg	11.03.18 01.11	U	1
Toluene	108-88-3	**0.0345**	0.0192	mg/kg	11.03.18 01.11		1
Ethylbenzene	100-41-4	**0.456**	0.0192	mg/kg	11.03.18 01.11		1
m,p-Xylenes	179601-23-1	**0.584**	0.0383	mg/kg	11.03.18 01.11		1
o-Xylene	95-47-6	**0.326**	0.0192	mg/kg	11.03.18 01.11		1
Total Xylenes	1330-20-7	**0.910**	0.0192	mg/kg	11.03.18 01.11		1
Total BTEX		**1.40**	0.0192	mg/kg	11.03.18 01.11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	173	%	68-120	11.03.18 01.11	**
a,a,a-Trifluorotoluene	98-08-8	131	%	71-121	11.03.18 01.11	**

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS07**	Matrix:	Soil	Date Received:	11.01.18 14.57
Lab Sample Id:	604236-008	Date Collected:	10.30.18 15.40	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.06.18 15.30	Basis:	Wet Weight
Seq Number:	3068868				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6860**	49.7	mg/kg	11.06.18 19.35		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 13.00	Basis:	Wet Weight
Seq Number:	3068437				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**567**	15.0	mg/kg	11.03.18 02.21		1
Diesel Range Organics (DRO)	C10C28DRO	**3110**	15.0	mg/kg	11.03.18 02.21		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**49.2**	15.0	mg/kg	11.03.18 02.21		1
Total TPH	PHC635	**3730**	15.0	mg/kg	11.03.18 02.21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	11.03.18 02.21	
o-Terphenyl	84-15-1	144	%	70-135	11.03.18 02.21	**

Certificate of Analytical Results 604236

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS07**	Matrix:	Soil	Date Received:	11.01.18 14.57
Lab Sample Id:	604236-008	Date Collected:	10.30.18 15.40	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.02.18 12.00	Basis:	Wet Weight
Seq Number:	3068679			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0394	0.0394	mg/kg	11.03.18 01.36	U	2
Toluene	108-88-3	**1.69**	0.0394	mg/kg	11.03.18 01.36		2
Ethylbenzene	100-41-4	**3.15**	0.0394	mg/kg	11.03.18 01.36		2
m,p-Xylenes	179601-23-1	**8.09**	0.0787	mg/kg	11.03.18 01.36		2
o-Xylene	95-47-6	**4.00**	0.0394	mg/kg	11.03.18 01.36		2
Total Xylenes	1330-20-7	**12.1**	0.0394	mg/kg	11.03.18 01.36		2
Total BTEX		**16.9**	0.0394	mg/kg	11.03.18 01.36		2

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	293	%	68-120	11.03.18 01.36	**
a,a,a-Trifluorotoluene	98-08-8	137	%	71-121	11.03.18 01.36	**

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 604236

LT Environmental, Inc.

JRU 124H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3068694 Matrix: Solid Date Prep: 11.05.18
MB Sample Id: 7665557-1-BLK LCS Sample Id: 7665557-1-BKS LCSD Sample Id: 7665557-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	241	96	243	97	90-110	1	20	mg/kg	11.05.18 20:18	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3068868 Matrix: Solid Date Prep: 11.06.18
MB Sample Id: 7665649-1-BLK LCS Sample Id: 7665649-1-BKS LCSD Sample Id: 7665649-1-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	239	96	237	95	90-110	1	20	mg/kg	11.06.18 18:58	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3068694 Matrix: Soil Date Prep: 11.05.18
Parent Sample Id: 604092-002 MS Sample Id: 604092-002 S MSD Sample Id: 604092-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	198	249	437	96	455	103	90-110	4	20	mg/kg	11.05.18 20:34	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3068694 Matrix: Soil Date Prep: 11.05.18
Parent Sample Id: 604235-001 MS Sample Id: 604235-001 S MSD Sample Id: 604235-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.04	248	253	100	254	100	90-110	0	20	mg/kg	11.05.18 21:49	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3068868 Matrix: Soil Date Prep: 11.06.18
Parent Sample Id: 604295-007 MS Sample Id: 604295-007 S MSD Sample Id: 604295-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.855	249	247	99	251	101	90-110	2	20	mg/kg	11.06.18 19:14	

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 604236

LT Environmental, Inc.

JRU 124H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3068868 Matrix: Soil Date Prep: 11.06.18
Parent Sample Id: 604540-003 MS Sample Id: 604540-003 S MSD Sample Id: 604540-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.853	249	273	110	273	110	90-110	0	20	mg/kg	11.06.18 20:28	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3068437 Matrix: Solid Date Prep: 11.02.18
MB Sample Id: 7665414-1-BLK LCS Sample Id: 7665414-1-BKS LCSD Sample Id: 7665414-1-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	1040	104	1050	105	70-135	1	20	mg/kg	11.02.18 19:14	
Diesel Range Organics (DRO)	<8.13	1000	1120	112	1120	112	70-135	0	20	mg/kg	11.02.18 19:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		126		128		70-135	%	11.02.18 19:14
o-Terphenyl	109		116		119		70-135	%	11.02.18 19:14

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3068437 Matrix: Soil Date Prep: 11.02.18
Parent Sample Id: 604233-001 MS Sample Id: 604233-001 S MSD Sample Id: 604233-001 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	950	95	943	95	70-135	1	20	mg/kg	11.02.18 20:09	
Diesel Range Organics (DRO)	<8.11	998	999	100	995	100	70-135	0	20	mg/kg	11.02.18 20:09	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	130		128		70-135	%	11.02.18 20:09
o-Terphenyl	104		103		70-135	%	11.02.18 20:09

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 604236

LT Environmental, Inc.

JRU 124H

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

Seq Number: 3068679 Matrix: Solid Date Prep: 11.02.18

MB Sample Id: 7665564-1-BLK LCS Sample Id: 7665564-1-BKS LCSD Sample Id: 7665564-1-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	2.20	110	2.23	112	55-120	1	20	mg/kg	11.02.18 15:08	
Toluene	0.00600	2.00	2.16	108	2.22	111	77-120	3	20	mg/kg	11.02.18 15:08	
Ethylbenzene	<0.0200	2.00	2.16	108	2.17	109	77-120	0	20	mg/kg	11.02.18 15:08	
m,p-Xylenes	<0.0400	4.00	4.31	108	4.33	108	78-120	0	20	mg/kg	11.02.18 15:08	
o-Xylene	<0.0200	2.00	2.20	110	2.18	109	78-120	1	20	mg/kg	11.02.18 15:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	141	**	129	**	118		68-120	%	11.02.18 15:08
a,a,a-Trifluorotoluene	133	**	131	**	120		71-121	%	11.02.18 15:08

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

Seq Number: 3068679 Matrix: Soil Date Prep: 11.02.18

Parent Sample Id: 604075-018 MS Sample Id: 604075-018 S MSD Sample Id: 604075-018 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0198	1.98	2.13	108	2.08	106	54-120	2	25	mg/kg	11.02.18 17:10	
Toluene	0.00904	1.98	2.19	110	2.16	110	57-120	1	25	mg/kg	11.02.18 17:10	
Ethylbenzene	<0.0198	1.98	2.15	109	2.12	108	58-131	1	25	mg/kg	11.02.18 17:10	
m,p-Xylenes	<0.0396	3.96	4.27	108	4.20	107	62-124	2	25	mg/kg	11.02.18 17:10	
o-Xylene	<0.0198	1.98	2.13	108	2.08	106	62-124	2	25	mg/kg	11.02.18 17:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	134	**	107		68-120	%	11.02.18 17:10
a,a,a-Trifluorotoluene	140	**	115		71-121	%	11.02.18 17:10

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 2

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 # 604736

Client / Reporting Information

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

Project Information

Project Name/Number: JRU 124H
Project Location: Carlsbad, NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: RP # Not assigned

Analytical Information

BTEX (only BTEX) 8021
TPH (DRO, GRO, MRO) 8015
Chloride (300.00)

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	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	SS01	6"	10/30/18	1505	S	1								X	
2	SS02			1510										X	
3	SS03			1515										X	
4	SS04			1520										X	
5	SS05			1530										X	
6	SS08			1545										X	
7															
8															
9															
10															

BTB 10/30/18

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 Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	BT Belill	10/31/18 @ 10:00	1	2	10/31/18 1530	2 11/1 1457
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. 0.2 / 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.

CHAIN OF CUSTODY

Page 2 of 2

XENCO LABORATORIES

Setting the Standard since 1990

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

www.xenco.com

Xenco Quote # | Xenco Job # 600434 600836

Client / Reporting Information

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

Company Address: 3300 N "A" St. Building 1 Unit 103 Midland, TX 79705

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

Project Contact: Adrian Baker

Samplers's Name: Ben Betitt

Project Information

Project Name/Number: JRU 124 H

Project Location: Carlsbad, NM

Invoice To: XTO Energy - Kyle Littrell

PO Number: RP # not assigned

Analytical Information

BTEX (only BTEX) 8021

TPH (DRO, GRO, MRO) 8015

Chloride (300.00)

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	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	SS06	6"	10/30/18	1535	S	1								X	located in Roadway
2	SS07	6"	10/30/18	1540	S	1								X	Located in Roadway
3															
4															
5															
6															
7															
8															
9															
10															

SCB 10/30/18

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 Sampler: 1	Brett Pabel	Date Time: 10/31/18 @ 1000	Received By: 1	Relinquished By: 2		Date Time: 10/31/18 1532	Received By: 2
Relinquished by: 3		Date Time:	Received By: 3	Relinquished By: 4		Date Time:	Received By: 4
Relinquished by: 5		Date Time:	Received By: 5	Custody Seal #		Preserved where applicable	On Ice: Y

Cooler Temp. 0.3 | Thermo. Corr. Factor 1.0

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 **116621**

Date/Time: 11/01/18 15:41
Lab# From: **Midland**
Lab# To: **Lubbock**

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

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
604236-001	S	SS01	10/30/18 15:05	SW8021B	BTEX by EPA 8021B	**11/07/18**	11/13/18	JKR	BR4FBZ BZ BZME EBZ X	
604236-002	S	SS02	10/30/18 15:10	SW8021B	BTEX by EPA 8021B	**11/07/18**	11/13/18	JKR	BR4FBZ BZ BZME EBZ X	
604236-003	S	SS03	10/30/18 15:15	SW8021B	BTEX by EPA 8021B	**11/07/18**	11/13/18	JKR	BR4FBZ BZ BZME EBZ X	
604236-004	S	SS04	10/30/18 15:20	SW8021B	BTEX by EPA 8021B	**11/07/18**	11/13/18	JKR	BR4FBZ BZ BZME EBZ X	
604236-005	S	SS05	10/30/18 15:30	SW8021B	BTEX by EPA 8021B	**11/07/18**	11/13/18	JKR	BR4FBZ BZ BZME EBZ X	
604236-006	S	SS08	10/30/18 15:45	SW8021B	BTEX by EPA 8021B	**11/07/18**	11/13/18	JKR	BR4FBZ BZ BZME EBZ X	
604236-007	S	SS06	10/30/18 15:35	SW8021B	BTEX by EPA 8021B	**11/07/18**	11/13/18	JKR	BR4FBZ BZ BZME EBZ X	
604236-008	S	SS07	10/30/18 15:40	SW8021B	BTEX by EPA 8021B	**11/07/18**	11/13/18	JKR	BR4FBZ BZ BZME EBZ X	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel
Brianna Teel

Date Relinquished: 11/01/2018

Received By: Ashley Derstine

Date Received: 11/02/2018 09:45

Cooler Temperature: 3.5

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Lubbock

IOS #: 116621

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R3

Sent By: Brianna Teel **Date Sent:** 11/01/2018 03:41 PM

Received By: Ashley Derstine **Date Received:** 11/02/2018 09:45 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	3.5	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

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

Checklist reviewed by: _____ Date: 11/02/2018

Ashley Derstine

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/01/2018 02:57:00 PM

Work Order #: 604236

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**	Lubbcok-BTEX
#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: 11/01/2018

Brianna Teel

Checklist reviewed by: Mike Kimmel Date: 11/04/2018

Mike Kimmel

Analytical Report 608195

for

LT Environmental, Inc.

Project Manager: Adrian Baker

JRU 124H

19-DEC-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

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

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

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

19-DEC-18

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

Reference: XENCO Report No(s): **608195**
JRU 124H
Project Address: Eddy, 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) 608195. 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. 608195 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 608195

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	12-07-18 12:20	1 ft	608195-001
FS02	S	12-07-18 12:25	1 ft	608195-002
FS03	S	12-07-18 12:30	1 ft	608195-003
FS04	S	12-07-18 12:20	1 ft	608195-004
FS05	S	12-07-18 12:20	1 ft	608195-005
FS06	S	12-07-18 12:20	1 ft	608195-006
FS07	S	12-07-18 12:20	1 ft	608195-007
FS08	S	12-07-18 12:20	1 ft	608195-008
FS09	S	12-07-18 13:00	1 ft	608195-009
FS10	S	12-07-18 13:05	1 ft	608195-010
FS11	S	12-07-18 13:15	1 ft	608195-011
FS12	S	12-07-18 13:20	1 ft	608195-012
FS13	S	12-07-18 13:25	1 ft	608195-013
FS14	S	12-07-18 13:30	1 ft	608195-014
FS15	S	12-07-18 13:35	1 ft	608195-015
FS16	S	12-07-18 13:40	1 ft	608195-016
FS17	S	12-07-18 13:45	1 ft	608195-017
FS18	S	12-07-18 13:50	1 ft	608195-018
FS19	S	12-07-18 13:55	1 ft	608195-019
FS20	S	12-07-18 14:00	4 ft	608195-020
FS21	S	12-07-18 14:10	4 ft	608195-021
FS22	S	12-07-18 14:20	4 ft	608195-022
SW01	S	12-07-18 14:35	0 - 1 ft	608195-023
SW02	S	12-07-18 14:40	0 - 1 ft	608195-024
SW03	S	12-07-18 14:50	0 - 4 ft	608195-025
SW04	S	12-07-18 15:00	0 - 4 ft	608195-026
SW05	S	12-07-18 15:05	0 - 4 ft	608195-027
SW06	S	12-07-18 15:10	0 - 1 ft	608195-028
SW07	S	12-07-18 15:20	0 - 1 ft	608195-029

CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: JRU 124H

Project ID:
Work Order Number(s): *608195*

Report Date: *19-DEC-18*
Date Received: *12/11/2018*

Sample receipt non conformances and comments:

Per clients email, corrected sample depths for SW03, SW04, SW05, SW07. NEW VERSION GENERATED. JKR 12/19/18

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3072527 Inorganic Anions by EPA 300
Lab Sample ID 608195-021 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 608195-010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020, -021, -022, -023, -024, -025.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3073032 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3073054 BTEX by EPA 8021B
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected. Samples affected are: 608195-026.

Lab Sample ID 608195-021 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Toluene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 608195-021, -022, -023, -024, -025, -026, -027, -028, -029.
The Laboratory Control Sample for Toluene is within laboratory Control Limits, therefore the data was accepted.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 608195

LT Environmental, Inc., Arvada, CO

Project Name: JRU 124H

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

Date Received in Lab: Tue Dec-11-18 12:30 pm
Report Date: 19-DEC-18
Project Manager: Jessica Kramer

Analysis Requested	*Lab Id:*	608195-001		608195-002		608195-003		608195-004		608195-005		608195-006	
	Field Id:	FS01		FS02		FS03		FS04		FS05		FS06	
	Depth:	1- ft		1- ft		1- ft		1- ft		1- ft		1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-07-18 12:20		Dec-07-18 12:25		Dec-07-18 12:30		Dec-07-18 12:20		Dec-07-18 12:20		Dec-07-18 12:20	
BTEX by EPA 8021B	*Extracted:*	Dec-16-18 19:30		Dec-16-18 19:30		Dec-16-18 19:30		Dec-16-18 19:30		Dec-16-18 19:30		Dec-16-18 19:30	
	Analyzed:	Dec-16-18 23:09		Dec-16-18 23:28		Dec-16-18 23:47		Dec-17-18 00:06		Dec-17-18 00:25		Dec-17-18 00:44	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Ethylbenzene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
m,p-Xylenes		<0.00398	0.00398	<0.00400	0.00400	<0.00399	0.00399	<0.00401	0.00401	<0.00398	0.00398	<0.00402	0.00402
o-Xylene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Total Xylenes		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Total BTEX		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Inorganic Anions by EPA 300	*Extracted:*	Dec-11-18 15:55		Dec-11-18 15:55		Dec-11-18 15:55		Dec-11-18 15:55		Dec-11-18 15:55		Dec-11-18 15:55	
	Analyzed:	Dec-11-18 20:36		Dec-11-18 20:42		Dec-11-18 21:00		Dec-11-18 21:06		Dec-11-18 21:13		Dec-11-18 21:19	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		317	4.97	9.47	4.95	212	4.97	3380	25.0	807	4.96	370	4.96
TPH by SW8015 Mod	*Extracted:*	Dec-11-18 15:00		Dec-11-18 15:00		Dec-11-18 15:00		Dec-11-18 15:00		Dec-11-18 15:00		Dec-11-18 15:00	
	Analyzed:	Dec-11-18 18:50		Dec-11-18 19:48		Dec-11-18 20:07		Dec-11-18 20:26		Dec-11-18 20:46		Dec-11-18 21:05	
	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	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	48.8	15.0	45.8	14.9	1200	15.0	119	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	42.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	48.8	15.0	45.8	14.9	1240	15.0	119	15.0	<15.0	15.0

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 608195

LT Environmental, Inc., Arvada, CO

Project Name: JRU 124H

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

Date Received in Lab: Tue Dec-11-18 12:30 pm
Report Date: 19-DEC-18
Project Manager: Jessica Kramer

Analysis Requested	*Lab Id:*	608195-007		608195-008		608195-009		608195-010		608195-011		608195-012	
	Field Id:	FS07		FS08		FS09		FS10		FS11		FS12	
	Depth:	1- ft		1- ft		1- ft		1- ft		1- ft		1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-07-18 12:20		Dec-07-18 12:20		Dec-07-18 13:00		Dec-07-18 13:05		Dec-07-18 13:15		Dec-07-18 13:20	
BTEX by EPA 8021B	*Extracted:*	Dec-16-18 19:30		Dec-16-18 19:30		Dec-16-18 19:30		Dec-16-18 19:30		Dec-16-18 19:30		Dec-16-18 19:30	
	Analyzed:	Dec-17-18 01:03		Dec-17-18 01:22		Dec-17-18 01:41		Dec-17-18 02:00		Dec-17-18 03:14		Dec-17-18 03:33	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Toluene		<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
m,p-Xylenes		<0.00401	0.00401	<0.00402	0.00402	<0.00403	0.00403	<0.00400	0.00400	<0.00402	0.00402	<0.00398	0.00398
o-Xylene		<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Total Xylenes		<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Total BTEX		<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Inorganic Anions by EPA 300	*Extracted:*	Dec-11-18 15:55		Dec-11-18 15:55		Dec-11-18 15:55		Dec-11-18 16:10		Dec-11-18 16:10		Dec-11-18 16:10	
	Analyzed:	Dec-11-18 21:25		Dec-11-18 21:31		Dec-11-18 21:37		Dec-11-18 22:33		Dec-11-18 22:14		Dec-11-18 22:39	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1200	5.00	43.4	4.99	143	5.00	1320	5.00	178	4.99	1460	25.0
TPH by SW8015 Mod	*Extracted:*	Dec-11-18 15:00		Dec-11-18 15:00		Dec-11-18 15:00		Dec-11-18 15:00		Dec-11-18 15:00		Dec-11-18 15:00	
	Analyzed:	Dec-11-18 21:24		Dec-11-18 21:44		Dec-11-18 22:04		Dec-12-18 07:03		Dec-11-18 23:21		Dec-11-18 23:41	
	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	<14.9	14.9	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		907	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		20.2	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Total TPH		927	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0

Certificate of Analysis Summary 608195

LT Environmental, Inc., Arvada, CO

Project Name: JRU 124H

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

Date Received in Lab: Tue Dec-11-18 12:30 pm
Report Date: 19-DEC-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	608195-013		608195-014		608195-015		608195-016		608195-017		608195-018	
	Field Id:	FS13		FS14		FS15		FS16		FS17		FS18	
	Depth:	1- ft		1- ft		1- ft		1- ft		1- ft		1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-07-18 13:25		Dec-07-18 13:30		Dec-07-18 13:35		Dec-07-18 13:40		Dec-07-18 13:45		Dec-07-18 13:50	
BTEX by EPA 8021B	***Extracted:***	Dec-16-18 19:30		Dec-16-18 19:30		Dec-16-18 19:30		Dec-16-18 19:30		Dec-16-18 19:30		Dec-16-18 19:30	
	Analyzed:	Dec-17-18 03:52		Dec-17-18 04:11		Dec-17-18 04:30		Dec-17-18 04:49		Dec-17-18 05:08		Dec-17-18 05:27	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Toluene		<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Ethylbenzene		<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
m,p-Xylenes		<0.00400	0.00400	<0.00403	0.00403	<0.00401	0.00401	<0.00399	0.00399	<0.00400	0.00400	<0.00402	0.00402
o-Xylene		<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Total Xylenes		<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Total BTEX		<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Inorganic Anions by EPA 300	***Extracted:***	Dec-11-18 16:10		Dec-11-18 16:10		Dec-11-18 16:10		Dec-11-18 16:10		Dec-11-18 16:10		Dec-11-18 16:10	
	Analyzed:	Dec-11-18 22:45		Dec-11-18 22:52		Dec-11-18 23:10		Dec-11-18 23:16		Dec-11-18 23:22		Dec-11-18 23:29	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<4.95	4.95	56.1	4.96	31.6	5.00	259	4.95	52.2	5.00	8.83	5.00
TPH by SW8015 Mod	***Extracted:***	Dec-11-18 15:00		Dec-11-18 15:00		Dec-11-18 15:00		Dec-11-18 15:00		Dec-11-18 15:00		Dec-11-18 15:00	
	Analyzed:	Dec-12-18 00:01		Dec-12-18 00:20		Dec-12-18 00:39		Dec-12-18 00:59		Dec-12-18 01:18		Dec-12-18 01:38	
	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	<14.9	14.9	<15.0	15.0	<15.0	15.0	<14.9	14.9
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<14.9	14.9
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<14.9	14.9
Total TPH		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<14.9	14.9

Certificate of Analysis Summary 608195

LT Environmental, Inc., Arvada, CO

Project Name: JRU 124H

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

Date Received in Lab: Tue Dec-11-18 12:30 pm
Report Date: 19-DEC-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	608195-019		608195-020		608195-021		608195-022		608195-023		608195-024	
	Field Id:	FS19		FS20		FS21		FS22		SW01		SW02	
	Depth:	1- ft		4- ft		4- ft		4- ft		0-1 ft		0-1 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-07-18 13:55		Dec-07-18 14:00		Dec-07-18 14:10		Dec-07-18 14:20		Dec-07-18 14:35		Dec-07-18 14:40	
BTEX by EPA 8021B	***Extracted:***	Dec-16-18 19:30		Dec-16-18 19:30		Dec-16-18 19:45		Dec-16-18 19:45		Dec-16-18 19:45		Dec-16-18 19:45	
	Analyzed:	Dec-17-18 05:46		Dec-17-18 06:05		Dec-16-18 23:45		Dec-17-18 00:07		Dec-17-18 00:29		Dec-17-18 00:50	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	<0.00398	0.00398	<0.00400	0.00400	<0.00398	0.00398	<0.00402	0.00402	<0.00401	0.00401
o-Xylene		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Total Xylenes		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Total BTEX		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Dec-11-18 16:10		Dec-11-18 16:10		Dec-11-18 16:10		Dec-11-18 16:10		Dec-11-18 16:10		Dec-11-18 16:10	
	Analyzed:	Dec-11-18 23:35		Dec-11-18 23:59		Dec-11-18 23:41		Dec-12-18 00:43		Dec-12-18 00:49		Dec-12-18 00:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		975	5.00	1770	25.0	728	4.99	1940	24.8	1710	25.0	140	5.00
TPH by SW8015 Mod	***Extracted:***	Dec-11-18 15:00		Dec-11-18 15:00		Dec-11-18 13:00		Dec-11-18 13:00		Dec-11-18 13:00		Dec-11-18 13:00	
	Analyzed:	Dec-12-18 01:57		Dec-12-18 02:16		Dec-11-18 19:20		Dec-11-18 19:39		Dec-11-18 19:58		Dec-11-18 20:16	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		21.8	15.0	20.0	15.0	15.2	15.0	<15.0	15.0	262	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	38.2	15.0	<15.0	15.0
Total TPH		21.8	15.0	20.0	15.0	15.2	15.0	<15.0	15.0	300	15.0	<15.0	15.0

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 608195

LT Environmental, Inc., Arvada, CO

Project Name: JRU 124H

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

Date Received in Lab: Tue Dec-11-18 12:30 pm
Report Date: 19-DEC-18
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	608195-025		608195-026		608195-027		608195-028		608195-029	
	Field Id:	SW03		SW04		SW05		SW06		SW07	
	Depth:	0-4 ft		0-4 ft		0-4 ft		0-1 ft		0-1 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-07-18 14:50		Dec-07-18 15:00		Dec-07-18 15:05		Dec-07-18 15:10		Dec-07-18 15:20	
BTEX by EPA 8021B	***Extracted:***	Dec-16-18 19:45		Dec-16-18 19:45		Dec-16-18 19:45		Dec-16-18 19:45		Dec-16-18 19:45	
	Analyzed:	Dec-17-18 01:11		Dec-17-18 01:32		Dec-17-18 01:54		Dec-17-18 02:16		Dec-17-18 02:37	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00200	0.00200	0.0430	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	0.112	0.00201	0.00328	0.00199	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.00399	0.00399	0.508	0.00402	0.00709	0.00398	<0.00398	0.00398	<0.00400	0.00400
o-Xylene		<0.00200	0.00200	0.258	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	0.766	0.00201	0.00709	0.00199	<0.00199	0.00199	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	0.921	0.00201	0.0104	0.00199	<0.00199	0.00199	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Dec-11-18 16:10		Dec-12-18 09:00		Dec-12-18 09:00		Dec-12-18 09:00		Dec-12-18 09:00	
	Analyzed:	Dec-12-18 01:01		Dec-12-18 11:22		Dec-12-18 11:04		Dec-12-18 11:28		Dec-12-18 11:59	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		151	4.99	6340	50.0	<5.00	5.00	135	5.00	1360	4.95
TPH by SW8015 Mod	***Extracted:***	Dec-11-18 13:00		Dec-11-18 13:00		Dec-11-18 13:00		Dec-11-18 13:00		Dec-11-18 13:00	
	Analyzed:	Dec-11-18 20:35		Dec-11-18 20:53		Dec-11-18 21:12		Dec-11-18 21:30		Dec-11-18 21:48	
	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	282	14.9	<14.9	14.9	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	2070	14.9	<14.9	14.9	<15.0	15.0	844	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	208	14.9	<14.9	14.9	<15.0	15.0	25.8	15.0
Total TPH		<15.0	15.0	2560	14.9	<14.9	14.9	<15.0	15.0	870	15.0

Certificate of Analytical Results 608195

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-001	Date Collected:	12.07.18 12.20	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 15.55	Basis:	Wet Weight
Seq Number:	3072521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**317**	4.97	mg/kg	12.11.18 20.36		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.11.18 18.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.11.18 18.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.11.18 18.50	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.11.18 18.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	12.11.18 18.50	
o-Terphenyl	84-15-1	94	%	70-135	12.11.18 18.50	

Certificate of Analytical Results 608195

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-001	Date Collected:	12.07.18 12.20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.16.18 23.09	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.16.18 23.09	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.16.18 23.09	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.16.18 23.09	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.16.18 23.09	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.16.18 23.09	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.16.18 23.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.16.18 23.09	
4-Bromofluorobenzene	460-00-4	90	%	70-130	12.16.18 23.09	

Certificate of Analytical Results 608195

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-002	Date Collected:	12.07.18 12.25	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 15.55	Basis:	Wet Weight
Seq Number:	3072521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.47**	4.95	mg/kg	12.11.18 20.42		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.11.18 19.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	**48.8**	15.0	mg/kg	12.11.18 19.48		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.11.18 19.48	U	1
Total TPH	PHC635	**48.8**	15.0	mg/kg	12.11.18 19.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	12.11.18 19.48	
o-Terphenyl	84-15-1	101	%	70-135	12.11.18 19.48	

Certificate of Analytical Results 608195

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-002	Date Collected:	12.07.18 12.25	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.16.18 23.28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.16.18 23.28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.16.18 23.28	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.16.18 23.28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.16.18 23.28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.16.18 23.28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.16.18 23.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	12.16.18 23.28	
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.16.18 23.28	

Certificate of Analytical Results 608195

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-003	Date Collected:	12.07.18 12.30	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 15.55	Basis:	Wet Weight
Seq Number:	3072521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**212**	4.97	mg/kg	12.11.18 21.00		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	12.11.18 20.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	**45.8**	14.9	mg/kg	12.11.18 20.07		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	12.11.18 20.07	U	1
Total TPH	PHC635	**45.8**	14.9	mg/kg	12.11.18 20.07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.11.18 20.07	
o-Terphenyl	84-15-1	96	%	70-135	12.11.18 20.07	

Certificate of Analytical Results 608195

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-003	Date Collected:	12.07.18 12.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.16.18 23.47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.16.18 23.47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.16.18 23.47	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.16.18 23.47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.16.18 23.47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.16.18 23.47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.16.18 23.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	12.16.18 23.47	
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.16.18 23.47	

Certificate of Analytical Results 608195

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-004	Date Collected:	12.07.18 12.20	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 15.55	Basis:	Wet Weight
Seq Number:	3072521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3380**	25.0	mg/kg	12.11.18 21.06		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.11.18 20.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1200**	15.0	mg/kg	12.11.18 20.26		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**42.0**	15.0	mg/kg	12.11.18 20.26		1
Total TPH	PHC635	**1240**	15.0	mg/kg	12.11.18 20.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	12.11.18 20.26	
o-Terphenyl	84-15-1	118	%	70-135	12.11.18 20.26	

Certificate of Analytical Results 608195

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-004	Date Collected:	12.07.18 12.20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.17.18 00.06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.17.18 00.06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.17.18 00.06	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.17.18 00.06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.17.18 00.06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.17.18 00.06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.17.18 00.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	12.17.18 00.06	
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.17.18 00.06	

Certificate of Analytical Results 608195

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-005	Date Collected:	12.07.18 12.20	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 15.55	Basis:	Wet Weight
Seq Number:	3072521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**807**	4.96	mg/kg	12.11.18 21.13		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.11.18 20.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	**119**	15.0	mg/kg	12.11.18 20.46		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.11.18 20.46	U	1
Total TPH	PHC635	**119**	15.0	mg/kg	12.11.18 20.46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	12.11.18 20.46	
o-Terphenyl	84-15-1	96	%	70-135	12.11.18 20.46	

Certificate of Analytical Results 608195

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-005	Date Collected:	12.07.18 12.20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.17.18 00.25	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.17.18 00.25	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.17.18 00.25	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.17.18 00.25	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.17.18 00.25	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.17.18 00.25	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.17.18 00.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.17.18 00.25	
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.17.18 00.25	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-006	Date Collected:	12.07.18 12.20	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 15.55	Basis:	Wet Weight
Seq Number:	3072521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**370**	4.96	mg/kg	12.11.18 21.19		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.11.18 21.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.11.18 21.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.11.18 21.05	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.11.18 21.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	12.11.18 21.05	
o-Terphenyl	84-15-1	92	%	70-135	12.11.18 21.05	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-006	Date Collected:	12.07.18 12.20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.17.18 00.44	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.17.18 00.44	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.17.18 00.44	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.17.18 00.44	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.17.18 00.44	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.17.18 00.44	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.17.18 00.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.17.18 00.44	
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.17.18 00.44	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-007	Date Collected:	12.07.18 12.20	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 15.55	Basis:	Wet Weight
Seq Number:	3072521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1200**	5.00	mg/kg	12.11.18 21.25		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.11.18 21.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	**907**	15.0	mg/kg	12.11.18 21.24		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**20.2**	15.0	mg/kg	12.11.18 21.24		1
Total TPH	PHC635	**927**	15.0	mg/kg	12.11.18 21.24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	12.11.18 21.24	
o-Terphenyl	84-15-1	112	%	70-135	12.11.18 21.24	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-007	Date Collected:	12.07.18 12.20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.17.18 01.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.17.18 01.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.17.18 01.03	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.17.18 01.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.17.18 01.03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.17.18 01.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.17.18 01.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.17.18 01.03	
4-Bromofluorobenzene	460-00-4	97	%	70-130	12.17.18 01.03	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-008	Date Collected:	12.07.18 12.20	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 15.55	Basis:	Wet Weight
Seq Number:	3072521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**43.4**	4.99	mg/kg	12.11.18 21.31		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.11.18 21.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.11.18 21.44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.11.18 21.44	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.11.18 21.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	12.11.18 21.44	
o-Terphenyl	84-15-1	91	%	70-135	12.11.18 21.44	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-008	Date Collected:	12.07.18 12.20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.17.18 01.22	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.17.18 01.22	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.17.18 01.22	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.17.18 01.22	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.17.18 01.22	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.17.18 01.22	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.17.18 01.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.17.18 01.22	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.17.18 01.22	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS09**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-009	Date Collected:	12.07.18 13.00	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 15.55	Basis:	Wet Weight
Seq Number:	3072521				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**143**	5.00	mg/kg	12.11.18 21.37		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.11.18 22.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.11.18 22.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.11.18 22.04	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.11.18 22.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	12.11.18 22.04	
o-Terphenyl	84-15-1	91	%	70-135	12.11.18 22.04	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS09**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-009	Date Collected:	12.07.18 13.00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.17.18 01.41	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.17.18 01.41	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.17.18 01.41	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.17.18 01.41	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.17.18 01.41	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.17.18 01.41	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.17.18 01.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	12.17.18 01.41	
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.17.18 01.41	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS10**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-010	Date Collected:	12.07.18 13.05	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 16.10	Basis:	Wet Weight
Seq Number:	3072527				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1320**	5.00	mg/kg	12.11.18 22.33		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	12.12.18 07.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	12.12.18 07.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	12.12.18 07.03	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	12.12.18 07.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	12.12.18 07.03	
o-Terphenyl	84-15-1	97	%	70-135	12.12.18 07.03	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS10**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-010	Date Collected:	12.07.18 13.05	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.17.18 02.00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.17.18 02.00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.17.18 02.00	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.17.18 02.00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.17.18 02.00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.17.18 02.00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.17.18 02.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.17.18 02.00	
1,4-Difluorobenzene	540-36-3	107	%	70-130	12.17.18 02.00	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS11**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-011	Date Collected:	12.07.18 13.15	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 16.10	Basis:	Wet Weight
Seq Number:	3072527				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**178**	4.99	mg/kg	12.11.18 22.14		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.11.18 23.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.11.18 23.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.11.18 23.21	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.11.18 23.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	12.11.18 23.21	
o-Terphenyl	84-15-1	89	%	70-135	12.11.18 23.21	

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JRU 124H

Sample Id:	**FS11**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-011	Date Collected:	12.07.18 13.15	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.17.18 03.14	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.17.18 03.14	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.17.18 03.14	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.17.18 03.14	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.17.18 03.14	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.17.18 03.14	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.17.18 03.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.17.18 03.14	
4-Bromofluorobenzene	460-00-4	90	%	70-130	12.17.18 03.14	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS12**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-012	Date Collected:	12.07.18 13.20	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 16.10	Basis:	Wet Weight
Seq Number:	3072527				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1460**	25.0	mg/kg	12.11.18 22.39		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.11.18 23.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.11.18 23.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.11.18 23.41	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.11.18 23.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	12.11.18 23.41	
o-Terphenyl	84-15-1	94	%	70-135	12.11.18 23.41	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS12**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-012	Date Collected:	12.07.18 13.20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.17.18 03.33	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.17.18 03.33	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.17.18 03.33	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.17.18 03.33	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.17.18 03.33	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.17.18 03.33	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.17.18 03.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.17.18 03.33	
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.17.18 03.33	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS13**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-013	Date Collected:	12.07.18 13.25	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 16.10	Basis:	Wet Weight
Seq Number:	3072527				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	12.11.18 22.45	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.12.18 00.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.12.18 00.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.12.18 00.01	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.12.18 00.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	12.12.18 00.01	
o-Terphenyl	84-15-1	98	%	70-135	12.12.18 00.01	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS13**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-013	Date Collected:	12.07.18 13.25	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.17.18 03.52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.17.18 03.52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.17.18 03.52	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.17.18 03.52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.17.18 03.52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.17.18 03.52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.17.18 03.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.17.18 03.52	
4-Bromofluorobenzene	460-00-4	97	%	70-130	12.17.18 03.52	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS14**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-014	Date Collected:	12.07.18 13.30	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 16.10	Basis:	Wet Weight
Seq Number:	3072527				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**56.1**	4.96	mg/kg	12.11.18 22.52		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.12.18 00.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.12.18 00.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.12.18 00.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.12.18 00.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.12.18 00.20	
o-Terphenyl	84-15-1	94	%	70-135	12.12.18 00.20	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS14**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-014	Date Collected:	12.07.18 13.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.17.18 04.11	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.17.18 04.11	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.17.18 04.11	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.17.18 04.11	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.17.18 04.11	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.17.18 04.11	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.17.18 04.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.17.18 04.11	
4-Bromofluorobenzene	460-00-4	96	%	70-130	12.17.18 04.11	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS15**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-015	Date Collected:	12.07.18 13.35	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 16.10	Basis:	Wet Weight
Seq Number:	3072527				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**31.6**	5.00	mg/kg	12.11.18 23.10		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	12.12.18 00.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	12.12.18 00.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	12.12.18 00.39	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	12.12.18 00.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.12.18 00.39	
o-Terphenyl	84-15-1	93	%	70-135	12.12.18 00.39	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS15**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-015	Date Collected:	12.07.18 13.35	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.17.18 04.30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.17.18 04.30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.17.18 04.30	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.17.18 04.30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.17.18 04.30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.17.18 04.30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.17.18 04.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	12.17.18 04.30	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.17.18 04.30	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS16**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-016	Date Collected:	12.07.18 13.40	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 16.10	Basis:	Wet Weight
Seq Number:	3072527				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**259**	4.95	mg/kg	12.11.18 23.16		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.12.18 00.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.12.18 00.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.12.18 00.59	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.12.18 00.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	12.12.18 00.59	
o-Terphenyl	84-15-1	92	%	70-135	12.12.18 00.59	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS16**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-016	Date Collected:	12.07.18 13.40	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.17.18 04.49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.17.18 04.49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.17.18 04.49	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.17.18 04.49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.17.18 04.49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.17.18 04.49	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.17.18 04.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	12.17.18 04.49	
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.17.18 04.49	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS17**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-017	Date Collected:	12.07.18 13.45	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 16.10	Basis:	Wet Weight
Seq Number:	3072527				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**52.2**	5.00	mg/kg	12.11.18 23.22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.12.18 01.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.12.18 01.18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.12.18 01.18	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.12.18 01.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	12.12.18 01.18	
o-Terphenyl	84-15-1	88	%	70-135	12.12.18 01.18	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS17**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-017	Date Collected:	12.07.18 13.45	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.17.18 05.08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.17.18 05.08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.17.18 05.08	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.17.18 05.08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.17.18 05.08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.17.18 05.08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.17.18 05.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.17.18 05.08	
4-Bromofluorobenzene	460-00-4	98	%	70-130	12.17.18 05.08	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS18**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-018	Date Collected:	12.07.18 13.50	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 16.10	Basis:	Wet Weight
Seq Number:	3072527				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.83**	5.00	mg/kg	12.11.18 23.29		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	12.12.18 01.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	12.12.18 01.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	12.12.18 01.38	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	12.12.18 01.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	12.12.18 01.38	
o-Terphenyl	84-15-1	89	%	70-135	12.12.18 01.38	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS18**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-018	Date Collected:	12.07.18 13.50	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.17.18 05.27	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.17.18 05.27	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.17.18 05.27	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.17.18 05.27	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.17.18 05.27	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.17.18 05.27	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.17.18 05.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	12.17.18 05.27	
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.17.18 05.27	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS19**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-019	Date Collected:	12.07.18 13.55	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 16.10	Basis:	Wet Weight
Seq Number:	3072527				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**975**	5.00	mg/kg	12.11.18 23.35		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.12.18 01.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	**21.8**	15.0	mg/kg	12.12.18 01.57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.12.18 01.57	U	1
Total TPH	PHC635	**21.8**	15.0	mg/kg	12.12.18 01.57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	12.12.18 01.57	
o-Terphenyl	84-15-1	92	%	70-135	12.12.18 01.57	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS19**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-019	Date Collected:	12.07.18 13.55	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.17.18 05.46	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.17.18 05.46	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.17.18 05.46	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.17.18 05.46	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.17.18 05.46	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.17.18 05.46	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.17.18 05.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.17.18 05.46	
4-Bromofluorobenzene	460-00-4	97	%	70-130	12.17.18 05.46	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS20**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-020	Date Collected:	12.07.18 14.00	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 16.10	Basis:	Wet Weight
Seq Number:	3072527				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1770**	25.0	mg/kg	12.11.18 23.59		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 15.00	Basis:	Wet Weight
Seq Number:	3072548				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.12.18 02.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	**20.0**	15.0	mg/kg	12.12.18 02.16		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.12.18 02.16	U	1
Total TPH	PHC635	**20.0**	15.0	mg/kg	12.12.18 02.16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	12.12.18 02.16	
o-Terphenyl	84-15-1	97	%	70-135	12.12.18 02.16	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS20**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-020	Date Collected:	12.07.18 14.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.30	Basis:	Wet Weight
Seq Number:	3073032				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.17.18 06.05	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.17.18 06.05	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.17.18 06.05	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.17.18 06.05	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.17.18 06.05	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.17.18 06.05	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.17.18 06.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	12.17.18 06.05	
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.17.18 06.05	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS21**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-021	Date Collected:	12.07.18 14.10	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 16.10	Basis:	Wet Weight
Seq Number:	3072527				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**728**	4.99	mg/kg	12.11.18 23.41		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 13.00	Basis:	Wet Weight
Seq Number:	3072546				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.11.18 19.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	**15.2**	15.0	mg/kg	12.11.18 19.20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.11.18 19.20	U	1
Total TPH	PHC635	**15.2**	15.0	mg/kg	12.11.18 19.20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.11.18 19.20	
o-Terphenyl	84-15-1	95	%	70-135	12.11.18 19.20	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS21**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-021	Date Collected:	12.07.18 14.10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.45	Basis:	Wet Weight
Seq Number:	3073054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.16.18 23.45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.16.18 23.45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.16.18 23.45	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.16.18 23.45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.16.18 23.45	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.16.18 23.45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.16.18 23.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	12.16.18 23.45	
1,4-Difluorobenzene	540-36-3	83	%	70-130	12.16.18 23.45	

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JRU 124H

Sample Id:	**FS22**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-022	Date Collected:	12.07.18 14.20	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 16.10	Basis:	Wet Weight
Seq Number:	3072527				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1940**	24.8	mg/kg	12.12.18 00.43		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 13.00	Basis:	Wet Weight
Seq Number:	3072546				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.11.18 19.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.11.18 19.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.11.18 19.39	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.11.18 19.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	12.11.18 19.39	
o-Terphenyl	84-15-1	97	%	70-135	12.11.18 19.39	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS22**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-022	Date Collected:	12.07.18 14.20	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.45	Basis:	Wet Weight
Seq Number:	3073054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.17.18 00.07	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.17.18 00.07	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.17.18 00.07	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.17.18 00.07	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.17.18 00.07	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.17.18 00.07	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.17.18 00.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	90	%	70-130	12.17.18 00.07	
4-Bromofluorobenzene	460-00-4	114	%	70-130	12.17.18 00.07	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-023	Date Collected:	12.07.18 14.35	Sample Depth:	0 - 1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 16.10	Basis:	Wet Weight
Seq Number:	3072527				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1710**	25.0	mg/kg	12.12.18 00.49		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 13.00	Basis:	Wet Weight
Seq Number:	3072546				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.11.18 19.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	**262**	15.0	mg/kg	12.11.18 19.58		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**38.2**	15.0	mg/kg	12.11.18 19.58		1
Total TPH	PHC635	**300**	15.0	mg/kg	12.11.18 19.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	12.11.18 19.58	
o-Terphenyl	84-15-1	99	%	70-135	12.11.18 19.58	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-023	Date Collected:	12.07.18 14.35	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.45	Basis:	Wet Weight
Seq Number:	3073054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.17.18 00.29	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.17.18 00.29	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.17.18 00.29	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.17.18 00.29	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.17.18 00.29	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.17.18 00.29	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.17.18 00.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	82	%	70-130	12.17.18 00.29	
4-Bromofluorobenzene	460-00-4	116	%	70-130	12.17.18 00.29	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-024	Date Collected:	12.07.18 14.40	Sample Depth:	0 - 1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 16.10	Basis:	Wet Weight
Seq Number:	3072527				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**140**	5.00	mg/kg	12.12.18 00.55		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 13.00	Basis:	Wet Weight
Seq Number:	3072546				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.11.18 20.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.11.18 20.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.11.18 20.16	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.11.18 20.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	12.11.18 20.16	
o-Terphenyl	84-15-1	88	%	70-135	12.11.18 20.16	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-024	Date Collected:	12.07.18 14.40	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.45	Basis:	Wet Weight
Seq Number:	3073054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.17.18 00.50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.17.18 00.50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.17.18 00.50	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.17.18 00.50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.17.18 00.50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.17.18 00.50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.17.18 00.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	12.17.18 00.50	
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.17.18 00.50	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-025	Date Collected:	12.07.18 14.50	Sample Depth:	0 - 4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.11.18 16.10	Basis:	Wet Weight
Seq Number:	3072527				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**151**	4.99	mg/kg	12.12.18 01.01		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 13.00	Basis:	Wet Weight
Seq Number:	3072546				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.11.18 20.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.11.18 20.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.11.18 20.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.11.18 20.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	12.11.18 20.35	
o-Terphenyl	84-15-1	91	%	70-135	12.11.18 20.35	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-025	Date Collected:	12.07.18 14.50	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.45	Basis:	Wet Weight
Seq Number:	3073054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.17.18 01.11	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.17.18 01.11	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.17.18 01.11	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.17.18 01.11	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.17.18 01.11	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.17.18 01.11	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.17.18 01.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	12.17.18 01.11	
4-Bromofluorobenzene	460-00-4	111	%	70-130	12.17.18 01.11	

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-026	Date Collected:	12.07.18 15.00	Sample Depth:	0 - 4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.12.18 09.00	Basis:	Wet Weight
Seq Number:	3072551				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6340**	50.0	mg/kg	12.12.18 11.22		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 13.00	Basis:	Wet Weight
Seq Number:	3072546				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**282**	14.9	mg/kg	12.11.18 20.53		1
Diesel Range Organics (DRO)	C10C28DRO	**2070**	14.9	mg/kg	12.11.18 20.53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**208**	14.9	mg/kg	12.11.18 20.53		1
Total TPH	PHC635	**2560**	14.9	mg/kg	12.11.18 20.53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	12.11.18 20.53	
o-Terphenyl	84-15-1	122	%	70-135	12.11.18 20.53	

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JRU 124H

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-026	Date Collected:	12.07.18 15.00	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.45	Basis:	Wet Weight
Seq Number:	3073054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.17.18 01.32	U	1
Toluene	108-88-3	**0.0430**	0.00201	mg/kg	12.17.18 01.32		1
Ethylbenzene	100-41-4	**0.112**	0.00201	mg/kg	12.17.18 01.32		1
m,p-Xylenes	179601-23-1	**0.508**	0.00402	mg/kg	12.17.18 01.32		1
o-Xylene	95-47-6	**0.258**	0.00201	mg/kg	12.17.18 01.32		1
Total Xylenes	1330-20-7	**0.766**	0.00201	mg/kg	12.17.18 01.32		1
Total BTEX		**0.921**	0.00201	mg/kg	12.17.18 01.32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	86	%	70-130	12.17.18 01.32	
4-Bromofluorobenzene	460-00-4	282	%	70-130	12.17.18 01.32	**

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-027	Date Collected:	12.07.18 15.05	Sample Depth:	0 - 4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.12.18 09.00	Basis:	Wet Weight
Seq Number:	3072551				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	12.12.18 11.04	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 13.00	Basis:	Wet Weight
Seq Number:	3072546				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	12.11.18 21.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	12.11.18 21.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	12.11.18 21.12	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	12.11.18 21.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	12.11.18 21.12	
o-Terphenyl	84-15-1	92	%	70-135	12.11.18 21.12	

Certificate of Analytical Results 608195

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-027	Date Collected:	12.07.18 15.05	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.45	Basis:	Wet Weight
Seq Number:	3073054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.17.18 01.54	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.17.18 01.54	U	1
Ethylbenzene	100-41-4	**0.00328**	0.00199	mg/kg	12.17.18 01.54		1
m,p-Xylenes	179601-23-1	**0.00709**	0.00398	mg/kg	12.17.18 01.54		1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.17.18 01.54	U	1
Total Xylenes	1330-20-7	**0.00709**	0.00199	mg/kg	12.17.18 01.54		1
Total BTEX		**0.0104**	0.00199	mg/kg	12.17.18 01.54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	120	%	70-130	12.17.18 01.54	
4-Bromofluorobenzene	460-00-4	116	%	70-130	12.17.18 01.54	

Certificate of Analytical Results 608195

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-028	Date Collected:	12.07.18 15.10	Sample Depth:	0 - 1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.12.18 09.00	Basis:	Wet Weight
Seq Number:	3072551				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**135**	5.00	mg/kg	12.12.18 11.28		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 13.00	Basis:	Wet Weight
Seq Number:	3072546				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.11.18 21.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.11.18 21.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.11.18 21.30	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.11.18 21.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	12.11.18 21.30	
o-Terphenyl	84-15-1	90	%	70-135	12.11.18 21.30	

Certificate of Analytical Results 608195

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-028	Date Collected:	12.07.18 15.10	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.45	Basis:	Wet Weight
Seq Number:	3073054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.17.18 02.16	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.17.18 02.16	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.17.18 02.16	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.17.18 02.16	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.17.18 02.16	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.17.18 02.16	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.17.18 02.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	12.17.18 02.16	
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.17.18 02.16	

Certificate of Analytical Results 608195

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-029	Date Collected:	12.07.18 15.20	Sample Depth:	0 - 1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.12.18 09.00	Basis:	Wet Weight
Seq Number:	3072551				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1360**	4.95	mg/kg	12.12.18 11.59		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.11.18 13.00	Basis:	Wet Weight
Seq Number:	3072546				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.11.18 21.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	**844**	15.0	mg/kg	12.11.18 21.48		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**25.8**	15.0	mg/kg	12.11.18 21.48		1
Total TPH	PHC635	**870**	15.0	mg/kg	12.11.18 21.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	12.11.18 21.48	
o-Terphenyl	84-15-1	107	%	70-135	12.11.18 21.48	

Certificate of Analytical Results 608195

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	12.11.18 12.30
Lab Sample Id:	608195-029	Date Collected:	12.07.18 15.20	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.16.18 19.45	Basis:	Wet Weight
Seq Number:	3073054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.17.18 02.37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.17.18 02.37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.17.18 02.37	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.17.18 02.37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.17.18 02.37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.17.18 02.37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.17.18 02.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.17.18 02.37	
1,4-Difluorobenzene	540-36-3	90	%	70-130	12.17.18 02.37	

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 608195

LT Environmental, Inc.

JRU 124H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072521 Matrix: Solid Date Prep: 12.11.18
MB Sample Id: 7667827-1-BLK LCS Sample Id: 7667827-1-BKS LCSD Sample Id: 7667827-1-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	253	101	267	107	90-110	5	20	mg/kg	12.11.18 18:38	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072527 Matrix: Solid Date Prep: 12.11.18
MB Sample Id: 7667835-1-BLK LCS Sample Id: 7667835-1-BKS LCSD Sample Id: 7667835-1-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	270	108	263	105	90-110	3	20	mg/kg	12.11.18 22:02	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072551 Matrix: Solid Date Prep: 12.12.18
MB Sample Id: 7667852-1-BLK LCS Sample Id: 7667852-1-BKS LCSD Sample Id: 7667852-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	256	102	254	102	90-110	1	20	mg/kg	12.12.18 09:25	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072521 Matrix: Soil Date Prep: 12.11.18
Parent Sample Id: 608081-012 MS Sample Id: 608081-012 S MSD Sample Id: 608081-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2.46	250	268	106	249	99	90-110	7	20	mg/kg	12.11.18 18:57	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072521 Matrix: Soil Date Prep: 12.11.18
Parent Sample Id: 608193-010 MS Sample Id: 608193-010 S MSD Sample Id: 608193-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	164	249	394	92	409	98	90-110	4	20	mg/kg	12.11.18 20:23	

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

QC Summary 608195

LT Environmental, Inc.

JRU 124H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072527 Matrix: Soil Date Prep: 12.11.18
Parent Sample Id: 608195-011 MS Sample Id: 608195-011 S MSD Sample Id: 608195-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	178	250	435	103	428	100	90-110	2	20	mg/kg	12.11.18 22:21	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072527 Matrix: Soil Date Prep: 12.11.18
Parent Sample Id: 608195-021 MS Sample Id: 608195-021 S MSD Sample Id: 608195-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	728	250	943	86	975	99	90-110	3	20	mg/kg	12.11.18 23:47	X

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072551 Matrix: Soil Date Prep: 12.12.18
Parent Sample Id: 608195-027 MS Sample Id: 608195-027 S MSD Sample Id: 608195-027 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	4.55	250	277	109	270	106	90-110	3	20	mg/kg	12.12.18 11:10	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072551 Matrix: Soil Date Prep: 12.12.18
Parent Sample Id: 608248-006 MS Sample Id: 608248-006 S MSD Sample Id: 608248-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	444	250	686	97	681	95	90-110	1	20	mg/kg	12.12.18 09:43	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3072546 Matrix: Solid Date Prep: 12.11.18
MB Sample Id: 7667844-1-BLK LCS Sample Id: 7667844-1-BKS LCSD Sample Id: 7667844-1-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	857	86	859	86	70-135	0	20	mg/kg	12.11.18 14:17	
Diesel Range Organics (DRO)	<8.13	1000	898	90	897	90	70-135	0	20	mg/kg	12.11.18 14:17	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	88		103		105		70-135	%	12.11.18 14:17
o-Terphenyl	91		91		91		70-135	%	12.11.18 14:17

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 608195

LT Environmental, Inc.

JRU 124H

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3072548 Matrix: Solid Date Prep: 12.11.18
MB Sample Id: 7667846-1-BLK LCS Sample Id: 7667846-1-BKS LCSD Sample Id: 7667846-1-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	931	93	897	90	70-135	4	20	mg/kg	12.11.18 18:11	
Diesel Range Organics (DRO)	<8.13	1000	916	92	883	88	70-135	4	20	mg/kg	12.11.18 18:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		113		107		70-135	%	12.11.18 18:11
o-Terphenyl	99		95		96		70-135	%	12.11.18 18:11

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3072546 Matrix: Soil Date Prep: 12.11.18
Parent Sample Id: 608193-001 MS Sample Id: 608193-001 S MSD Sample Id: 608193-001 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	888	89	1000	100	70-135	12	20	mg/kg	12.11.18 15:14	
Diesel Range Organics (DRO)	17.7	999	872	86	1040	102	70-135	18	20	mg/kg	12.11.18 15:14	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		124		70-135	%	12.11.18 15:14
o-Terphenyl	87		107		70-135	%	12.11.18 15:14

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3072548 Matrix: Soil Date Prep: 12.11.18
Parent Sample Id: 608195-001 MS Sample Id: 608195-001 S MSD Sample Id: 608195-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<7.98	997	910	91	899	90	70-135	1	20	mg/kg	12.11.18 19:09	
Diesel Range Organics (DRO)	<8.10	997	932	93	923	92	70-135	1	20	mg/kg	12.11.18 19:09	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		111		70-135	%	12.11.18 19:09
o-Terphenyl	92		90		70-135	%	12.11.18 19:09

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 608195

LT Environmental, Inc.

JRU 124H

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3073032 | Matrix: Solid | Date Prep: 12.16.18
MB Sample Id: 7668143-1-BLK | LCS Sample Id: 7668143-1-BKS | LCSD Sample Id: 7668143-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000386	0.100	0.0918	92	0.0888	89	70-130	3	35	mg/kg	12.16.18 21:17	
Toluene	<0.00200	0.100	0.0904	90	0.0854	85	70-130	6	35	mg/kg	12.16.18 21:17	
Ethylbenzene	<0.000566	0.100	0.0996	100	0.0938	94	70-130	6	35	mg/kg	12.16.18 21:17	
m,p-Xylenes	<0.00102	0.200	0.184	92	0.174	87	70-130	6	35	mg/kg	12.16.18 21:17	
o-Xylene	<0.000345	0.100	0.0894	89	0.0845	85	70-130	6	35	mg/kg	12.16.18 21:17	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		99		99		70-130	%	12.16.18 21:17
4-Bromofluorobenzene	84		86		88		70-130	%	12.16.18 21:17

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3073054 | Matrix: Solid | Date Prep: 12.16.18
MB Sample Id: 7668158-1-BLK | LCS Sample Id: 7668158-1-BKS | LCSD Sample Id: 7668158-1-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	0.0998	0.106	106	0.109	109	70-130	3	35	mg/kg	12.16.18 21:37	
Toluene	<0.00200	0.0998	0.0928	93	0.0979	98	70-130	5	35	mg/kg	12.16.18 21:37	
Ethylbenzene	<0.00200	0.0998	0.122	122	0.119	119	70-130	2	35	mg/kg	12.16.18 21:37	
m,p-Xylenes	<0.00399	0.200	0.247	124	0.238	119	70-130	4	35	mg/kg	12.16.18 21:37	
o-Xylene	<0.00200	0.0998	0.120	120	0.116	116	70-130	3	35	mg/kg	12.16.18 21:37	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	92		118		126		70-130	%	12.16.18 21:37
4-Bromofluorobenzene	107		128		124		70-130	%	12.16.18 21:37

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3073032 | Matrix: Soil | Date Prep: 12.16.18
Parent Sample Id: 608195-001 | MS Sample Id: 608195-001 S | MSD Sample Id: 608195-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000388	0.101	0.0900	89	0.0981	97	70-130	9	35	mg/kg	12.16.18 21:55	
Toluene	<0.000459	0.101	0.0846	84	0.0902	89	70-130	6	35	mg/kg	12.16.18 21:55	
Ethylbenzene	<0.000569	0.101	0.0920	91	0.0971	96	70-130	5	35	mg/kg	12.16.18 21:55	
m,p-Xylenes	<0.00102	0.202	0.169	84	0.177	88	70-130	5	35	mg/kg	12.16.18 21:55	
o-Xylene	<0.000347	0.101	0.0827	82	0.0867	86	70-130	5	35	mg/kg	12.16.18 21:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		103		70-130	%	12.16.18 21:55
4-Bromofluorobenzene	88		89		70-130	%	12.16.18 21:55

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 608195

LT Environmental, Inc.

JRU 124H

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

Seq Number: 3073054 Matrix: Soil Date Prep: 12.16.18

Parent Sample Id: 608195-021 MS Sample Id: 608195-021 S MSD Sample Id: 608195-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0807	80	0.0721	73	70-130	11	35	mg/kg	12.16.18 22:20	
Toluene	<0.00202	0.101	0.0764	76	0.0688	69	70-130	10	35	mg/kg	12.16.18 22:20	X
Ethylbenzene	<0.00202	0.101	0.0927	92	0.0873	88	70-130	6	35	mg/kg	12.16.18 22:20	
m,p-Xylenes	<0.00403	0.202	0.171	85	0.161	81	70-130	6	35	mg/kg	12.16.18 22:20	
o-Xylene	<0.00202	0.101	0.0850	84	0.0794	80	70-130	7	35	mg/kg	12.16.18 22:20	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	130		103		70-130	%	12.16.18 22:20
4-Bromofluorobenzene	119		127		70-130	%	12.16.18 22:20

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

CHAIN OF CUSTODY

Page 1 of 3

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 #: 608195

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. Permian Office
Company Address: 3300 N "A" St. Building 1 Unit 103 Midland, TX 79705
Email: abaker@ltenv.com | Phone No: (432) 704-5178
Project Contact: Adrian Baker
Samplers's Name: Lynda Cavlock

Project Information

Project Name/Number: JRU 124H
Project Location: EDDY, NM
Invoice To: Kyle Littrell - XTO Energy
PO Number:

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 (only BTEX) 8021	TPH (DRO, GRO, MRO) 8015	Chloride (300.00)
1	FS01	1'	12:20	12/07	S									X	X	X	X
2	FS02	1'	12:25														
3	FS03	1'	12:30														
4	FS04	1'	12:35														
5	FS05	1'	12:40														
6	FS06	1'	12:45														
7	FS07	1'	12:50														
8	FS08	1'	12:55														
9	FS09	1'	13:00														
10	FS10	1'	13:05														

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:

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		12/07/18 17:01	1	2	12/07/18 1702	2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
			3	4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor
			5			✓ 3.6 / 3.5 R8 -0.1

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 incured 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.

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CHAIN OF CUSTODY

Page 2 of 3

XENCO LABORATORIES

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

www.xenco.com

Xenco Quote # | Xenco Job # 608195

Client / Reporting Information

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

Company Address: 3300 N "A" St. Building 1 Unit 103 Midland, TX 79705

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

Project Contact: Adrian Baker

Samplers's Name: Gala Lambert

Project Information

Project Name/Number: JRV 12477

Project Location: EDDY, NM

Invoice To: XTO Energy - Kyle Littrell

PO Number:

Analytical Information

Matrix Codes

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

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX (only BTEX) 8021	TPH (DRO, GRO, MRO) 8015	Chloride (300.00)	Field Comments
1	FS11	1'	12/7	13:15	S	1									X	X	X	
2	FS12	1'		13:20	S	1												
3	FS13	1'		13:25	S													
4	FS14	1'		13:30														
5	FS15	1'		13:35														
6	FS16	1'		13:40														
7	FS17	1'		13:45														
8	FS18	1'		13:50														
9	FS19	1'		13:55														
10	FS20	4'	↓	14:00	↓	↓									↓	↓	↓	

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☒ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☐ Contract TAT
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- ☐ 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		12/07/18 17:10	1	2	12/10/18	2 12/11/18 1230
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 6
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice ☑ Cooler Temp. 3.6/3.5 R8 Thermo. Corr. Factor -0.1

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CHAIN OF CUSTODY

Page 3 of 3

XENCO LABORATORIES

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www.xenco.com

Xenco Quote # | Xenco Job # 608195

Client / Reporting Information

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

Company Address: 3300 N "A" St. Building 1 unit 103 Midland, TX 79705

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

Project Contact: Adrian Baker

Samplers's Name

Project Information

Project Name/Number: JRU 124 H

Project Location: EDDY, NM

Invoice To: XTO Energy Kyle Littrell

PO Number:

Analytical Information

Matrix Codes

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

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX (only BTEX) 8021	TPH (DRO, GRO, MRO) 8015	Chloride (300.00)	Field Comments
1	FS21	4'	12/07	14:10	S	1								X	X	X	X	
2	FS22	4'		14:20														
3	SW01	0-1'		14:35														
4	SW02	0-1'		14:40														
5	SW03	0-4'		14:50														
6	SW04	0-4'		15:00														
7	SW05	0-4'		15:05														
8	SW06	0-1'		15:10														
9	SW07	0-1'		15:20														
10																		

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)
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- [ ] TRRP Checklist

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	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		12/07/18 17:10	1	2	12/10/18 1230	2 12/11/18 1230
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice ✓ Cooler Temp. 3.6/3.5 R8 Thermo. Corr. Factor -0.1

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.

7739219743(d

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: 12/11/2018 12:30:00 PM

Work Order #: 608195

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)?	3.5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Katie Lowe Date: 12/11/2018

Checklist reviewed by: Jessica Kramer Date: 12/11/2018

Analytical Report 609691

for

LT Environmental, Inc.

Project Manager: Adrian Baker

JRU 124H

12918179

11-JAN-19

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

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

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

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

11-JAN-19

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

Reference: XENCO Report No(s): **609691**
JRU 124H
Project Address: Delaware Basin

Adrian Baker:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 609691. 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. 609691 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 609691

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS07A	S	12-19-18 10:20	2.5 ft	609691-001
SS06	S	12-19-18 10:30	0.5 ft	609691-002
SS06A	S	12-19-18 10:40	1 ft	609691-003
SW08	S	12-19-18 11:40	0 - 2.5 ft	609691-004
FS28	S	12-19-18 11:30	3 ft	609691-005
FS23	S	12-19-18 11:45	3 ft	609691-006
SW10	S	12-19-18 11:50	0 - 2.5 ft	609691-007
SW09	S	12-19-18 11:55	0 - 2.5 ft	609691-008
FS24	S	12-19-18 12:00	2.5 ft	609691-009
FS25	S	12-19-18 12:05	2.5 ft	609691-010
FS26	S	12-19-18 12:10	2.5 ft	609691-011
FS27	S	12-19-18 12:15	2.5 ft	609691-012

Sample receipt non conformances and comments:

Per clients email request, changed sample names. NEW VERSION GENERATED. JKR 01/11/19
SW01 TO SW08
SW02 TO SW09
SW03 TO SW10
SS06A @ 0.5' TO SS06

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3074107 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3074251 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3074470 Inorganic Anions by EPA 300
Lab Sample ID 609860-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 609691-001, -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-3074474 Inorganic Anions by EPA 300
Lab Sample ID 609694-001 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: 609691-011, -012.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 609691

LT Environmental, Inc., Arvada, CO

Project Name: JRU 124H

Project Id: 12918179
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Sat Dec-22-18 01:10 pm
Report Date: 11-JAN-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	609691-001		609691-002		609691-003		609691-004		609691-005		609691-006	
	Field Id:	SS07A		SS06		SS06A		SW08		FS28		FS23	
	Depth:	2.5- ft		0.5- ft		1- ft		0-2.5 ft		3- ft		3- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-19-18 10:20		Dec-19-18 10:30		Dec-19-18 10:40		Dec-19-18 11:40		Dec-19-18 11:30		Dec-19-18 11:45	
BTEX by EPA 8021B	***Extracted:***	Dec-26-18 15:00		Dec-26-18 15:00		Dec-27-18 12:00		Dec-27-18 12:00		Dec-27-18 12:00		Dec-27-18 12:00	
	Analyzed:	Dec-27-18 17:59		Dec-27-18 18:18		Dec-27-18 15:23		Dec-27-18 15:44		Dec-27-18 16:06		Dec-27-18 16:32	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Ethylbenzene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
m,p-Xylenes		<0.00398	0.00398	<0.00400	0.00400	<0.00400	0.00400	<0.00401	0.00401	<0.00402	0.00402	<0.00398	0.00398
o-Xylene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Total Xylenes		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Total BTEX		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Inorganic Anions by EPA 300	***Extracted:***	Dec-28-18 12:30		Dec-28-18 12:30		Dec-28-18 12:30		Dec-28-18 12:30		Dec-28-18 12:30		Dec-28-18 12:30	
	Analyzed:	Dec-28-18 15:35		Dec-28-18 15:54		Dec-28-18 16:00		Dec-28-18 16:21		Dec-28-18 16:28		Dec-28-18 16:34	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		460	4.97	14.8	4.98	262	4.96	29.8	4.96	64.1	4.95	31.7	4.95
TPH by SW8015 Mod	***Extracted:***	Dec-27-18 07:00		Dec-27-18 07:00		Dec-27-18 07:00		Dec-27-18 07:00		Dec-27-18 07:00		Dec-27-18 07:00	
	Analyzed:	Dec-27-18 11:25		Dec-27-18 12:28		Dec-27-18 12:49		Dec-27-18 13:09		Dec-27-18 13:30		Dec-27-18 13:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<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		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

Certificate of Analysis Summary 609691

LT Environmental, Inc., Arvada, CO

Project Name: JRU 124H

Project Id: 12918179
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Sat Dec-22-18 01:10 pm
Report Date: 11-JAN-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	609691-007		609691-008		609691-009		609691-010		609691-011		609691-012	
	Field Id:	SW10		SW09		FS24		FS25		FS26		FS27	
	Depth:	0-2.5 ft		0-2.5 ft		2.5- ft		2.5- ft		2.5- ft		2.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-19-18 11:50		Dec-19-18 11:55		Dec-19-18 12:00		Dec-19-18 12:05		Dec-19-18 12:10		Dec-19-18 12:15	
BTEX by EPA 8021B	***Extracted:***	Dec-27-18 12:00		Dec-27-18 12:00		Dec-27-18 12:00		Dec-27-18 12:00		Dec-27-18 12:00		Dec-27-18 12:00	
	Analyzed:	Dec-27-18 17:18		Dec-27-18 17:39		Dec-27-18 18:06		Dec-27-18 18:43		Dec-27-18 19:08		Dec-27-18 21:23	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.00401	0.00401	<0.00398	0.00398	<0.00400	0.00400	<0.00402	0.00402	<0.00398	0.00398	<0.00400	0.00400
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Dec-28-18 12:30		Dec-28-18 12:30		Dec-28-18 12:30		Dec-28-18 12:30		Dec-28-18 17:30		Dec-28-18 17:30	
	Analyzed:	Dec-28-18 16:40		Dec-28-18 16:46		Dec-28-18 16:52		Dec-28-18 16:59		Dec-28-18 23:08		Dec-28-18 23:26	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		83.6	4.97	1380	4.96	44.1	4.98	<4.98	4.98	<5.01	5.01	<5.00	5.00
TPH by SW8015 Mod	***Extracted:***	Dec-27-18 07:00		Dec-27-18 07:00		Dec-27-18 07:00		Dec-27-18 07:00		Dec-27-18 07:00		Dec-27-18 07:00	
	Analyzed:	Dec-27-18 14:12		Dec-27-18 14:33		Dec-27-18 14:54		Dec-27-18 15:15		Dec-27-18 16:19		Dec-27-18 16:40	
	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	19.5	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	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	19.5	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

Certificate of Analytical Results 609691

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS07A**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-001	Date Collected:	12.19.18 10.20	Sample Depth:	2.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	12.28.18 12.30	Basis:	Wet Weight
Seq Number:	3074470				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**460**	4.97	mg/kg	12.28.18 15.35		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.27.18 07.00	Basis:	Wet Weight
Seq Number:	3074279				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.27.18 11.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.27.18 11.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.27.18 11.25	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.27.18 11.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	12.27.18 11.25	
o-Terphenyl	84-15-1	97	%	70-135	12.27.18 11.25	

Certificate of Analytical Results 609691

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS07A**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-001	Date Collected:	12.19.18 10.20	Sample Depth:	2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.26.18 15.00	Basis:	Wet Weight
Seq Number:	3074107				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.27.18 17.59	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.27.18 17.59	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.27.18 17.59	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.27.18 17.59	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.27.18 17.59	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.27.18 17.59	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.27.18 17.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	12.27.18 17.59	
1,4-Difluorobenzene	540-36-3	112	%	70-130	12.27.18 17.59	

Certificate of Analytical Results 609691

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS06**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-002	Date Collected:	12.19.18 10.30	Sample Depth:	0.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	12.28.18 12.30	Basis:	Wet Weight
Seq Number:	3074470				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.8**	4.98	mg/kg	12.28.18 15.54		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.27.18 07.00	Basis:	Wet Weight
Seq Number:	3074279				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.27.18 12.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.27.18 12.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.27.18 12.28	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.27.18 12.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	12.27.18 12.28	
o-Terphenyl	84-15-1	93	%	70-135	12.27.18 12.28	

Certificate of Analytical Results 609691

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS06**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-002	Date Collected:	12.19.18 10.30	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.26.18 15.00	Basis:	Wet Weight
Seq Number:	3074107				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.27.18 18.18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.27.18 18.18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.27.18 18.18	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.27.18 18.18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.27.18 18.18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.27.18 18.18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.27.18 18.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	12.27.18 18.18	
4-Bromofluorobenzene	460-00-4	93	%	70-130	12.27.18 18.18	

Certificate of Analytical Results 609691

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS06A**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-003	Date Collected:	12.19.18 10.40	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	12.28.18 12.30	Basis:	Wet Weight
Seq Number:	3074470				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**262**	4.96	mg/kg	12.28.18 16.00		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.27.18 07.00	Basis:	Wet Weight
Seq Number:	3074279				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.27.18 12.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.27.18 12.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.27.18 12.49	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.27.18 12.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	12.27.18 12.49	
o-Terphenyl	84-15-1	101	%	70-135	12.27.18 12.49	

Certificate of Analytical Results 609691

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SS06A**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-003	Date Collected:	12.19.18 10.40	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.27.18 12.00	Basis:	Wet Weight
Seq Number:	3074251				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.27.18 15.23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.27.18 15.23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.27.18 15.23	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.27.18 15.23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.27.18 15.23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.27.18 15.23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.27.18 15.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	81	%	70-130	12.27.18 15.23	
4-Bromofluorobenzene	460-00-4	95	%	70-130	12.27.18 15.23	

Certificate of Analytical Results 609691

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-004	Date Collected:	12.19.18 11.40	Sample Depth:	0 - 2.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	12.28.18 12.30	Basis:	Wet Weight
Seq Number:	3074470				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**29.8**	4.96	mg/kg	12.28.18 16.21		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.27.18 07.00	Basis:	Wet Weight
Seq Number:	3074279				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.27.18 13.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.27.18 13.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.27.18 13.09	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.27.18 13.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	12.27.18 13.09	
o-Terphenyl	84-15-1	108	%	70-135	12.27.18 13.09	

Certificate of Analytical Results 609691

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-004	Date Collected:	12.19.18 11.40	Sample Depth:	0 - 2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.27.18 12.00	Basis:	Wet Weight
Seq Number:	3074251				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.27.18 15.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.27.18 15.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.27.18 15.44	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.27.18 15.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.27.18 15.44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.27.18 15.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.27.18 15.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.27.18 15.44	
1,4-Difluorobenzene	540-36-3	92	%	70-130	12.27.18 15.44	

Certificate of Analytical Results 609691

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS28**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-005	Date Collected:	12.19.18 11.30	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	12.28.18 12.30	Basis:	Wet Weight
Seq Number:	3074470				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**64.1**	4.95	mg/kg	12.28.18 16.28		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.27.18 07.00	Basis:	Wet Weight
Seq Number:	3074279				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.27.18 13.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.27.18 13.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.27.18 13.30	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.27.18 13.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	12.27.18 13.30	
o-Terphenyl	84-15-1	104	%	70-135	12.27.18 13.30	

Certificate of Analytical Results 609691

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS28**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-005	Date Collected:	12.19.18 11.30	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.27.18 12.00	Basis:	Wet Weight
Seq Number:	3074251				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.27.18 16.06	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.27.18 16.06	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.27.18 16.06	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.27.18 16.06	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.27.18 16.06	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.27.18 16.06	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.27.18 16.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	86	%	70-130	12.27.18 16.06	
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.27.18 16.06	

Certificate of Analytical Results 609691

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS23**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-006	Date Collected:	12.19.18 11.45	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	12.28.18 12.30	Basis:	Wet Weight
Seq Number:	3074470				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**31.7**	4.95	mg/kg	12.28.18 16.34		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.27.18 07.00	Basis:	Wet Weight
Seq Number:	3074279				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.27.18 13.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.27.18 13.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.27.18 13.51	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.27.18 13.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	12.27.18 13.51	
o-Terphenyl	84-15-1	104	%	70-135	12.27.18 13.51	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS23**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-006	Date Collected:	12.19.18 11.45	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.27.18 12.00	Basis:	Wet Weight
Seq Number:	3074251				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.27.18 16.32	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.27.18 16.32	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.27.18 16.32	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.27.18 16.32	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.27.18 16.32	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.27.18 16.32	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.27.18 16.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	12.27.18 16.32	
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.27.18 16.32	

LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SW10**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-007	Date Collected:	12.19.18 11.50	Sample Depth:	0 - 2.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	12.28.18 12.30	Basis:	Wet Weight
Seq Number:	3074470				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**83.6**	4.97	mg/kg	12.28.18 16.40		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.27.18 07.00	Basis:	Wet Weight
Seq Number:	3074279				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.27.18 14.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.27.18 14.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.27.18 14.12	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.27.18 14.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	12.27.18 14.12	
o-Terphenyl	84-15-1	96	%	70-135	12.27.18 14.12	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SW10**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-007	Date Collected:	12.19.18 11.50	Sample Depth:	0 - 2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.27.18 12.00	Basis:	Wet Weight
Seq Number:	3074251				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.27.18 17.18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.27.18 17.18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.27.18 17.18	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.27.18 17.18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.27.18 17.18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.27.18 17.18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.27.18 17.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	12.27.18 17.18	
1,4-Difluorobenzene	540-36-3	80	%	70-130	12.27.18 17.18	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-008	Date Collected:	12.19.18 11.55	Sample Depth:	0 - 2.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	12.28.18 12.30	Basis:	Wet Weight
Seq Number:	3074470				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1380**	4.96	mg/kg	12.28.18 16.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.27.18 07.00	Basis:	Wet Weight
Seq Number:	3074279				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**19.5**	15.0	mg/kg	12.27.18 14.33		1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.27.18 14.33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.27.18 14.33	U	1
Total TPH	PHC635	**19.5**	15.0	mg/kg	12.27.18 14.33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	12.27.18 14.33	
o-Terphenyl	84-15-1	104	%	70-135	12.27.18 14.33	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-008	Date Collected:	12.19.18 11.55	Sample Depth:	0 - 2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.27.18 12.00	Basis:	Wet Weight
Seq Number:	3074251				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.27.18 17.39	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.27.18 17.39	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.27.18 17.39	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.27.18 17.39	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.27.18 17.39	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.27.18 17.39	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.27.18 17.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	12.27.18 17.39	
4-Bromofluorobenzene	460-00-4	106	%	70-130	12.27.18 17.39	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS24**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-009	Date Collected:	12.19.18 12.00	Sample Depth:	2.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	12.28.18 12.30	Basis:	Wet Weight
Seq Number:	3074470				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**44.1**	4.98	mg/kg	12.28.18 16.52		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.27.18 07.00	Basis:	Wet Weight
Seq Number:	3074279				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.27.18 14.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.27.18 14.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.27.18 14.54	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.27.18 14.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	12.27.18 14.54	
o-Terphenyl	84-15-1	99	%	70-135	12.27.18 14.54	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS24**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-009	Date Collected:	12.19.18 12.00	Sample Depth:	2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.27.18 12.00	Basis:	Wet Weight
Seq Number:	3074251				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.27.18 18.06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.27.18 18.06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.27.18 18.06	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.27.18 18.06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.27.18 18.06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.27.18 18.06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.27.18 18.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	87	%	70-130	12.27.18 18.06	
4-Bromofluorobenzene	460-00-4	108	%	70-130	12.27.18 18.06	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS25**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-010	Date Collected:	12.19.18 12.05	Sample Depth:	2.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	12.28.18 12.30	Basis:	Wet Weight
Seq Number:	3074470				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	12.28.18 16.59	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.27.18 07.00	Basis:	Wet Weight
Seq Number:	3074279				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.27.18 15.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.27.18 15.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.27.18 15.15	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.27.18 15.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	12.27.18 15.15	
o-Terphenyl	84-15-1	100	%	70-135	12.27.18 15.15	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS25**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-010	Date Collected:	12.19.18 12.05	Sample Depth:	2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.27.18 12.00	Basis:	Wet Weight
Seq Number:	3074251				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.27.18 18.43	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.27.18 18.43	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.27.18 18.43	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.27.18 18.43	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.27.18 18.43	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.27.18 18.43	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.27.18 18.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.27.18 18.43	
1,4-Difluorobenzene	540-36-3	90	%	70-130	12.27.18 18.43	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS26**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-011	Date Collected:	12.19.18 12.10	Sample Depth:	2.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	12.28.18 17.30	Basis:	Wet Weight
Seq Number:	3074474				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.01	5.01	mg/kg	12.28.18 23.08	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.27.18 07.00	Basis:	Wet Weight
Seq Number:	3074279				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.27.18 16.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.27.18 16.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.27.18 16.19	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.27.18 16.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	12.27.18 16.19	
o-Terphenyl	84-15-1	104	%	70-135	12.27.18 16.19	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS26**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-011	Date Collected:	12.19.18 12.10	Sample Depth:	2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.27.18 12.00	Basis:	Wet Weight
Seq Number:	3074251				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.27.18 19.08	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.27.18 19.08	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.27.18 19.08	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.27.18 19.08	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.27.18 19.08	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.27.18 19.08	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.27.18 19.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	78	%	70-130	12.27.18 19.08	
4-Bromofluorobenzene	460-00-4	107	%	70-130	12.27.18 19.08	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS27**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-012	Date Collected:	12.19.18 12.15	Sample Depth:	2.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	12.28.18 17.30	Basis:	Wet Weight
Seq Number:	3074474				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	12.28.18 23.26	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.27.18 07.00	Basis:	Wet Weight
Seq Number:	3074279				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.27.18 16.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.27.18 16.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.27.18 16.40	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.27.18 16.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	12.27.18 16.40	
o-Terphenyl	84-15-1	102	%	70-135	12.27.18 16.40	

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LT Environmental, Inc., Arvada, CO

JRU 124H

Sample Id:	**FS27**	Matrix:	Soil	Date Received:	12.22.18 13.10
Lab Sample Id:	609691-012	Date Collected:	12.19.18 12.15	Sample Depth:	2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.27.18 12.00	Basis:	Wet Weight
Seq Number:	3074251				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.27.18 21.23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.27.18 21.23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.27.18 21.23	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.27.18 21.23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.27.18 21.23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.27.18 21.23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.27.18 21.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	87	%	70-130	12.27.18 21.23	
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.27.18 21.23	

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 609691

LT Environmental, Inc.

JRU 124H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3074470 Matrix: Solid Date Prep: 12.28.18
MB Sample Id: 7668963-1-BLK LCS Sample Id: 7668963-1-BKS LCSD Sample Id: 7668963-1-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	246	98	260	104	90-110	6	20	mg/kg	12.28.18 13:53	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3074474 Matrix: Solid Date Prep: 12.28.18
MB Sample Id: 7668966-1-BLK LCS Sample Id: 7668966-1-BKS LCSD Sample Id: 7668966-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	256	102	254	102	90-110	1	20	mg/kg	12.28.18 22:56	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3074470 Matrix: Soil Date Prep: 12.28.18
Parent Sample Id: 609691-001 MS Sample Id: 609691-001 S MSD Sample Id: 609691-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	460	249	670	84	713	102	90-110	6	20	mg/kg	12.28.18 15:41	X

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3074470 Matrix: Soil Date Prep: 12.28.18
Parent Sample Id: 609860-001 MS Sample Id: 609860-001 S MSD Sample Id: 609860-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	21.2	250	292	108	299	111	90-110	2	20	mg/kg	12.28.18 14:12	X

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3074474 Matrix: Soil Date Prep: 12.28.18
Parent Sample Id: 609691-011 MS Sample Id: 609691-011 S MSD Sample Id: 609691-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3.76	251	275	108	283	111	90-110	3	20	mg/kg	12.28.18 23:14	X

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 609691

LT Environmental, Inc.

JRU 124H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3074474 Matrix: Soil Date Prep: 12.28.18
Parent Sample Id: 609694-001 MS Sample Id: 609694-001 S MSD Sample Id: 609694-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	12.3	249	280	108	283	109	90-110	1	20	mg/kg	12.29.18 00:44	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3074279 Matrix: Solid Date Prep: 12.27.18
MB Sample Id: 7668885-1-BLK LCS Sample Id: 7668885-1-BKS LCSD Sample Id: 7668885-1-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)	<7.99	999	852	85	920	92	70-135	8	20	mg/kg	12.27.18 10:42	
Diesel Range Organics (DRO)	<8.12	999	941	94	1020	102	70-135	8	20	mg/kg	12.27.18 10:42	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		125		126		70-135	%	12.27.18 10:42
o-Terphenyl	114		102		110		70-135	%	12.27.18 10:42

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3074279 Matrix: Soil Date Prep: 12.27.18
Parent Sample Id: 609691-001 MS Sample Id: 609691-001 S MSD Sample Id: 609691-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<7.98	997	827	83	832	83	70-135	1	20	mg/kg	12.27.18 11:46	
Diesel Range Organics (DRO)	<8.10	997	922	92	932	93	70-135	1	20	mg/kg	12.27.18 11:46	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		123		70-135	%	12.27.18 11:46
o-Terphenyl	100		99		70-135	%	12.27.18 11:46

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 609691

LT Environmental, Inc.

JRU 124H

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3074107 | Matrix: Solid | Date Prep: 12.26.18
MB Sample Id: 7668790-1-BLK | LCS Sample Id: 7668790-1-BKS | LCSD Sample Id: 7668790-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.113	113	0.104	104	70-130	8	35	mg/kg	12.27.18 09:27	
Toluene	<0.000456	0.100	0.0947	95	0.0905	91	70-130	5	35	mg/kg	12.27.18 09:27	
Ethylbenzene	<0.000565	0.100	0.0991	99	0.0952	95	70-130	4	35	mg/kg	12.27.18 09:27	
m,p-Xylenes	<0.00101	0.200	0.179	90	0.173	87	70-130	3	35	mg/kg	12.27.18 09:27	
o-Xylene	<0.000344	0.100	0.0885	89	0.0865	87	70-130	2	35	mg/kg	12.27.18 09:27	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		107		106		70-130	%	12.27.18 09:27
4-Bromofluorobenzene	79		85		88		70-130	%	12.27.18 09:27

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3074251 | Matrix: Solid | Date Prep: 12.27.18
MB Sample Id: 7668889-1-BLK | LCS Sample Id: 7668889-1-BKS | LCSD Sample Id: 7668889-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.101	100	0.122	122	70-130	19	35	mg/kg	12.27.18 12:37	
Toluene	<0.00202	0.101	0.0851	84	0.102	102	70-130	18	35	mg/kg	12.27.18 12:37	
Ethylbenzene	<0.00202	0.101	0.101	100	0.124	124	70-130	20	35	mg/kg	12.27.18 12:37	
m,p-Xylenes	0.00188	0.202	0.216	107	0.256	129	70-130	17	35	mg/kg	12.27.18 12:37	
o-Xylene	<0.00202	0.101	0.0997	99	0.120	120	70-130	18	35	mg/kg	12.27.18 12:37	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	83		75		118		70-130	%	12.27.18 12:37
4-Bromofluorobenzene	95		81		77		70-130	%	12.27.18 12:37

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3074107 | Matrix: Soil | Date Prep: 12.26.18
Parent Sample Id: 609206-043 | MS Sample Id: 609206-043 S | MSD Sample Id: 609206-043 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000386	0.100	0.0903	90	0.0986	98	70-130	9	35	mg/kg	12.27.18 10:05	
Toluene	<0.000457	0.100	0.0800	80	0.0854	85	70-130	7	35	mg/kg	12.27.18 10:05	
Ethylbenzene	<0.000566	0.100	0.0847	85	0.0902	89	70-130	6	35	mg/kg	12.27.18 10:05	
m,p-Xylenes	<0.00102	0.200	0.154	77	0.164	81	70-130	6	35	mg/kg	12.27.18 10:05	
o-Xylene	<0.000345	0.100	0.0765	77	0.0802	79	70-130	5	35	mg/kg	12.27.18 10:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		107		70-130	%	12.27.18 10:05
4-Bromofluorobenzene	88		88		70-130	%	12.27.18 10:05

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

QC Summary 609691

LT Environmental, Inc.

JRU 124H

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

Seq Number: 3074251 Matrix: Soil Date Prep: 12.27.18

Parent Sample Id: 609587-001 MS Sample Id: 609587-001 S MSD Sample Id: 609587-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.122	122	0.115	115	70-130	6	35	mg/kg	12.27.18 13:36	
Toluene	<0.00200	0.0998	0.104	104	0.0943	94	70-130	10	35	mg/kg	12.27.18 13:36	
Ethylbenzene	<0.00200	0.0998	0.122	122	0.113	113	70-130	8	35	mg/kg	12.27.18 13:36	
m,p-Xylenes	<0.00399	0.200	0.239	120	0.220	110	70-130	8	35	mg/kg	12.27.18 13:36	
o-Xylene	<0.00200	0.0998	0.113	113	0.105	105	70-130	7	35	mg/kg	12.27.18 13:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		96		70-130	%	12.27.18 13:36
4-Bromofluorobenzene	112		106		70-130	%	12.27.18 13:36

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike

Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added

LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec

Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

Chain of Custody

Work Order No: 6C091691

XENCO LABORATORIES

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

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Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432.704.5178	Email:	

Work Order Comments

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

Project Name:	JRU 124H	Turn Around	
Project Number:	012918129	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Lynda Lambeck	Due Date:	12/21

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.3/0.2	Thermometer ID	IR2	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.1	
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
SS07A	S	12/19	10:20	2.5'	1	X	X	X
SS06A LL	S		10:30	0.5'	1	X	X	X
SS06A	S		10:40	1'	1	X	X	X
LL ~~SW04~~ SW05	S		11:40	0-2.5'	1	X	X	X
FS 28	S		11:30	3'	1	X	X	X
FS 23	S		11:45	3'	1	X	X	X
LL ~~SW03~~ SW10	S		11:50	0-2.5'	1	X	X	X
LL ~~SW02~~ SW09	S		11:55	0-2.5'	1	X	X	X
~~FS 24~~	S		12:00	2.5'	1	X	X	X
FS 25	S		12:05	2.5'	1	X	X	X

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			12/19/18 1700	2		12/20/18 1200
3			12/20/18 15:30	4		12/22 1310
5				6		

Chain of Custody

Work Order No: 1ec96691

XENCO LABORATORIES

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

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Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432.704.5178	Email:	

Work Order Comments

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

Project Name:	JRU 124H	Turn Around	
Project Number:	012918179	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Lynda Lambach	Due Date:	12/31

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

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
FS26	S	12/19/2018	12:10	2.5'	1	X	X	X
FS27	S	12/19/2018	12:15	2.5'	1	X	X	X

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			12/19/18 1700	2		12/20/18 1200
3			12/20/18 15:30	4		12/22 1310
5				6		

Revised Date 051418 Rev. 2018.1

Final 1.001

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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12/22/2018 01:10:00 PM

Work Order #: 609691

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: 12/26/2018
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 12/26/2018
Jessica Kramer

View facing north of pasture excavation north of the road.

Project: 012918179	XTO Energy, Inc. James Ranch Unit #124H	LTE Advancing Opportunity
December 18, 2018	Photographic Log	

View of excavation on well pad from pumpjack facing north.

Project: 012918179	XTO Energy, Inc. James Ranch Unit #124	LTE Advancing Opportunity
December 18, 2018	Photographic Log	

View of excavation from the north edge of the well pad facing south.

Project: 012918179	XTO Energy, Inc. James Ranch Unit #124	LTE Advancing Opportunity
December 18, 2018	Photographic Log	