



LT Environmental, Inc.

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

April 1, 2020

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

**RE: Closure Request
WPX Energy Permian, LLC
Ross Draw Unit #042
Incident ID NVV2002439696
Eddy County, New Mexico**

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of WPX Energy Permian, LLC (WPX), presents the following Closure Request detailing soil sampling and excavation activities at the Ross Draw Unit #042 (Site) in Unit K, Section 22, Township 26 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the soil sampling and excavation activities was to address impacts to soil following an event that resulted in the release of produced water and crude oil onto well pad and adjacent pasture. Based on the excavation activities and results of the soil sampling events, WPX requests no further action (NFA).

BACKGROUND

On January 6, 2020, a wellhead gauge failed, resulting in approximately 28 barrels (bbls) of crude oil and 25 bbls of produced water to be released to the well pad and migrate southwest toward a drainage feature in the adjacent pasture. The release impacted areas previously delineated and reported under Incident ID NAB1605654667 (2RP-3564). Vacuum trucks were dispatched and recovered 15 bbls of crude oil and 15 bbls produced water from the impacted area. The spill volume was calculated by averaging the saturated soil depth and estimating the percentage of liquids based on soil type. Any free liquids were added to the total volume. The average saturation depth of the soil was observed to be 1.0 inch within the release extent. The soil capping the pad surface is compacted caliche, which is estimated to have an available space (i.e. porosity) of 15 percent (%) total volume. The soil capping the pasture is poorly graded sand, which is estimated to have an available space (i.e. porosity) of 40 percent (%) total volume. Based on these assumptions, the following equation was used to calculate total volume:

Based on these assumptions, the following equation was used to calculate total volume:

“saturated soil volume (cubic feet) x (4.21 cubic feet per bbl of liquid) x estimated soil porosity (%)”



WPX reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) which was received by the NMOCD and was assigned Incident ID NVV2002439696 (Attachment 1).

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on known aquifer properties and the elevation difference between the Site and an identified water well. The nearest permitted water well with depth to water data is United States Geological Survey (USGS) water well 320125103514701, located approximately 3,372 ft southeast of the Site. Water well 320125103514701 has a reported depth to water of 117 feet bgs and is approximately 7 feet higher in elevation than the Site. The closest significant watercourse to the Site is an unnamed tributary located approximately 2,208 southwest of the Site. The Site is greater than 300 feet from any occupied residence, school, hospital, institution, church, or wetland and greater than 1,000 feet to a freshwater well or spring. The Site is not within a 100-year floodplain or overlying a subsurface mine or unstable area.

On February 10, 2020, LTE contracted Southwest Geophysical Consulting, LLC (SGC) to determine the location, description, and boundaries of any karst-related features within a 200-meter boundary surrounding the Site. The survey concluded that no surface karst features were located within the survey area and that the Site is located in a medium-potential karst area. The Cave and Karst Resource Inventory Report is included as Attachment 2.

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.

Additionally, LTE applied a reclamation standard for chloride of 600 mg/kg for the top four feet of all impacted areas to be reclaimed immediately in the pasture.

SITE ASSESSMENT

On January 6, 2020, LTE conducted site investigative activities immediately following the incident. The release extent was mapped using a handheld Global Positioning System (GPS) unit and is shown on Figure 2. In an attempt to expedite remediation efforts, it was determined that removal



of impacted soils would be confirmed through confirmation sampling during excavation activities.

EXCAVATION ACTIVITIES

Between March 3, 2020, and March 18, 2020, LTE was on site to oversee excavation activities within the release area. Excavation activities were directed by field screening soil samples for volatile aromatic hydrocarbons using a PID and chloride using Hach® chloride QuanTab® test strips. Following completion of excavation activities, five-point composite confirmation soil samples were collected from the floor (samples labeled as “FS”) and sidewalls (samples labeled as “SW”) of the excavation area. Each soil sample represented at most 200 square feet. The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil sample was shipped at or below 4 degrees Celsius (°C) under strict chain-of custody (COC) procedures to Xenco Laboratories (Xenco) in Midland, Texas, for analysis of BTEX following United States Environmental Protection Agency (USEPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-motor oil range organics (MRO) following USEPA Method 8015M/D; and chloride following USEPA Method 300.0.

Approximately 388 cubic yards of impacted soil were removed from the excavation. Approximately 360 cubic yards were transported to the R360 Red Bluff Disposal Facility in Orla, Texas and 28 cubic yards were transported to the PetroWaste Disposal Facility in Orla, Texas under WPX approved manifests. The excavation area measured a total of approximately 8,294 square feet in area and ranged in depth from 0 feet bgs to 4.5 feet bgs. The excavation area and soil sample locations are depicted on Figure 2. Complete laboratory analytical reports are included in Attachment 4. Photographic documentation was conducted throughout the remediation process. The Photographic Logs are included in Attachment 3.

ANALYTICAL RESULTS

Laboratory analytical results of all final excavation confirmation soil samples indicate compliance with the Closure Criteria. Laboratory analytical results are summarized in Table 1.

CONCLUSIONS

Remediation of impacted soils was successfully achieved as demonstrated through soil confirmation sampling. The excavations were backfilled with locally sourced materials and recontoured to match pre-existing conditions. Additionally, the area in pasture will be seeded with a BLM-approved seed mix during favorable germination conditions. WPX is requesting an NFA determination and closure of Incident ID NVV2002439696.



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

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink, reading 'Joseph S. Hernandez'.

Joseph S. Hernandez
Project Geologist

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

Ashley L. Ager, M.S., P.G.
Senior Geologist

cc: Jim Raley, WPX
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD
Jim Amos, BLM

Attachments:

Figure 1 Site Location Map
Figure 2 Site Map
Figure 3 Excavation Soil Sample Locations
Table 1 Soil Analytical Results
Attachment 1 Form C-141
Attachment 2 Cave and Karst Resource Inventory Report
Attachment 3 Laboratory Analytical Reports
Attachment 4 Photographic Log

FIGURES



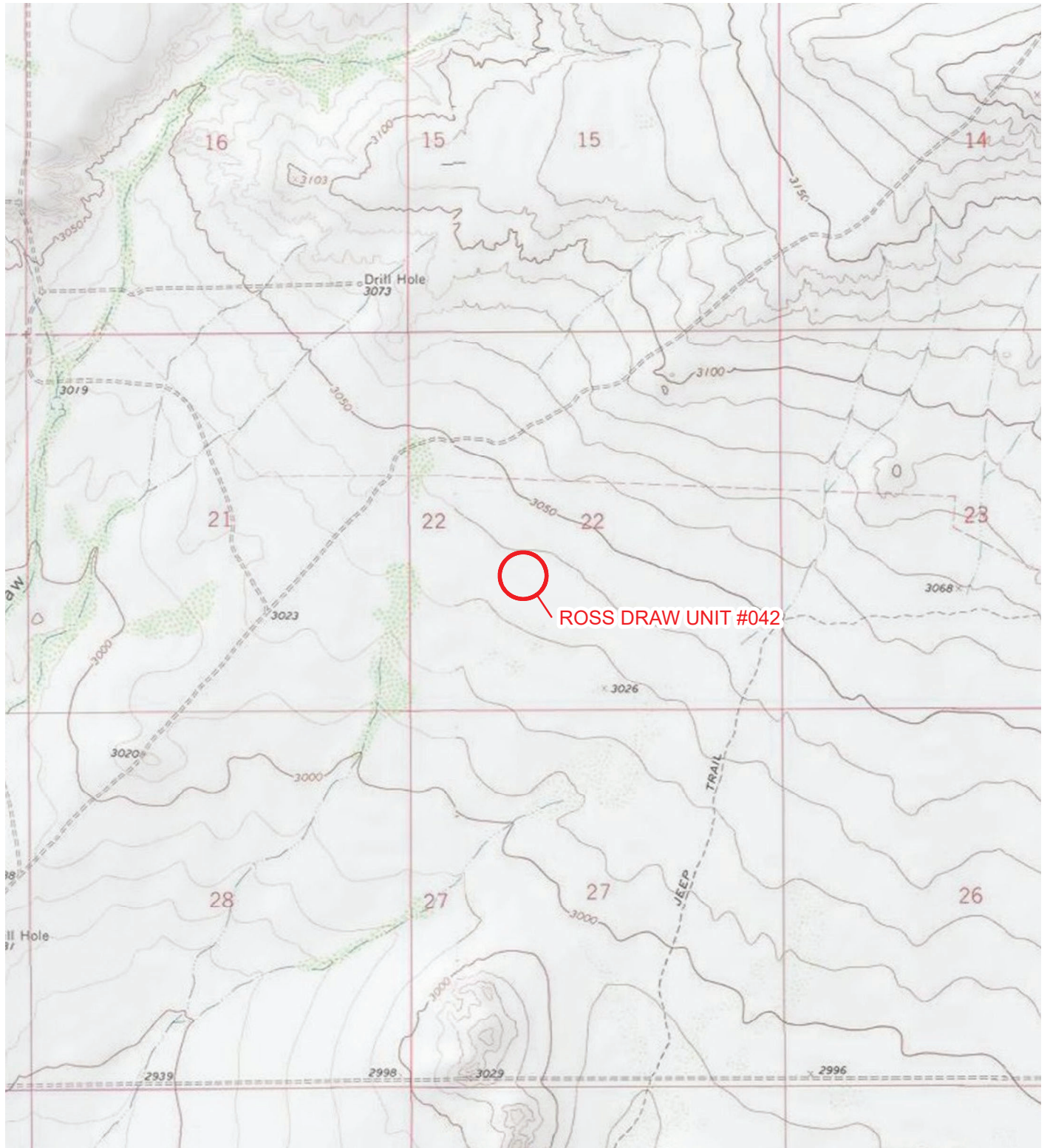


IMAGE COURTESY OF ESRI/USGS

LEGEND

 SITE LOCATION

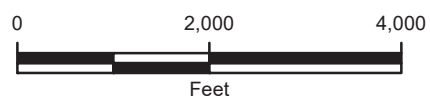


FIGURE 1
SITE LOCATION MAP
ROSS DRAW UNIT #042
UNIT K SEC 22 T26S R30E
EDDY COUNTY, NEW MEXICO
WPX ENERGY PERMIAN, LLC.





LEGEND

IMAGE COURTESY OF ESRI



RELEASE LOCATION



RELEASE EXTENT

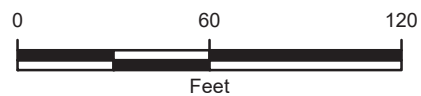


FIGURE 2
SITE MAP
ROSS DRAW UNIT #042
UNIT K SEC 22 T26S R30E
EDDY COUNTY, NEW MEXICO
WPX ENERGY PERMIAN, LLC.



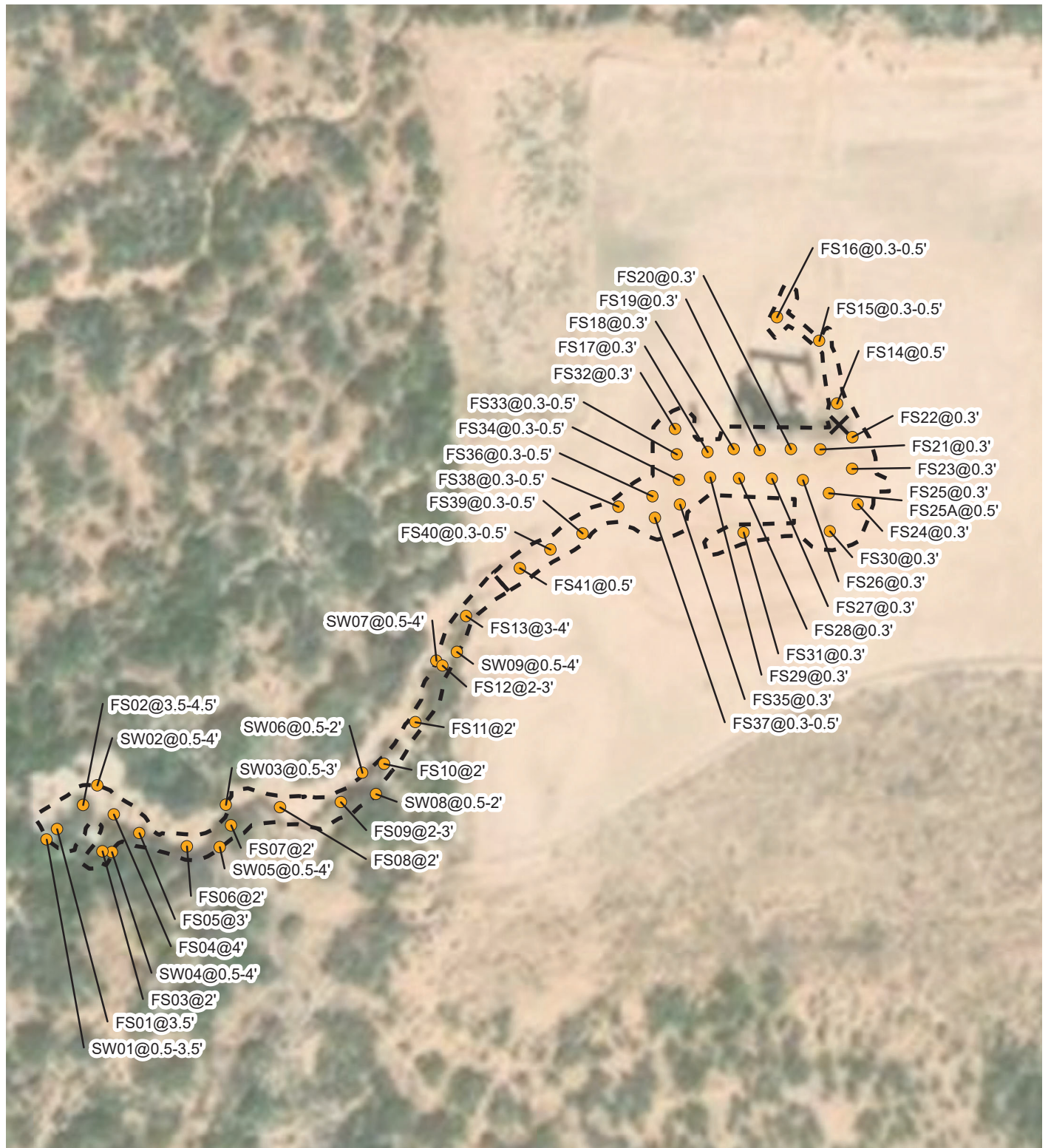


IMAGE COURTESY OF ESRI

LEGEND

-  RELEASE LOCATION
-  EXCAVATION SOIL SAMPLE
-  EXCAVATION EXTENT

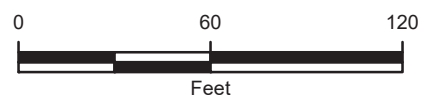


FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
 ROSS DRAW UNIT #042
 UNIT K SEC 22 T26S R30E
 EDDY COUNTY, NEW MEXICO
 WPX ENERGY PERMIAN, LLC.



TABLE





TABLE 1
SOIL ANALYTICAL RESULTS
ROSS DRAW UNIT #042
REMEDIATION PERMIT NUMBER NOT ASSIGNED
EDDY COUNTY, NEW MEXICO
WPX ENERGY PERMIAN, LLC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOC Table 1 Closure Criteria													
SW01	0.5 - 3.5	03/05/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	NE	<50.3	<50.3	<9.98
SW02	0.5 - 4	03/05/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	347
SW03	0.5 - 3	03/05/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	151
SW04	0.5 - 4	03/05/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	10.1
SW05	0.5 - 4	03/05/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	<9.96
SW06	0.5 - 2	03/05/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	<9.88
SW07	0.5 - 4	03/05/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	160
SW08	0.5 - 2	03/05/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	213
SW09	0.5 - 4	03/05/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	117
FS01	3.5	03/05/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	<9.88
FS02	3.5 - 4.5	03/05/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	31.2
FS03	2	03/05/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	75.0	<49.9	75.0	75.0	82.1
FS04	4	03/05/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	585
FS05	3	03/05/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	117
FS06	2	03/05/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	519
FS07	2	03/05/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	353
FS08	2	03/05/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	288
FS09	2 - 3	03/05/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	190
FS10	2	03/05/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	283
FS11	2	03/05/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	270
FS12	2 - 3	03/05/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	220
FS13	3 - 4	03/05/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	285
FS14	0.5	03/06/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	337	<49.9	337	337	785



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ROSS DRAW UNIT #042
REMEDATION PERMIT NUMBER NOT ASSIGNED
EDDY COUNTY, NEW MEXICO
WPX ENERGY PERMIAN, LLC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOC Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000
FS15	0.3 - 0.5	03/06/2020	<0.00926	<0.00926	0.0468	0.233	0.279	52.9	605	<50.1	658	658	132
FS16	0.3 - 0.5	03/06/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	70.4	<50.1	70.4	70.4	182
FS17	0.3	03/06/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	3,190
FS18	0.3	03/06/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	3,220
FS19	0.3	03/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	63.8	<50.3	63.8	63.8	3,150
FS20	0.3	03/06/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	54.4	<50.1	54.4	54.4	8,850
FS21	0.3	03/06/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	428	155	428	583	5,680
FS22	0.3	03/06/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	651	67.3	651	718	8,640
FS23	0.3	03/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	65.9	<49.8	65.9	65.9	365
FS24	0.3	03/06/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	1,380
FS25	0.3	03/06/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	1,290	176	1,290	1,470	6,560
FS25A	0.5	03/18/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	4,620
FS26	0.3	03/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	200	<49.9	200	200	5,260
FS27	0.3	03/06/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	2,370
FS28	0.3	03/06/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	66.2	<50.2	66.2	66.2	4,510
FS29	0.3	03/06/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	6,380
FS30	0.3	03/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	5,620
FS31	0.3	03/06/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	5,540
FS32	0.3	03/06/2020	<0.00231	<0.00231	0.00903	0.0556	0.0646	<50.0	292	<50.0	292	292	1,440
FS33	0.3 - 0.5	03/06/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	503
FS34	0.3 - 0.5	03/06/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	6,210
FS35	0.3	03/06/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	3,600
FS36	0.3 - 0.5	03/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	91.1	<50.3	91.1	91.1	4,260



TABLE 1
SOIL ANALYTICAL RESULTS

ROSS DRAW UNIT #042
REMEDIATION PERMIT NUMBER NOT ASSIGNED
EDDY COUNTY, NEW MEXICO
WPX ENERGY PERMIAN, LLC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria													
FS37	0.3 - 0.5	03/06/2020	10 <0.00200	NE <0.00200	NE <0.00200	NE <0.00200	50 <0.00200	NE <49.9	NE <49.9	NE <49.9	1,000 <49.9	2,500 <49.9	20,000 3,150
FS38	0.3 - 0.5	03/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	332	51.5	332	384	4,200
FS39	0.3 - 0.5	03/06/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	3,480
FS40	0.3 - 0.5	03/06/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	6,260
FS41	0.5	03/06/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	3,780

Notes:

bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
DRO - diesel range organics
GRO - gasoline range organics
mg/kg - milligrams per kilogram

MRO - motor oil range organics

NMAC - New Mexico Administrative Code

NMOCD - New Mexico Oil Conservation Division

NE - not established

TPH - total petroleum hydrocarbons

Bold - indicates result exceeds the applicable regulatory standard

< - indicates result is below laboratory reporting limits

Table 1 - closure criteria for soils impacted by a release per

NMAC 19.15.29 August 2018

ATTACHMENT 1: FORM C-141



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	NVV2002439696
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: WPX Energy Permian, LLC.	OGRID: 246289
Contact Name: Jim Raley	Contact Telephone: 575-689-7597
Contact email: james.ralej@wpxenergy.com	Incident # (assigned by OCD) NVV2002439696
Contact mailing address: 5315 Buena Vista Dr., Carlsbad, NM 88220	

Location of Release Source

Latitude 32.026123308 _____ Longitude -103.8718851 _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: ROSS DRAW UNIT #042	Site Type: Production Facility
Date Release Discovered: 1/6/2020	API# (if applicable): 30-015-42945

Unit Letter	Section	Township	Range	County
K	22	26S	30E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private

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)28	Volume Recovered (bbls)15
☒ Produced Water	Volume Released (bbls) 25	Volume Recovered (bbls) 15
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Failure of gauge on wellhead allowed for release of approx. 53 bbls of fluids both on and off location. Volume estimated by following formula.
$$bbl\ estimate = \frac{saturated\ soil\ volume\ (ft^3)}{4.21(\frac{ft^3}{bbl\ equivalent})} * estimated\ soil\ porosity(\%) + recovered\ fluids\ (bbl)$$

Incident ID	NVV2002439696
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Estimated volume exceeded 25bbbls
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Phone call to Mike Bratcher on 1/6/2019 at 12:06 PM	

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 <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: Jim Raley	Title: Environmental Specialist
Signature: 	Date: 1/8/2019
email: james.raley@wpenergy.com	Telephone: 575-689-7597
<u>OCD Only</u>	
Received by: _____	Date: _____

Incident ID	NVV2002439696
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Incident ID	NVV2002439696
District RP	
Facility ID	
Application ID	

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

Printed Name: Jim Raley Title: Environmental Specialist
Signature:  Date: 4/3/2020
email: james.raley@wpenergy.com Telephone: 575-689-7597

OCD Only

Received by: _____ Date: _____

Incident ID	NVV2002439696
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

Printed Name: Jim Raley Title: Environmental Specialist
Signature:  Date: 4/3/2020
email: james.raley@wpenergy.com Telephone: 575-689-7597

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: _____





Cave and Karst Resource Inventory Report Ross Draw Unit 42 Central Tank Battery Eddy County, New Mexico

**Prepared for:
LT Environmental, Inc.
848 East 2nd Avenue
Durango, CO 81301**

- ☐ **Positive for Karst Features – HKOZ remediation process required**
- ☒ **Negative for Karst Features – MKOZ remediation process may be approved by the Oil Conservation Division**

February 10, 2020

LTE-006-20200130

Published by:

Southwest Geophysical Consulting, LLC
5117 Fairfax Dr. NW
Albuquerque, NM 87114
(505) 585-2550
www.swgeophys.com

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Principal, Chief Executive Officer
dave@swgeophys.com

Prepared for:

LT Environmental, Inc.
820 Megan Avenue, Unit B
Rifle, CO 81650

Point of Contact:

Chris McKisson
(970) 285-9985
cmckisson@ltenv.com

MMXX

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1.0 INTRODUCTION

This report was commissioned by LT Environmental, Inc. (hereinafter referred to as "the client") on January 30, 2020 for the purpose of determining what, if any, karst-related surface features are present near the Ross Draw Unit 42 Central Tank Battery site (hereinafter termed "RDU 42", **Figure 1**) and to provide guidance on the level of remediation required. This study does not include subsurface features, which would require a geophysical survey. The study area that this report covers is in a **MEDIUM** karst occurrence zone and entirely located within Bureau of Land Management – Carlsbad Field Office managed lands (**Figure 2**).

As indicated in section **1.3 Affected Environment**, the bedrock and overlying soil at the survey site are susceptible to sinkhole development and karst features may be hidden beneath the existing soil stratum. Risk associated with sinkhole formation can be minimized during development with proper foundation design and construction, and the control of site hydrology. The Owner/Developer must recognize, however, that a risk of sinkhole-induced damage to infrastructure does exist. The Owner/Developer must evaluate the risks and attendant costs of performing a geophysical survey prior to development, versus no geophysical survey, and must be willing to accept these risks if it is decided that a surface karst survey is sufficient. Southwest Geophysical Consulting, LLC can provide a geophysical survey. If the decision is made to conduct a geophysical survey, a cost estimate and timeline will be provided upon request.

1.1 Goals of this Study

To provide the client with the location, description, photos, and boundaries of any surface karst-related features within a 200-meter boundary surrounding the pad on the RDU47 project site as provided by the client via e-mail on January 30, 2020.

1.2 Summary of Findings

No surface karst features were located within the pedestrian survey area. However, unknown hidden features may still exist beneath the surface. Caution should be exercised during remediation.

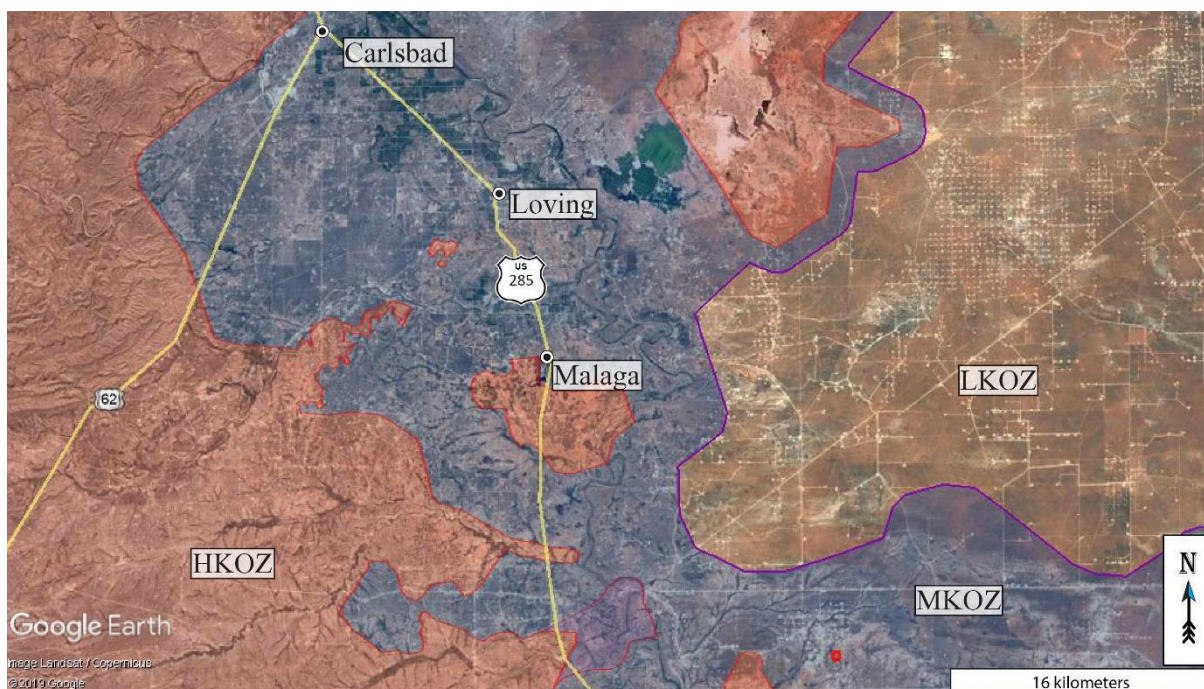


Figure 1: Karst occurrence overview. Red transparent area is a high karst occurrence zone; blue transparent area is a medium karst occurrence zone; no color indicates a low karst occurrence zone. Study area is the red outlined area in the lower-right portion of the image. Background image credit: Google Earth. Image date: February 21, 2019. Datum: WGS-84.

1.3 Affected Environment

The RDU 42 project site is located in evaporite karst terrain, a landform that is characterized by underground drainage through solutionally enlarged conduits. Evaporite karst terrain may contain sinkholes, sinking streams, caves, and springs. Sinkholes leading to underground drainages and voids are common. These karst features, as well as occasional fissures and discontinuities in the bedrock, provide the primary sources for rapid recharge of the groundwater aquifers of the region.

The Bureau of Land Management (BLM) categorizes all areas within the Carlsbad Field Office (CFO) zone of responsibility as having either low, medium, high, or critical cave potential based on geology, occurrence of known caves, density of karst features, and potential impacts to freshwater aquifers. This project occurs within a **MEDIUM** karst occurrence zone^[1] (MKOZ, **Figure 1**). A medium karst occurrence zone is defined as an area in known soluble rock types that may have a shallow insoluble overburden. These areas may contain isolated karst features such as caves and sinkholes. Groundwater recharge may not be wholly dependent on karst features, but the karst features still provide the most rapid aquifer recharge in response to surface runoff^[2].

An on-site inspection revealed that there are no surface karst features within the pedestrian survey area. However, unknown buried features may exist; therefore, this action is subject to mitigation measures designed to adequately protect known and potential cave/karst resources.

2.0 LOCATION AND DESCRIPTION OF STUDY AREA

2.1 Description of Site

The RDU 42 project site is located in Eddy County, New Mexico, 51 kilometers (31.7 miles) southeast of Carlsbad, New Mexico; 18 kilometers (11 miles) east of US-285, and 2 kilometers (1.2 miles) north of the New Mexico-Texas Border (**Figure 1** and **Figure 2**). The site is located within section 22 of NM T26S R30E. This area is within the Chihuahuan Desert Thornscrub defined by the Southwestern Regional ReGAP Vegetation map^[5] and the vegetation consists mostly of areas of grass, sparse creosote, and sparse yucca with very good visibility in most locations. See section **2.3 Local Geology** for the geology of the area. The pad and surrounding survey boundary are entirely within a medium karst occurrence zone (**Figure 1**) and are located entirely within BLM-CFO managed lands (**Figure 2**).

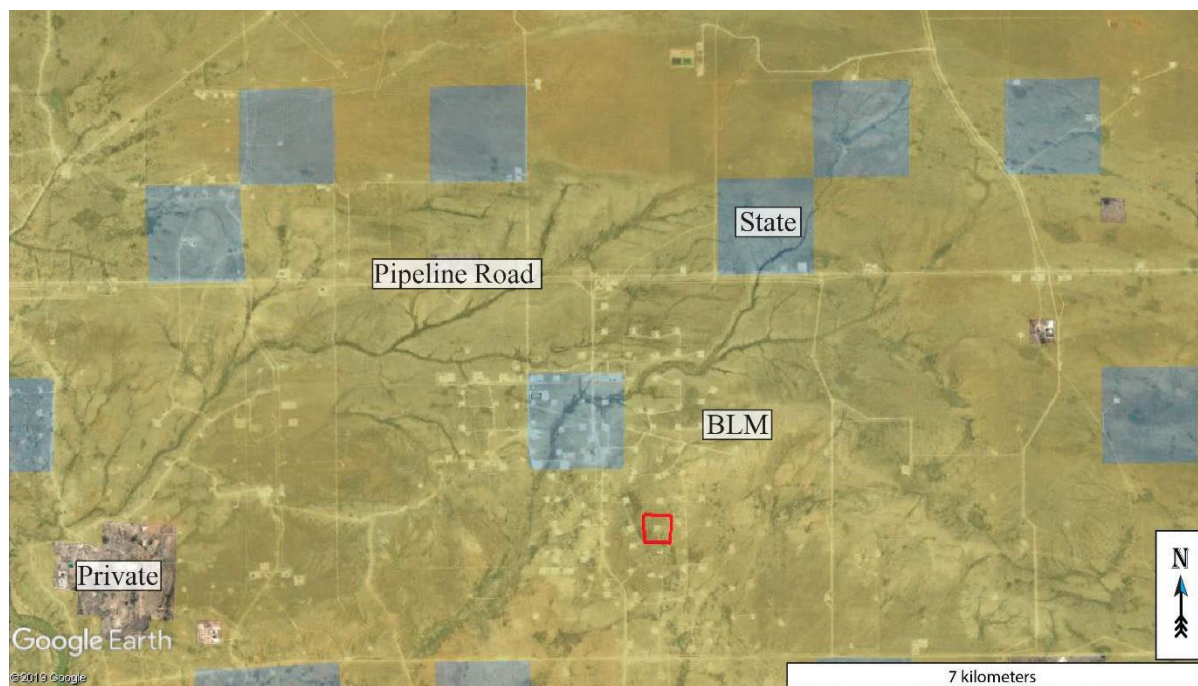


Figure 2: Land ownership overview. Yellow transparent area: BLM-CFO managed land. Blue transparent area: New Mexico State Land Office managed land. No color: Private land. Background image credit: Google Earth. Image date: February 21, 2019. Datum: WGS-84.

2.2 Description of Survey

For this survey 12 lines were walked in a raster pattern at 50-meter (165 feet) intervals in the designated area, providing 90 to 100% coverage for features greater than 50 centimeters (20 inches) in diameter (**Table 1**).

The survey was completed by Garrett Jorgensen on January 31, 2020. The total distance walked was 5.8 kilometers (3.6 miles) and the total area covered was 0.2 square kilometers (51.9 acres).

Table 1: Survey Track Data Files.

File Name	Surveyor	Date	Length (km/miles)	Area (km ² /Ac)
RDXSRV_D1S1.kmz	Jorgensen	01/31/2020	5.81/3.61	0.21/51.9



Figure 3: Survey overview. Light blue wavy lines are the actual survey lines walked. Yellow polygon is the pad site. Red polygon is the 200-meter buffer study area. Background image credit: Google Earth. Image date: February 21, 2019. Datum: WGS-84.

2.3 Local Geology

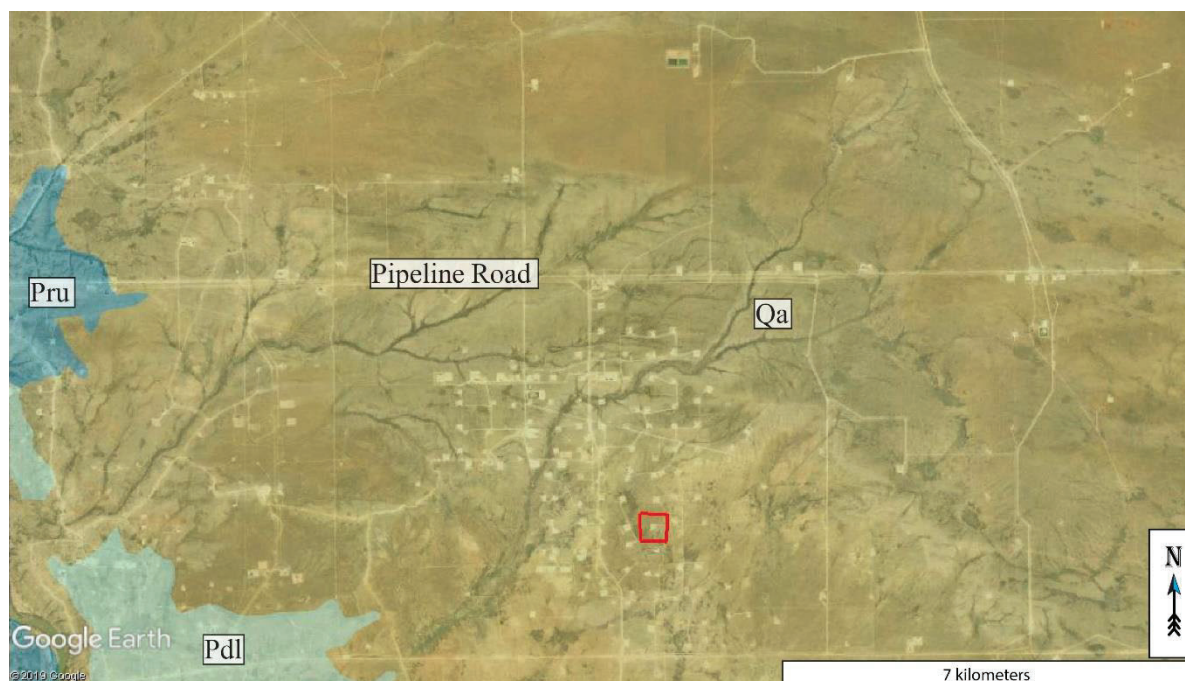


Figure 4: Geology overview. Red polygon highlights the survey area. Pru: Permian Rustler Formation. Pdl: Permian Dewey Lake Formation. Qa: Quaternary units, locally includes both Qg: Quaternary Gatuna Formation and Qs: Quaternary windblown sand. Geologic Map of New Mexico, scale: 1:500,000 (2003), and Google Earth. Image date: February 21, 2019. Datum: WGS-84.

The area surveyed for the RDU 42 project is located at an elevation of 930 meters (3,050 feet), plus or minus 3 meters (9 feet), within the Quaternary Gatuna Formation (Qg – not shown. Within Qa on map) and Quaternary windblown sand (Qs – not shown. Within Qa on map). The Gatuna Formation is a conglomerate composed of calcite cemented limestone and sandstone cobble derived from the Guadalupe Mountains. The large proportion of calcite that makes up the matrix for this formation allows limited karst formation to occur. The entirety of the survey area is underlain by the Permian Dewey Lake Formation (Pdl), which outcrops in the southernmost section of the survey area, and Permian Rustler (Pru) Formation (which does not outcrop within the survey area). The Dewey Lake Formation is composed of calcite cemented, hematite stained quartz sand grains and is not known for forming karst. The Rustler Formation is composed of alternating layers of gypsum and dolomite, both of which are easily dissolved to form karst features^[3, 4]. Two easily accessible geologic maps that cover the survey area are the Geologic Map of New Mexico (2003) at 1:500,000 scale^[2], and the Geologic Atlas of Texas - Hobbs Sheet (1976) at 1:250,000 scale.

2.4 Description of Karst Features

No surface karst features were located within the 200-meter boundary of the pedestrian survey area for the RDU 42 project.

3.0 RECOMMENDATIONS

No surface karst features were located during this survey. Based on the above findings, allowing use of medium karst occurrence zone spill remediation procedures may be considered by the Oil Conservation Division within the 200-meter survey area. Confirmation to use a lower remediation level should be received from the Oil Conservation Division before proceeding.

Vigilance during remediation is paramount. If voids are encountered during trenching or digging contact the New Mexico State Oil Conservation Division if on State land, and the Bureau of Land Management – Carlsbad Field Office at (575) 234-5972 if on BLM land and request an onsite investigation from a karst expert. A karst consultant can generally be onsite in Eddy County within five hours.

4.0 REFERENCES

1. Rybacki, K., *Karst Potential Map*. CFO Basemap, 2019.
2. Scholle, P.A., *Geologic Map of New Mexico*. 2003. (1:500,000).
3. Johnson, K.S., *Evaporite Karst in the United States*. Carbonates and Evaporites, 1997. **12(1)**: p. 2-14.
4. Martinez, J.D., K.S. Johnson, and J.T. Neal, *Sinkholes in Evaporite Rocks*. American Scientist, 1998. **86(1-2)**: p. 38-51.
5. Whitehead, W. and C. Flynn, *Plant Utilization in Southeastern New Mexico: Botany, Ethnobotany, and Archaeology*. 2017, Carlsbad, NM: Bureau of Land Management, Carlsbad Field Office.

5.0 GLOSSARY OF TERMS

BLM	Bureau of Land Management
CFO	Carlsbad Field Office
cave	A natural opening at the surface, large enough for a person to enter.
GPS	Global Positioning System
NMSLO	New Mexico State Land Office
playa lake	A natural depression on the surface that collects rainwater. Some contain swallets and/or caves, others do not.
pseudokarst	Karst-like terrain that forms through processes other than dissolution.
swallet	A natural opening in the surface, too small for a person, that drains water to an aquifer. Some are "open," meaning a void can be seen below; some are "closed," meaning they are full of sediment.
WGS	World Geodetic System



ATTACHMENT 3: LABORATORY ANALYTICAL RESULTS



Analytical Report 654824

**for
LT Environmental, Inc.**

Project Manager: Chris McKisson

RDU 42

034820001

10-MAR-20

Collected By: Client



**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



10-MAR-20

Project Manager: **Chris McKisson**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **654824**

RDU 42

Project Address: Rural Eddy County

Chris McKisson:

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) 654824. 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. 654824 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW01	S	03-05-20 10:10	0.5 - 3.5 ft	654824-001
SW02	S	03-05-20 14:20	0.5 - 4 ft	654824-002
SW03	S	03-05-20 10:22	0.5 - 3 ft	654824-003
SW04	S	03-05-20 10:18	0.5 - 4 ft	654824-004
SW05	S	03-05-20 10:20	0.5 - 4 ft	654824-005
SW06	S	03-05-20 11:57	0.5 - 2 ft	654824-006
SW07	S	03-05-20 16:26	0.5 - 4 ft	654824-007
SW08	S	03-05-20 12:05	0.5 - 2 ft	654824-008
SW09	S	03-05-20 16:27	0.5 - 4 ft	654824-009
FS01	S	03-05-20 10:25	3.5 ft	654824-010
FS02	S	03-05-20 10:30	3.5 - 4.5 ft	654824-011
FS03	S	03-05-20 10:35	2 ft	654824-012
FS04	S	03-05-20 14:30	4 ft	654824-013
FS05	S	03-05-20 10:37	3 ft	654824-014
FS06	S	03-05-20 12:16	2 ft	654824-015
FS07	S	03-05-20 12:18	2 ft	654824-016
FS08	S	03-05-20 14:55	2 ft	654824-017
FS09	S	03-05-20 15:55	2 - 3 ft	654824-018
FS10	S	03-05-20 12:25	2 ft	654824-019
FS11	S	03-05-20 12:27	2 ft	654824-020
FS12	S	03-05-20 16:12	2 - 3 ft	654824-021
FS13	S	03-05-20 16:25	3 - 4 ft	654824-022



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *RDU 42*

Project ID: 034820001

Work Order Number(s): 654824

Report Date: 10-MAR-20

Date Received: 03/06/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3118876 BTEX by EPA 8021B

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

Batch: LBA-3118877 BTEX by EPA 8021B

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



Certificate of Analysis Summary 654824

LT Environmental, Inc., Arvada, CO

Project Name: RDU 42

Project Id: 034820001
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Fri Mar-06-20 12:00 pm
Report Date: 10-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	654824-001	654824-002	654824-003	654824-004	654824-005	654824-006
	Field Id:	SW01	SW02	SW03	SW04	SW05	SW06
	Depth:	0.5-3.5 ft	0.5-4 ft	0.5-3 ft	0.5-4 ft	0.5-4 ft	0.5-2 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Mar-05-20 10:10	Mar-05-20 14:20	Mar-05-20 10:22	Mar-05-20 10:18	Mar-05-20 10:20	Mar-05-20 11:57
BTEX by EPA 8021B	Extracted:	Mar-06-20 15:00	Mar-06-20 15:00	Mar-06-20 15:00	Mar-06-20 15:00	Mar-06-20 15:00	Mar-06-20 15:00
	Analyzed:	Mar-06-20 20:22	Mar-06-20 21:24	Mar-06-20 21:44	Mar-06-20 22:04	Mar-06-20 22:25	Mar-06-20 22:45
	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	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201
	Toluene	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201
Chloride by EPA 300	Extracted:	Mar-06-20 17:30	Mar-06-20 14:06	Mar-06-20 17:30	Mar-06-20 17:30	Mar-06-20 17:30	Mar-06-20 17:30
	Analyzed:	Mar-07-20 05:26	Mar-06-20 14:20	Mar-07-20 06:03	Mar-07-20 06:15	Mar-07-20 06:28	Mar-07-20 06:40
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Chloride	<9.98 9.98	347 9.94	151 9.98	10.1 9.98	<9.96 9.96	<9.88 9.88
	TPH by SW8015 Mod	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 14:00
TPH by SW8015 Mod	Extracted:	Mar-06-20 19:24	Mar-06-20 20:04	Mar-06-20 20:24	Mar-06-20 20:44	Mar-06-20 21:04	Mar-06-20 21:25
	Analyzed:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Units/RL:	<50.3 50.3	<50.2 50.2	<49.8 49.8	<50.2 50.2	<49.8 49.8	<50.2 50.2
	Gasoline Range Hydrocarbons (GRO)	<50.3 50.3	<50.2 50.2	<49.8 49.8	<50.2 50.2	<49.8 49.8	<50.2 50.2
	Diesel Range Organics (DRO)	<50.3 50.3	<50.2 50.2	<49.8 49.8	<50.2 50.2	<49.8 49.8	<50.2 50.2
Motor Oil Range Hydrocarbons (MIRO)	Extracted:	Mar-06-20 19:24	Mar-06-20 20:04	Mar-06-20 20:24	Mar-06-20 20:44	Mar-06-20 21:04	Mar-06-20 21:25
	Analyzed:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Units/RL:	<50.3 50.3	<50.2 50.2	<49.8 49.8	<50.2 50.2	<49.8 49.8	<50.2 50.2
Total GRO-DRO	Extracted:	Mar-06-20 19:24	Mar-06-20 20:04	Mar-06-20 20:24	Mar-06-20 20:44	Mar-06-20 21:04	Mar-06-20 21:25
	Analyzed:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Total TPH	Extracted:	Mar-06-20 19:24	Mar-06-20 20:04	Mar-06-20 20:24	Mar-06-20 20:44	Mar-06-20 21:04	Mar-06-20 21:25
	Analyzed:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 654824

LT Environmental, Inc., Arvada, CO

Project Name: RDU 42

Project Id: 034820001
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Fri Mar-06-20 12:00 pm
Report Date: 10-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	654824-007	654824-008	654824-009	654824-010	654824-011	654824-012
	Field Id:	SW07	SW08	SW09	FS01	FS02	FS03
	Depth:	0.5-4 ft	0.5-2 ft	0.5-4 ft	3.5- ft	3.5-4.5 ft	2- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Mar-05-20 16:26	Mar-05-20 12:05	Mar-05-20 16:27	Mar-05-20 10:25	Mar-05-20 10:30	Mar-05-20 10:35
BTEX by EPA 8021B	Extracted:	Mar-06-20 15:00	Mar-06-20 15:00	Mar-06-20 15:00	Mar-06-20 15:00	Mar-06-20 15:00	Mar-06-20 18:00
	Analyzed:	Mar-06-20 23:05	Mar-06-20 23:26	Mar-06-20 23:46	Mar-07-20 00:07	Mar-07-20 00:27	Mar-07-20 04:00
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Benzene	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201
	Toluene	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201
Chloride by EPA 300	Extracted:	Mar-06-20 17:30	Mar-06-20 17:30	Mar-06-20 17:30	Mar-06-20 17:30	Mar-06-20 17:30	Mar-06-20 17:30
	Analyzed:	Mar-07-20 09:34	Mar-07-20 09:39	Mar-07-20 09:45	Mar-07-20 09:50	Mar-07-20 09:56	Mar-07-20 10:57
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Chloride	160 9.98	213 9.98	117 9.92	<9.88 9.88	31.2 10.0	82.1 9.96
	TPH by SW8015 Mod	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 16:30
TPH by SW8015 Mod	Extracted:	Mar-06-20 21:45	Mar-06-20 22:05	Mar-06-20 22:25	Mar-06-20 22:45	Mar-06-20 23:05	Mar-07-20 01:46
	Analyzed:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Units/RL:	<49.9 49.9	<50.1 50.1	<50.2 50.2	<49.9 49.9	<49.9 49.9	<49.9 49.9
	Gasoline Range Hydrocarbons (GRO)	<49.9 49.9	<50.1 50.1	<50.2 50.2	<49.9 49.9	<49.9 49.9	<49.9 49.9
	Diesel Range Organics (DRO)	<49.9 49.9	<50.1 50.1	<50.2 50.2	<49.9 49.9	<49.9 49.9	<49.9 49.9
Motor Oil Range Hydrocarbons (MIRO)	Extracted:	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 16:30
	Analyzed:	Mar-06-20 21:45	Mar-06-20 22:05	Mar-06-20 22:25	Mar-06-20 22:45	Mar-06-20 23:05	Mar-07-20 01:46
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Total GRO-DRO	Extracted:	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 16:30
	Analyzed:	Mar-06-20 21:45	Mar-06-20 22:05	Mar-06-20 22:25	Mar-06-20 22:45	Mar-06-20 23:05	Mar-07-20 01:46
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Total TPH	Extracted:	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 14:00	Mar-06-20 16:30
	Analyzed:	Mar-06-20 21:45	Mar-06-20 22:05	Mar-06-20 22:25	Mar-06-20 22:45	Mar-06-20 23:05	Mar-07-20 01:46
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 654824

LT Environmental, Inc., Arvada, CO

Project Name: RDU 42

Project Id: 034820001
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Fri Mar-06-20 12:00 pm
Report Date: 10-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	654824-013	654824-014	654824-015	654824-016	654824-017	654824-018
	Field Id:	FS04	FS05	FS06	FS07	FS08	FS09
	Depth:	4- ft	3- ft	2- ft	2- ft	2- ft	2-3 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Mar-05-20 14:30	Mar-05-20 10:37	Mar-05-20 12:16	Mar-05-20 12:18	Mar-05-20 14:55	Mar-05-20 15:55
BTEX by EPA 8021B	Extracted:	Mar-06-20 18:00	Mar-06-20 18:00	Mar-06-20 18:00	Mar-06-20 18:00	Mar-06-20 18:00	Mar-06-20 18:00
	Analyzed:	Mar-07-20 03:39	Mar-07-20 04:20	Mar-07-20 04:41	Mar-07-20 05:01	Mar-07-20 05:21	Mar-07-20 05:42
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
		<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
Chloride by EPA 300	Extracted:	Mar-06-20 17:30	Mar-06-20 17:30	Mar-06-20 14:06	Mar-06-20 17:30	Mar-06-20 17:30	Mar-06-20 17:30
	Analyzed:	Mar-07-20 10:01	Mar-07-20 10:07	Mar-06-20 14:37	Mar-07-20 10:13	Mar-07-20 10:18	Mar-07-20 10:24
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		585 10.1	117 9.94	519 9.98	353 9.98	288 10.0	190 10.0
		Mar-06-20 16:30	Mar-06-20 16:30	Mar-06-20 16:30	Mar-06-20 16:30	Mar-06-20 16:30	Mar-06-20 16:30
TPH by SW8015 Mod	Extracted:	Mar-07-20 00:46	Mar-07-20 02:06	Mar-07-20 02:26	Mar-07-20 02:46	Mar-07-20 03:06	Mar-07-20 03:26
	Analyzed:						
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.1 50.1	<50.1 50.1
		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.1 50.1	<50.1 50.1
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.1 50.1	<50.1 50.1
		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.1 50.1	<50.1 50.1
		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.1 50.1	<50.1 50.1
Diesel Range Organics (DRO)		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.1 50.1	<50.1 50.1
		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.1 50.1	<50.1 50.1
Motor Oil Range Hydrocarbons (MIRO)		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.1 50.1	<50.1 50.1
		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.1 50.1	<50.1 50.1
Total GRO-DRO		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.1 50.1	<50.1 50.1
		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.1 50.1	<50.1 50.1
Total TPH		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.1 50.1	<50.1 50.1
		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.1 50.1	<50.1 50.1

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 654824

LT Environmental, Inc., Arvada, CO

Project Name: RDU 42

Project Id: 034820001
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Fri Mar-06-20 12:00 pm
Report Date: 10-MAR-20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	654824-019	<i>Field Id:</i>	654824-020	<i>Depth:</i>	654824-021	<i>Matrix:</i>	654824-022
	<i>Sampled:</i>	Mar-05-20 12:25	<i>Sampled:</i>	Mar-05-20 12:27	<i>Sampled:</i>	Mar-05-20 16:12	<i>Sampled:</i>	Mar-05-20 16:25
	<i>Extracted:</i>	Mar-06-20 18:00	<i>Extracted:</i>	Mar-06-20 18:00	<i>Extracted:</i>	Mar-06-20 18:00	<i>Extracted:</i>	Mar-06-20 18:00
	<i>Analyzed:</i>	Mar-07-20 06:02	<i>Analyzed:</i>	Mar-07-20 06:23	<i>Analyzed:</i>	Mar-07-20 07:24	<i>Analyzed:</i>	Mar-07-20 07:44
	<i>Units/RL:</i>	mg/kg RL <0.00201 0.00201	<i>Units/RL:</i>	mg/kg RL <0.00201 0.00201	<i>Units/RL:</i>	mg/kg RL <0.00199 0.00199	<i>Units/RL:</i>	mg/kg RL <0.00201 0.00201
Benzene								
Toluene								
Ethylbenzene								
m,p-Xylenes								
o-Xylene								
Xylenes, Total								
Total BTEX								
Chloride by EPA 300								
Chloride	<i>Extracted:</i>	Mar-06-20 17:30	Mar-06-20 17:30	Mar-06-20 17:30	Mar-06-20 17:30	Mar-06-20 17:30	Mar-06-20 17:30	Mar-06-20 17:30
	<i>Analyzed:</i>	Mar-07-20 11:14	Mar-07-20 11:20	Mar-07-20 11:25	Mar-07-20 11:25	Mar-07-20 11:31	Mar-07-20 11:31	Mar-07-20 11:31
	<i>Units/RL:</i>	mg/kg RL 283 9.92	mg/kg RL 270 9.98	mg/kg RL 220 9.92	mg/kg RL 220 9.92	mg/kg RL 285 9.98	mg/kg RL 285 9.98	mg/kg RL 285 9.98
TPH by SW8015 Mod								
TPH	<i>Extracted:</i>	Mar-06-20 16:30	Mar-06-20 16:30	Mar-06-20 16:30	Mar-06-20 16:30	Mar-06-20 16:30	Mar-06-20 16:30	Mar-06-20 16:30
	<i>Analyzed:</i>	Mar-07-20 03:46	Mar-07-20 02:26	Mar-07-20 02:46	Mar-07-20 02:46	Mar-07-20 03:06	Mar-07-20 03:06	Mar-07-20 03:06
	<i>Units/RL:</i>	mg/kg RL <50.0 50.0	mg/kg RL <50.0 50.0	mg/kg RL <50.2 50.2	mg/kg RL <50.2 50.2	mg/kg RL <50.1 50.1	mg/kg RL <50.1 50.1	mg/kg RL <50.1 50.1
Gasoline Range Hydrocarbons (GRO)								
Diesel Range Organics (DRO)								
Motor Oil Range Hydrocarbons (MIRO)								
Total GRO-DRO								
Total TPH								

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **SW01** Matrix: Soil Date Received: 03.06.20 12.00
 Lab Sample Id: 654824-001 Date Collected: 03.05.20 10.10 Sample Depth: 0.5 - 3.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.06.20 17.30 Basis: Wet Weight
 Seq Number: 3118884

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	03.07.20 05.26	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.06.20 14.00 Basis: Wet Weight
 Seq Number: 3118898

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.06.20 19.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	03.06.20 19.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	03.06.20 19.24	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	03.06.20 19.24	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	03.06.20 19.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	03.06.20 19.24	
o-Terphenyl	84-15-1	96	%	70-135	03.06.20 19.24	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **SW01**
 Lab Sample Id: 654824-001

Matrix: Soil
 Date Collected: 03.05.20 10.10

Date Received: 03.06.20 12.00
 Sample Depth: 0.5 - 3.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.06.20 15.00

Basis: Wet Weight

Seq Number: 3118876

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.06.20 20.22	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.06.20 20.22	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.06.20 20.22	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.06.20 20.22	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.06.20 20.22	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.06.20 20.22	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.06.20 20.22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.06.20 20.22		
1,4-Difluorobenzene	540-36-3	113	%	70-130	03.06.20 20.22		



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **SW02**
Lab Sample Id: 654824-002

Matrix: Soil
Date Collected: 03.05.20 14.20

Date Received: 03.06.20 12.00
Sample Depth: 0.5 - 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3118879

Date Prep: 03.06.20 14.06

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	347	9.94	mg/kg	03.06.20 14.20		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3118898

Date Prep: 03.06.20 14.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.06.20 20.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.06.20 20.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.06.20 20.04	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.06.20 20.04	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.06.20 20.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	03.06.20 20.04	
o-Terphenyl	84-15-1	117	%	70-135	03.06.20 20.04	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **SW02**
Lab Sample Id: 654824-002

Matrix: Soil
Date Collected: 03.05.20 14.20

Date Received: 03.06.20 12.00
Sample Depth: 0.5 - 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3118876

Date Prep: 03.06.20 15.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.06.20 21.24	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.06.20 21.24	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.06.20 21.24	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.06.20 21.24	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.06.20 21.24	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.06.20 21.24	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.06.20 21.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	03.06.20 21.24		
4-Bromofluorobenzene	460-00-4	91	%	70-130	03.06.20 21.24		



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **SW03**
 Lab Sample Id: 654824-003

Matrix: Soil
 Date Collected: 03.05.20 10.22

Date Received: 03.06.20 12.00
 Sample Depth: 0.5 - 3 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3118884

Date Prep: 03.06.20 17.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	151	9.98	mg/kg	03.07.20 06.03		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3118898

Date Prep: 03.06.20 14.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.06.20 20.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.06.20 20.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.06.20 20.24	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.06.20 20.24	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.06.20 20.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	03.06.20 20.24	
o-Terphenyl	84-15-1	118	%	70-135	03.06.20 20.24	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **SW03**
Lab Sample Id: 654824-003

Matrix: Soil
Date Collected: 03.05.20 10.22

Date Received: 03.06.20 12.00
Sample Depth: 0.5 - 3 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3118876

Date Prep: 03.06.20 15.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.06.20 21.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.06.20 21.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.06.20 21.44	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.06.20 21.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.06.20 21.44	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.06.20 21.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.06.20 21.44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	113	%	70-130	03.06.20 21.44		
4-Bromofluorobenzene	460-00-4	89	%	70-130	03.06.20 21.44		



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **SW04**
Lab Sample Id: 654824-004

Matrix: Soil
Date Collected: 03.05.20 10.18

Date Received: 03.06.20 12.00
Sample Depth: 0.5 - 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3118884

Date Prep: 03.06.20 17.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.1	9.98	mg/kg	03.07.20 06.15		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3118898

Date Prep: 03.06.20 14.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.06.20 20.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.06.20 20.44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.06.20 20.44	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.06.20 20.44	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.06.20 20.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.06.20 20.44	
o-Terphenyl	84-15-1	109	%	70-135	03.06.20 20.44	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **SW04**
Lab Sample Id: 654824-004

Matrix: Soil
Date Collected: 03.05.20 10.18

Date Received: 03.06.20 12.00
Sample Depth: 0.5 - 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3118876

Date Prep: 03.06.20 15.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.06.20 22.04	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.06.20 22.04	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.06.20 22.04	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.06.20 22.04	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.06.20 22.04	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.06.20 22.04	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.06.20 22.04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	70-130	03.06.20 22.04		
1,4-Difluorobenzene	540-36-3	113	%	70-130	03.06.20 22.04		



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **SW05** Matrix: Soil Date Received: 03.06.20 12.00
 Lab Sample Id: 654824-005 Date Collected: 03.05.20 10.20 Sample Depth: 0.5 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.06.20 17.30 Basis: Wet Weight
 Seq Number: 3118884

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.96	9.96	mg/kg	03.07.20 06.28	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.06.20 14.00 Basis: Wet Weight
 Seq Number: 3118898

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.06.20 21.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.06.20 21.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.06.20 21.04	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.06.20 21.04	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.06.20 21.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	03.06.20 21.04	
o-Terphenyl	84-15-1	125	%	70-135	03.06.20 21.04	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **SW05**
Lab Sample Id: 654824-005

Matrix: Soil
Date Collected: 03.05.20 10.20

Date Received: 03.06.20 12.00
Sample Depth: 0.5 - 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3118876

Date Prep: 03.06.20 15.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.06.20 22.25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.06.20 22.25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.06.20 22.25	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.06.20 22.25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.06.20 22.25	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.06.20 22.25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.06.20 22.25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	70-130	03.06.20 22.25		
1,4-Difluorobenzene	540-36-3	112	%	70-130	03.06.20 22.25		



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **SW06**
Lab Sample Id: 654824-006

Matrix: Soil
Date Collected: 03.05.20 11.57

Date Received: 03.06.20 12.00
Sample Depth: 0.5 - 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3118884

Date Prep: 03.06.20 17.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.88	9.88	mg/kg	03.07.20 06.40	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3118898

Date Prep: 03.06.20 14.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.06.20 21.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.06.20 21.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.06.20 21.25	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.06.20 21.25	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.06.20 21.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	03.06.20 21.25	
o-Terphenyl	84-15-1	110	%	70-135	03.06.20 21.25	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **SW06**
 Lab Sample Id: 654824-006

Matrix: Soil
 Date Collected: 03.05.20 11.57

Date Received: 03.06.20 12.00
 Sample Depth: 0.5 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.06.20 15.00

Basis: Wet Weight

Seq Number: 3118876

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.06.20 22.45	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.06.20 22.45	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.06.20 22.45	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.06.20 22.45	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.06.20 22.45	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.06.20 22.45	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.06.20 22.45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.06.20 22.45		
1,4-Difluorobenzene	540-36-3	113	%	70-130	03.06.20 22.45		



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **SW07**
Lab Sample Id: 654824-007

Matrix: Soil
Date Collected: 03.05.20 16.26

Date Received: 03.06.20 12.00
Sample Depth: 0.5 - 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3118884

Date Prep: 03.06.20 17.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	160	9.98	mg/kg	03.07.20 09.34		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3118898

Date Prep: 03.06.20 14.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.06.20 21.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.06.20 21.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.06.20 21.45	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	03.06.20 21.45	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.06.20 21.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	03.06.20 21.45	
o-Terphenyl	84-15-1	101	%	70-135	03.06.20 21.45	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **SW07**
 Lab Sample Id: 654824-007

Matrix: Soil
 Date Collected: 03.05.20 16.26

Date Received: 03.06.20 12.00
 Sample Depth: 0.5 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.06.20 15.00

Basis: Wet Weight

Seq Number: 3118876

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.06.20 23.05	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.06.20 23.05	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.06.20 23.05	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.06.20 23.05	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.06.20 23.05	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.06.20 23.05	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.06.20 23.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	03.06.20 23.05		
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.06.20 23.05		



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **SW08**
Lab Sample Id: 654824-008

Matrix: Soil
Date Collected: 03.05.20 12.05

Date Received: 03.06.20 12.00
Sample Depth: 0.5 - 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3118884

Date Prep: 03.06.20 17.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	213	9.98	mg/kg	03.07.20 09.39		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3118898

Date Prep: 03.06.20 14.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.06.20 22.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.06.20 22.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.06.20 22.05	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.06.20 22.05	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.06.20 22.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	03.06.20 22.05	
o-Terphenyl	84-15-1	119	%	70-135	03.06.20 22.05	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **SW08**
Lab Sample Id: 654824-008

Matrix: Soil
Date Collected: 03.05.20 12.05

Date Received: 03.06.20 12.00
Sample Depth: 0.5 - 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3118876

Date Prep: 03.06.20 15.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.06.20 23.26	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.06.20 23.26	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.06.20 23.26	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.06.20 23.26	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.06.20 23.26	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.06.20 23.26	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.06.20 23.26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	03.06.20 23.26		
4-Bromofluorobenzene	460-00-4	89	%	70-130	03.06.20 23.26		



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **SW09**
Lab Sample Id: 654824-009

Matrix: Soil
Date Collected: 03.05.20 16.27

Date Received: 03.06.20 12.00
Sample Depth: 0.5 - 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3118884

Date Prep: 03.06.20 17.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	117	9.92	mg/kg	03.07.20 09.45		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3118898

Date Prep: 03.06.20 14.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.06.20 22.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.06.20 22.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.06.20 22.25	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.06.20 22.25	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.06.20 22.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	03.06.20 22.25	
o-Terphenyl	84-15-1	117	%	70-135	03.06.20 22.25	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **SW09**
Lab Sample Id: 654824-009

Matrix: Soil
Date Collected: 03.05.20 16.27

Date Received: 03.06.20 12.00
Sample Depth: 0.5 - 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3118876

Date Prep: 03.06.20 15.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.06.20 23.46	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.06.20 23.46	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.06.20 23.46	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.06.20 23.46	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.06.20 23.46	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.06.20 23.46	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.06.20 23.46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	113	%	70-130	03.06.20 23.46		
4-Bromofluorobenzene	460-00-4	91	%	70-130	03.06.20 23.46		



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS01**
Lab Sample Id: 654824-010

Matrix: Soil
Date Collected: 03.05.20 10.25

Date Received: 03.06.20 12.00
Sample Depth: 3.5 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3118884

Date Prep: 03.06.20 17.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.88	9.88	mg/kg	03.07.20 09.50	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3118898

Date Prep: 03.06.20 14.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.06.20 22.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.06.20 22.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.06.20 22.45	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	03.06.20 22.45	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.06.20 22.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	03.06.20 22.45	
o-Terphenyl	84-15-1	122	%	70-135	03.06.20 22.45	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS01**
 Lab Sample Id: 654824-010

Matrix: Soil
 Date Collected: 03.05.20 10.25

Date Received: 03.06.20 12.00
 Sample Depth: 3.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.06.20 15.00

Basis: Wet Weight

Seq Number: 3118876

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.07.20 00.07	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.07.20 00.07	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.07.20 00.07	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.07.20 00.07	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.07.20 00.07	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.07.20 00.07	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.07.20 00.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	113	%	70-130	03.07.20 00.07		
4-Bromofluorobenzene	460-00-4	91	%	70-130	03.07.20 00.07		



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS02** Matrix: Soil Date Received: 03.06.20 12.00
 Lab Sample Id: 654824-011 Date Collected: 03.05.20 10.30 Sample Depth: 3.5 - 4.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.06.20 17.30 Basis: Wet Weight
 Seq Number: 3118884

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.2	10.0	mg/kg	03.07.20 09.56		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.06.20 14.00 Basis: Wet Weight
 Seq Number: 3118898

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.06.20 23.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.06.20 23.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.06.20 23.05	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	03.06.20 23.05	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.06.20 23.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	03.06.20 23.05	
o-Terphenyl	84-15-1	123	%	70-135	03.06.20 23.05	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS02**
Lab Sample Id: 654824-011

Matrix: Soil
Date Collected: 03.05.20 10.30

Date Received: 03.06.20 12.00
Sample Depth: 3.5 - 4.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3118876

Date Prep: 03.06.20 15.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.07.20 00.27	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.07.20 00.27	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.07.20 00.27	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	03.07.20 00.27	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.07.20 00.27	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.07.20 00.27	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.07.20 00.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.07.20 00.27		
1,4-Difluorobenzene	540-36-3	95	%	70-130	03.07.20 00.27		



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS03** Matrix: Soil Date Received: 03.06.20 12.00
 Lab Sample Id: 654824-012 Date Collected: 03.05.20 10.35 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.06.20 17.30 Basis: Wet Weight
 Seq Number: 3118887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	82.1	9.96	mg/kg	03.07.20 10.57		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.06.20 16.30 Basis: Wet Weight
 Seq Number: 3118902

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.07.20 01.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	75.0	49.9	mg/kg	03.07.20 01.46		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.07.20 01.46	U	1
Total GRO-DRO	PHC628	75.0	49.9	mg/kg	03.07.20 01.46		1
Total TPH	PHC635	75.0	49.9	mg/kg	03.07.20 01.46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	03.07.20 01.46	
o-Terphenyl	84-15-1	100	%	70-135	03.07.20 01.46	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS03**
 Lab Sample Id: 654824-012

Matrix: Soil
 Date Collected: 03.05.20 10.35

Date Received: 03.06.20 12.00
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.06.20 18.00

Basis: Wet Weight

Seq Number: 3118877

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.07.20 04.00	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.07.20 04.00	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.07.20 04.00	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.07.20 04.00	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.07.20 04.00	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.07.20 04.00	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.07.20 04.00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	03.07.20 04.00		
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.07.20 04.00		



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS04**
Lab Sample Id: 654824-013

Matrix: Soil
Date Collected: 03.05.20 14.30

Date Received: 03.06.20 12.00
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3118884

Date Prep: 03.06.20 17.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	585	10.1	mg/kg	03.07.20 10.01		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3118902

Date Prep: 03.06.20 16.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.07.20 00.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.07.20 00.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.07.20 00.46	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	03.07.20 00.46	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.07.20 00.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	03.07.20 00.46	
o-Terphenyl	84-15-1	102	%	70-135	03.07.20 00.46	



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS04**
Lab Sample Id: 654824-013

Matrix: Soil
Date Collected: 03.05.20 14.30

Date Received: 03.06.20 12.00
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.06.20 18.00

Basis: Wet Weight

Seq Number: 3118877

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.07.20 03.39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.07.20 03.39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.07.20 03.39	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.07.20 03.39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.07.20 03.39	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.07.20 03.39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.07.20 03.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.07.20 03.39		
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.07.20 03.39		



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS05**
Lab Sample Id: 654824-014

Matrix: Soil
Date Collected: 03.05.20 10.37

Date Received: 03.06.20 12.00
Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3118884

Date Prep: 03.06.20 17.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	117	9.94	mg/kg	03.07.20 10.07		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3118902

Date Prep: 03.06.20 16.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.07.20 02.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.07.20 02.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.07.20 02.06	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	03.07.20 02.06	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.07.20 02.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	03.07.20 02.06	
o-Terphenyl	84-15-1	103	%	70-135	03.07.20 02.06	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS05**
Lab Sample Id: 654824-014

Matrix: Soil
Date Collected: 03.05.20 10.37

Date Received: 03.06.20 12.00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.06.20 18.00

Basis: Wet Weight

Seq Number: 3118877

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.07.20 04.20	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.07.20 04.20	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.07.20 04.20	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.07.20 04.20	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.07.20 04.20	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.07.20 04.20	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.07.20 04.20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	03.07.20 04.20		
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.07.20 04.20		



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS06**
Lab Sample Id: 654824-015

Matrix: Soil
Date Collected: 03.05.20 12.16

Date Received: 03.06.20 12.00
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3118879

Date Prep: 03.06.20 14.06

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	519	9.98	mg/kg	03.06.20 14.37		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3118902

Date Prep: 03.06.20 16.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.07.20 02.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.07.20 02.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.07.20 02.26	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	03.07.20 02.26	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.07.20 02.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	03.07.20 02.26	
o-Terphenyl	84-15-1	100	%	70-135	03.07.20 02.26	



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS06**
Lab Sample Id: 654824-015

Matrix: Soil
Date Collected: 03.05.20 12.16

Date Received: 03.06.20 12.00
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.06.20 18.00

Basis: Wet Weight

Seq Number: 3118877

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.07.20 04.41	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.07.20 04.41	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.07.20 04.41	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.07.20 04.41	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.07.20 04.41	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.07.20 04.41	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.07.20 04.41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	03.07.20 04.41		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.07.20 04.41		



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS07** Matrix: Soil Date Received: 03.06.20 12.00
 Lab Sample Id: 654824-016 Date Collected: 03.05.20 12.18 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.06.20 17.30 Basis: Wet Weight
 Seq Number: 3118884

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	353	9.98	mg/kg	03.07.20 10.13		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.06.20 16.30 Basis: Wet Weight
 Seq Number: 3118902

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.07.20 02.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.07.20 02.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.07.20 02.46	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	03.07.20 02.46	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.07.20 02.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	03.07.20 02.46	
o-Terphenyl	84-15-1	100	%	70-135	03.07.20 02.46	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS07**
Lab Sample Id: 654824-016

Matrix: Soil
Date Collected: 03.05.20 12.18

Date Received: 03.06.20 12.00
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.06.20 18.00

Basis: Wet Weight

Seq Number: 3118877

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.07.20 05.01	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.07.20 05.01	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.07.20 05.01	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.07.20 05.01	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.07.20 05.01	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.07.20 05.01	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.07.20 05.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.07.20 05.01		
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.07.20 05.01		



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS08**
 Lab Sample Id: 654824-017

Matrix: Soil
 Date Collected: 03.05.20 14.55

Date Received: 03.06.20 12.00
 Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3118884

Date Prep: 03.06.20 17.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	288	10.0	mg/kg	03.07.20 10.18		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3118902

Date Prep: 03.06.20 16.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.07.20 03.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.07.20 03.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.07.20 03.06	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.07.20 03.06	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.07.20 03.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	03.07.20 03.06	
o-Terphenyl	84-15-1	103	%	70-135	03.07.20 03.06	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS08**
Lab Sample Id: 654824-017

Matrix: Soil
Date Collected: 03.05.20 14.55

Date Received: 03.06.20 12.00
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.06.20 18.00

Basis: Wet Weight

Seq Number: 3118877

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.07.20 05.21	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.07.20 05.21	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.07.20 05.21	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	03.07.20 05.21	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.07.20 05.21	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.07.20 05.21	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.07.20 05.21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	03.07.20 05.21		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.07.20 05.21		



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS09**
 Lab Sample Id: 654824-018

Matrix: Soil
 Date Collected: 03.05.20 15.55

Date Received: 03.06.20 12.00
 Sample Depth: 2 - 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.06.20 17.30

Basis: Wet Weight

Seq Number: 3118884

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	190	10.0	mg/kg	03.07.20 10.24		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 03.06.20 16.30

Basis: Wet Weight

Seq Number: 3118902

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.07.20 03.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.07.20 03.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.07.20 03.26	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.07.20 03.26	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.07.20 03.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	03.07.20 03.26	
o-Terphenyl	84-15-1	103	%	70-135	03.07.20 03.26	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS09**
Lab Sample Id: 654824-018

Matrix: Soil
Date Collected: 03.05.20 15.55

Date Received: 03.06.20 12.00
Sample Depth: 2 - 3 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3118877

Date Prep: 03.06.20 18.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.07.20 05.42	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.07.20 05.42	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.07.20 05.42	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	03.07.20 05.42	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.07.20 05.42	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.07.20 05.42	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.07.20 05.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.07.20 05.42		
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.07.20 05.42		



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS10** Matrix: Soil Date Received: 03.06.20 12.00
 Lab Sample Id: 654824-019 Date Collected: 03.05.20 12.25 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.06.20 17.30 Basis: Wet Weight
 Seq Number: 3118887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	283	9.92	mg/kg	03.07.20 11.14		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.06.20 16.30 Basis: Wet Weight
 Seq Number: 3118902

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.07.20 03.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.07.20 03.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.07.20 03.46	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	03.07.20 03.46	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.07.20 03.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	03.07.20 03.46	
o-Terphenyl	84-15-1	100	%	70-135	03.07.20 03.46	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS10**
Lab Sample Id: 654824-019

Matrix: Soil
Date Collected: 03.05.20 12.25

Date Received: 03.06.20 12.00
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.06.20 18.00

Basis: Wet Weight

Seq Number: 3118877

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.07.20 06.02	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.07.20 06.02	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.07.20 06.02	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.07.20 06.02	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.07.20 06.02	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.07.20 06.02	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.07.20 06.02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.07.20 06.02		
4-Bromofluorobenzene	460-00-4	98	%	70-130	03.07.20 06.02		



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS11** Matrix: Soil Date Received: 03.06.20 12.00
 Lab Sample Id: 654824-020 Date Collected: 03.05.20 12.27 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.06.20 17.30 Basis: Wet Weight
 Seq Number: 3118887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	270	9.98	mg/kg	03.07.20 11.20		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.06.20 16.30 Basis: Wet Weight
 Seq Number: 3118904

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.07.20 02.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.07.20 02.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.07.20 02.26	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	03.07.20 02.26	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.07.20 02.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	03.07.20 02.26	
o-Terphenyl	84-15-1	122	%	70-135	03.07.20 02.26	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS11**
Lab Sample Id: 654824-020

Matrix: Soil
Date Collected: 03.05.20 12.27

Date Received: 03.06.20 12.00
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3118877

Date Prep: 03.06.20 18.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.07.20 06.23	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.07.20 06.23	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.07.20 06.23	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.07.20 06.23	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.07.20 06.23	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.07.20 06.23	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.07.20 06.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.07.20 06.23		
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.07.20 06.23		



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS12** Matrix: Soil Date Received: 03.06.20 12.00
 Lab Sample Id: 654824-021 Date Collected: 03.05.20 16.12 Sample Depth: 2 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.06.20 17.30 Basis: Wet Weight
 Seq Number: 3118887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	220	9.92	mg/kg	03.07.20 11.25		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.06.20 16.30 Basis: Wet Weight
 Seq Number: 3118904

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.07.20 02.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.07.20 02.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.07.20 02.46	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.07.20 02.46	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.07.20 02.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	03.07.20 02.46	
o-Terphenyl	84-15-1	117	%	70-135	03.07.20 02.46	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS12**
Lab Sample Id: 654824-021

Matrix: Soil
Date Collected: 03.05.20 16.12

Date Received: 03.06.20 12.00
Sample Depth: 2 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.06.20 18.00

Basis: Wet Weight

Seq Number: 3118877

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.07.20 07.24	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.07.20 07.24	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.07.20 07.24	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.07.20 07.24	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.07.20 07.24	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.07.20 07.24	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.07.20 07.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.07.20 07.24		
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.07.20 07.24		



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS13** Matrix: Soil Date Received: 03.06.20 12.00
 Lab Sample Id: 654824-022 Date Collected: 03.05.20 16.25 Sample Depth: 3 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.06.20 17.30 Basis: Wet Weight
 Seq Number: 3118887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	285	9.98	mg/kg	03.07.20 11.31		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.06.20 16.30 Basis: Wet Weight
 Seq Number: 3118904

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.07.20 03.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.07.20 03.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.07.20 03.06	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.07.20 03.06	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.07.20 03.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	03.07.20 03.06	
o-Terphenyl	84-15-1	103	%	70-135	03.07.20 03.06	



Certificate of Analytical Results 654824

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS13**
Lab Sample Id: 654824-022

Matrix: Soil
Date Collected: 03.05.20 16.25

Date Received: 03.06.20 12.00
Sample Depth: 3 - 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3118877

Date Prep: 03.06.20 18.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.07.20 07.44	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.07.20 07.44	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.07.20 07.44	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.07.20 07.44	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.07.20 07.44	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.07.20 07.44	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.07.20 07.44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	03.07.20 07.44		
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.07.20 07.44		



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **SQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

RDU 42

Analytical Method: Chloride by EPA 300

Seq Number: 3118879

MB Sample Id: 7698303-1-BLK

Matrix: Solid

LCS Sample Id: 7698303-1-BKS

Prep Method: E300P

Date Prep: 03.06.20

LCSD Sample Id: 7698303-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	264	106	265	106	90-110	0	20	mg/kg	03.06.20 14:09	

Analytical Method: Chloride by EPA 300

Seq Number: 3118884

MB Sample Id: 7698327-1-BLK

Matrix: Solid

LCS Sample Id: 7698327-1-BKS

Prep Method: E300P

Date Prep: 03.06.20

LCSD Sample Id: 7698327-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	265	106	268	107	90-110	1	20	mg/kg	03.07.20 03:12	

Analytical Method: Chloride by EPA 300

Seq Number: 3118887

MB Sample Id: 7698328-1-BLK

Matrix: Solid

LCS Sample Id: 7698328-1-BKS

Prep Method: E300P

Date Prep: 03.06.20

LCSD Sample Id: 7698328-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	263	105	262	105	90-110	0	20	mg/kg	03.07.20 10:46	

Analytical Method: Chloride by EPA 300

Seq Number: 3118879

Parent Sample Id: 654823-002

Matrix: Soil

MS Sample Id: 654823-002 S

Prep Method: E300P

Date Prep: 03.06.20

MSD Sample Id: 654823-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	272	198	483	107	484	107	90-110	0	20	mg/kg	03.06.20 15:44	

Analytical Method: Chloride by EPA 300

Seq Number: 3118879

Parent Sample Id: 654824-002

Matrix: Soil

MS Sample Id: 654824-002 S

Prep Method: E300P

Date Prep: 03.06.20

MSD Sample Id: 654824-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	347	199	557	106	557	106	90-110	0	20	mg/kg	03.06.20 14:25	

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

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

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

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



LT Environmental, Inc.

RDU 42

Analytical Method: Chloride by EPA 300

Seq Number: 3118884

Parent Sample Id: 654824-001

Matrix: Soil

MS Sample Id: 654824-001 S

Prep Method: E300P

Date Prep: 03.06.20

MSD Sample Id: 654824-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	200	215	108	219	110	90-110	2	20	mg/kg	03.07.20 05:39	

Analytical Method: Chloride by EPA 300

Seq Number: 3118884

Parent Sample Id: 654839-008

Matrix: Soil

MS Sample Id: 654839-008 S

Prep Method: E300P

Date Prep: 03.06.20

MSD Sample Id: 654839-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	361	200	576	108	574	107	90-110	0	20	mg/kg	03.07.20 03:48	

Analytical Method: Chloride by EPA 300

Seq Number: 3118887

Parent Sample Id: 654824-012

Matrix: Soil

MS Sample Id: 654824-012 S

Prep Method: E300P

Date Prep: 03.06.20

MSD Sample Id: 654824-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	82.1	201	302	109	293	106	90-110	3	20	mg/kg	03.07.20 11:03	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3118898

MB Sample Id: 7698292-1-BLK

Matrix: Solid

LCS Sample Id: 7698292-1-BKS

Prep Method: SW8015P

Date Prep: 03.06.20

LCSD Sample Id: 7698292-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	805	81	816	82	70-135	1	35	mg/kg	03.06.20 12:30	
Diesel Range Organics (DRO)	<50.0	1000	791	79	794	79	70-135	0	35	mg/kg	03.06.20 12:30	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	85		92		93		70-135	%	03.06.20 12:30
o-Terphenyl	96		98		98		70-135	%	03.06.20 12:30

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

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

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

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



LT Environmental, Inc.

RDU 42

Analytical Method: TPH by SW8015 Mod

Seq Number: 3118902

MB Sample Id: 7698361-1-BLK

Matrix: Solid

LCS Sample Id: 7698361-1-BKS

Prep Method: SW8015P

Date Prep: 03.06.20

LCSD Sample Id: 7698361-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	938	94	945	95	70-135	1	35	mg/kg	03.07.20 00:05	
Diesel Range Organics (DRO)	<50.0	1000	843	84	844	84	70-135	0	35	mg/kg	03.07.20 00:05	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date	Flag		
1-Chlorooctane	95		118		118		70-135	%	03.07.20 00:05			
o-Terphenyl	98		102		101		70-135	%	03.07.20 00:05			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3118904

MB Sample Id: 7698364-1-BLK

Matrix: Solid

LCS Sample Id: 7698364-1-BKS

Prep Method: SW8015P

Date Prep: 03.06.20

LCSD Sample Id: 7698364-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	793	79	785	79	70-135	1	35	mg/kg	03.07.20 00:05	
Diesel Range Organics (DRO)	<50.0	1000	771	77	754	75	70-135	2	35	mg/kg	03.07.20 00:05	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date	Flag		
1-Chlorooctane	81		91		90		70-135	%	03.07.20 00:05			
o-Terphenyl	91		98		95		70-135	%	03.07.20 00:05			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3118898

Matrix: Solid

MB Sample Id: 7698292-1-BLK

Prep Method: SW8015P

Date Prep: 03.06.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.06.20 12:10	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3118902

Matrix: Solid

MB Sample Id: 7698361-1-BLK

Prep Method: SW8015P

Date Prep: 03.06.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.06.20 23:45	

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

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

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

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



LT Environmental, Inc.

RDU 42

Analytical Method: TPH by SW8015 Mod

Seq Number: 3118904

Matrix: Solid

Prep Method: SW8015P

Date Prep: 03.06.20

MB Sample Id: 7698364-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.06.20 23:45	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3118898

Matrix: Soil

Prep Method: SW8015P

Date Prep: 03.06.20

Parent Sample Id: 654844-002

MS Sample Id: 654844-002 S

MSD Sample Id: 654844-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	947	94	988	99	70-135	4	35	mg/kg	03.07.20 05:45	
Diesel Range Organics (DRO)	<50.3	1010	912	90	952	95	70-135	4	35	mg/kg	03.07.20 05:45	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		113		70-135	%	03.07.20 05:45
o-Terphenyl	117		121		70-135	%	03.07.20 05:45

Analytical Method: TPH by SW8015 Mod

Seq Number: 3118902

Matrix: Soil

Prep Method: SW8015P

Date Prep: 03.06.20

Parent Sample Id: 654824-013

MS Sample Id: 654824-013 S

MSD Sample Id: 654824-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	973	97	1010	102	70-135	4	35	mg/kg	03.07.20 01:06	
Diesel Range Organics (DRO)	<50.0	999	880	88	919	92	70-135	4	35	mg/kg	03.07.20 01:06	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		129		70-135	%	03.07.20 01:06
o-Terphenyl	109		112		70-135	%	03.07.20 01:06

Analytical Method: TPH by SW8015 Mod

Seq Number: 3118904

Matrix: Soil

Prep Method: SW8015P

Date Prep: 03.06.20

Parent Sample Id: 654839-008

MS Sample Id: 654839-008 S

MSD Sample Id: 654839-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1050	105	1070	107	70-135	2	35	mg/kg	03.07.20 01:06	
Diesel Range Organics (DRO)	<50.2	1000	1000	100	1030	103	70-135	3	35	mg/kg	03.07.20 01:06	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		123		70-135	%	03.07.20 01:06
o-Terphenyl	131		133		70-135	%	03.07.20 01:06

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

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

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

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



LT Environmental, Inc.

RDU 42

Analytical Method: BTEX by EPA 8021B

Seq Number: 3118876

MB Sample Id: 7698330-1-BLK

Matrix: Solid

LCS Sample Id: 7698330-1-BKS

Prep Method: SW5030B

Date Prep: 03.06.20

LCSD Sample Id: 7698330-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.123	123	0.121	121	70-130	2	35	mg/kg	03.06.20 15:37	
Toluene	<0.00200	0.100	0.113	113	0.120	120	70-130	6	35	mg/kg	03.06.20 15:37	
Ethylbenzene	<0.00200	0.100	0.107	107	0.114	114	71-129	6	35	mg/kg	03.06.20 15:37	
m,p-Xylenes	<0.00400	0.200	0.208	104	0.223	112	70-135	7	35	mg/kg	03.06.20 15:37	
o-Xylene	<0.00200	0.100	0.105	105	0.113	113	71-133	7	35	mg/kg	03.06.20 15:37	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	113		111		111		70-130	%	03.06.20 15:37
4-Bromofluorobenzene	93		90		91		70-130	%	03.06.20 15:37

Analytical Method: BTEX by EPA 8021B

Seq Number: 3118877

MB Sample Id: 7698331-1-BLK

Matrix: Solid

LCS Sample Id: 7698331-1-BKS

Prep Method: SW5030B

Date Prep: 03.06.20

LCSD Sample Id: 7698331-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.112	112	0.113	113	70-130	1	35	mg/kg	03.07.20 01:57	
Toluene	<0.00200	0.100	0.107	107	0.108	108	70-130	1	35	mg/kg	03.07.20 01:57	
Ethylbenzene	<0.00200	0.100	0.101	101	0.102	102	71-129	1	35	mg/kg	03.07.20 01:57	
m,p-Xylenes	<0.00400	0.200	0.207	104	0.208	104	70-135	0	35	mg/kg	03.07.20 01:57	
o-Xylene	<0.00200	0.100	0.105	105	0.105	105	71-133	0	35	mg/kg	03.07.20 01:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		107		108		70-130	%	03.07.20 01:57
4-Bromofluorobenzene	93		93		91		70-130	%	03.07.20 01:57

Analytical Method: BTEX by EPA 8021B

Seq Number: 3118876

Parent Sample Id: 654844-002

Matrix: Soil

MS Sample Id: 654844-002 S

Prep Method: SW5030B

Date Prep: 03.06.20

MSD Sample Id: 654844-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.108	108	0.110	110	70-130	2	35	mg/kg	03.07.20 05:13	
Toluene	<0.00200	0.0998	0.0983	98	0.0999	100	70-130	2	35	mg/kg	03.07.20 05:13	
Ethylbenzene	<0.00200	0.0998	0.0928	93	0.0945	95	71-129	2	35	mg/kg	03.07.20 05:13	
m,p-Xylenes	<0.00399	0.200	0.181	91	0.184	92	70-135	2	35	mg/kg	03.07.20 05:13	
o-Xylene	<0.00200	0.0998	0.0924	93	0.0940	94	71-133	2	35	mg/kg	03.07.20 05:13	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		111		70-130	%	03.07.20 05:13
4-Bromofluorobenzene	90		91		70-130	%	03.07.20 05:13

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

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

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

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



LT Environmental, Inc.

RDU 42

Analytical Method: BTEX by EPA 8021B

Seq Number: 3118877

Parent Sample Id: 654824-013

Matrix: Soil

MS Sample Id: 654824-013 S

Prep Method: SW5030B

Date Prep: 03.06.20

MSD Sample Id: 654824-013 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	0.0978	97	0.0903	90	70-130	8	35	mg/kg	03.07.20 02:38	
Toluene	<0.00202	0.101	0.0969	96	0.0916	92	70-130	6	35	mg/kg	03.07.20 02:38	
Ethylbenzene	<0.00202	0.101	0.0939	93	0.0873	87	71-129	7	35	mg/kg	03.07.20 02:38	
m,p-Xylenes	<0.00403	0.202	0.199	99	0.182	91	70-135	9	35	mg/kg	03.07.20 02:38	
o-Xylene	<0.00202	0.101	0.101	100	0.0947	95	71-133	6	35	mg/kg	03.07.20 02:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		104		70-130	%	03.07.20 02:38
4-Bromofluorobenzene	94		91		70-130	%	03.07.20 02:38

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

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

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

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



Chain of Custody

Work Order No: 1654824

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 Crashpad, NM (432) 704-5440

Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager:	Chris Mekissom	Bill to: (if different)	→
Company Name:	LT Environmental	Company Name:	→
Address:	820 Megan Ave, Unit B	Address:	
City, State ZIP:	Rifle, CO 81656	City, State ZIP:	
Phone:	970 285 9985	Email:	cmekissom@ltenv.com

Program: ☐ UST/ST ☐ PRP ☐ Brownfields ☐ RCRA Superfund ☐ State of Project:	
Reporting Level: ☐ I ☐ II ☐ III ☐ PST/UST ☐ TRRP ☐ Level IV ☐	Deliverables: EDD ☐ ADAPT ☐ Other:

Project Name:		RDV 42		Turn Around		Pres. Code	
Project Number:		034820001		Routine		☒	
Project Location:		Rural Eddy County		Rush:			
Sampler's Name:		Anna Byers		Due Date:			
PO #: 1-6-20		Date		Quote #:			

SAMPLE RECEIPT		Temp Blank:	Yes ☒ No ☐	Wet Ice:	Yes ☒ No ☐
Temperature (°C):		0.0			
Received Intact:		Yes ☒ No ☐			
Cooler Custody Seals:		Yes ☒ No ☐			
Sample Custody Seals:		Yes ☒ No ☐			
Correction Factor:		T-244-204			
Total Containers:		24			

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes
SW01		S	3/5/20	1010	0.5-3.5'	1	TPH (EPA 8015)	MeOH: Me
SW02		S		1420	0.5-4'	1	BTEX (EPA 8021)	None: NO
SW03		S		1022	0.5-3'	1	Chloride (EPA 300.0)	HNO3: HN
SW04		S		1018	0.5-4'	1		H2SO4: H2
SW05		S		1020	0.5-4'	1		HCL: HL
SW06		S		1157	0.5-2'	1		NaOH: Na
SW07		S		1626	0.5-4'	1		Zn Acetate + NaOH: Zn
SW08		S		1205	0.5-2'	1		TAT starts the day received by the lab, if received by 4:00pm
SW09		S		1627	0.5-4'	1		Sample Comments
FS01		S		1025	3.5'	1		

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

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

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Anna Byers	Chris Mekissom	3/6/20 11:40	Chris Mekissom	Chris Mekissom	3/10/20 12:00



Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334

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Work Order No: 1054824

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Project Manager:	Chris McKisson	Bill to (different):	→
Company Name:	LT Environmental	Company Name:	→
Address:	810 Megan Ave, Unit B	Address:	→
City, State ZIP:	Rifle CO 81650	City, State ZIP:	→
Phone:	970 285 9985	Email:	cmckisson@ltenv.com & abayers@ltenv.com

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

Project Name:	Rou 42	Turn Around	Pres. Code	ANALYSIS REQUEST																Preservative Codes							
Project Number:	034820001	Routine	☒																	MeOH: Me							
Project Location:	Rural Eddy County	Rush:																		None: NO							
Sampler's Name:	Anna Byers	Due Date:																		HNO3: HN							
PO #: 1-6-20 Spill Date	Quote #:																			H2SO4: H2							
SAMPLE RECEIPT				Temp Blank:	Yes	No	Wet Ice:	Yes	No																	HCL: HL	
Temperature (°C):				Received intact:				Yes	No	Thermometer ID																	NaOH: Na
Cooler Custody Seals:				Yes	No	N/A	Correction Factor:																				Zn Acetate+ NaOH: Zn
Sample Custody Seal:				Yes	No	N/A	Total Containers:																				TAT starts the day received by the lab, if received by 4:00pm
Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers																Sample Comments					
ES02	S	3/5/20	1030	3.5-4.5'	1	TPH (EPA 8015)																					
ES03	S		1035	2'	1	BTEX (EPA 8021)																					
ES04	S		1430	4'	1	Chloride (EPA 300.0)																					
ES05	S		1030	3'	1																						
ES06	S		1210	2'	2																						
ES07	S		1218	2'	1																						
ES08	S		1455	2'	1																						
ES09	S		1555	2-3'	1																						
ES10	S		1225	2'	1																						
ES11	S		1227	2'	1																						

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

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

1631 / 245.1 / 7470 / 7471 : Hg

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Anna Byers	Chris McKisson	3/6/20 @ 1140	Anna Byers	Chris McKisson	3/10/20 12:00



Chain of Custody

Work Order No: 1654824

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 508-3334
 Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Crashpad, NM (432) 704-5440
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager:	Chris McKissom	Bill to: (if different)	
Company Name:	LT Environmental	Company Name:	
Address:	820 Megan Ave, Unit B	Address:	
City, State ZIP:	Rifle, CO 81650	City, State ZIP:	
Phone:	970 285 9985	Email:	cmckissom@ltenv.com & adajones@ltenv.com

Work Order Comments	
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	
State of Project:	
Reporting Level: I ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐	
Deliverables: EDD ☐ ADAPT ☐ Other:	

Project Name:		RDU 42	Turn Around	Pres. Code	ANALYSIS REQUEST																Preservative Codes				
Project Number:		034820001	Routine	☒																		MeOH: Me			
Project Location:		Rural Eddy County	Rush:																			None: NO			
Sampler's Name:		Anna Byers	Due Date:																			HNO3: HN			
PO #: 1-6-20		Spill Date	Quote #:																			H2SO4: H2			
SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No																	HCL: HL	
Received Intact:		Yes	No	Thermometer ID																		NaOH: Na			
Cooler Custody Seals:		Yes	No	Correction Factor:																		Zn Acetate+ NaOH: Zn			
Sample Custody Seals:		Yes	No	Total Containers:																		TAT starts the day received by the lab, if received by 4:00pm			
Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers																Sample Comments			
FS12		S	3/5/20	1612	2-3'	1	X	X	X	TPH (EPA 8015)															
FS13		S	3/5/20	1625	3-4'	1	X	X	X	BTEX (EPA 8021)															
							X	X	X	Chloride (EPA 300.0)															

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

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

1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Anna Byers	Chris McKissom	3/6/20 @ 140	Chris McKissom	Chris McKissom	3/16/20 1200

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03.06.2020 12.00.00 PM

Work Order #: 654824

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	0
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

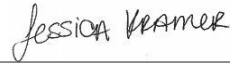
PH Device/Lot#:

Checklist completed by:


Elizabeth McClellan

Date: 03.06.2020

Checklist reviewed by:


Jessica Kramer

Date: 03.09.2020

Analytical Report 654990

for
LT Environmental, Inc.

Project Manager: Chris McKisson

RDU 42

034820001

13-MAR-20

Collected By: Client



**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



13-MAR-20

Project Manager: **Chris McKisson**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **654990**

RDU 42

Project Address: Rural Eddy County

Chris McKisson:

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) 654990. 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. 654990 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS14	S	03-06-20 11:15	0.5 ft	654990-001
FS15	S	03-06-20 11:20	0.3 - 0.5 ft	654990-002
FS16	S	03-06-20 11:25	0.3 - 0.5 ft	654990-003
FS17	S	03-06-20 11:42	0.3 ft	654990-004
FS18	S	03-06-20 11:48	0.3 ft	654990-005
FS19	S	03-06-20 11:50	0.3 ft	654990-006
FS20	S	03-06-20 11:51	0.3 ft	654990-007
FS21	S	03-06-20 11:53	0.3 ft	654990-008
FS22	S	03-06-20 11:56	0.3 ft	654990-009
FS23	S	03-06-20 11:58	0.3 ft	654990-010
FS24	S	03-06-20 12:00	0.3 ft	654990-011
FS25	S	03-06-20 12:58	0.3 ft	654990-012
FS26	S	03-06-20 12:59	0.3 ft	654990-013
FS27	S	03-06-20 13:02	0.3 ft	654990-014
FS28	S	03-06-20 13:05	0.3 ft	654990-015
FS29	S	03-06-20 13:06	0.3 ft	654990-016
FS30	S	03-06-20 14:25	0.3 ft	654990-017
FS31	S	03-06-20 14:28	0.3 ft	654990-018
FS32	S	03-06-20 14:31	0.3 ft	654990-019
FS33	S	03-06-20 14:33	0.3 - 0.5 ft	654990-020
FS34	S	03-06-20 14:35	0.3 - 0.5 ft	654990-021
FS35	S	03-06-20 14:37	0.3 ft	654990-022
FS37	S	03-06-20 14:51	0.3 - 0.5 ft	654990-023
FS36	S	03-06-20 14:49	0.3 - 0.5 ft	654990-024
FS38	S	03-06-20 14:52	0.3 - 0.5 ft	654990-025
FS39	S	03-06-20 14:55	0.3 - 0.5 ft	654990-026
FS40	S	03-06-20 14:57	0.3 - 0.5 ft	654990-027
FS41	S	03-06-20 15:00	0.5 ft	654990-028



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: RDU 42

Project ID: 034820001
Work Order Number(s): 654990

Report Date: 13-MAR-20
Date Received: 03/09/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3119020 BTEX by EPA 8021B

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

Batch: LBA-3119021 BTEX by EPA 8021B

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

Batch: LBA-3119022 Chloride by EPA 300

Lab Sample ID 654990-026 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 654990-026, -027, -028.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3119031 BTEX by EPA 8021B

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



Certificate of Analysis Summary 654990

LT Environmental, Inc., Arvada, CO

Project Name: RDU 42

Project Id: 034820001
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Mon Mar-09-20 12:03 pm
Report Date: 13-MAR-20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>		<i>Lab Id:</i>	654990-001	654990-002	654990-003	654990-004	654990-005	654990-006
<i>Field Id:</i>	<i>Depth:</i>	<i>Matrix:</i>	FS14 0.5- ft SOIL	FS15 0.3-0.5 ft SOIL	FS16 0.3-0.5 ft SOIL	FS17 0.3- ft SOIL	FS18 0.3- ft SOIL	FS19 0.3- ft SOIL
<i>Sampled:</i>	Mar-06-20 11:15	Mar-06-20 11:20	Mar-06-20 11:25	Mar-06-20 11:42	Mar-06-20 11:50	Mar-09-20 16:00	Mar-09-20 16:00	Mar-09-20 14:00
<i>Extracted:</i>	Mar-09-20 20:52	Mar-09-20 22:14	Mar-09-20 21:13	Mar-09-20 21:33	Mar-09-20 15:43	mg/kg	mg/kg	mg/kg
<i>Analyzed:</i>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	RL	RL	RL
<i>Units/RL:</i>	<0.00202	<0.00926	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<0.00200
Benzene	<0.00202	<0.00926	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<0.00200
Toluene	<0.00202	<0.00926	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<0.00200
Ethylbenzene	<0.00202	0.0468	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<0.00200
m,p-Xylenes	<0.00404	0.139	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402	<0.00399
o-Xylene	<0.00202	0.0935	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<0.00200
Xylenes, Total	<0.00202	0.233	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<0.00200
Total BTEX	<0.00202	0.279	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<0.00200
Chloride by EPA 300		<i>Extracted:</i>	Mar-09-20 16:00	Mar-09-20 16:00	Mar-09-20 16:00	Mar-09-20 16:00	Mar-09-20 16:00	Mar-09-20 14:33
<i>Analyzed:</i>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
<i>Units/RL:</i>	785	132	182	3190	3220	3150	3150	3150
Chloride	<49.9	52.9	<50.1	<50.1	<50.1	<50.1	<50.1	<50.3
TPH by SW8015 Mod		<i>Extracted:</i>	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00
<i>Analyzed:</i>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
<i>Units/RL:</i>	337	605	70.4	50.1	50.1	50.1	50.1	50.1
Gasoline Range Hydrocarbons (GRO)	<49.9	52.9	<50.1	<50.1	<50.1	<50.1	<50.1	<50.3
Diesel Range Organics (DRO)	337	605	70.4	50.1	50.1	50.1	50.1	50.1
Motor Oil Range Hydrocarbons (MIRO)	<49.9	52.9	<50.1	<50.1	<50.1	<50.1	<50.1	<50.3
Total GRO-DRO	337	658	70.4	50.1	50.1	50.1	50.1	50.1
Total TPH	337	658	70.4	50.1	50.1	50.1	50.1	50.1

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

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 654990

LT Environmental, Inc., Arvada, CO

Project Name: RDU 42

Project Id: 034820001 Date Received in Lab: Mon Mar-09-20 12:03 pm
Contact: Chris McKisson Report Date: 13-MAR-20
Project Location: Rural Eddy County Project Manager: Jessica Kramer

<i>Analysis Requested</i>		Lab Id:	654990-007	654990-008	654990-009	654990-010	654990-011	654990-012
		Field Id:	FS20	FS21	FS22	FS23	FS24	FS25
		Depth:	0.3- ft	0.3- ft	0.3- ft	0.3- ft	0.3- ft	0.3- ft
		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Sampled:	Mar-06-20 11:51	Mar-06-20 11:53	Mar-06-20 11:56	Mar-06-20 11:58	Mar-06-20 12:00	Mar-06-20 12:58
BTEX by EPA 8021B		Extracted:	Mar-09-20 14:00	Mar-09-20 14:00	Mar-09-20 14:00	Mar-09-20 14:00	Mar-09-20 14:00	Mar-09-20 14:00
		Analyzed:	Mar-09-20 17:38	Mar-09-20 17:58	Mar-09-20 18:19	Mar-09-20 18:39	Mar-09-20 18:59	Mar-09-20 19:20
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene			<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
Toluene			<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
Ethylbenzene			<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
m,p-Xylenes			<0.00403 0.00403	<0.00402 0.00402	<0.00402 0.00402	<0.00399 0.00399	<0.00398 0.00398	<0.00402 0.00402
o-Xylene			<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
Xylenes, Total			<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
Total BTEX			<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
Chloride by EPA 300		Extracted:	Mar-09-20 14:33	Mar-09-20 14:33	Mar-09-20 14:33	Mar-09-20 14:33	Mar-09-20 14:33	Mar-09-20 14:33
		Analyzed:	Mar-09-20 16:33	Mar-09-20 16:39	Mar-09-20 16:44	Mar-09-20 16:50	Mar-09-20 17:07	Mar-09-20 17:12
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride			8850 101	5680 99.2	8640 99.6	365 9.98	1380 99.2	6560 100
TPH by SW8015 Mod		Extracted:	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00
		Analyzed:	Mar-09-20 15:33	Mar-09-20 15:53	Mar-09-20 21:43	Mar-09-20 16:14	Mar-09-20 16:34	Mar-09-20 22:03
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)			<50.1 50.1	<50.3 50.3	<50.2 50.2	<49.8 49.8	<50.0 50.0	<50.2 50.2
Diesel Range Organics (DRO)			54.4 50.1	428 50.3	651 50.2	65.9 49.8	<50.0 50.0	1290 50.2
Motor Oil Range Hydrocarbons (MIRO)			<50.1 50.1	155 50.3	67.3 50.2	<49.8 49.8	<50.0 50.0	176 50.2
Total GRO-DRO			54.4 50.1	428 50.3	651 50.2	65.9 49.8	<50.0 50.0	1290 50.2
Total TPH			54.4 50.1	583 50.3	718 50.2	65.9 49.8	<50.0 50.0	1470 50.2

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

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 654990
LT Environmental, Inc., Arvada, CO
Project Name: RDU 42

Project Id: 034820001
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Mon Mar-09-20 12:03 pm
Report Date: 13-MAR-20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	654990-013	654990-014	654990-015	654990-016	654990-017	654990-018
	<i>Field Id:</i>	FS26	FS27	FS28	FS29	FS30	FS31
	<i>Depth:</i>	0.3- ft	0.3- ft	0.3- ft	0.3- ft	0.3- ft	0.3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-06-20 12:59	Mar-06-20 13:02	Mar-06-20 13:05	Mar-06-20 13:06	Mar-06-20 14:25	Mar-06-20 14:28
BTEX by EPA 8021B	<i>Extracted:</i>	Mar-09-20 14:00	Mar-09-20 14:00	Mar-09-20 14:00	Mar-09-20 14:00	Mar-09-20 14:00	Mar-09-20 14:00
	<i>Analyzed:</i>	Mar-09-20 19:40	Mar-09-20 20:01	Mar-09-20 20:21	Mar-09-20 21:22	Mar-09-20 21:43	Mar-09-20 22:03
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Benzene	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
	Toluene	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
Chloride by EPA 300	Ethylbenzene	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
	m,p-Xylenes	<0.00399 0.00399	<0.00396 0.00396	<0.00404 0.00404	<0.00402 0.00402	<0.00401 0.00401	<0.00397 0.00397
	o-Xylene	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
	Xylenes, Total	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
	Total BTEX	<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
TPH by SW8015 Mod	<i>Extracted:</i>	Mar-09-20 14:33	Mar-09-20 14:33	Mar-09-20 14:33	Mar-09-20 14:33	Mar-09-20 14:33	Mar-09-20 14:33
	<i>Analyzed:</i>	Mar-09-20 17:18	Mar-09-20 17:23	Mar-09-20 17:29	Mar-09-20 17:35	Mar-09-20 17:54	Mar-09-20 18:00
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Chloride	5260 100	2370 101	4510 100	6380 100	5620 99.6	5540 99.8
	Gasoline Range Hydrocarbons (GRO)	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00
TPH by SW8015 Mod	<i>Extracted:</i>	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00
	<i>Analyzed:</i>	Mar-09-20 21:22	Mar-09-20 16:55	Mar-09-20 17:19	Mar-09-20 17:39	Mar-09-20 17:59	Mar-09-20 18:20
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Diesel Range Organics (DRO)	<49.9 49.9	<50.1 50.1	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.2 50.2
	Motor Oil Range Hydrocarbons (MIRO)	200 49.9	<50.1 50.1	66.2 50.2	<50.2 50.2	<50.3 50.3	<50.2 50.2
Total GRO-DRO	Total GRO-DRO	<49.9 49.9	<50.1 50.1	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.2 50.2
	Total TPH	200 49.9	<50.1 50.1	66.2 50.2	<50.2 50.2	<50.3 50.3	<50.2 50.2

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

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

Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 654990

LT Environmental, Inc., Arvada, CO

Project Name: RDU 42

Project Id: 034820001
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Mon Mar-09-20 12:03 pm
Report Date: 13-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	654990-019	654990-020	654990-021	654990-022	654990-023	654990-024
	Field Id:	FS32	FS33	FS34	FS35	FS37	FS36
	Depth:	0.3- ft	0.3-0.5 ft	0.3-0.5 ft	0.3- ft	0.3-0.5 ft	0.3-0.5 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Mar-06-20 14:31	Mar-06-20 14:33	Mar-06-20 14:35	Mar-06-20 14:37	Mar-06-20 14:51	Mar-06-20 14:49
BTEX by EPA 8021B	Extracted:	Mar-09-20 14:00	Mar-09-20 14:00	Mar-09-20 14:00	Mar-09-20 14:00	Mar-09-20 14:00	Mar-09-20 14:00
	Analyzed:	Mar-10-20 00:26	Mar-09-20 22:44	Mar-09-20 23:04	Mar-09-20 23:24	Mar-09-20 23:45	Mar-10-20 00:05
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Benzene	<0.00231 0.00231	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
	Toluene	<0.00231 0.00231	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	Extracted:	Mar-09-20 14:33	Mar-09-20 14:33	Mar-09-20 14:33	Mar-09-20 14:33	Mar-09-20 14:33	Mar-09-20 14:33
	Analyzed:	Mar-09-20 18:18	Mar-09-20 18:24	Mar-09-20 18:30	Mar-09-20 18:36	Mar-09-20 18:42	Mar-09-20 18:48
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Chloride	1440 100	503 100	6210 99.2	3600 99.8	3150 101	4260 101
	TPH by SW8015 Mod	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00
TPH by SW8015 Mod	Extracted:	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00	Mar-09-20 13:00
	Analyzed:	Mar-09-20 19:00	Mar-09-20 19:21	Mar-09-20 19:41	Mar-09-20 20:01	Mar-09-20 20:21	Mar-09-20 20:42
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Gasoline Range Hydrocarbons (GRO)	<50.0 50.0	<50.3 50.3	<49.8 49.8	<50.3 50.3	<49.9 49.9	<50.3 50.3
	Diesel Range Organics (DRO)	292 50.0	<50.3 50.3	<49.8 49.8	<50.3 50.3	<49.9 49.9	91.1 50.3
Motor Oil Range Hydrocarbons (MIRO)	Motor Oil Range Hydrocarbons (MIRO)	<50.0 50.0	<50.3 50.3	<49.8 49.8	<50.3 50.3	<49.9 49.9	<50.3 50.3
	Total GRO-DRO	292 50.0	<50.3 50.3	<49.8 49.8	<50.3 50.3	<49.9 49.9	91.1 50.3
	Total TPH	292 50.0	<50.3 50.3	<49.8 49.8	<50.3 50.3	<49.9 49.9	91.1 50.3

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

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

Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 654990

LT Environmental, Inc., Arvada, CO

Project Name: RDU 42

Project Id: 034820001
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Mon Mar-09-20 12:03 pm
Report Date: 13-MAR-20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>		<i>Lab Id:</i>	<i>Field Id:</i>	<i>Depth:</i>	<i>Matrix:</i>	<i>Sampled:</i>	654990-025	654990-026	654990-027	654990-028	
BTEX by EPA 8021B		<i>Extracted:</i>					Mar-09-20 14:00	Mar-09-20 15:30	Mar-09-20 15:30	Mar-09-20 15:30	
		<i>Analyzed:</i>					Mar-09-20 22:23	Mar-10-20 01:18	Mar-10-20 01:38	Mar-10-20 01:58	
		<i>Units/RL:</i>					mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene							<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	
Toluene							<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	
Ethylbenzene							<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	
m,p-Xylenes							<0.00401 0.00401	<0.00403 0.00403	<0.00403 0.00403	<0.00403 0.00403	
o-Xylene							<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	
Xylenes, Total							<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	
Total BTEX							<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	
Chloride by EPA 300		<i>Extracted:</i>					Mar-09-20 14:33	Mar-09-20 16:00	Mar-09-20 16:00	Mar-09-20 16:00	
		<i>Analyzed:</i>					Mar-09-20 18:54	Mar-09-20 19:31	Mar-09-20 19:49	Mar-09-20 19:55	
		<i>Units/RL:</i>					mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride							4200 99.8	3480 X 101	6260 99.6	3780 99.8	
TPH by SW8015 Mod		<i>Extracted:</i>					Mar-09-20 13:00	Mar-09-20 17:00	Mar-09-20 17:00	Mar-09-20 17:00	
		<i>Analyzed:</i>					Mar-09-20 21:02	Mar-10-20 04:08	Mar-10-20 04:08	Mar-10-20 05:09	
		<i>Units/RL:</i>					mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)							<50.0 50.0	<50.1 50.1	<50.0 50.0	<50.3 50.3	
Diesel Range Organics (DRO)							332 50.0	<50.1 50.1	<50.0 50.0	<50.3 50.3	
Motor Oil Range Hydrocarbons (MIRO)							51.5 50.0	<50.1 50.1	<50.0 50.0	<50.3 50.3	
Total GRO-DRO							332 50.0	<50.1 50.1	<50.0 50.0	<50.3 50.3	
Total TPH							384 50.0	<50.1 50.1	<50.0 50.0	<50.3 50.3	

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

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS14** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-001 Date Collected: 03.06.20 11.15 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 16.00 Basis: Wet Weight
 Seq Number: 3119025

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	785	49.9	mg/kg	03.09.20 15.21		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119037

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.09.20 19.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	337	49.9	mg/kg	03.09.20 19.00		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.09.20 19.00	U	1
Total GRO-DRO	PHC628	337	49.9	mg/kg	03.09.20 19.00		1
Total TPH	PHC635	337	49.9	mg/kg	03.09.20 19.00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	03.09.20 19.00	
o-Terphenyl	84-15-1	110	%	70-135	03.09.20 19.00	



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS14**
 Lab Sample Id: 654990-001

Matrix: Soil
 Date Collected: 03.06.20 11.15

Date Received: 03.09.20 12.03
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.09.20 16.00

Basis: Wet Weight

Seq Number: 3119020

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.09.20 20.52	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.09.20 20.52	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.09.20 20.52	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	03.09.20 20.52	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.09.20 20.52	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.09.20 20.52	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.09.20 20.52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.09.20 20.52		
1,4-Difluorobenzene	540-36-3	104	%	70-130	03.09.20 20.52		



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS15** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-002 Date Collected: 03.06.20 11.20 Sample Depth: 0.3 - 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 16.00 Basis: Wet Weight
 Seq Number: 3119025

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	132	49.6	mg/kg	03.09.20 15.26		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119037

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	52.9	50.1	mg/kg	03.09.20 20.42		1
Diesel Range Organics (DRO)	C10C28DRO	605	50.1	mg/kg	03.09.20 20.42		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.09.20 20.42	U	1
Total GRO-DRO	PHC628	658	50.1	mg/kg	03.09.20 20.42		1
Total TPH	PHC635	658	50.1	mg/kg	03.09.20 20.42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	03.09.20 20.42	
o-Terphenyl	84-15-1	110	%	70-135	03.09.20 20.42	



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS15**
 Lab Sample Id: 654990-002

Matrix: Soil
 Date Collected: 03.06.20 11.20

Date Received: 03.09.20 12.03
 Sample Depth: 0.3 - 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.09.20 16.00

Basis: Wet Weight

Seq Number: 3119020

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00926	0.00926	mg/kg	03.09.20 22.14	U	1
Toluene	108-88-3	<0.00926	0.00926	mg/kg	03.09.20 22.14	U	1
Ethylbenzene	100-41-4	0.0468	0.00926	mg/kg	03.09.20 22.14		1
m,p-Xylenes	179601-23-1	0.139	0.0185	mg/kg	03.09.20 22.14		1
o-Xylene	95-47-6	0.0935	0.00926	mg/kg	03.09.20 22.14		1
Xylenes, Total	1330-20-7	0.233	0.00926	mg/kg	03.09.20 22.14		1
Total BTEX		0.279	0.00926	mg/kg	03.09.20 22.14		1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105		%	70-130	03.09.20 22.14	
1,4-Difluorobenzene	540-36-3	102		%	70-130	03.09.20 22.14	



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS16**
Lab Sample Id: 654990-003

Matrix: Soil
Date Collected: 03.06.20 11.25

Date Received: 03.09.20 12.03
Sample Depth: 0.3 - 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3119025

Date Prep: 03.09.20 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	182	50.1	mg/kg	03.09.20 15.32		5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119037

Date Prep: 03.09.20 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.09.20 19.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	70.4	50.1	mg/kg	03.09.20 19.21		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.09.20 19.21	U	1
Total GRO-DRO	PHC628	70.4	50.1	mg/kg	03.09.20 19.21		1
Total TPH	PHC635	70.4	50.1	mg/kg	03.09.20 19.21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	03.09.20 19.21	
o-Terphenyl	84-15-1	103	%	70-135	03.09.20 19.21	



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS16**
Lab Sample Id: 654990-003

Matrix: Soil
Date Collected: 03.06.20 11.25

Date Received: 03.09.20 12.03
Sample Depth: 0.3 - 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.09.20 16.00

Basis: Wet Weight

Seq Number: 3119020

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.09.20 21.13	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.09.20 21.13	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.09.20 21.13	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.09.20 21.13	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.09.20 21.13	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.09.20 21.13	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.09.20 21.13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	03.09.20 21.13		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.09.20 21.13		



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS17** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-004 Date Collected: 03.06.20 11.42 Sample Depth: 0.3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 16.00 Basis: Wet Weight
 Seq Number: 3119025

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3190	100	mg/kg	03.09.20 15.38		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119037

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.09.20 19.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.09.20 19.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.09.20 19.41	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.09.20 19.41	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.09.20 19.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	03.09.20 19.41	
o-Terphenyl	84-15-1	105	%	70-135	03.09.20 19.41	



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS17**
Lab Sample Id: 654990-004

Matrix: Soil
Date Collected: 03.06.20 11.42

Date Received: 03.09.20 12.03
Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3119020

Prep Method: SW5030B

% Moisture:

Date Prep: 03.09.20 16.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.09.20 21.33	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.09.20 21.33	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.09.20 21.33	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.09.20 21.33	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.09.20 21.33	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.09.20 21.33	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.09.20 21.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.09.20 21.33		
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.09.20 21.33		



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS18** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-005 Date Collected: 03.06.20 11.48 Sample Depth: 0.3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 16.00 Basis: Wet Weight
 Seq Number: 3119025

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3220	100	mg/kg	03.09.20 15.43		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119037

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.09.20 20.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.09.20 20.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.09.20 20.01	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.09.20 20.01	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.09.20 20.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	03.09.20 20.01	
o-Terphenyl	84-15-1	102	%	70-135	03.09.20 20.01	



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS18**
Lab Sample Id: 654990-005

Matrix: Soil
Date Collected: 03.06.20 11.48

Date Received: 03.09.20 12.03
Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.09.20 16.00

Basis: Wet Weight

Seq Number: 3119020

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.09.20 21.54	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.09.20 21.54	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.09.20 21.54	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.09.20 21.54	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.09.20 21.54	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.09.20 21.54	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.09.20 21.54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.09.20 21.54		
1,4-Difluorobenzene	540-36-3	104	%	70-130	03.09.20 21.54		



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS19** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-006 Date Collected: 03.06.20 11.50 Sample Depth: 0.3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3150	100	mg/kg	03.09.20 16.17		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.10.20 11.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	63.8	50.3	mg/kg	03.10.20 11.53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	03.10.20 11.53	U	1
Total GRO-DRO	PHC628	63.8	50.3	mg/kg	03.10.20 11.53		1
Total TPH	PHC635	63.8	50.3	mg/kg	03.10.20 11.53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	03.10.20 11.53	
o-Terphenyl	84-15-1	107	%	70-135	03.10.20 11.53	



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS19**
Lab Sample Id: 654990-006

Matrix: Soil
Date Collected: 03.06.20 11.50

Date Received: 03.09.20 12.03
Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3119021

Date Prep: 03.09.20 14.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.09.20 15.43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.09.20 15.43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.09.20 15.43	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.09.20 15.43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.09.20 15.43	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.09.20 15.43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.09.20 15.43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	03.09.20 15.43		
4-Bromofluorobenzene	460-00-4	90	%	70-130	03.09.20 15.43		



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS20** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-007 Date Collected: 03.06.20 11.51 Sample Depth: 0.3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8850	101	mg/kg	03.09.20 16.33		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.09.20 15.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	54.4	50.1	mg/kg	03.09.20 15.33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.09.20 15.33	U	1
Total GRO-DRO	PHC628	54.4	50.1	mg/kg	03.09.20 15.33		1
Total TPH	PHC635	54.4	50.1	mg/kg	03.09.20 15.33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	03.09.20 15.33	
o-Terphenyl	84-15-1	135	%	70-135	03.09.20 15.33	



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS20**
 Lab Sample Id: 654990-007

Matrix: Soil
 Date Collected: 03.06.20 11.51

Date Received: 03.09.20 12.03
 Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.09.20 14.00

Basis: Wet Weight

Seq Number: 3119021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.09.20 17.38	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.09.20 17.38	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.09.20 17.38	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.09.20 17.38	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.09.20 17.38	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.09.20 17.38	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.09.20 17.38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	87	%	70-130	03.09.20 17.38		
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.09.20 17.38		



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS21** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-008 Date Collected: 03.06.20 11.53 Sample Depth: 0.3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5680	99.2	mg/kg	03.09.20 16.39		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.09.20 15.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	428	50.3	mg/kg	03.09.20 15.53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	155	50.3	mg/kg	03.09.20 15.53		1
Total GRO-DRO	PHC628	428	50.3	mg/kg	03.09.20 15.53		1
Total TPH	PHC635	583	50.3	mg/kg	03.09.20 15.53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	03.09.20 15.53	
o-Terphenyl	84-15-1	122	%	70-135	03.09.20 15.53	



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS21**
Lab Sample Id: 654990-008

Matrix: Soil
Date Collected: 03.06.20 11.53

Date Received: 03.09.20 12.03
Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.09.20 14.00

Basis: Wet Weight

Seq Number: 3119021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.09.20 17.58	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.09.20 17.58	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.09.20 17.58	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.09.20 17.58	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.09.20 17.58	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.09.20 17.58	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.09.20 17.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	79	%	70-130	03.09.20 17.58		
1,4-Difluorobenzene	540-36-3	111	%	70-130	03.09.20 17.58		



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS22** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-009 Date Collected: 03.06.20 11.56 Sample Depth: 0.3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8640	99.6	mg/kg	03.09.20 16.44		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.09.20 21.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	651	50.2	mg/kg	03.09.20 21.43		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	67.3	50.2	mg/kg	03.09.20 21.43		1
Total GRO-DRO	PHC628	651	50.2	mg/kg	03.09.20 21.43		1
Total TPH	PHC635	718	50.2	mg/kg	03.09.20 21.43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	03.09.20 21.43	
o-Terphenyl	84-15-1	117	%	70-135	03.09.20 21.43	



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS22**
Lab Sample Id: 654990-009

Matrix: Soil
Date Collected: 03.06.20 11.56

Date Received: 03.09.20 12.03
Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.09.20 14.00

Basis: Wet Weight

Seq Number: 3119021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.09.20 18.19	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.09.20 18.19	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.09.20 18.19	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.09.20 18.19	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.09.20 18.19	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.09.20 18.19	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.09.20 18.19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.09.20 18.19		
1,4-Difluorobenzene	540-36-3	112	%	70-130	03.09.20 18.19		



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS23** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-010 Date Collected: 03.06.20 11.58 Sample Depth: 0.3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	365	9.98	mg/kg	03.09.20 16.50		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.09.20 16.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	65.9	49.8	mg/kg	03.09.20 16.14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.09.20 16.14	U	1
Total GRO-DRO	PHC628	65.9	49.8	mg/kg	03.09.20 16.14		1
Total TPH	PHC635	65.9	49.8	mg/kg	03.09.20 16.14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	03.09.20 16.14	
o-Terphenyl	84-15-1	131	%	70-135	03.09.20 16.14	



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS23**
Lab Sample Id: 654990-010

Matrix: Soil
Date Collected: 03.06.20 11.58

Date Received: 03.09.20 12.03
Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.09.20 14.00

Basis: Wet Weight

Seq Number: 3119021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.09.20 18.39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.09.20 18.39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.09.20 18.39	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.09.20 18.39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.09.20 18.39	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.09.20 18.39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.09.20 18.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	03.09.20 18.39		
1,4-Difluorobenzene	540-36-3	111	%	70-130	03.09.20 18.39		



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS24** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-011 Date Collected: 03.06.20 12.00 Sample Depth: 0.3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1380	99.2	mg/kg	03.09.20 17.07		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.09.20 16.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.09.20 16.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.09.20 16.34	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	03.09.20 16.34	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.09.20 16.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	03.09.20 16.34	
o-Terphenyl	84-15-1	114	%	70-135	03.09.20 16.34	



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS24**
Lab Sample Id: 654990-011

Matrix: Soil
Date Collected: 03.06.20 12.00

Date Received: 03.09.20 12.03
Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3119021

Date Prep: 03.09.20 14.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.09.20 18.59	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.09.20 18.59	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.09.20 18.59	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.09.20 18.59	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.09.20 18.59	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.09.20 18.59	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.09.20 18.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	03.09.20 18.59		
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.09.20 18.59		



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS25** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-012 Date Collected: 03.06.20 12.58 Sample Depth: 0.3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6560	100	mg/kg	03.09.20 17.12		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.09.20 22.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	1290	50.2	mg/kg	03.09.20 22.03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	176	50.2	mg/kg	03.09.20 22.03		1
Total GRO-DRO	PHC628	1290	50.2	mg/kg	03.09.20 22.03		1
Total TPH	PHC635	1470	50.2	mg/kg	03.09.20 22.03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	03.09.20 22.03	
o-Terphenyl	84-15-1	134	%	70-135	03.09.20 22.03	



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS25**
Lab Sample Id: 654990-012

Matrix: Soil
Date Collected: 03.06.20 12.58

Date Received: 03.09.20 12.03
Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3119021

Date Prep: 03.09.20 14.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.09.20 19.20	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.09.20 19.20	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.09.20 19.20	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.09.20 19.20	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.09.20 19.20	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.09.20 19.20	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.09.20 19.20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	111	%	70-130	03.09.20 19.20		
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.09.20 19.20		



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS26** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-013 Date Collected: 03.06.20 12.59 Sample Depth: 0.3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5260	100	mg/kg	03.09.20 17.18		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.09.20 21.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	200	49.9	mg/kg	03.09.20 21.22		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.09.20 21.22	U	1
Total GRO-DRO	PHC628	200	49.9	mg/kg	03.09.20 21.22		1
Total TPH	PHC635	200	49.9	mg/kg	03.09.20 21.22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	03.09.20 21.22	
o-Terphenyl	84-15-1	130	%	70-135	03.09.20 21.22	



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS26**
 Lab Sample Id: 654990-013

Matrix: Soil
 Date Collected: 03.06.20 12.59

Date Received: 03.09.20 12.03
 Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.09.20 14.00

Basis: Wet Weight

Seq Number: 3119021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.09.20 19.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.09.20 19.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.09.20 19.40	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.09.20 19.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.09.20 19.40	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.09.20 19.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.09.20 19.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.09.20 19.40		
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.09.20 19.40		



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS27** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-014 Date Collected: 03.06.20 13.02 Sample Depth: 0.3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2370	101	mg/kg	03.09.20 17.23		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.09.20 16.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.09.20 16.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.09.20 16.55	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.09.20 16.55	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.09.20 16.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	03.09.20 16.55	
o-Terphenyl	84-15-1	127	%	70-135	03.09.20 16.55	



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS27**
 Lab Sample Id: 654990-014

Matrix: Soil
 Date Collected: 03.06.20 13.02

Date Received: 03.09.20 12.03
 Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.09.20 14.00

Basis: Wet Weight

Seq Number: 3119021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.09.20 20.01	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.09.20 20.01	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.09.20 20.01	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	03.09.20 20.01	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.09.20 20.01	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.09.20 20.01	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.09.20 20.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.09.20 20.01		
1,4-Difluorobenzene	540-36-3	112	%	70-130	03.09.20 20.01		



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS28** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-015 Date Collected: 03.06.20 13.05 Sample Depth: 0.3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4510	100	mg/kg	03.09.20 17.29		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.09.20 17.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	66.2	50.2	mg/kg	03.09.20 17.19		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.09.20 17.19	U	1
Total GRO-DRO	PHC628	66.2	50.2	mg/kg	03.09.20 17.19		1
Total TPH	PHC635	66.2	50.2	mg/kg	03.09.20 17.19		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	03.09.20 17.19	
o-Terphenyl	84-15-1	117	%	70-135	03.09.20 17.19	



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS28**
Lab Sample Id: 654990-015

Matrix: Soil
Date Collected: 03.06.20 13.05

Date Received: 03.09.20 12.03
Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3119021

Date Prep: 03.09.20 14.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.09.20 20.21	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.09.20 20.21	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.09.20 20.21	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	03.09.20 20.21	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.09.20 20.21	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.09.20 20.21	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.09.20 20.21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	113	%	70-130	03.09.20 20.21		
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.09.20 20.21		



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS29** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-016 Date Collected: 03.06.20 13.06 Sample Depth: 0.3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6380	100	mg/kg	03.09.20 17.35		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.09.20 17.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.09.20 17.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.09.20 17.39	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.09.20 17.39	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.09.20 17.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	03.09.20 17.39	
o-Terphenyl	84-15-1	118	%	70-135	03.09.20 17.39	



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS29**
Lab Sample Id: 654990-016

Matrix: Soil
Date Collected: 03.06.20 13.06

Date Received: 03.09.20 12.03
Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.09.20 14.00

Basis: Wet Weight

Seq Number: 3119021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.09.20 21.22	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.09.20 21.22	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.09.20 21.22	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.09.20 21.22	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.09.20 21.22	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.09.20 21.22	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.09.20 21.22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	113	%	70-130	03.09.20 21.22		
4-Bromofluorobenzene	460-00-4	90	%	70-130	03.09.20 21.22		



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS30** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-017 Date Collected: 03.06.20 14.25 Sample Depth: 0.3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5620	99.6	mg/kg	03.09.20 17.54		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.09.20 17.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	03.09.20 17.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	03.09.20 17.59	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	03.09.20 17.59	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	03.09.20 17.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	03.09.20 17.59	
o-Terphenyl	84-15-1	135	%	70-135	03.09.20 17.59	



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS30**
Lab Sample Id: 654990-017

Matrix: Soil
Date Collected: 03.06.20 14.25

Date Received: 03.09.20 12.03
Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3119021

Prep Method: SW5030B

% Moisture:

Date Prep: 03.09.20 14.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.09.20 21.43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.09.20 21.43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.09.20 21.43	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.09.20 21.43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.09.20 21.43	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.09.20 21.43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.09.20 21.43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	03.09.20 21.43		
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.09.20 21.43		



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS31** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-018 Date Collected: 03.06.20 14.28 Sample Depth: 0.3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5540	99.8	mg/kg	03.09.20 18.00		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.09.20 18.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.09.20 18.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.09.20 18.20	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.09.20 18.20	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.09.20 18.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.09.20 18.20	
o-Terphenyl	84-15-1	107	%	70-135	03.09.20 18.20	



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS31**
Lab Sample Id: 654990-018

Matrix: Soil
Date Collected: 03.06.20 14.28

Date Received: 03.09.20 12.03
Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.09.20 14.00

Basis: Wet Weight

Seq Number: 3119021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.09.20 22.03	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.09.20 22.03	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.09.20 22.03	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	03.09.20 22.03	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.09.20 22.03	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.09.20 22.03	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.09.20 22.03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	03.09.20 22.03		
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.09.20 22.03		



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS32** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-019 Date Collected: 03.06.20 14.31 Sample Depth: 0.3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1440	100	mg/kg	03.09.20 18.18		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.09.20 19.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	292	50.0	mg/kg	03.09.20 19.00		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.09.20 19.00	U	1
Total GRO-DRO	PHC628	292	50.0	mg/kg	03.09.20 19.00		1
Total TPH	PHC635	292	50.0	mg/kg	03.09.20 19.00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	03.09.20 19.00	
o-Terphenyl	84-15-1	122	%	70-135	03.09.20 19.00	



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS32** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-019 Date Collected: 03.06.20 14.31 Sample Depth: 0.3 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.00 Basis: Wet Weight
 Seq Number: 3119021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00231	0.00231	mg/kg	03.10.20 00.26	U	1
Toluene	108-88-3	<0.00231	0.00231	mg/kg	03.10.20 00.26	U	1
Ethylbenzene	100-41-4	0.00903	0.00231	mg/kg	03.10.20 00.26		1
m,p-Xylenes	179601-23-1	0.0246	0.0185	mg/kg	03.10.20 00.26		1
o-Xylene	95-47-6	0.0310	0.00926	mg/kg	03.10.20 00.26		1
Xylenes, Total	1330-20-7	0.0556	0.00926	mg/kg	03.10.20 00.26		1
Total BTEX		0.0646	0.00231	mg/kg	03.10.20 00.26		1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108		%	70-130	03.10.20 00.26	
4-Bromofluorobenzene	460-00-4	88		%	70-130	03.10.20 00.26	



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS33** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-020 Date Collected: 03.06.20 14.33 Sample Depth: 0.3 - 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	503	100	mg/kg	03.09.20 18.24		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.09.20 19.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	03.09.20 19.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	03.09.20 19.21	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	03.09.20 19.21	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	03.09.20 19.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	03.09.20 19.21	
o-Terphenyl	84-15-1	126	%	70-135	03.09.20 19.21	



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS33**
 Lab Sample Id: 654990-020

Matrix: Soil
 Date Collected: 03.06.20 14.33

Date Received: 03.09.20 12.03
 Sample Depth: 0.3 - 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.09.20 14.00

Basis: Wet Weight

Seq Number: 3119021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.09.20 22.44	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.09.20 22.44	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.09.20 22.44	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.09.20 22.44	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.09.20 22.44	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.09.20 22.44	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.09.20 22.44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	70-130	03.09.20 22.44		
1,4-Difluorobenzene	540-36-3	112	%	70-130	03.09.20 22.44		



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS34** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-021 Date Collected: 03.06.20 14.35 Sample Depth: 0.3 - 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6210	99.2	mg/kg	03.09.20 18.30		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.09.20 19.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.09.20 19.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.09.20 19.41	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.09.20 19.41	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.09.20 19.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	03.09.20 19.41	
o-Terphenyl	84-15-1	118	%	70-135	03.09.20 19.41	



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS34**
Lab Sample Id: 654990-021

Matrix: Soil
Date Collected: 03.06.20 14.35

Date Received: 03.09.20 12.03
Sample Depth: 0.3 - 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.09.20 14.00

Basis: Wet Weight

Seq Number: 3119021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.09.20 23.04	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.09.20 23.04	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.09.20 23.04	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.09.20 23.04	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.09.20 23.04	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.09.20 23.04	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.09.20 23.04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.09.20 23.04		
1,4-Difluorobenzene	540-36-3	113	%	70-130	03.09.20 23.04		



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS35** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-022 Date Collected: 03.06.20 14.37 Sample Depth: 0.3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3600	99.8	mg/kg	03.09.20 18.36		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.09.20 20.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	03.09.20 20.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	03.09.20 20.01	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	03.09.20 20.01	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	03.09.20 20.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	03.09.20 20.01	
o-Terphenyl	84-15-1	115	%	70-135	03.09.20 20.01	



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS35**
Lab Sample Id: 654990-022

Matrix: Soil
Date Collected: 03.06.20 14.37

Date Received: 03.09.20 12.03
Sample Depth: 0.3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.09.20 14.00

Basis: Wet Weight

Seq Number: 3119021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.09.20 23.24	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.09.20 23.24	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.09.20 23.24	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.09.20 23.24	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.09.20 23.24	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.09.20 23.24	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.09.20 23.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.09.20 23.24		
1,4-Difluorobenzene	540-36-3	112	%	70-130	03.09.20 23.24		



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS37** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-023 Date Collected: 03.06.20 14.51 Sample Depth: 0.3 - 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3150	101	mg/kg	03.09.20 18.42		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.09.20 20.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.09.20 20.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.09.20 20.21	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	03.09.20 20.21	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.09.20 20.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	03.09.20 20.21	
o-Terphenyl	84-15-1	130	%	70-135	03.09.20 20.21	



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS37**
 Lab Sample Id: 654990-023

Matrix: Soil
 Date Collected: 03.06.20 14.51

Date Received: 03.09.20 12.03
 Sample Depth: 0.3 - 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.09.20 14.00

Basis: Wet Weight

Seq Number: 3119021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.09.20 23.45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.09.20 23.45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.09.20 23.45	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.09.20 23.45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.09.20 23.45	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.09.20 23.45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.09.20 23.45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	89	%	70-130	03.09.20 23.45		
1,4-Difluorobenzene	540-36-3	112	%	70-130	03.09.20 23.45		



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS36** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-024 Date Collected: 03.06.20 14.49 Sample Depth: 0.3 - 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4260	101	mg/kg	03.09.20 18.48		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.09.20 20.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	91.1	50.3	mg/kg	03.09.20 20.42		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	03.09.20 20.42	U	1
Total GRO-DRO	PHC628	91.1	50.3	mg/kg	03.09.20 20.42		1
Total TPH	PHC635	91.1	50.3	mg/kg	03.09.20 20.42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	03.09.20 20.42	
o-Terphenyl	84-15-1	118	%	70-135	03.09.20 20.42	



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS36**
 Lab Sample Id: 654990-024

Matrix: Soil
 Date Collected: 03.06.20 14.49

Date Received: 03.09.20 12.03
 Sample Depth: 0.3 - 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.09.20 14.00

Basis: Wet Weight

Seq Number: 3119021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.10.20 00.05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.10.20 00.05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.10.20 00.05	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.10.20 00.05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.10.20 00.05	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.10.20 00.05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.10.20 00.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	87	%	70-130	03.10.20 00.05		
1,4-Difluorobenzene	540-36-3	111	%	70-130	03.10.20 00.05		



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS38** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-025 Date Collected: 03.06.20 14.52 Sample Depth: 0.3 - 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 14.33 Basis: Wet Weight
 Seq Number: 3119027

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4200	99.8	mg/kg	03.09.20 18.54		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 13.00 Basis: Wet Weight
 Seq Number: 3119046

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.09.20 21.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	332	50.0	mg/kg	03.09.20 21.02		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	51.5	50.0	mg/kg	03.09.20 21.02		1
Total GRO-DRO	PHC628	332	50.0	mg/kg	03.09.20 21.02		1
Total TPH	PHC635	384	50.0	mg/kg	03.09.20 21.02		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	123	%	70-135	03.09.20 21.02	
o-Terphenyl	84-15-1	121	%	70-135	03.09.20 21.02	



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LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS38**
Lab Sample Id: 654990-025

Matrix: Soil
Date Collected: 03.06.20 14.52

Date Received: 03.09.20 12.03
Sample Depth: 0.3 - 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3119021

Date Prep: 03.09.20 14.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.09.20 22.23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.09.20 22.23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.09.20 22.23	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.09.20 22.23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.09.20 22.23	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.09.20 22.23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.09.20 22.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	03.09.20 22.23		
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.09.20 22.23		



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS39** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-026 Date Collected: 03.06.20 14.55 Sample Depth: 0.3 - 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 16.00 Basis: Wet Weight
 Seq Number: 3119022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3480	101	mg/kg	03.09.20 19.31	X	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 17.00 Basis: Wet Weight
 Seq Number: 3119055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.10.20 04.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.10.20 04.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.10.20 04.08	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.10.20 04.08	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.10.20 04.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	03.10.20 04.08	
o-Terphenyl	84-15-1	119	%	70-135	03.10.20 04.08	



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS39**
Lab Sample Id: 654990-026

Matrix: Soil
Date Collected: 03.06.20 14.55

Date Received: 03.09.20 12.03
Sample Depth: 0.3 - 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3119031

Date Prep: 03.09.20 15.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.10.20 01.18	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.10.20 01.18	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.10.20 01.18	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.10.20 01.18	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.10.20 01.18	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.10.20 01.18	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.10.20 01.18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.10.20 01.18		
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.10.20 01.18		



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS40** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-027 Date Collected: 03.06.20 14.57 Sample Depth: 0.3 - 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 16.00 Basis: Wet Weight
 Seq Number: 3119022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6260	99.6	mg/kg	03.09.20 19.49		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 17.00 Basis: Wet Weight
 Seq Number: 3119062

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.10.20 04.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.10.20 04.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.10.20 04.08	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	03.10.20 04.08	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.10.20 04.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	03.10.20 04.08	
o-Terphenyl	84-15-1	128	%	70-135	03.10.20 04.08	



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS40**
Lab Sample Id: 654990-027

Matrix: Soil
Date Collected: 03.06.20 14.57

Date Received: 03.09.20 12.03
Sample Depth: 0.3 - 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.09.20 15.30

Basis: Wet Weight

Seq Number: 3119031

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.10.20 01.38	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.10.20 01.38	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.10.20 01.38	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.10.20 01.38	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.10.20 01.38	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.10.20 01.38	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.10.20 01.38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.10.20 01.38		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.10.20 01.38		



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS41** Matrix: Soil Date Received: 03.09.20 12.03
 Lab Sample Id: 654990-028 Date Collected: 03.06.20 15.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.09.20 16.00 Basis: Wet Weight
 Seq Number: 3119022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3780	99.8	mg/kg	03.09.20 19.55		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.09.20 17.00 Basis: Wet Weight
 Seq Number: 3119055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.10.20 05.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	03.10.20 05.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	03.10.20 05.09	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	03.10.20 05.09	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	03.10.20 05.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	03.10.20 05.09	
o-Terphenyl	84-15-1	114	%	70-135	03.10.20 05.09	



Certificate of Analytical Results 654990

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS41**
 Lab Sample Id: 654990-028

Matrix: Soil
 Date Collected: 03.06.20 15.00

Date Received: 03.09.20 12.03
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.09.20 15.30

Basis: Wet Weight

Seq Number: 3119031

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.10.20 01.58	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.10.20 01.58	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.10.20 01.58	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.10.20 01.58	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.10.20 01.58	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.10.20 01.58	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.10.20 01.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.10.20 01.58		
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.10.20 01.58		



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 **SQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

RDU 42

Analytical Method: Chloride by EPA 300

Seq Number: 3119025

MB Sample Id: 7698410-1-BLK

Matrix: Solid

LCS Sample Id: 7698410-1-BKS

Prep Method: E300P

Date Prep: 03.09.20

LCSD Sample Id: 7698410-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	265	106	264	106	90-110	0	20	mg/kg	03.09.20 12:49	

Analytical Method: Chloride by EPA 300

Seq Number: 3119027

MB Sample Id: 7698411-1-BLK

Matrix: Solid

LCS Sample Id: 7698411-1-BKS

Prep Method: E300P

Date Prep: 03.09.20

LCSD Sample Id: 7698411-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	262	105	263	105	90-110	0	20	mg/kg	03.09.20 16:05	

Analytical Method: Chloride by EPA 300

Seq Number: 3119022

MB Sample Id: 7698414-1-BLK

Matrix: Solid

LCS Sample Id: 7698414-1-BKS

Prep Method: E300P

Date Prep: 03.09.20

LCSD Sample Id: 7698414-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	258	103	263	105	90-110	2	20	mg/kg	03.09.20 19:19	

Analytical Method: Chloride by EPA 300

Seq Number: 3119025

Parent Sample Id: 654956-001

Matrix: Soil

MS Sample Id: 654956-001 S

Prep Method: E300P

Date Prep: 03.09.20

MSD Sample Id: 654956-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	394	200	603	105	602	104	90-110	0	20	mg/kg	03.09.20 13:06	

Analytical Method: Chloride by EPA 300

Seq Number: 3119025

Parent Sample Id: 654956-011

Matrix: Soil

MS Sample Id: 654956-011 S

Prep Method: E300P

Date Prep: 03.09.20

MSD Sample Id: 654956-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	898	200	1110	106	1110	105	90-110	0	20	mg/kg	03.09.20 14:30	

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

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

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

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



LT Environmental, Inc.

RDU 42

Analytical Method: Chloride by EPA 300

Seq Number: 3119027

Parent Sample Id: 654990-006

Matrix: Soil

MS Sample Id: 654990-006 S

Prep Method: E300P

Date Prep: 03.09.20

MSD Sample Id: 654990-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3150	250	3410	104	3420	108	90-110	0	20	mg/kg	03.09.20 16:22	

Analytical Method: Chloride by EPA 300

Seq Number: 3119027

Parent Sample Id: 654990-016

Matrix: Soil

MS Sample Id: 654990-016 S

Prep Method: E300P

Date Prep: 03.09.20

MSD Sample Id: 654990-016 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6380	201	6580	100	6600	110	90-110	0	20	mg/kg	03.09.20 17:41	

Analytical Method: Chloride by EPA 300

Seq Number: 3119022

Parent Sample Id: 654990-026

Matrix: Soil

MS Sample Id: 654990-026 S

Prep Method: E300P

Date Prep: 03.09.20

MSD Sample Id: 654990-026 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3480	248	3760	113	3770	117	90-110	0	20	mg/kg	03.09.20 19:37	X

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119037

MB Sample Id: 7698444-1-BLK

Matrix: Solid

LCS Sample Id: 7698444-1-BKS

Prep Method: SW8015P

Date Prep: 03.09.20

LCSD Sample Id: 7698444-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	920	92	953	95	70-135	4	35	mg/kg	03.09.20 13:25	
Diesel Range Organics (DRO)	<50.0	1000	884	88	912	91	70-135	3	35	mg/kg	03.09.20 13:25	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		105		102		70-135	%	03.09.20 13:25
o-Terphenyl	104		108		104		70-135	%	03.09.20 13:25

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

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

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

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



LT Environmental, Inc.

RDU 42

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119046

MB Sample Id: 7698453-1-BLK

Matrix: Solid

LCS Sample Id: 7698453-1-BKS

Prep Method: SW8015P

Date Prep: 03.09.20

LCSD Sample Id: 7698453-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	914	91	929	93	70-135	2	35	mg/kg	03.09.20 13:25	
Diesel Range Organics (DRO)	<50.0	1000	904	90	891	89	70-135	1	35	mg/kg	03.09.20 13:25	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	89		119		114		70-135	%	03.09.20 13:25			
o-Terphenyl	102		114		104		70-135	%	03.09.20 13:25			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119055

MB Sample Id: 7698462-1-BLK

Matrix: Solid

LCS Sample Id: 7698462-1-BKS

Prep Method: SW8015P

Date Prep: 03.09.20

LCSD Sample Id: 7698462-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	916	92	927	93	70-135	1	35	mg/kg	03.10.20 09:41	
Diesel Range Organics (DRO)	<50.0	1000	916	92	914	91	70-135	0	35	mg/kg	03.10.20 09:41	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	96		107		100		70-135	%	03.10.20 09:41			
o-Terphenyl	106		111		104		70-135	%	03.10.20 09:41			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119062

MB Sample Id: 7698464-1-BLK

Matrix: Solid

LCS Sample Id: 7698464-1-BKS

Prep Method: SW8015P

Date Prep: 03.09.20

LCSD Sample Id: 7698464-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	931	93	924	92	70-135	1	35	mg/kg	03.10.20 09:41	
Diesel Range Organics (DRO)	<50.0	1000	971	97	944	94	70-135	3	35	mg/kg	03.10.20 09:41	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	86		108		100		70-135	%	03.10.20 09:41			
o-Terphenyl	98		115		106		70-135	%	03.10.20 09:41			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119037

Matrix: Solid

MB Sample Id: 7698444-1-BLK

Prep Method: SW8015P

Date Prep: 03.09.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.09.20 13:05	

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

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

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

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



LT Environmental, Inc.

RDU 42

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119046

Matrix: Solid

Prep Method: SW8015P

Date Prep: 03.09.20

MB Sample Id: 7698453-1-BLK

Parameter

MB
Result

Units

Analysis
Date

Flag

Motor Oil Range Hydrocarbons (MRO)

<50.0

mg/kg

03.09.20 13:05

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119055

Matrix: Solid

Prep Method: SW8015P

Date Prep: 03.09.20

MB Sample Id: 7698462-1-BLK

Parameter

MB
Result

Units

Analysis
Date

Flag

Motor Oil Range Hydrocarbons (MRO)

<50.0

mg/kg

03.10.20 09:21

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119062

Matrix: Solid

Prep Method: SW8015P

Date Prep: 03.09.20

MB Sample Id: 7698464-1-BLK

Parameter

MB
Result

Units

Analysis
Date

Flag

Motor Oil Range Hydrocarbons (MRO)

<50.0

mg/kg

03.10.20 03:48

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119037

Matrix: Soil

Prep Method: SW8015P

Date Prep: 03.09.20

Parent Sample Id: 654956-001

MS Sample Id: 654956-001 S

MSD Sample Id: 654956-001 SD

Parameter

Parent
Result Spike
AmountMS
ResultMS
%RecMSD
ResultMSD
%Rec

Limits

%RPD RPD Limit

Units

Analysis
Date

Flag

Gasoline Range Hydrocarbons (GRO)

<49.8

995

978

98

988

99

70-135

1

35

mg/kg

03.09.20 14:53

Diesel Range Organics (DRO)

<49.8

995

949

95

993

100

70-135

5

35

mg/kg

03.09.20 14:53

Surrogate

MS
%RecMS
FlagMSD
%RecMSD
Flag

Limits

Units

Analysis
Date

1-Chlorooctane

113

117

70-135

%

03.09.20 14:53

o-Terphenyl

115

119

70-135

%

03.09.20 14:53

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

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

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

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



LT Environmental, Inc.

RDU 42

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119046

Parent Sample Id: 654990-006

Matrix: Soil

MS Sample Id: 654990-006 S

Prep Method: SW8015P

Date Prep: 03.09.20

MSD Sample Id: 654990-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	986	98	1140	114	70-135	14	35	mg/kg	03.09.20 14:53	
Diesel Range Organics (DRO)	63.8	1010	1020	95	1040	98	70-135	2	35	mg/kg	03.09.20 14:53	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		130		70-135	%	03.09.20 14:53
o-Terphenyl	126		121		70-135	%	03.09.20 14:53

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119055

Parent Sample Id: 654990-026

Matrix: Soil

MS Sample Id: 654990-026 S

Prep Method: SW8015P

Date Prep: 03.09.20

MSD Sample Id: 654990-026 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)	<49.9	997	962	96	984	98	70-135	2	35	mg/kg	03.10.20 04:28	
Diesel Range Organics (DRO)	<49.9	997	939	94	956	96	70-135	2	35	mg/kg	03.10.20 04:28	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	130		119		70-135	%	03.10.20 04:28
o-Terphenyl	125		125		70-135	%	03.10.20 04:28

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119062

Parent Sample Id: 654990-027

Matrix: Soil

MS Sample Id: 654990-027 S

Prep Method: SW8015P

Date Prep: 03.09.20

MSD Sample Id: 654990-027 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	993	99	1120	112	70-135	12	35	mg/kg	03.10.20 04:28	
Diesel Range Organics (DRO)	<50.0	1000	1000	100	969	97	70-135	3	35	mg/kg	03.10.20 04:28	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		130		70-135	%	03.10.20 04:28
o-Terphenyl	131		134		70-135	%	03.10.20 04:28

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

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

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

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



LT Environmental, Inc.

RDU 42

Analytical Method: BTEX by EPA 8021B

Seq Number: 3119020

MB Sample Id: 7698415-1-BLK

Matrix: Solid

LCS Sample Id: 7698415-1-BKS

Prep Method: SW5030B

Date Prep: 03.09.20

LCSD Sample Id: 7698415-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.111	111	0.109	109	70-130	2	35	mg/kg	03.09.20 13:24	
Toluene	<0.00200	0.100	0.107	107	0.106	106	70-130	1	35	mg/kg	03.09.20 13:24	
Ethylbenzene	<0.00200	0.100	0.102	102	0.101	101	71-129	1	35	mg/kg	03.09.20 13:24	
m,p-Xylenes	<0.00400	0.200	0.211	106	0.210	105	70-135	0	35	mg/kg	03.09.20 13:24	
o-Xylene	<0.00200	0.100	0.106	106	0.105	105	71-133	1	35	mg/kg	03.09.20 13:24	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		108		108		70-130	%	03.09.20 13:24
4-Bromofluorobenzene	94		94		94		70-130	%	03.09.20 13:24

Analytical Method: BTEX by EPA 8021B

Seq Number: 3119021

MB Sample Id: 7698416-1-BLK

Matrix: Solid

LCS Sample Id: 7698416-1-BKS

Prep Method: SW5030B

Date Prep: 03.09.20

LCSD Sample Id: 7698416-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.124	124	0.119	119	70-130	4	35	mg/kg	03.09.20 15:02	
Toluene	<0.00200	0.100	0.114	114	0.109	109	70-130	4	35	mg/kg	03.09.20 15:02	
Ethylbenzene	<0.00200	0.100	0.108	108	0.104	104	71-129	4	35	mg/kg	03.09.20 15:02	
m,p-Xylenes	<0.00400	0.200	0.211	106	0.202	101	70-135	4	35	mg/kg	03.09.20 15:02	
o-Xylene	<0.00200	0.100	0.107	107	0.102	102	71-133	5	35	mg/kg	03.09.20 15:02	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	113		110		110		70-130	%	03.09.20 15:02
4-Bromofluorobenzene	91		87		87		70-130	%	03.09.20 15:02

Analytical Method: BTEX by EPA 8021B

Seq Number: 3119031

MB Sample Id: 7698418-1-BLK

Matrix: Solid

LCS Sample Id: 7698418-1-BKS

Prep Method: SW5030B

Date Prep: 03.09.20

LCSD Sample Id: 7698418-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.107	107	0.108	108	70-130	1	35	mg/kg	03.09.20 23:36	
Toluene	<0.00200	0.100	0.102	102	0.104	104	70-130	2	35	mg/kg	03.09.20 23:36	
Ethylbenzene	<0.00200	0.100	0.0961	96	0.0989	99	71-129	3	35	mg/kg	03.09.20 23:36	
m,p-Xylenes	<0.00400	0.200	0.196	98	0.204	102	70-135	4	35	mg/kg	03.09.20 23:36	
o-Xylene	<0.00200	0.100	0.0995	100	0.103	103	71-133	3	35	mg/kg	03.09.20 23:36	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		107		108		70-130	%	03.09.20 23:36
4-Bromofluorobenzene	94		93		94		70-130	%	03.09.20 23:36

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

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

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

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



LT Environmental, Inc.

RDU 42

Analytical Method: BTEX by EPA 8021B

Seq Number: 3119020

Parent Sample Id: 654956-001

Matrix: Soil

MS Sample Id: 654956-001 S

Prep Method: SW5030B

Date Prep: 03.09.20

MSD Sample Id: 654956-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0990	0.110	111	0.106	107	70-130	4	35	mg/kg	03.09.20 14:05	
Toluene	<0.00198	0.0990	0.106	107	0.103	104	70-130	3	35	mg/kg	03.09.20 14:05	
Ethylbenzene	<0.00198	0.0990	0.100	101	0.0975	98	71-129	3	35	mg/kg	03.09.20 14:05	
m,p-Xylenes	<0.00396	0.198	0.206	104	0.201	101	70-135	2	35	mg/kg	03.09.20 14:05	
o-Xylene	<0.00198	0.0990	0.102	103	0.0996	100	71-133	2	35	mg/kg	03.09.20 14:05	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		107		70-130	%	03.09.20 14:05
4-Bromofluorobenzene	92		93		70-130	%	03.09.20 14:05

Analytical Method: BTEX by EPA 8021B

Seq Number: 3119021

Parent Sample Id: 654990-006

Matrix: Soil

MS Sample Id: 654990-006 S

Prep Method: SW5030B

Date Prep: 03.09.20

MSD Sample Id: 654990-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.112	112	0.104	104	70-130	7	35	mg/kg	03.09.20 16:04	
Toluene	<0.00200	0.100	0.100	100	0.0922	92	70-130	8	35	mg/kg	03.09.20 16:04	
Ethylbenzene	<0.00200	0.100	0.0917	92	0.0835	84	71-129	9	35	mg/kg	03.09.20 16:04	
m,p-Xylenes	<0.00400	0.200	0.177	89	0.161	81	70-135	9	35	mg/kg	03.09.20 16:04	
o-Xylene	<0.00200	0.100	0.0882	88	0.0803	80	71-133	9	35	mg/kg	03.09.20 16:04	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		110		70-130	%	03.09.20 16:04
4-Bromofluorobenzene	85		85		70-130	%	03.09.20 16:04

Analytical Method: BTEX by EPA 8021B

Seq Number: 3119031

Parent Sample Id: 654990-026

Matrix: Soil

MS Sample Id: 654990-026 S

Prep Method: SW5030B

Date Prep: 03.09.20

MSD Sample Id: 654990-026 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0852	86	0.0958	96	70-130	12	35	mg/kg	03.10.20 00:16	
Toluene	<0.00199	0.0994	0.0807	81	0.0905	91	70-130	11	35	mg/kg	03.10.20 00:16	
Ethylbenzene	<0.00199	0.0994	0.0747	75	0.0835	84	71-129	11	35	mg/kg	03.10.20 00:16	
m,p-Xylenes	<0.00398	0.199	0.152	76	0.169	85	70-135	11	35	mg/kg	03.10.20 00:16	
o-Xylene	<0.00199	0.0994	0.0762	77	0.0852	85	71-133	11	35	mg/kg	03.10.20 00:16	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		107		70-130	%	03.10.20 00:16
4-Bromofluorobenzene	96		93		70-130	%	03.10.20 00:16

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

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

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

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



Chain of Custody

Work Order No.:

1054990

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334

Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 680-6700
 Modesto, CA (202) 704-3440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Casabad, NM (432) 704-5440

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Page 1 of 3

Project Manager:	Chris McKisson	Bit for: (if different)	→
Company Name:	LT Environmental	Company Name:	→
Address:	820 Megan Ave, Unit B	Address:	
City, State ZIP:	Rifle, CO 81650	City, State ZIP:	
Phone:	(970) 285-9985	Email:	cmckisson@ltenv.com & abyers@ltenv.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRAP ☐ Level IV ☐

Deliverables: EDD ☐ ADAPT ☐ Other:

Project Name:	RDV 42	Turn Around
Project Number:	034820001	☒ Routine
Project Location	Rural Eddy County	☐ Rush
Sampler's Name:	Anna Byers	Due Date:
PO #:	1-6-20 Split Date	Quote #:

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	0.0					
Received Intact:	Yes	No				
Cooler Custody Seals:	Yes	No		Correction Factor:	-0.7	
Sample Custody Seals:	Yes	No		Total Containers:	29	
Thermometer ID T-NM-007						

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth
FS14		9	3/6/20	1115	0.5'
FS15				1120	0.3-0.5'
FS16				1125	0.3-0.5'
FS17				1142	0.3'
FS18				1148	0.3'
FS19				1150	0.3'
FS20				1151	0.3'
FS21				1153	0.3'
FS22				1156	0.3'
FS23				1158	0.3'

Number of Containers		Pres. Code	ANALYSIS REQUEST										Preservative Codes		
														MeOH: Me	
														None: NO	
														HNO ₃ : HN	
														H ₂ SO ₄ : H2	
														HCL: HL	
														NaOH: Na	
														Zn Acetate+ NaOH: Zn	
														TAT starts the day received by the lab, if received by 4:00pm	
														Sample Comments	

[illegible]

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn
TCLP/SPLP 6010-8RCRA Sh As Ba Be Cd Ca Cr Cu Fe Pb Mg Mn

1631 / 245.1 / 7470 / 7471 : Hg

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		5/19/20 12:05			



Chain of Custody

Work Order No: 1654990

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 Crashead, NM (432) 704-5440

Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 659-6701

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Page 2 of 3

Project Manager:	Chris McKisson	Bill to: (if different)	→
Company Name:	LT Environmental	Company Name:	→
Address:	880 Megan Ave, Unit B	Address:	
City, State ZIP:	Rifle, CO 81650	City, State ZIP:	
Phone:	(970) 285-9905	Email:	cmckisson@ltenv.com

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

Project Name:	RDU 42	Turn Around	
Project Number:	034820001	Routine	☒
Project Location:	Rural Eddy County	Rush:	
Sampler's Name:	Anna Byers	Due Date:	
PO #:	1-6-20 510000	Quote #:	

ANALYSIS REQUEST												Preservative Codes					
Temp Blank:	Yes	No	Wet Ice:	Yes	No	Pass. Code											
Temperature (°C):	0.10																
Received intact:	Yes	No															
Cooler Custody Seals:	Yes	No	N/A														
Sample Custody Seals:	Yes	No	N/A														
Correction Factor:																	
Total Containers:																	

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers												
FS24		S	3/6/20	1250	0.3'	1	TPH (EPA 8015) BTEX (EPA 8021) Chloride (EPA 800.0)											
FS25																		
FS26																		
FS27																		
FS28																		
FS29							X											
FS30																		
FS31																		
FS32																		
FS33																		

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

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

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Chris McKisson</i>	<i>Anna Byers</i>	3/9/20 12:03			



Chain of Custody

Work Order No:

654990

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
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Page 3 of 3

Project Manager:	Chris McKisson	Company Name:	LT Environmental
Address:	820 Megan Ave, Unit B	City, State ZIP:	Rifle, CO 81650
Phone:	(970) 285-9285	Email:	cmckisson@ltenv.com

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

ANALYSIS REQUEST

Project Name:	EDV 42	Turn Around	Pres. Code
Project Number:	03482001	Routine	☒
Project Location:	Rural Eddy County	Rush:	
Sampler's Name:	Anna Byers	Due Date:	
PO #: 1-6-20	Bill Date	Quote #:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	0.16			Thermometer ID		
Received intact:	Yes	No		Correction Factor:		
Cooler Custody Seals:	Yes	No	N/A	Total Containers:		
Sample Custody Seals:	Yes	No	N/A			

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Preservative Codes	Sample Comments
FS34		S	3/10/20	1435	0.3-0.5'	1	TPH (EPA 8015)	
FS35				1437	0.3'	1	BTEX (EPA 8021)	
FS36				1451	0.3-0.5'	1	Chloride (EPA 800.0)	
FS37				1449	0.3-0.5'	1		
FS38				1452	0.3-0.5'	1		
FS39				1455	0.3-0.5'	1		
FS40				1457	0.3-0.5'	1		
FS41				1500	0.5-	1		

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

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

TC1P / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Anna Byers	Chris McKisson	3/9/20 12:05			

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03.09.2020 12.03.00 PM

Work Order #: 654990

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist

Comments

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

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

Analyst:

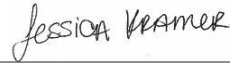
PH Device/Lot#:

Checklist completed by:


Elizabeth McClellan

Date: 03.09.2020

Checklist reviewed by:


Jessica Kramer

Date: 03.09.2020

Analytical Report 656197

**for
LT Environmental, Inc.**

Project Manager: Chris McKisson

RDU 42

034820034

20-MAR-20

Collected By: Client



**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



20-MAR-20

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

Reference: XENCO Report No(s): **656197**
RDU 42
Project Address:

Chris McKisson:

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) 656197. 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. 656197 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 656197

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS25A	S	03-18-20 13:20	0.5 ft	656197-001



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *RDU 42*

Project ID: 034820034

Work Order Number(s): 656197

Report Date: 20-MAR-20

Date Received: 03/19/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3120331 BTEX by EPA 8021B

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



Certificate of Analysis Summary 656197
LT Environmental, Inc., Arvada, CO
Project Name: RDU 42

Project Id: 034820034
Contact: Chris McKisson
Project Location:

Date Received in Lab: Thu Mar-19-20 08:15 am
Report Date: 20-MAR-20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>		<i>Lab Id:</i>	656197-001				
BTEX by EPA 8021B	<i>Field Id:</i>	FS25A					
	<i>Depth:</i>	0.5- ft					
	<i>Matrix:</i>	SOIL					
	<i>Sampled:</i>	Mar-18-20 13:20					
	<i>Extracted:</i>	Mar-19-20 11:34					
	<i>Analyzed:</i>	Mar-19-20 14:43					
	<i>Units/RL:</i>	mg/kg RL					
	Benzene	<0.00202 0.00202					
	Toluene	<0.00202 0.00202					
	Ethylbenzene	<0.00202 0.00202					
Chloride by EPA 300	m,p-Xylenes	<0.00404 0.00404					
	o-Xylene	<0.00202 0.00202					
	Xylenes, Total	<0.00202 0.00202					
	Total BTEX	<0.00202 0.00202					
TPH by SW8015 Mod	<i>Extracted:</i>	Mar-19-20 12:16					
	<i>Analyzed:</i>	Mar-19-20 12:50					
	<i>Units/RL:</i>	mg/kg RL					
	Chloride	4620 50.5					

	<i>Extracted:</i>	Mar-19-20 15:33					
	<i>Analyzed:</i>						
	<i>Units/RL:</i>	mg/kg RL					
	Gasoline Range Hydrocarbons (GRO)	<50.2 50.2					
	Diesel Range Organics (DRO)	<50.2 50.2					
Total GRO-DRO	Motor Oil Range Hydrocarbons (MIRO)	<50.2 50.2					
	Total GRO-DRO	<50.2 50.2					
	Total TPH	<50.2 50.2					

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

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

Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analytical Results 656197

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS25A** Matrix: Soil Date Received: 03.19.20 08.15
 Lab Sample Id: 656197-001 Date Collected: 03.18.20 13.20 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.19.20 12.16 Basis: Wet Weight
 Seq Number: 3120336

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4620	50.5	mg/kg	03.19.20 12.50		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.15.20 15.00 Basis: Wet Weight
 Seq Number: 3120393

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.19.20 15.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.19.20 15.33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.19.20 15.33	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.19.20 15.33	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.19.20 15.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	03.19.20 15.33	
o-Terphenyl	84-15-1	105	%	70-135	03.19.20 15.33	



Certificate of Analytical Results 656197

LT Environmental, Inc., Arvada, CO

RDU 42

Sample Id: **FS25A**
 Lab Sample Id: 656197-001

Matrix: Soil
 Date Collected: 03.18.20 13.20

Date Received: 03.19.20 08.15
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.19.20 11.34

Basis: Wet Weight

Seq Number: 3120331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.19.20 14.43	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.19.20 14.43	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.19.20 14.43	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	03.19.20 14.43	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.19.20 14.43	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.19.20 14.43	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.19.20 14.43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.19.20 14.43		
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.19.20 14.43		



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 **SQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

RDU 42

Analytical Method: Chloride by EPA 300

Seq Number: 3120336

MB Sample Id: 7699267-1-BLK

Matrix: Solid

LCS Sample Id: 7699267-1-BKS

Prep Method: E300P

Date Prep: 03.19.20

LCSD Sample Id: 7699267-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	260	104	262	105	90-110	1	20	mg/kg	03.19.20 12:09	

Analytical Method: Chloride by EPA 300

Seq Number: 3120336

Parent Sample Id: 656193-001

Matrix: Soil

MS Sample Id: 656193-001 S

Prep Method: E300P

Date Prep: 03.19.20

MSD Sample Id: 656193-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	312	200	527	108	528	108	90-110	0	20	mg/kg	03.19.20 12:30	

Analytical Method: Chloride by EPA 300

Seq Number: 3120336

Parent Sample Id: 656277-004

Matrix: Solid

MS Sample Id: 656277-004 S

Prep Method: E300P

Date Prep: 03.19.20

MSD Sample Id: 656277-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	535	200	752	109	745	106	90-110	1	20	mg/kg	03.19.20 16:13	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120393

MB Sample Id: 7699383-1-BLK

Matrix: Solid

LCS Sample Id: 7699383-1-BKS

Prep Method: SW8015P

Date Prep: 03.15.20

LCSD Sample Id: 7699383-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	911	91	946	95	70-135	4	35	mg/kg	03.19.20 14:52	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	1020	102	70-135	1	35	mg/kg	03.19.20 14:52	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		115		119		70-135	%	03.19.20 14:52
o-Terphenyl	99		118		113		70-135	%	03.19.20 14:52

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120393

Matrix: Solid

MB Sample Id: 7699383-1-BLK

Prep Method: SW8015P

Date Prep: 03.15.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.19.20 14:32	

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

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

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

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



LT Environmental, Inc.

RDU 42

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120393

Parent Sample Id: 656197-001

Matrix: Soil

MS Sample Id: 656197-001 S

Prep Method: SW8015P

Date Prep: 03.15.20

MSD Sample Id: 656197-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	906	91	924	92	70-135	2	35	mg/kg	03.19.20 15:53	
Diesel Range Organics (DRO)	<50.0	999	984	98	1020	102	70-135	4	35	mg/kg	03.19.20 15:53	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		117		70-135	%	03.19.20 15:53
o-Terphenyl	114		117		70-135	%	03.19.20 15:53

Analytical Method: BTEX by EPA 8021B

Seq Number: 3120331

MB Sample Id: 7699269-1-BLK

Matrix: Solid

LCS Sample Id: 7699269-1-BKS

Prep Method: SW5030B

Date Prep: 03.19.20

LCSD Sample Id: 7699269-1-BSO

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.108	108	0.104	104	70-130	4	35	mg/kg	03.19.20 12:41	
Toluene	<0.00200	0.100	0.104	104	0.0995	100	70-130	4	35	mg/kg	03.19.20 12:41	
Ethylbenzene	<0.00200	0.100	0.100	100	0.0950	95	71-129	5	35	mg/kg	03.19.20 12:41	
m,p-Xylenes	<0.00400	0.200	0.207	104	0.197	99	70-135	5	35	mg/kg	03.19.20 12:41	
o-Xylene	<0.00200	0.100	0.103	103	0.0982	98	71-133	5	35	mg/kg	03.19.20 12:41	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		107		108		70-130	%	03.19.20 12:41
4-Bromofluorobenzene	94		93		95		70-130	%	03.19.20 12:41

Analytical Method: BTEX by EPA 8021B

Seq Number: 3120331

Parent Sample Id: 656196-001

Matrix: Soil

MS Sample Id: 656196-001 S

Prep Method: SW5030B

Date Prep: 03.19.20

MSD Sample Id: 656196-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.103	103	0.104	105	70-130	1	35	mg/kg	03.19.20 13:22	
Toluene	<0.00200	0.100	0.0933	93	0.0844	85	70-130	10	35	mg/kg	03.19.20 13:22	
Ethylbenzene	<0.00200	0.100	0.0877	88	0.0770	78	71-129	13	35	mg/kg	03.19.20 13:22	
m,p-Xylenes	<0.00400	0.200	0.178	89	0.153	77	70-135	15	35	mg/kg	03.19.20 13:22	
o-Xylene	<0.00200	0.100	0.0916	92	0.0828	83	71-133	10	35	mg/kg	03.19.20 13:22	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		109		70-130	%	03.19.20 13:22
4-Bromofluorobenzene	96		94		70-130	%	03.19.20 13:22

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

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

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

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



Chain of Custody

Work Order No: 1252197

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:	Chris McKisson	Bill to: (if different)	Chris McKisson
Company Name:	LT Environmental, Inc.,	Company Name:	LT Environmental
Address:	820 Megan Ave. Unit B	Address:	
City, State ZIP:	Rifle, CO 81650	City, State ZIP:	
Phone:	970-285-9985	Email:	jhm@ltenv.com, cmckisson@ltenv.com

ANALYSIS REQUEST

Work Order Notes

Project Name:	RDU 42	Turn Around	
Project Number:	034820061	Routine	☒
P.O. Number:	1/6/20 5011 clete	Rush:	
Sampler's Name:	Jeremy Hill	Due Date:	

SAMPLE RECEIPT		Temp Blank:	☒ Yes ☒ No	Wet Ice:	☒ Yes ☒ No
Temperature (°C):		1.50	Thermometer ID		
Received Intact:		Yes ☒ No	Correction Factor: TMM007		
Cooler Custody Seals:		Yes ☒ No	Total Containers: -0-2		
Sample Custody Seals:		Yes ☒ No	Total Containers: 1		

Number of Containers

TPH (EPA 8015) ☒

BTEX (EPA 0-8021) ☒

Chloride (EPA 300.0) ☒

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

Sample Comments

deposits

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

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	3/19/20 17:30pm	<i>[Signature]</i>	<i>[Signature]</i>	3/19/20 08:15

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03.19.2020 08.15.00 AM

Work Order #: 656197

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

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

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

Analyst:

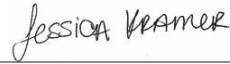
PH Device/Lot#:

Checklist completed by:


Elizabeth McClellan

Date: 03.19.2020

Checklist reviewed by:


Jessica Kramer

Date: 03.19.2020

ATTACHMENT 4: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG



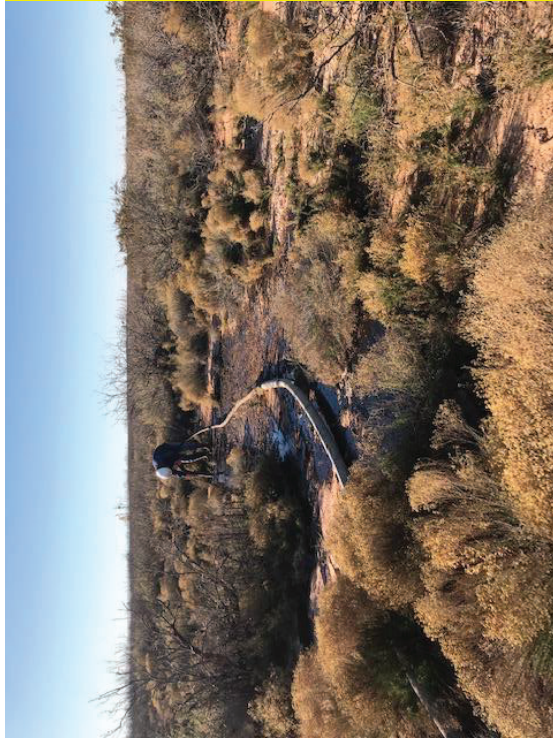
Photograph 1: View of the Site facing northeast.



Photograph 2: View of the Site facing south.



Photograph 3: View of the Site facing north.



Photograph 4: View of the Site facing west.

Ross Draw Unit #042
32.026123308, -103.8718851
Photographs Taken: January 6, 2020 through March 10, 2020

PHOTOGRAPHIC LOG



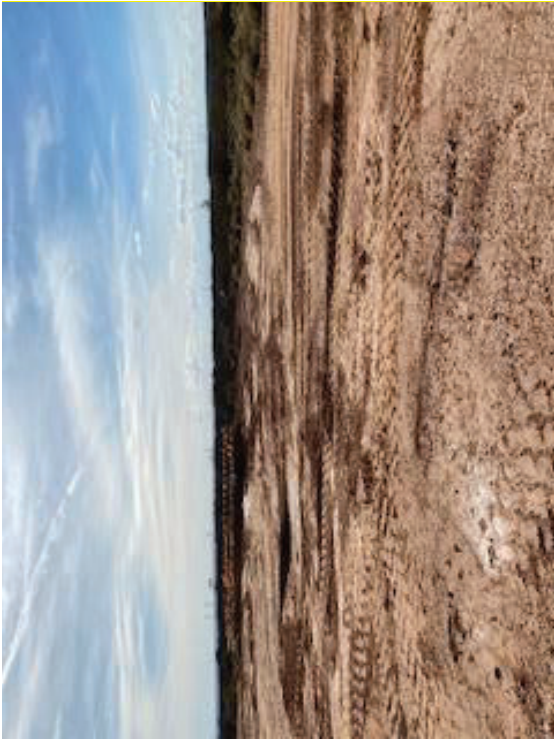
Photograph 5: West view of the Site during excavation events.



Photograph 6: Northeast view of the Site during excavation events.



Photograph 7: West view of the Site during excavation events.



Photograph 8: Southwest view of the Site during excavation events.

PHOTOGRAPHIC LOG



Photograph 9: Southeast view of the Site during excavation events.



Photograph 10: Northeast view of the Site during excavation events.

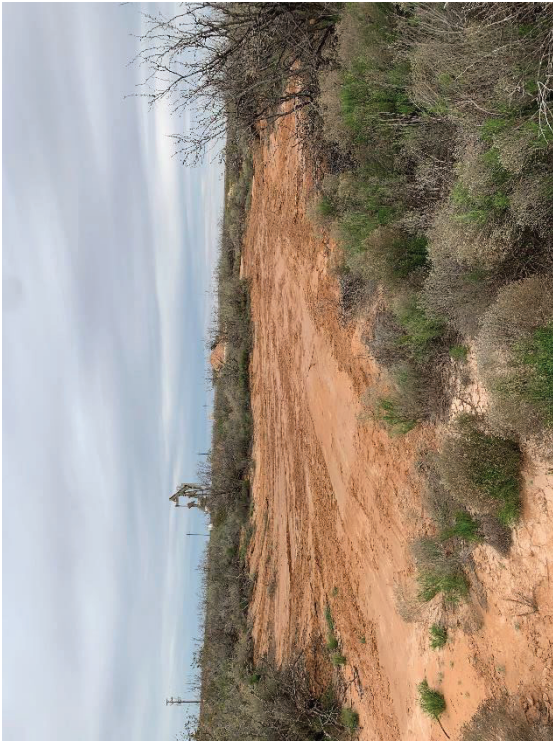


Photograph 11: Northeast view of the Site during excavation events.



Photograph 12: Northwest view of the Site during excavation events.

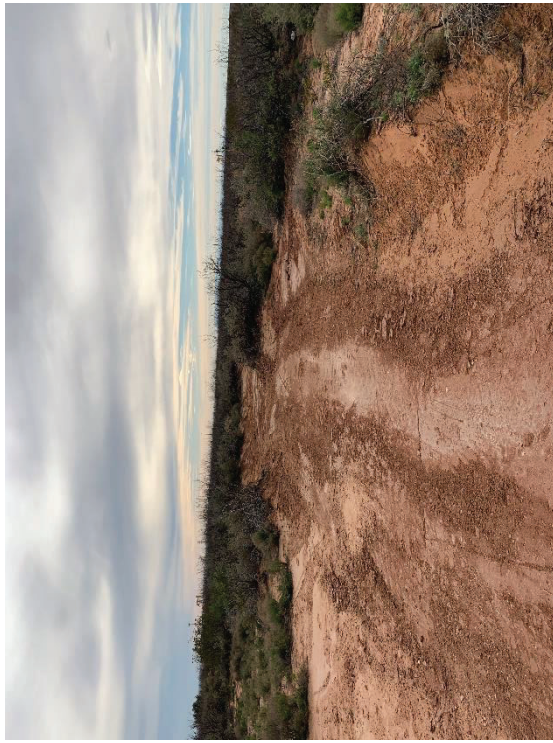
PHOTOGRAPHIC LOG



Photograph 13: Northeast view of the Site following restoration events.



Photograph 14: Southwest view of the Site following restoration events.



Photograph 15: Southwest view of the Site following restoration events.



Photograph 16: Northeast view of the Site following restoration events.

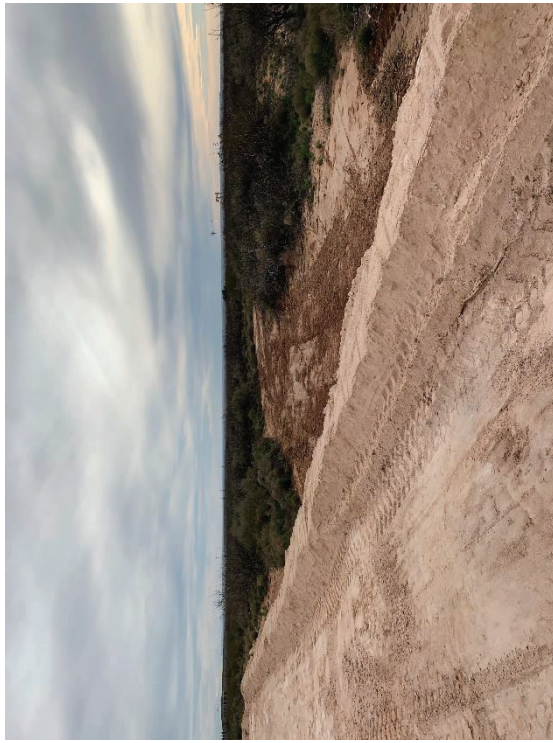
PHOTOGRAPHIC LOG



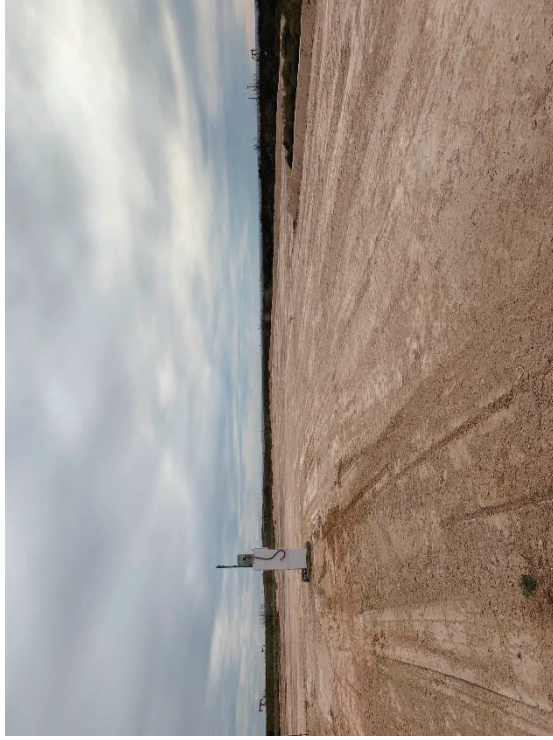
Photograph 17: Southwest view of the Site following restoration events.



Photograph 18: West view of the Site following restoration events.



Photograph 19: Southwest view of the Site following restoration events.



Photograph 20: South view of the Site following restoration events.