



LT Environmental, Inc.

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

April 14, 2020

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

**RE: Closure Request
WPX Energy Permian, LLC
Sheep Draw Federal #003
Incident ID NRM1935243374
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 excavation and soil sampling activities at the Sheep Draw Federal #003 (Site) in Unit F, Section 33, Township 22 South, Range 26 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 the 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 October 17, 2019, a failed subsurface flowline resulted in approximately 13 bbls of crude oil and 1 bbl of produced water to be released along a plugged and abandoned well pad (formerly Sheep Draw Federal #002) Right of Way (ROW) and adjacent pasture. The active flowline was associated with the Sheep Draw Federal #003 well pad, approximately 1,497 feet southwest of the release source. Due to the nature of the permeable soil composition, no fluids were recovered. 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 on October 29, 2019 and was assigned Incident ID NRM1935243374 (Attachment 1).

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 an identified water well. The nearest permitted water well with depth to water data is United States Geological Survey (USGS) water well 322137104175001, located approximately 3,275 feet north of the Site. Water well 322137104175001 has a reported depth to water of 166 feet bgs and is approximately 12 feet lower in elevation than the Site. The closest significant watercourse to the Site is an unnamed



tributary located approximately 1,740 northeast of the Site. The Site is less than 300 feet from an occupied residence, but greater than 300 feet from a 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. The Site is located in a high-potential karst area. Potential receptors identified during site characterization are displayed in Figure 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);
- 100 mg/kg total petroleum hydrocarbons (TPH); and
- 600 mg/kg chloride.

INITIAL SITE ASSESSMENT

Between October 28, 2019 and February 24, 2020 WESCOM, Inc. (WESCOM) initiated and conducted site assessment and excavation activities. Based on internal correspondence and site progress assessment, an estimated 1,760 cubic yards of impacted soil had been excavated and stockpiled on site. At that time, the excavation measured approximately 6,727 square feet.

EXCAVATION AND SOIL SAMPLING ACTIVITIES

Between March 11, 2020 and March 20, 2020, LTE was on site to oversee remaining excavation activities within the subject release area. Continued corrective action began by utilizing heavy equipment to construct benches at approximately 10 feet and 20 feet bgs along the eastern-most sidewall to permit equipment mobility within the excavation (Figure 2). The terraced wall enabled the excavator to access soil impacts at depths greater than 20 feet bgs and ultimately excavate 30 feet bgs. Prior to excavation reconstruction activities, the east sidewall was field screened and yielded hydrocarbon and chloride soil concentrations below the applicable remediation action levels. The generated material was then staged onsite to be utilized as backfill material upon laboratory confirmation of acceptable TPH and chloride levels (Table 1).

Excavation activities were directed by field screening soil samples for volatile aromatic hydrocarbons using a PID and chloride using Hach® chloride QuanTab® test strips. When field screening indicated compliance with Closure Criteria, 5-point composite confirmation soil samples were collected from the floor (samples labeled as "FS") and sidewalls (samples labeled as "SW") of the excavation area. Additionally, representative stockpile samples were collected from the soil excavated from the east sidewall (samples labeled as "SP"). Each soil sample represented at most 200 square feet. Floor samples were collected from the floor of the



excavation benches and from total depth. In areas with increased depth, SW samples were collected from separate depth intervals in order to adequately define the surface area. Soil samples were placed directly into a pre-cleaned glass jar, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were shipped at or below 4 degrees Celsius (°C), under strict chain-of-custody (COC) procedures, to Xenco Laboratories (Xenco) in Midland, Texas, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-motor oil range organics (MRO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Initial laboratory analytical results indicated additional removal of impacted soil was required in the areas represented by soil samples SW35 at 0.5 to 15 feet bgs and SW36 at 0.5 to 15 feet bgs. Remediation in these areas was confirmed via laboratory analytical results of soil samples SW59 at 0.5 to 15 feet and SW58 at 0.5 to 15 feet, respectively.

During the duration of remediation activities, approximately 3,540 cubic yards of impacted soil were removed from the excavation area and transported to the R360 Halfway Facility in Hobbs, New Mexico for disposal under WPX approved manifests. Waste manifests are available upon request from WPX. The excavation area measured a total of approximately 10,959 square feet in area and ranged in depth from 0.5 foot bgs to 30 feet bgs. The excavation area and soil sample locations are depicted on Figure 2. Complete laboratory analytical reports are included in Attachment 2. Photographic documentation was conducted through remediation events. 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. 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 closure of Incident ID NRM1935243374.



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

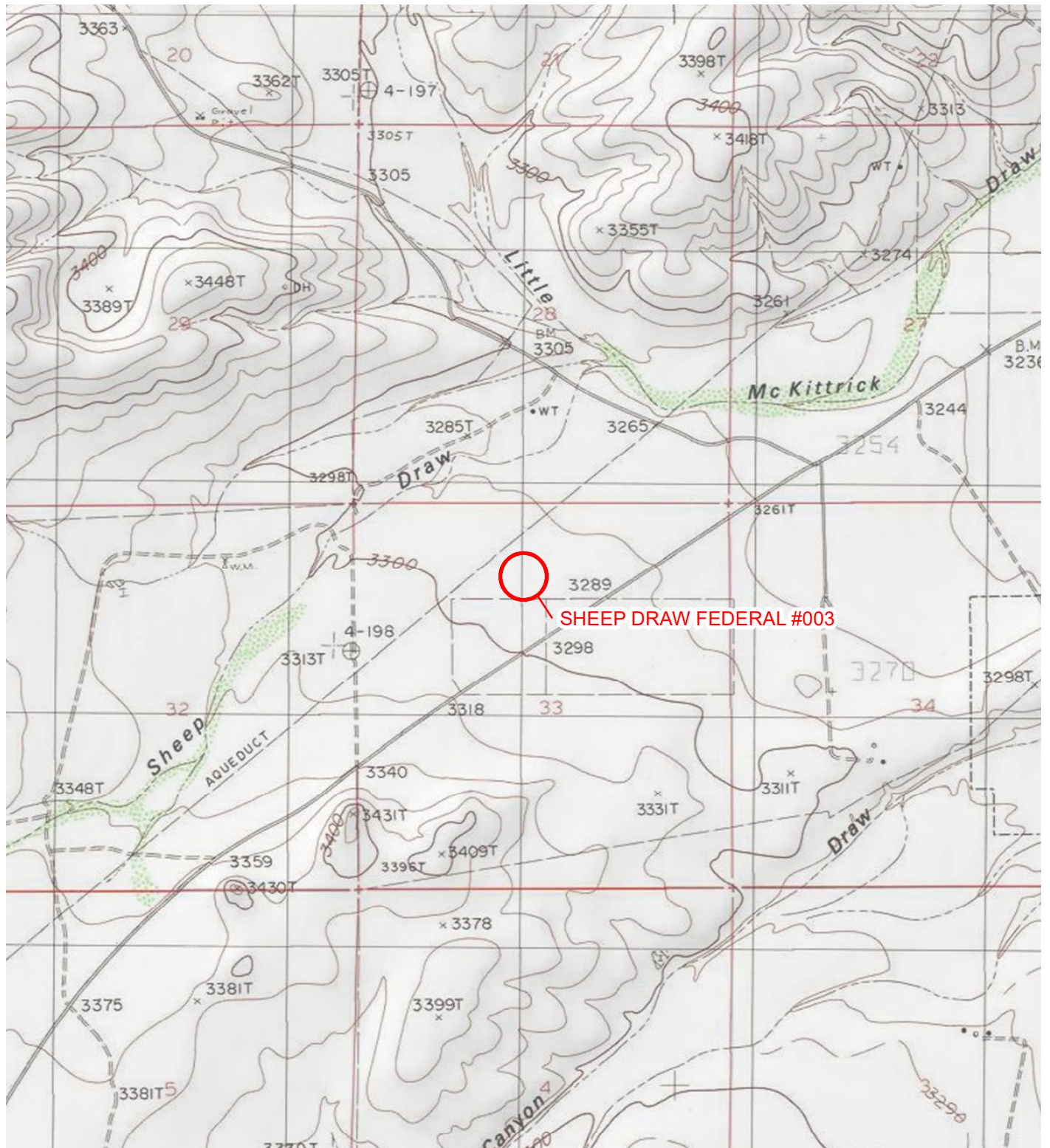
cc: Jim Raley, WPX
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD
Jim Amos, BLM

Attachments:

Figure 1 Site Location Map
Figure 2 Characterization Assessment Map
Figure 3 Excavation Soil Sample Locations
Table 1 Soil Analytical Results
Attachment 1 Form C-141
Attachment 2 Laboratory Analytical Reports
Attachment 3 Photographic Log

FIGURES



**LEGEND**

○ SITE LOCATION

IMAGE COURTESY OF ESRI/USGS

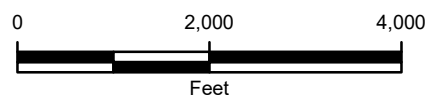
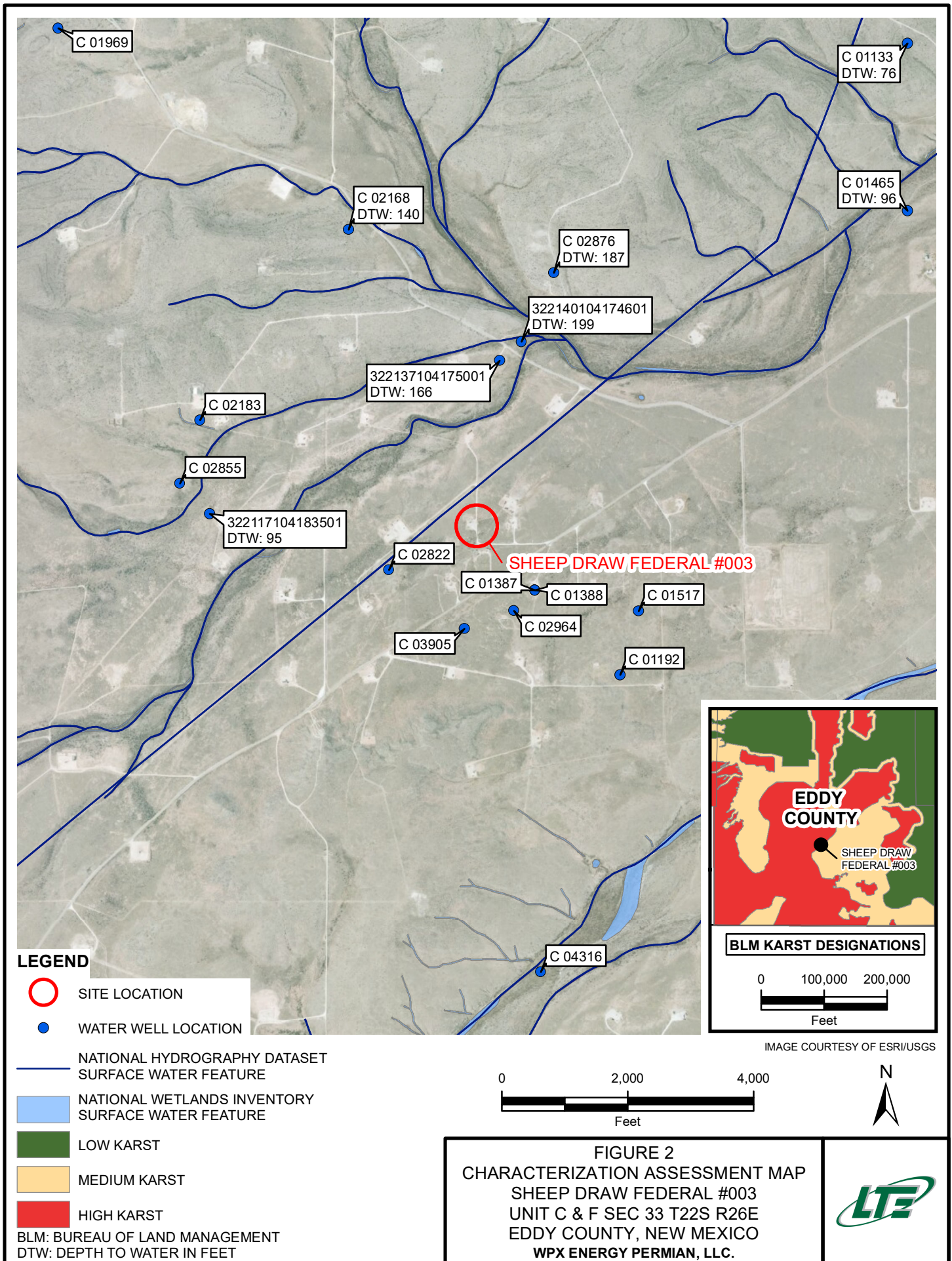
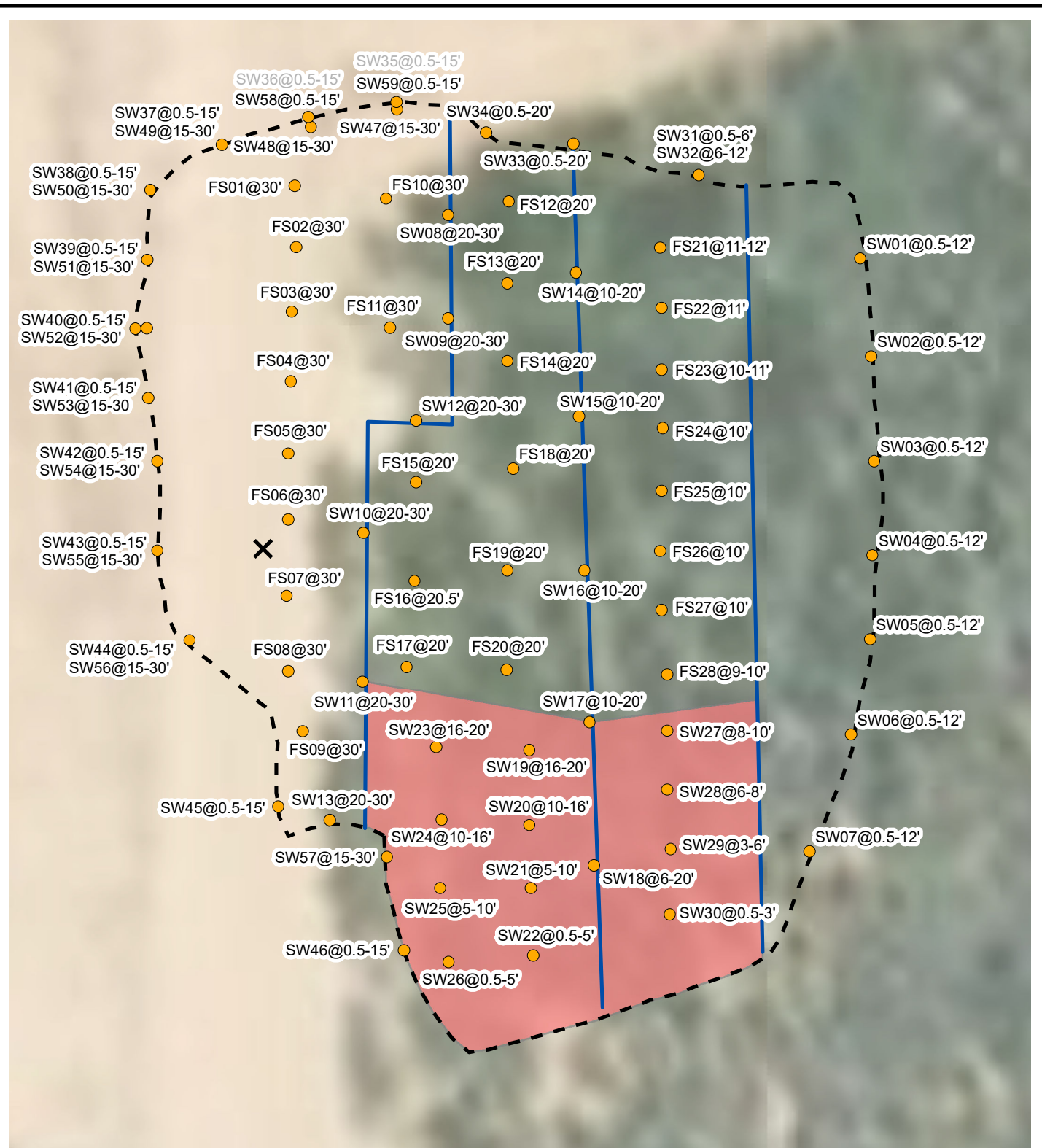


FIGURE 1
SITE LOCATION MAP
 SHEEP DRAW FEDERAL #003
 UNIT C & F SEC 33 T22S R26E
 EDDY COUNTY, NEW MEXICO
 WPX ENERGY PERMIAN, LLC.





**LEGEND**

- X** RELEASE LOCATION
- EXCAVATION SOIL SAMPLE
- EXCAVATION BENCH BOUNDARY
- - -** EXCAVATION EXTENT
- SIDEWALL RAMP SECTION

IMAGE COURTESY OF ESRI

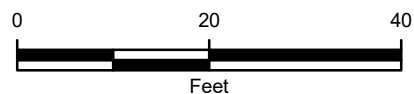


FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
 SHEEP DRAW FEDERAL #003
 UNIT C & F SEC 33 T22S R26E
 EDDY COUNTY, NEW MEXICO
 WPX ENERGY PERMIAN, LLC.



TABLE



TABLE 1
SOIL ANALYTICAL RESULTS

SHEEP DRAW FEDERAL #003
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)	Application
NMOCDC Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600	
FS01	30	03/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	77.7	In-situ
FS02	30	03/16/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	132	In-situ
FS03	30	03/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	197	In-situ
FS04	30	03/16/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	198	In-situ
FS05	30	03/16/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	326	In-situ
FS06	30	03/16/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	224	In-situ
FS07	30	03/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	165	In-situ
FS08	30	03/16/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	<10.1	In-situ
FS09	30	03/16/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	<10.0	In-situ
FS10	30	03/17/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	180	In-situ
FS11	30	03/17/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	154	In-situ
FS12	20	03/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	245	In-situ
FS13	20	03/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	452	In-situ
FS14	20	03/17/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	231	In-situ
FS15	20	03/17/2020	<0.00227	<0.00227	<0.00227	<0.00227	<0.00227	<50.0	<50.0	<50.0	<50.0	<50.0	346	In-situ
FS16	20.5	03/17/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	120	In-situ
FS17	20	03/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	212	In-situ
FS18	20	03/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	110	In-situ
FS19	20	03/17/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	169	In-situ
FS20	20	03/17/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	118	In-situ
FS21	11 - 12	03/18/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	224	In-situ
FS22	11	03/18/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	181	In-situ
FS23	10 - 11	03/18/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	255	In-situ
FS24	10	03/18/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	<10.0	In-situ

TABLE 1
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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)	Application
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600	
FS25	10	03/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	<10.0	In-situ
FS26	10	03/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	<10.0	In-situ
FS27	10	03/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<10.1	In-situ
FS28	9 - 10	03/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	63.3	In-situ
SW01	0.5 - 12	03/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	23.0	In-situ
SW02	0.5 - 12	03/16/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	<10.1	In-situ
SW03	0.5 - 12	03/16/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	<9.98	In-situ
SW04	0.5 - 12	03/16/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	<9.96	In-situ
SW05	0.5 - 12	03/16/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	<10.1	In-situ
SW06	0.5 - 12	03/16/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	<10.0	In-situ
SW07	0.5 - 12	03/16/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	13.6	In-situ
SW08	20 - 30	03/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	399	In-situ
SW09	20 - 30	03/17/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	452	In-situ
SW10	20 - 30	03/16/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	150	In-situ
SW11	20 - 30	03/16/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	<9.96	In-situ
SW12	20 - 30	03/17/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	380	In-situ
SW13	20 - 30	03/17/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	31.8	In-situ
SW14	10 - 20	03/17/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	243	In-situ
SW15	10 - 20	03/17/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	180	In-situ
SW16	10 - 20	03/17/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	<9.90	In-situ
SW17	10 - 20	03/17/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	20.7	In-situ
SW18	6 - 20	03/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	39.3	In-situ
SW19	16 - 20	03/17/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	55.3	In-situ
SW20	10 - 16	03/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	49.2	In-situ

TABLE 1
SOIL ANALYTICAL RESULTS

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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)	Application
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600	
SW21	5 - 10	03/17/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	35.7	In-situ
SW22	0.5 - 5	03/17/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	24.5	In-situ
SW23	16 - 20	03/17/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	41.6	In-situ
SW24	10 - 16	03/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	84.3	In-situ
SW25	5 - 10	03/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	79.7	In-situ
SW26	0.5 - 5	03/17/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	31.7	In-situ
SW27	8 - 10	03/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	90.0	In-situ
SW28	6 - 8	03/18/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	48.8	In-situ
SW29	3 - 6	03/18/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	35.1	In-situ
SW30	0.5 - 3	03/18/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	<9.98	In-situ
SW31	0.5 - 6	03/18/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	<9.92	In-situ
SW32	6 - 12	03/18/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	78.5	In-situ
SW33	0.5 - 20	03/18/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	138	In-situ
SW34	0.5 - 20	03/18/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	412	In-situ
SW35	0.5 - 15	03/18/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	173	52.7	173	226	22.1	Excavated
SW36	0.5 - 15	03/18/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	952	163	952	1,120	488	Excavated
SW37	0.5 - 15	03/18/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	495	In-situ
SW38	0.5 - 15	03/18/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	535	In-situ
SW39	0.5 - 15	03/18/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	550	In-situ
SW40	0.5 - 15	03/19/2020	<0.000485	<0.000527	<0.000405	<0.000402	<0.000402	<14.0	<11.5	<11.5	<11.5	<11.5	257	In-situ
SW41	0.5 - 15	03/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	179	In-situ
SW42	0.5 - 15	03/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	261	In-situ
SW43	0.5 - 15	03/18/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	228	In-situ
SW44	0.5 - 15	03/18/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	113	In-situ

TABLE 1
SOIL ANALYTICAL RESULTS

SHEEP DRAW FEDERAL #003
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)	Application
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600	
SW45	0.5 - 15	03/19/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	239	In-situ
SW46	0.5 - 15	03/18/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	101	In-situ
SW47	15 - 30	03/19/2020	<0.000487	<0.000530	<0.000408	<0.000405	<0.000405	<13.9	<11.5	<11.5	<11.5	<11.5	433	In-situ
SW48	15 - 30	03/19/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	481	In-situ
SW49	15 - 30	03/19/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	141	In-situ
SW50	15 - 30	03/19/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	12.4	In-situ
SW51	15 - 30	03/19/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	24.3	In-situ
SW52	15 - 30	03/19/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	19.4	In-situ
SW53	15 - 30	03/19/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	59.0	In-situ
SW54	15 - 30	03/19/2020	<0.00199	0.00477	<0.00199	0.00572	0.0105	<50.3	<50.3	<50.3	<50.3	<50.3	303	In-situ
SW55	15 - 30	03/19/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	187	In-situ
SW56	15 - 30	03/19/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	80.3	In-situ
SW57	15 - 30	03/19/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	15.2	In-situ
SW58	0.5 - 15	03/20/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	69.2	<50.0	69.2	69.2	420	In-situ
SW59	0.5 - 15	03/20/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	58.4	<50.0	58.4	58.4	391	In-situ
SP01	-	03/19/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	86.2	<50.0	86.2	86.2	306	Stockpile
SP02	-	03/19/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	218	Stockpile
SP03	-	03/19/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	113	Stockpile
SP04	-	03/19/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	156	Stockpile
SP05	-	03/19/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	50.5	Stockpile

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

TPH - total petroleum hydrocarbons

ND - Analyte NOT DETECTED at or above the reporting limit

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

NE - not established

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	NRM1935243374
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)
Contact mailing address: 5315 Buena Vista Dr., Carlsbad, NM 88220	

Location of Release Source

Latitude 32.3505402 _____ Longitude -104.3002625 _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: SHEEP DRAW FEDERAL #003	Site Type: Production Facility
Date Release Discovered: 10/17/2019	API# (if applicable): 30-015-27341

Unit Letter	Section	Township	Range	County
F	33	22S	26E	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) 13	Volume Recovered (bbls) 0
☒ Produced Water	Volume Released (bbls) 1	Volume Recovered (bbls) 0
	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 flowline allowed fluids (13 oil/1 PW) to impact soils along ROW.

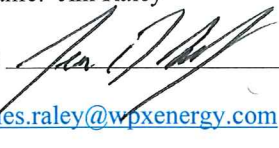
State of New Mexico
Oil Conservation Division

Incident ID	NRM1935243374
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?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? 	

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 Signature:  email: james.raley@wpenergy.com	Title: Environmental Specialist Date: 10/28/2019 Telephone: 575-689-7597
<u>OCD Only</u> Received by: _____ Date: _____	

Incident ID	NRM1935243374
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.

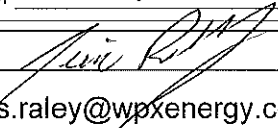
State of New Mexico
Oil Conservation Division

Incident ID	NRM1935243374
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: _____

email: james.raley@wpenergy.com

Telephone: 575-689-7597

OCD Only

Received by: Cristina Eads

Date: 07/15/2020

Incident ID	NRM1935243374
District RP	
Facility ID	
Application ID	

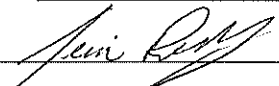
Closure

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

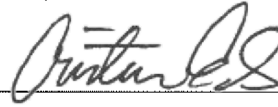
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public 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: _____
email: james.raley@wpxenergy.com Telephone: 575-689-7597

OCD Only

Received by: Cristina Eads Date: 07/15/2020

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: 07/15/2020

Printed Name: Cristina Eads Title: Environmental Specialist

ATTACHMENT 2: LABORATORY ANALYTICAL REPORTS



Analytical Report 655869

for
LT Environmental, Inc.

Project Manager: Chris McKisson

Sheep Draw Federal #003

034820017

18-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)



18-MAR-20

NRM1935243374

Project Manager: **Chris McKisson**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **655869**

Sheep Draw Federal #003

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) 655869. 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. 655869 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 655869****LT Environmental, Inc., Arvada, CO**

Sheep Draw Federal #003

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW01	S	03-16-20 08:47	0.5 - 12 ft	655869-001
SW02	S	03-16-20 08:53	0.5 - 12 ft	655869-002
SW03	S	03-16-20 08:59	0.5 - 12 ft	655869-003
SW04	S	03-16-20 09:07	0.5 - 12 ft	655869-004
SW05	S	03-16-20 09:13	0.5 - 12 ft	655869-005
SW06	S	03-16-20 09:19	0.5 - 12 ft	655869-006
SW07	S	03-16-20 09:25	0.5 - 12 ft	655869-007
FS01	S	03-16-20 11:48	30 ft	655869-008
FS02	S	03-16-20 11:54	30 ft	655869-009
FS03	S	03-16-20 11:59	30 ft	655869-010
FS04	S	03-16-20 12:05	30 ft	655869-011
FS05	S	03-16-20 12:10	30 ft	655869-012
FS06	S	03-16-20 12:14	30 ft	655869-013
FS07	S	03-16-20 12:18	30 ft	655869-014
FS08	S	03-16-20 12:23	30 ft	655869-015
FS09	S	03-16-20 12:27	30 ft	655869-016
SW10	S	03-16-20 13:30	20 - 30 ft	655869-017
SW11	S	03-16-20 13:34	20 - 30 ft	655869-018



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Sheep Draw Federal #003

Project ID: 034820017
Work Order Number(s): 655869

Report Date: 18-MAR-20
Date Received: 03/16/2020

Sample receipt non conformances and comments:

V1.001 Revision - (client email) corrected typo on sample dates. All samples were collected on 03/16/20.

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3119929 BTEX by EPA 8021B

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



Certificate of Analysis Summary 655869

LT Environmental, Inc., Arvada, CO

Project Name: Sheep Draw Federal #003

Project Id: 034820017
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Mon Mar-16-20 05:14 pm
Report Date: 18-MAR-20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	655869-001	655869-002	655869-003	655869-004	655869-005	655869-006
	<i>Field Id:</i>	SW01	SW02	SW03	SW04	SW05	SW06
	<i>Depth:</i>	0.5-12 ft	0.5-12 ft	0.5-12 ft	0.5-12 ft	0.5-12 ft	0.5-12 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-16-20 08:47	Mar-16-20 08:53	Mar-16-20 08:59	Mar-16-20 09:07	Mar-16-20 09:13	Mar-16-20 09:19
BTEX by EPA 8021B	<i>Extracted:</i>	Mar-16-20 23:12	Mar-16-20 23:12	Mar-16-20 23:12	Mar-16-20 23:12	Mar-16-20 23:12	Mar-16-20 23:12
	<i>Analyzed:</i>	Mar-17-20 06:59	Mar-17-20 07:20	Mar-17-20 07:40	Mar-17-20 08:00	Mar-17-20 08:21	Mar-17-20 08:41
	<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	<0.00199 0.00199	<0.00202 0.00202	<0.00198 0.00198	<0.00202 0.00202
Toluene		<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00202 0.00202	<0.00198 0.00198	<0.00202 0.00202
Ethylbenzene		<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00202 0.00202	<0.00198 0.00198	<0.00202 0.00202
m,p-Xylenes		<0.00399 0.00399	<0.00397 0.00397	<0.00398 0.00398	<0.00403 0.00403	<0.00396 0.00396	<0.00404 0.00404
o-Xylene		<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00202 0.00202	<0.00198 0.00198	<0.00202 0.00202
Xylenes, Total		<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00202 0.00202	<0.00198 0.00198	<0.00202 0.00202
Total BTEX		<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00202 0.00202	<0.00198 0.00198	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	Mar-16-20 20:00	Mar-16-20 20:00	Mar-16-20 20:00	Mar-16-20 20:00	Mar-16-20 20:00	Mar-16-20 20:00
	<i>Analyzed:</i>	Mar-16-20 23:30	Mar-16-20 23:37	Mar-16-20 23:43	Mar-16-20 23:49	Mar-16-20 23:55	Mar-17-20 00:02
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		23.0 10.0	<10.1 10.1	<9.98 9.98	<9.96 9.96	<10.1 10.1	<10.0 10.0
TPH by SW8015 Mod	<i>Extracted:</i>	Mar-16-20 17:30	Mar-16-20 17:30	Mar-16-20 17:30	Mar-16-20 17:30	Mar-16-20 17:30	Mar-16-20 17:30
	<i>Analyzed:</i>	Mar-17-20 01:46	Mar-17-20 02:06	Mar-17-20 02:27	Mar-17-20 02:47	Mar-17-20 03:08	Mar-17-20 03:28
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<50.2 50.2	<49.9 49.9	<50.1 50.1	<50.0 50.0	<50.2 50.2
Diesel Range Organics (DRO)		<49.8 49.8	<50.2 50.2	<49.9 49.9	<50.1 50.1	<50.0 50.0	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.2 50.2	<49.9 49.9	<50.1 50.1	<50.0 50.0	<50.2 50.2
Total GRO-DRO		<49.8 49.8	<50.2 50.2	<49.9 49.9	<50.1 50.1	<50.0 50.0	<50.2 50.2
Total TPH		<49.8 49.8	<50.2 50.2	<49.9 49.9	<50.1 50.1	<50.0 50.0	<50.2 50.2

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 655869

LT Environmental, Inc., Arvada, CO

Project Name: Sheep Draw Federal #003

Project Id: 034820017
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Mon Mar-16-20 05:14 pm
Report Date: 18-MAR-20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	655869-007	655869-008	655869-009	655869-010	655869-011	655869-012
	<i>Field Id:</i>	SW07	FS01	FS02	FS03	FS04	FS05
	<i>Depth:</i>	0.5-12 ft	30- ft	30- ft	30- ft	30- ft	30- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-16-20 09:25	Mar-16-20 11:48	Mar-16-20 11:54	Mar-16-20 11:59	Mar-16-20 12:05	Mar-16-20 12:10
BTEX by EPA 8021B	<i>Extracted:</i>	Mar-16-20 23:12	Mar-16-20 23:12	Mar-16-20 23:12	Mar-16-20 23:12	Mar-16-20 23:12	Mar-16-20 23:12
	<i>Analyzed:</i>	Mar-17-20 09:02	Mar-17-20 09:22	Mar-17-20 09:42	Mar-17-20 10:03	Mar-17-20 11:04	Mar-17-20 11:24
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00198 0.00198
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00198 0.00198
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00198 0.00198
m,p-Xylenes		<0.00404 0.00404	<0.00400 0.00400	<0.00398 0.00398	<0.00401 0.00401	<0.00404 0.00404	<0.00396 0.00396
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00198 0.00198
Xylenes, Total		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00198 0.00198
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	Mar-16-20 20:00	Mar-16-20 21:00	Mar-16-20 21:00	Mar-16-20 21:00	Mar-16-20 21:00	Mar-16-20 21:00
	<i>Analyzed:</i>	Mar-17-20 00:08	Mar-17-20 00:45	Mar-17-20 01:04	Mar-17-20 01:10	Mar-17-20 01:16	Mar-17-20 01:23
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		13.6 10.0	77.7 9.90	132 10.0	197 9.92	198 9.92	326 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	Mar-16-20 17:30	Mar-16-20 17:30	Mar-16-20 17:30	Mar-16-20 17:30	Mar-16-20 17:30	Mar-16-20 17:30
	<i>Analyzed:</i>	Mar-17-20 00:04	Mar-17-20 03:48	Mar-17-20 04:29	Mar-17-20 01:05	Mar-17-20 01:26	Mar-17-20 01:46
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.3 50.3	<50.0 50.0	<50.1 50.1	<50.2 50.2	<49.8 49.8
Diesel Range Organics (DRO)		<50.0 50.0	<50.3 50.3	<50.0 50.0	<50.1 50.1	<50.2 50.2	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.3 50.3	<50.0 50.0	<50.1 50.1	<50.2 50.2	<49.8 49.8
Total GRO-DRO		<50.0 50.0	<50.3 50.3	<50.0 50.0	<50.1 50.1	<50.2 50.2	<49.8 49.8
Total TPH		<50.0 50.0	<50.3 50.3	<50.0 50.0	<50.1 50.1	<50.2 50.2	<49.8 49.8

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 655869

LT Environmental, Inc., Arvada, CO

Project Name: Sheep Draw Federal #003

Project Id: 034820017
 Contact: Chris McKisson
 Project Location: Rural Eddy County

Date Received in Lab: Mon Mar-16-20 05:14 pm
 Report Date: 18-MAR-20
 Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	655869-013	655869-014	655869-015	655869-016	655869-017	655869-018
	<i>Field Id:</i>	FS06	FS07	FS08	FS09	SW10	SW11
	<i>Depth:</i>	30- ft	30- ft	30- ft	30- ft	20-30 ft	20-30 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-16-20 12:14	Mar-16-20 12:18	Mar-16-20 12:23	Mar-16-20 12:27	Mar-16-20 13:30	Mar-16-20 13:34
BTEX by EPA 8021B	<i>Extracted:</i>	Mar-16-20 23:12	Mar-16-20 23:12	Mar-16-20 23:12	Mar-16-20 23:12	Mar-16-20 23:12	Mar-16-20 23:12
	<i>Analyzed:</i>	Mar-17-20 11:45	Mar-17-20 12:05	Mar-17-20 12:26	Mar-17-20 12:46	Mar-17-20 13:07	Mar-17-20 13:27
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
m,p-Xylenes		<0.00402 0.00402	<0.00400 0.00400	<0.00402 0.00402	<0.00402 0.00402	<0.00404 0.00404	<0.00396 0.00396
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
Xylenes, Total		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	Mar-16-20 21:00	Mar-16-20 21:00	Mar-16-20 21:00	Mar-16-20 21:00	Mar-16-20 21:00	Mar-16-20 21:00
	<i>Analyzed:</i>	Mar-17-20 01:41	Mar-17-20 01:48	Mar-17-20 01:54	Mar-17-20 01:54	Mar-17-20 01:54	Mar-17-20 02:01
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		224 10.1	165 10.0	<10.1 10.1	<10.0 10.0	150 10.0	<9.96 9.96
TPH by SW8015 Mod	<i>Extracted:</i>	Mar-16-20 17:30	Mar-16-20 17:30	Mar-16-20 17:30	Mar-16-20 17:30	Mar-16-20 17:30	Mar-16-20 17:30
	<i>Analyzed:</i>	Mar-17-20 02:06	Mar-17-20 02:27	Mar-17-20 02:47	Mar-17-20 03:08	Mar-17-20 03:28	Mar-17-20 03:48
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.3 50.3	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.0 50.0
Diesel Range Organics (DRO)		<50.0 50.0	<50.3 50.3	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.3 50.3	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.0 50.0
Total GRO-DRO		<50.0 50.0	<50.3 50.3	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.0 50.0
Total TPH		<50.0 50.0	<50.3 50.3	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.0 50.0

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Jessica Kramer
 Project Manager



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW01**
Lab Sample Id: 655869-001

Matrix: Soil
Date Collected: 03.16.20 08.47

Date Received: 03.16.20 17.14
Sample Depth: 0.5 - 12 ft

Analytical Method: Chloride by EPA 300

Tech: JUM

Analyst: MAB

Seq Number: 3119919

Date Prep: 03.16.20 20.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23.0	10.0	mg/kg	03.16.20 23.30		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119879

Date Prep: 03.16.20 17.30

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	03.17.20 01.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.17.20 01.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.17.20 01.46	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.17.20 01.46	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.17.20 01.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.17.20 01.46	
o-Terphenyl	84-15-1	103	%	70-135	03.17.20 01.46	



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW01**
Lab Sample Id: 655869-001

Matrix: Soil
Date Collected: 03.16.20 08.47

Date Received: 03.16.20 17.14
Sample Depth: 0.5 - 12 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: JUM

% Moisture:

Analyst: MAB

Date Prep: 03.16.20 23.12

Basis: Wet Weight

Seq Number: 3119929

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.17.20 06.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.17.20 06.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.17.20 06.59	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.17.20 06.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.17.20 06.59	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.17.20 06.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.17.20 06.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.17.20 06.59		
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.17.20 06.59		



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW02**
Lab Sample Id: 655869-002

Matrix: Soil
Date Collected: 03.16.20 08.53

Date Received: 03.16.20 17.14
Sample Depth: 0.5 - 12 ft

Analytical Method: Chloride by EPA 300

Tech: JUM

Analyst: MAB

Seq Number: 3119919

Date Prep: 03.16.20 20.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	03.16.20 23.37	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119879

Date Prep: 03.16.20 17.30

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	03.17.20 02.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.17.20 02.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.17.20 02.06	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.17.20 02.06	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.17.20 02.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	03.17.20 02.06	
o-Terphenyl	84-15-1	102	%	70-135	03.17.20 02.06	



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW02**
Lab Sample Id: 655869-002

Matrix: Soil
Date Collected: 03.16.20 08.53

Date Received: 03.16.20 17.14
Sample Depth: 0.5 - 12 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: JUM

% Moisture:

Analyst: MAB

Date Prep: 03.16.20 23.12

Basis: Wet Weight

Seq Number: 3119929

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.17.20 07.20	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.17.20 07.20	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.17.20 07.20	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	03.17.20 07.20	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.17.20 07.20	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.17.20 07.20	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.17.20 07.20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.17.20 07.20		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.17.20 07.20		



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW03**
Lab Sample Id: 655869-003

Matrix: Soil
Date Collected: 03.16.20 08.59

Date Received: 03.16.20 17.14
Sample Depth: 0.5 - 12 ft

Analytical Method: Chloride by EPA 300

Tech: JUM

Analyst: MAB

Seq Number: 3119919

Date Prep: 03.16.20 20.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	03.16.20 23.43	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119879

Date Prep: 03.16.20 17.30

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	03.17.20 02.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.17.20 02.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.17.20 02.27	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	03.17.20 02.27	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.17.20 02.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	03.17.20 02.27	
o-Terphenyl	84-15-1	103	%	70-135	03.17.20 02.27	



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW03**
Lab Sample Id: 655869-003

Matrix: Soil
Date Collected: 03.16.20 08.59

Date Received: 03.16.20 17.14
Sample Depth: 0.5 - 12 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: JUM

% Moisture:

Analyst: MAB

Date Prep: 03.16.20 23.12

Basis: Wet Weight

Seq Number: 3119929

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.17.20 07.40	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.17.20 07.40	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.17.20 07.40	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.17.20 07.40	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.17.20 07.40	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.17.20 07.40	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.17.20 07.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.17.20 07.40		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.17.20 07.40		



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW04**
Lab Sample Id: 655869-004

Matrix: Soil
Date Collected: 03.16.20 09.07

Date Received: 03.16.20 17.14
Sample Depth: 0.5 - 12 ft

Analytical Method: Chloride by EPA 300

Tech: JUM

Analyst: MAB

Seq Number: 3119919

Date Prep: 03.16.20 20.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.96	9.96	mg/kg	03.16.20 23.49	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119879

Date Prep: 03.16.20 17.30

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	03.17.20 02.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.17.20 02.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.17.20 02.47	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.17.20 02.47	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.17.20 02.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.17.20 02.47	
o-Terphenyl	84-15-1	101	%	70-135	03.17.20 02.47	



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW04**
Lab Sample Id: 655869-004

Matrix: Soil
Date Collected: 03.16.20 09.07

Date Received: 03.16.20 17.14
Sample Depth: 0.5 - 12 ft

Analytical Method: BTEX by EPA 8021B

Tech: JUM

Analyst: MAB

Seq Number: 3119929

Date Prep: 03.16.20 23.12

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	03.17.20 08.00	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.17.20 08.00	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.17.20 08.00	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.17.20 08.00	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.17.20 08.00	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.17.20 08.00	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.17.20 08.00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.17.20 08.00		
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.17.20 08.00		



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW05**
Lab Sample Id: 655869-005

Matrix: Soil
Date Collected: 03.16.20 09.13

Date Received: 03.16.20 17.14
Sample Depth: 0.5 - 12 ft

Analytical Method: Chloride by EPA 300

Tech: JUM

Analyst: MAB

Seq Number: 3119919

Date Prep: 03.16.20 20.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	03.16.20 23.55	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119879

Date Prep: 03.16.20 17.30

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	03.17.20 03.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.17.20 03.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.17.20 03.08	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	03.17.20 03.08	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.17.20 03.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	03.17.20 03.08	
o-Terphenyl	84-15-1	98	%	70-135	03.17.20 03.08	



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW05**
Lab Sample Id: 655869-005

Matrix: Soil
Date Collected: 03.16.20 09.13

Date Received: 03.16.20 17.14
Sample Depth: 0.5 - 12 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: JUM

% Moisture:

Analyst: MAB

Date Prep: 03.16.20 23.12

Basis: Wet Weight

Seq Number: 3119929

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.17.20 08.21	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.17.20 08.21	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.17.20 08.21	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	03.17.20 08.21	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.17.20 08.21	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.17.20 08.21	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.17.20 08.21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.17.20 08.21		
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.17.20 08.21		



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW06**
Lab Sample Id: 655869-006

Matrix: Soil
Date Collected: 03.16.20 09.19

Date Received: 03.16.20 17.14
Sample Depth: 0.5 - 12 ft

Analytical Method: Chloride by EPA 300

Tech: JUM

Analyst: MAB

Seq Number: 3119919

Date Prep: 03.16.20 20.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	03.17.20 00.02	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119879

Date Prep: 03.16.20 17.30

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	03.17.20 03.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.17.20 03.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.17.20 03.28	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.17.20 03.28	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.17.20 03.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	03.17.20 03.28	
o-Terphenyl	84-15-1	98	%	70-135	03.17.20 03.28	



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW06**
Lab Sample Id: 655869-006

Matrix: Soil
Date Collected: 03.16.20 09.19

Date Received: 03.16.20 17.14
Sample Depth: 0.5 - 12 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: JUM

% Moisture:

Analyst: MAB

Date Prep: 03.16.20 23.12

Basis: Wet Weight

Seq Number: 3119929

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.17.20 08.41	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.17.20 08.41	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.17.20 08.41	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	03.17.20 08.41	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.17.20 08.41	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.17.20 08.41	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.17.20 08.41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.17.20 08.41		
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.17.20 08.41		



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LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW07**
Lab Sample Id: 655869-007

Matrix: Soil
Date Collected: 03.16.20 09.25

Date Received: 03.16.20 17.14
Sample Depth: 0.5 - 12 ft

Analytical Method: Chloride by EPA 300

Tech: JUM

Analyst: MAB

Seq Number: 3119919

Date Prep: 03.16.20 20.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.6	10.0	mg/kg	03.17.20 00.08		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119858

Date Prep: 03.16.20 17.30

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	03.17.20 00.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.17.20 00.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.17.20 00.04	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	03.17.20 00.04	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.17.20 00.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	03.17.20 00.04	
o-Terphenyl	84-15-1	116	%	70-135	03.17.20 00.04	



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW07**
Lab Sample Id: 655869-007

Matrix: Soil
Date Collected: 03.16.20 09.25

Date Received: 03.16.20 17.14
Sample Depth: 0.5 - 12 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: JUM

% Moisture:

Analyst: MAB

Date Prep: 03.16.20 23.12

Basis: Wet Weight

Seq Number: 3119929

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.17.20 09.02	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.17.20 09.02	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.17.20 09.02	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	03.17.20 09.02	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.17.20 09.02	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.17.20 09.02	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.17.20 09.02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.17.20 09.02		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.17.20 09.02		



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS01**
Lab Sample Id: 655869-008

Matrix: Soil
Date Collected: 03.16.20 11.48

Date Received: 03.16.20 17.14
Sample Depth: 30 ft

Analytical Method: Chloride by EPA 300

Tech: JUM

Analyst: MAB

Seq Number: 3119933

Date Prep: 03.16.20 21.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	77.7	9.90	mg/kg	03.17.20 00.45		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119879

Date Prep: 03.16.20 17.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.17.20 03.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	03.17.20 03.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	03.17.20 03.48	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	03.17.20 03.48	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	03.17.20 03.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	03.17.20 03.48	
o-Terphenyl	84-15-1	99	%	70-135	03.17.20 03.48	



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS01**
Lab Sample Id: 655869-008

Matrix: Soil
Date Collected: 03.16.20 11.48

Date Received: 03.16.20 17.14
Sample Depth: 30 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: JUM

% Moisture:

Analyst: MAB

Date Prep: 03.16.20 23.12

Basis: Wet Weight

Seq Number: 3119929

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.17.20 09.22	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.17.20 09.22	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.17.20 09.22	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.17.20 09.22	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.17.20 09.22	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.17.20 09.22	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.17.20 09.22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.17.20 09.22		
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.17.20 09.22		



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS02**
Lab Sample Id: 655869-009

Matrix: Soil
Date Collected: 03.16.20 11.54

Date Received: 03.16.20 17.14
Sample Depth: 30 ft

Analytical Method: Chloride by EPA 300

Tech: JUM

Analyst: MAB

Seq Number: 3119933

Date Prep: 03.16.20 21.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	132	10.0	mg/kg	03.17.20 01.04		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119879

Date Prep: 03.16.20 17.30

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	03.17.20 04.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.17.20 04.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.17.20 04.29	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	03.17.20 04.29	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.17.20 04.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	03.17.20 04.29	
o-Terphenyl	84-15-1	99	%	70-135	03.17.20 04.29	



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS02**
Lab Sample Id: 655869-009

Matrix: Soil
Date Collected: 03.16.20 11.54

Date Received: 03.16.20 17.14
Sample Depth: 30 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: JUM

% Moisture:

Analyst: MAB

Date Prep: 03.16.20 23.12

Basis: Wet Weight

Seq Number: 3119929

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.17.20 09.42	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.17.20 09.42	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.17.20 09.42	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.17.20 09.42	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.17.20 09.42	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.17.20 09.42	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.17.20 09.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	03.17.20 09.42		
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.17.20 09.42		



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS03**
Lab Sample Id: 655869-010

Matrix: Soil
Date Collected: 03.16.20 11.59

Date Received: 03.16.20 17.14
Sample Depth: 30 ft

Analytical Method: Chloride by EPA 300

Tech: JUM

Analyst: MAB

Seq Number: 3119933

Date Prep: 03.16.20 21.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	197	9.92	mg/kg	03.17.20 01.10		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119858

Date Prep: 03.16.20 17.30

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	03.17.20 01.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.17.20 01.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.17.20 01.05	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.17.20 01.05	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.17.20 01.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	03.17.20 01.05	
o-Terphenyl	84-15-1	123	%	70-135	03.17.20 01.05	



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS03**
Lab Sample Id: 655869-010

Matrix: Soil
Date Collected: 03.16.20 11.59

Date Received: 03.16.20 17.14
Sample Depth: 30 ft

Analytical Method: BTEX by EPA 8021B

Tech: JUM

Analyst: MAB

Seq Number: 3119929

Prep Method: SW5030B

% Moisture:

Date Prep: 03.16.20 23.12

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.17.20 10.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.17.20 10.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.17.20 10.03	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.17.20 10.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.17.20 10.03	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.17.20 10.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.17.20 10.03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.17.20 10.03		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.17.20 10.03		



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS04**
Lab Sample Id: 655869-011

Matrix: Soil
Date Collected: 03.16.20 12.05

Date Received: 03.16.20 17.14
Sample Depth: 30 ft

Analytical Method: Chloride by EPA 300

Tech: JUM

Analyst: MAB

Seq Number: 3119933

Date Prep: 03.16.20 21.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	198	9.92	mg/kg	03.17.20 01.16		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119858

Date Prep: 03.16.20 17.30

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	03.17.20 01.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.17.20 01.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.17.20 01.26	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.17.20 01.26	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.17.20 01.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	03.17.20 01.26	
o-Terphenyl	84-15-1	123	%	70-135	03.17.20 01.26	



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS04**
Lab Sample Id: 655869-011

Matrix: Soil
Date Collected: 03.16.20 12.05

Date Received: 03.16.20 17.14
Sample Depth: 30 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: JUM

% Moisture:

Analyst: MAB

Date Prep: 03.16.20 23.12

Basis: Wet Weight

Seq Number: 3119929

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.17.20 11.04	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.17.20 11.04	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.17.20 11.04	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	03.17.20 11.04	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.17.20 11.04	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.17.20 11.04	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.17.20 11.04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.17.20 11.04		
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.17.20 11.04		



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS05**
Lab Sample Id: 655869-012

Matrix: Soil
Date Collected: 03.16.20 12.10

Date Received: 03.16.20 17.14
Sample Depth: 30 ft

Analytical Method: Chloride by EPA 300

Tech: JUM

Analyst: MAB

Seq Number: 3119933

Date Prep: 03.16.20 21.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	326	9.98	mg/kg	03.17.20 01.23		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119858

Date Prep: 03.16.20 17.30

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	03.17.20 01.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.17.20 01.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.17.20 01.46	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.17.20 01.46	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.17.20 01.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	03.17.20 01.46	
o-Terphenyl	84-15-1	102	%	70-135	03.17.20 01.46	



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS05**
Lab Sample Id: 655869-012

Matrix: Soil
Date Collected: 03.16.20 12.10

Date Received: 03.16.20 17.14
Sample Depth: 30 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: JUM

% Moisture:

Analyst: MAB

Date Prep: 03.16.20 23.12

Basis: Wet Weight

Seq Number: 3119929

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.17.20 11.24	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.17.20 11.24	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.17.20 11.24	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	03.17.20 11.24	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.17.20 11.24	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.17.20 11.24	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.17.20 11.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.17.20 11.24		
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.17.20 11.24		



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LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS06**
Lab Sample Id: 655869-013

Matrix: Soil
Date Collected: 03.16.20 12.14

Date Received: 03.16.20 17.14
Sample Depth: 30 ft

Analytical Method: Chloride by EPA 300

Tech: JUM

Analyst: MAB

Seq Number: 3119933

Date Prep: 03.16.20 21.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	224	10.1	mg/kg	03.17.20 01.41		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119858

Date Prep: 03.16.20 17.30

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	03.17.20 02.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.17.20 02.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.17.20 02.06	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	03.17.20 02.06	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.17.20 02.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	03.17.20 02.06	
o-Terphenyl	84-15-1	123	%	70-135	03.17.20 02.06	



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS06**
Lab Sample Id: 655869-013

Matrix: Soil
Date Collected: 03.16.20 12.14

Date Received: 03.16.20 17.14
Sample Depth: 30 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: JUM

% Moisture:

Analyst: MAB

Date Prep: 03.16.20 23.12

Basis: Wet Weight

Seq Number: 3119929

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.17.20 11.45	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.17.20 11.45	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.17.20 11.45	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.17.20 11.45	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.17.20 11.45	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.17.20 11.45	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.17.20 11.45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.17.20 11.45		
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.17.20 11.45		



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS07** Matrix: Soil Date Received: 03.16.20 17.14
 Lab Sample Id: 655869-014 Date Collected: 03.16.20 12.18 Sample Depth: 30 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: JUM % Moisture:
 Analyst: MAB Date Prep: 03.16.20 21.00 Basis: Wet Weight
 Seq Number: 3119933

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	165	10.0	mg/kg	03.17.20 01.48		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.16.20 17.30 Basis: Wet Weight
 Seq Number: 3119858

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.17.20 02.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	03.17.20 02.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	03.17.20 02.27	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	03.17.20 02.27	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	03.17.20 02.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	03.17.20 02.27	
o-Terphenyl	84-15-1	115	%	70-135	03.17.20 02.27	



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS07**
Lab Sample Id: 655869-014

Matrix: Soil
Date Collected: 03.16.20 12.18

Date Received: 03.16.20 17.14
Sample Depth: 30 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: JUM

% Moisture:

Analyst: MAB

Date Prep: 03.16.20 23.12

Basis: Wet Weight

Seq Number: 3119929

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.17.20 12.05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.17.20 12.05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.17.20 12.05	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.17.20 12.05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.17.20 12.05	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.17.20 12.05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.17.20 12.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.17.20 12.05		
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.17.20 12.05		



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS08**
Lab Sample Id: 655869-015

Matrix: Soil
Date Collected: 03.16.20 12.23

Date Received: 03.16.20 17.14
Sample Depth: 30 ft

Analytical Method: Chloride by EPA 300

Tech: JUM

Analyst: MAB

Seq Number: 3119933

Date Prep: 03.16.20 21.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	03.17.20 01.54	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119858

Date Prep: 03.16.20 17.30

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	03.17.20 02.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.17.20 02.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.17.20 02.47	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.17.20 02.47	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.17.20 02.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	03.17.20 02.47	
o-Terphenyl	84-15-1	121	%	70-135	03.17.20 02.47	



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS08**
Lab Sample Id: 655869-015

Matrix: Soil
Date Collected: 03.16.20 12.23

Date Received: 03.16.20 17.14
Sample Depth: 30 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: JUM

% Moisture:

Analyst: MAB

Date Prep: 03.16.20 23.12

Basis: Wet Weight

Seq Number: 3119929

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.17.20 12.26	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.17.20 12.26	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.17.20 12.26	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.17.20 12.26	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.17.20 12.26	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.17.20 12.26	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.17.20 12.26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.17.20 12.26		
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.17.20 12.26		



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS09**
Lab Sample Id: 655869-016

Matrix: Soil
Date Collected: 03.16.20 12.27

Date Received: 03.16.20 17.14
Sample Depth: 30 ft

Analytical Method: Chloride by EPA 300

Tech: JUM

Analyst: MAB

Seq Number: 3119933

Date Prep: 03.16.20 21.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	03.17.20 01.54	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119858

Date Prep: 03.16.20 17.30

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	03.17.20 03.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.17.20 03.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.17.20 03.08	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.17.20 03.08	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.17.20 03.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	03.17.20 03.08	
o-Terphenyl	84-15-1	105	%	70-135	03.17.20 03.08	



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS09**
Lab Sample Id: 655869-016

Matrix: Soil
Date Collected: 03.16.20 12.27

Date Received: 03.16.20 17.14
Sample Depth: 30 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: JUM

% Moisture:

Analyst: MAB

Date Prep: 03.16.20 23.12

Basis: Wet Weight

Seq Number: 3119929

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.17.20 12.46	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.17.20 12.46	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.17.20 12.46	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.17.20 12.46	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.17.20 12.46	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.17.20 12.46	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.17.20 12.46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.17.20 12.46		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.17.20 12.46		



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW10**
Lab Sample Id: 655869-017

Matrix: Soil
Date Collected: 03.16.20 13.30

Date Received: 03.16.20 17.14
Sample Depth: 20 - 30 ft

Analytical Method: Chloride by EPA 300

Tech: JUM

Analyst: MAB

Seq Number: 3119933

Date Prep: 03.16.20 21.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	150	10.0	mg/kg	03.17.20 01.54		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119858

Date Prep: 03.16.20 17.30

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	03.17.20 03.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.17.20 03.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.17.20 03.28	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.17.20 03.28	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.17.20 03.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	03.17.20 03.28	
o-Terphenyl	84-15-1	109	%	70-135	03.17.20 03.28	



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW10**
Lab Sample Id: 655869-017

Matrix: Soil
Date Collected: 03.16.20 13.30

Date Received: 03.16.20 17.14
Sample Depth: 20 - 30 ft

Analytical Method: BTEX by EPA 8021B

Tech: JUM

Analyst: MAB

Seq Number: 3119929

Date Prep: 03.16.20 23.12

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	03.17.20 13.07	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.17.20 13.07	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.17.20 13.07	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	03.17.20 13.07	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.17.20 13.07	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.17.20 13.07	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.17.20 13.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	03.17.20 13.07		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.17.20 13.07		



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW11**
Lab Sample Id: 655869-018

Matrix: Soil
Date Collected: 03.16.20 13.34

Date Received: 03.16.20 17.14
Sample Depth: 20 - 30 ft

Analytical Method: Chloride by EPA 300

Tech: JUM

Analyst: MAB

Seq Number: 3119933

Date Prep: 03.16.20 21.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.96	9.96	mg/kg	03.17.20 02.01	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119858

Date Prep: 03.16.20 17.30

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	03.17.20 03.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.17.20 03.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.17.20 03.48	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	03.17.20 03.48	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.17.20 03.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	03.17.20 03.48	
o-Terphenyl	84-15-1	129	%	70-135	03.17.20 03.48	



Certificate of Analytical Results 655869

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW11**
Lab Sample Id: 655869-018

Matrix: Soil
Date Collected: 03.16.20 13.34

Date Received: 03.16.20 17.14
Sample Depth: 20 - 30 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: JUM

% Moisture:

Analyst: MAB

Date Prep: 03.16.20 23.12

Basis: Wet Weight

Seq Number: 3119929

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.17.20 13.27	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.17.20 13.27	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.17.20 13.27	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	03.17.20 13.27	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.17.20 13.27	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.17.20 13.27	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.17.20 13.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.17.20 13.27		
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.17.20 13.27		



Flagging Criteria

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

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Sheep Draw Federal #003

Analytical Method: Chloride by EPA 300

Seq Number: 3119919

MB Sample Id: 7699007-1-BLK

Matrix: Solid

LCS Sample Id: 7699007-1-BKS

Prep Method: E300P

Date Prep: 03.16.20

LCSD Sample Id: 7699007-1-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	258	103	90-110	2	20	mg/kg	03.16.20 19:12	

Analytical Method: Chloride by EPA 300

Seq Number: 3119933

MB Sample Id: 7699008-1-BLK

Matrix: Solid

LCS Sample Id: 7699008-1-BKS

Prep Method: E300P

Date Prep: 03.16.20

LCSD Sample Id: 7699008-1-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	259	104	90-110	0	20	mg/kg	03.17.20 00:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3119919

Parent Sample Id: 655779-001

Matrix: Soil

MS Sample Id: 655779-001 S

Prep Method: E300P

Date Prep: 03.16.20

MSD Sample Id: 655779-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1380	198	1670	146	1640	130	90-110	2	20	mg/kg	03.16.20 21:25	X

Analytical Method: Chloride by EPA 300

Seq Number: 3119919

Parent Sample Id: 655867-001

Matrix: Soil

MS Sample Id: 655867-001 S

Prep Method: E300P

Date Prep: 03.16.20

MSD Sample Id: 655867-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	190	200	398	104	398	104	90-110	0	20	mg/kg	03.16.20 22:53	

Analytical Method: Chloride by EPA 300

Seq Number: 3119933

Parent Sample Id: 655869-008

Matrix: Soil

MS Sample Id: 655869-008 S

Prep Method: E300P

Date Prep: 03.16.20

MSD Sample Id: 655869-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	77.7	200	284	103	281	102	90-110	1	20	mg/kg	03.17.20 00:51	

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.

Sheep Draw Federal #003

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119858

MB Sample Id: 7699022-1-BLK

Matrix: Solid

LCS Sample Id: 7699022-1-BKS

Prep Method: SW8015P

Date Prep: 03.16.20

LCSD Sample Id: 7699022-1-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	926	93	829	83	70-135	11	35	mg/kg	03.16.20 23:23	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	897	90	70-135	12	35	mg/kg	03.16.20 23:23	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date	Flag		
1-Chlorooctane	84		125		113		70-135	%	03.16.20 23:23			
o-Terphenyl	91		110		100		70-135	%	03.16.20 23:23			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119879

MB Sample Id: 7699038-1-BLK

Matrix: Solid

LCS Sample Id: 7699038-1-BKS

Prep Method: SW8015P

Date Prep: 03.16.20

LCSD Sample Id: 7699038-1-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	958	96	949	95	70-135	1	35	mg/kg	03.16.20 23:23	
Diesel Range Organics (DRO)	50.0	1000	1100	110	1100	110	70-135	0	35	mg/kg	03.16.20 23:23	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date	Flag		
1-Chlorooctane	95		117		118		70-135	%	03.16.20 23:23			
o-Terphenyl	98		114		113		70-135	%	03.16.20 23:23			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119858

Matrix: Solid

MB Sample Id: 7699022-1-BLK

Prep Method: SW8015P

Date Prep: 03.16.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.16.20 23:03	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119879

Matrix: Solid

MB Sample Id: 7699038-1-BLK

Prep Method: SW8015P

Date Prep: 03.16.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.16.20 23:03	

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

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

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.

Sheep Draw Federal #003

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119858

Parent Sample Id: 655869-007

Matrix: Soil

MS Sample Id: 655869-007 S

Prep Method: SW8015P

Date Prep: 03.16.20

MSD Sample Id: 655869-007 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	979	98	1090	109	70-135	11	35	mg/kg	03.17.20 00:24	
Diesel Range Organics (DRO)	<50.2	1000	1080	108	1190	119	70-135	10	35	mg/kg	03.17.20 00:24	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		123		70-135	%	03.17.20 00:24
o-Terphenyl	118		127		70-135	%	03.17.20 00:24

Analytical Method: TPH by SW8015 Mod

Seq Number: 3119879

Parent Sample Id: 655860-001

Matrix: Soil

MS Sample Id: 655860-001 S

Prep Method: SW8015P

Date Prep: 03.16.20

MSD Sample Id: 655860-001 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)	<50.1	1000	851	85	887	88	70-135	4	35	mg/kg	03.17.20 00:24	
Diesel Range Organics (DRO)	<50.1	1000	967	97	1010	100	70-135	4	35	mg/kg	03.17.20 00:24	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		107		70-135	%	03.17.20 00:24
o-Terphenyl	114		108		70-135	%	03.17.20 00:24

Analytical Method: BTEX by EPA 8021B

Seq Number: 3119929

MB Sample Id: 7699006-1-BLK

Matrix: Solid

LCS Sample Id: 7699006-1-BKS

Prep Method: SW5030B

Date Prep: 03.16.20

LCSD Sample Id: 7699006-1-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	0.105	105	0.106	106	70-130	1	35	mg/kg	03.17.20 04:57	
Toluene	<0.00200	0.100	0.101	101	0.102	102	70-130	1	35	mg/kg	03.17.20 04:57	
Ethylbenzene	<0.00200	0.100	0.0968	97	0.0966	97	71-129	0	35	mg/kg	03.17.20 04:57	
m,p-Xylenes	<0.00400	0.200	0.198	99	0.198	99	70-135	0	35	mg/kg	03.17.20 04:57	
o-Xylene	<0.00200	0.100	0.101	101	0.101	101	71-133	0	35	mg/kg	03.17.20 04:57	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		108		108		70-130	%	03.17.20 04:57
4-Bromofluorobenzene	94		93		93		70-130	%	03.17.20 04:57

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.

Sheep Draw Federal #003

Analytical Method: BTEX by EPA 8021B

Seq Number: 3119929

Parent Sample Id: 655869-004

Matrix: Soil

MS Sample Id: 655869-004 S

Prep Method: SW5030B

Date Prep: 03.16.20

MSD Sample Id: 655869-004 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	0.107	106	0.125	125	70-130	16	35	mg/kg	03.17.20 05:38	
Toluene	<0.00202	0.101	0.0954	94	0.114	114	70-130	18	35	mg/kg	03.17.20 05:38	
Ethylbenzene	<0.00202	0.101	0.0797	79	0.102	102	71-129	25	35	mg/kg	03.17.20 05:38	
m,p-Xylenes	<0.00404	0.202	0.160	79	0.206	102	70-135	25	35	mg/kg	03.17.20 05:38	
o-Xylene	<0.00202	0.101	0.0815	81	0.104	104	71-133	24	35	mg/kg	03.17.20 05:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		107		70-130	%	03.17.20 05:38
4-Bromofluorobenzene	93		93		70-130	%	03.17.20 05:38

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: 1635809

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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Project Manager:	Chris McKisson	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:	970 265 4985	Email:	cmckisson@ltenv.com or abeyers@ltenv.com

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

ANALYSIS REQUEST

Project Name:	Sheep Draw Federal #003	Turn Around	
Project Number:	034820017	Routine	☐
Project Location:	Rural Eddy County	Rush:	24 HR
Sampler's Name:	Anna Byrds	Due Date:	
PO #:		Quote #:	

Temperature (°C):	Temp Blank:	Wet Ice:	Thermometer ID
Received Intact:	Yes ☒ No ☐	Yes ☒ No ☐	T-NA-003
Cooler Custody Seals:	Yes ☒ No ☐ N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes ☒ No ☐ N/A	Total Containers:	10

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	ANALYSIS REQUEST	Preservative Codes
SW01		S	3/16/20	0847	0.5-12'	1		TPH (EPA 8015)	MeOH: Me
SW02				0853		1		BTEX (EPA 8021)	None: NO
SW03				0859		1		Chloride (EPA 300.0)	HNO3: HN
SW04				0904		1			H2SO4: H2
SW05				0913		1			HCL: HL
SW06				0919		1			NaOH: Na
SW07				0925		1			Zn Acetate+ NaOH: Zn
FS01				1148	30'	1			
FS02				1154	30'	1			
FS03				1159	30'	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 Cu 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 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>Anna Byrds</i>	<i>Chris McKisson</i>	3/16/20 1714			



Chain of Custody

Work Order No: 1055809

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 Casabad, 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 McKisson	Bill to: (if different)	
Company Name:	LT Environmental	Company Name:	
Address:	820 Megan Ave, Unit 6	Address:	
City, State ZIP:	Rifle, CO 81650	City, State ZIP:	
Phone:	970 285 9985	Email:	cmckisson@ltenv.com & abates@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:	Shree Draw Federal #203	Turn Around	
Project Number:	034780017	Pres. Code	
Project Location:	Rural Eddy County	Routine	☐
Sampler's Name:	Anna Byers	Rush:	24 HR
PO #:		Due Date:	

SAMPLE RECEIPT	Temp Blank:	Temp Blank:	Temp Blank:
Temperature (°C):	1.2	Wet Ice:	(Yes) No
Received Intact:	Yes No	Thermometer ID	
Cooler Custody Seals:	Yes No	Correction Factor:	T - NM-004
Sample Custody Seals:	Yes No	Total Containers:	-0.2

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes
--------	-----------------------	--------	--------------	--------------	-------	----------------------	------------------	--------------------

FS04		S	3/6/20	1205	30'	1	TPH (EPA 8015)	
FS05				1210	30'	1	BTEX (EPA 8021)	
FS06				1214	30'	1	Chloride (EPA 300.0)	
FS07				1218	30'	1		
FS08				1223	30'	1		
FS09				1227	30'	1		
SW10				1330	20-30'	1		
SW11				1334	20-30'	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

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		3/16/20 1714			

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03.16.2020 05.14.00 PM

Work Order #: 655869

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
#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: 03.16.2020

Checklist reviewed by:



Jessica Kramer

Date: 03.17.2020

Analytical Report 656011

**for
LT Environmental, Inc.**

Project Manager: Chris McKisson

Sheep Draw Federal #003

034820017

18-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)



18-MAR-20

Project Manager: **Chris McKisson**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **656011**

Sheep Draw Federal #003

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) 656011. 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. 656011 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.

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



Sample Cross Reference 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS10	S	03-17-20 09:00	30 ft	656011-001
FS11	S	03-17-20 09:10	30 ft	656011-002
FS12	S	03-17-20 10:15	20 ft	656011-003
FS13	S	03-17-20 10:20	20 ft	656011-004
FS14	S	03-17-20 10:25	20 ft	656011-005
FS15	S	03-17-20 10:35	20 ft	656011-006
FS16	S	03-17-20 11:40	20.5 ft	656011-007
FS17	S	03-17-20 10:45	20 ft	656011-008
FS18	S	03-17-20 10:50	20 ft	656011-009
FS19	S	03-17-20 10:55	20 ft	656011-010
FS20	S	03-17-20 11:00	20 ft	656011-011
SW08	S	03-17-20 09:20	20 - 30 ft	656011-012
SW09	S	03-17-20 09:30	20 - 30 ft	656011-013
SW12	S	03-17-20 09:15	20 - 30 ft	656011-014
SW13	S	03-17-20 13:10	20 - 30 ft	656011-015
SW14	S	03-17-20 13:35	10 - 20 ft	656011-016
SW15	S	03-17-20 13:40	10 - 20 ft	656011-017
SW16	S	03-17-20 13:45	10 - 20 ft	656011-018
SW17	S	03-17-20 13:50	10 - 20 ft	656011-019
SW18	S	03-17-20 13:55	6 - 20 ft	656011-020
SW20	S	03-17-20 14:35	10 - 16 ft	656011-021
SW21	S	03-17-20 14:40	5 - 10 ft	656011-022
SW22	S	03-17-20 14:45	0.5 - 5 ft	656011-023
SW23	S	03-17-20 14:50	16 - 20 ft	656011-024
SW24	S	03-17-20 14:55	10 - 16 ft	656011-025
SW25	S	03-17-20 15:00	5 - 10 ft	656011-026
SW26	S	03-17-20 15:08	0.5 - 5 ft	656011-027
SW19	S	03-17-20 14:30	16 - 20 ft	656011-028



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Sheep Draw Federal #003

Project ID: 034820017

Work Order Number(s): 656011

Report Date: 18-MAR-20

Date Received: 03/17/2020

Sample receipt non conformance and comments:

Sample receipt non conformance and comments per sample:

None

Analytical non conformance and comments:

Batch: LBA-3120001 BTEX by EPA 8021B

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

Batch: LBA-3120093 BTEX by EPA 8021B

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



Certificate of Analysis Summary 656011

LT Environmental, Inc., Arvada, CO

Project Name: Sheep Draw Federal #003

Project Id: 034820017
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Tue Mar-17-20 05:08 pm
Report Date: 18-MAR-20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	656011-001	656011-002	656011-003	656011-004	656011-005	656011-006
	<i>Field Id:</i>	FS10	FS11	FS12	FS13	FS14	FS15
	<i>Depth:</i>	30- ft	30- ft	20- ft	20- ft	20- ft	20- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-17-20 09:00	Mar-17-20 09:10	Mar-17-20 10:15	Mar-17-20 10:20	Mar-17-20 10:25	Mar-17-20 10:35
BTEX by EPA 8021B	<i>Extracted:</i>	Mar-17-20 20:17	Mar-17-20 20:17	Mar-17-20 20:17	Mar-17-20 20:17	Mar-17-20 20:17	Mar-17-20 20:17
	<i>Analyzed:</i>	Mar-17-20 23:39	Mar-18-20 00:00	Mar-18-20 00:20	Mar-18-20 00:40	Mar-18-20 01:01	Mar-18-20 01:21
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00227 0.00227
Toluene		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00227 0.00227
Ethylbenzene		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00227 0.00227
m,p-Xylenes		<0.00396 0.00396	<0.00399 0.00399	<0.00402 0.00402	<0.00402 0.00402	<0.00400 0.00400	<0.00455 0.00455
o-Xylene		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00227 0.00227
Xylenes, Total		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00227 0.00227
Total BTEX		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	<0.00227 0.00227
Chloride by EPA 300	<i>Extracted:</i>	** ** *	** ** *	** ** *	** ** *	Mar-18-20 07:30	Mar-18-20 07:30
	<i>Analyzed:</i>	Mar-17-20 23:29	Mar-17-20 23:35	Mar-17-20 23:41	Mar-17-20 23:48	Mar-18-20 08:59	Mar-18-20 09:19
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		180 9.92	154 9.98	245 9.92	452 10.0	231 9.92	346 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	Mar-17-20 17:30	Mar-17-20 17:30	Mar-17-20 17:30	Mar-17-20 17:30	Mar-17-20 17:30	Mar-17-20 17:30
	<i>Analyzed:</i>	Mar-17-20 22:34	Mar-17-20 22:54	Mar-17-20 23:14	Mar-17-20 23:35	Mar-17-20 23:55	Mar-18-20 00:15
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<50.3 50.3	<50.3 50.3	<50.1 50.1	<49.8 49.8	<50.0 50.0
Diesel Range Organics (DRO)		<49.8 49.8	<50.3 50.3	<50.3 50.3	<50.1 50.1	<49.8 49.8	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.3 50.3	<50.3 50.3	<50.1 50.1	<49.8 49.8	<50.0 50.0
Total GRO-DRO		<49.8 49.8	<50.3 50.3	<50.3 50.3	<50.1 50.1	<49.8 49.8	<50.0 50.0
Total TPH		<49.8 49.8	<50.3 50.3	<50.3 50.3	<50.1 50.1	<49.8 49.8	<50.0 50.0

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

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Version: 1.9%

Jessica Kramer
Project Manager



Certificate of Analysis Summary 656011

LT Environmental, Inc., Arvada, CO

Project Name: Sheep Draw Federal #003

Project Id: 034820017
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Tue Mar-17-20 05:08 pm
Report Date: 18-MAR-20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	656011-007	656011-008	656011-009	656011-010	656011-011	656011-012
	<i>Field Id:</i>	FS16	FS17	FS18	FS19	FS20	SW08
	<i>Depth:</i>	20.5- ft	20- ft	20- ft	20- ft	20- ft	20-30 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-17-20 11:40	Mar-17-20 10:45	Mar-17-20 10:50	Mar-17-20 10:55	Mar-17-20 11:00	Mar-17-20 09:20
BTEX by EPA 8021B	<i>Extracted:</i>	Mar-17-20 20:17	Mar-17-20 20:17	Mar-17-20 20:00	Mar-17-20 20:00	Mar-17-20 20:00	Mar-17-20 20:00
	<i>Analyzed:</i>	Mar-18-20 01:41	Mar-18-20 02:02	Mar-18-20 05:05	Mar-18-20 05:26	Mar-18-20 05:46	Mar-18-20 06:07
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201
Toluene		<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201
Ethylbenzene		<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201
m,p-Xylenes		<0.00400 0.00400	<0.00402 0.00402	<0.00402 0.00402	<0.00403 0.00403	<0.00403 0.00403	<0.00402 0.00402
o-Xylene		<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201
Xylenes, Total		<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201
Total BTEX		<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	Mar-18-20 07:30	Mar-18-20 07:30	Mar-18-20 07:30	Mar-18-20 07:30	Mar-18-20 07:30	Mar-18-20 07:30
	<i>Analyzed:</i>	Mar-18-20 09:25	Mar-18-20 09:32	Mar-18-20 09:39	Mar-18-20 10:00	Mar-18-20 10:20	Mar-18-20 10:26
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		120 9.92	212 10.0	110 10.0	169 9.98	118 10.1	399 9.88
TPH by SW8015 Mod	<i>Extracted:</i>	Mar-17-20 17:30	Mar-17-20 17:30	Mar-17-20 17:30	Mar-17-20 17:30	Mar-17-20 17:30	Mar-17-20 17:30
	<i>Analyzed:</i>	Mar-18-20 00:36	Mar-18-20 00:56	Mar-17-20 22:34	Mar-17-20 22:54	Mar-17-20 23:14	Mar-17-20 23:35
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.1 50.1	<50.1 50.1	<50.1 50.1	<50.0 50.0	<50.1 50.1
Diesel Range Organics (DRO)		<50.2 50.2	<50.1 50.1	<50.1 50.1	<50.1 50.1	<50.0 50.0	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<50.1 50.1	<50.1 50.1	<50.0 50.0	<50.1 50.1
Total GRO-DRO		<50.2 50.2	<50.1 50.1	<50.1 50.1	<50.1 50.1	<50.0 50.0	<50.1 50.1
Total TPH		<50.2 50.2	<50.1 50.1	<50.1 50.1	<50.1 50.1	<50.0 50.0	<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
Project Manager



Certificate of Analysis Summary 656011

LT Environmental, Inc., Arvada, CO

Project Name: Sheep Draw Federal #003

Project Id: 034820017
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Tue Mar-17-20 05:08 pm
Report Date: 18-MAR-20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	656011-013	656011-014	656011-015	656011-016	656011-017	656011-018
	<i>Field Id:</i>	SW09	SW12	SW13	SW14	SW15	SW16
	<i>Depth:</i>	20-30 ft	20-30 ft	20-30 ft	10-20 ft	10-20 ft	10-20 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-17-20 09:30	Mar-17-20 09:15	Mar-17-20 13:10	Mar-17-20 13:35	Mar-17-20 13:40	Mar-17-20 13:45
BTEX by EPA 8021B	<i>Extracted:</i>	Mar-17-20 20:00	Mar-17-20 20:00	Mar-17-20 20:00	Mar-17-20 20:00	Mar-17-20 20:00	Mar-17-20 20:00
	<i>Analyzed:</i>	Mar-18-20 06:27	Mar-18-20 06:47	Mar-18-20 07:08	Mar-18-20 07:28	Mar-18-20 07:49	Mar-18-20 08:09
	<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	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
m,p-Xylenes		<0.00401 0.00401	<0.00400 0.00400	<0.00398 0.00398	<0.00397 0.00397	<0.00403 0.00403	<0.00398 0.00398
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Xylenes, Total		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	Mar-18-20 07:30	Mar-18-20 07:30	Mar-18-20 07:30	Mar-18-20 07:30	Mar-18-20 07:30	Mar-18-20 07:30
	<i>Analyzed:</i>	Mar-18-20 10:33	Mar-18-20 10:40	Mar-18-20 10:47	Mar-18-20 11:07	Mar-18-20 11:13	Mar-18-20 11:33
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		452 9.98	380 9.96	31.8 9.96	243 9.96	180 9.98	<9.90 9.90
TPH by SW8015 Mod	<i>Extracted:</i>	Mar-17-20 17:30	Mar-17-20 17:30	Mar-17-20 17:30	Mar-17-20 17:30	Mar-17-20 17:40	Mar-17-20 17:40
	<i>Analyzed:</i>	Mar-17-20 23:55	Mar-18-20 00:15	Mar-18-20 00:36	Mar-18-20 00:56	Mar-18-20 02:38	Mar-18-20 03:39
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<49.8 49.8	<49.9 49.9	<50.2 50.2	<49.9 49.9	<50.2 50.2
Diesel Range Organics (DRO)		<50.1 50.1	<49.8 49.8	<49.9 49.9	<50.2 50.2	<49.9 49.9	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<49.8 49.8	<49.9 49.9	<50.2 50.2	<49.9 49.9	<50.2 50.2
Total GRO-DRO		<50.1 50.1	<49.8 49.8	<49.9 49.9	<50.2 50.2	<49.9 49.9	<50.2 50.2
Total TPH		<50.1 50.1	<49.8 49.8	<49.9 49.9	<50.2 50.2	<49.9 49.9	<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.

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 656011

LT Environmental, Inc., Arvada, CO

Project Name: Sheep Draw Federal #003

Project Id: 034820017
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Tue Mar-17-20 05:08 pm
Report Date: 18-MAR-20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	656011-019	656011-020	656011-021	656011-022	656011-023	656011-024
	<i>Field Id:</i>	SW17	SW18	SW20	SW21	SW22	SW23
	<i>Depth:</i>	10-20 ft	6-20 ft	10-16 ft	5-10 ft	0.5-5 ft	16-20 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-17-20 13:50	Mar-17-20 13:55	Mar-17-20 14:35	Mar-17-20 14:40	Mar-17-20 14:45	Mar-17-20 14:50
BTEX by EPA 8021B	<i>Extracted:</i>	Mar-17-20 20:00	Mar-17-20 20:00	Mar-17-20 20:00	Mar-17-20 20:00	Mar-17-20 20:00	Mar-17-20 20:00
	<i>Analyzed:</i>	Mar-18-20 09:10	Mar-18-20 09:31	Mar-18-20 09:51	Mar-18-20 10:12	Mar-18-20 10:32	Mar-18-20 10:52
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200
Toluene		<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200
Ethylbenzene		<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200
m,p-Xylenes		<0.00396 0.00396	<0.00402 0.00402	<0.00402 0.00402	<0.00397 0.00397	<0.00398 0.00398	<0.00400 0.00400
o-Xylene		<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200
Xylenes, Total		<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200
Total BTEX		<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Mar-18-20 07:30	Mar-18-20 07:30	Mar-18-20 07:30	Mar-18-20 07:30	Mar-18-20 07:30	Mar-18-20 07:30
	<i>Analyzed:</i>	Mar-18-20 11:47	Mar-18-20 11:54	Mar-18-20 12:00	Mar-18-20 12:06	Mar-18-20 12:12	Mar-18-20 12:19
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		20.7 9.92	39.3 9.96	49.2 9.98	35.7 9.92	24.5 9.98	41.6 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	Mar-17-20 17:40	Mar-17-20 17:40	Mar-17-20 17:40	Mar-17-20 17:40	Mar-17-20 17:40	Mar-17-20 17:40
	<i>Analyzed:</i>	Mar-18-20 03:59	Mar-18-20 04:19	Mar-18-20 04:40	Mar-18-20 02:38	Mar-18-20 03:39	Mar-18-20 03:59
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.3 50.3	<50.2 50.2	<49.8 49.8
Diesel Range Organics (DRO)		<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.3 50.3	<50.2 50.2	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.3 50.3	<50.2 50.2	<49.8 49.8
Total GRO-DRO		<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.3 50.3	<50.2 50.2	<49.8 49.8
Total TPH		<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.3 50.3	<50.2 50.2	<49.8 49.8

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Version: 1.9%

Jessica Kramer
Project Manager



Certificate of Analysis Summary 656011

LT Environmental, Inc., Arvada, CO

Project Name: Sheep Draw Federal #003

Project Id: 034820017
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Tue Mar-17-20 05:08 pm
Report Date: 18-MAR-20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	656011-025	656011-026	656011-027	656011-028		
	<i>Field Id:</i>	SW24	SW25	SW26	SW19		
	<i>Depth:</i>	10-16 ft	5-10 ft	0.5-5 ft	16-20 ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Mar-17-20 14:55	Mar-17-20 15:00	Mar-17-20 15:08	Mar-17-20 14:30		
BTEX by EPA 8021B	<i>Extracted:</i>	Mar-17-20 20:00	Mar-17-20 20:00	Mar-17-20 20:00	Mar-17-20 20:00		
	<i>Analyzed:</i>	Mar-18-20 12:55	Mar-18-20 11:13	Mar-18-20 11:33	Mar-18-20 11:54		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200		
Toluene		<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200		
Ethylbenzene		<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200		
m,p-Xylenes		<0.00402 0.00402	<0.00402 0.00402	<0.00398 0.00398	<0.00400 0.00400		
o-Xylene		<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200		
Xylenes, Total		<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200		
Total BTEX		<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200		
Chloride by EPA 300	<i>Extracted:</i>	Mar-18-20 10:00	Mar-18-20 10:00	Mar-18-20 10:00	Mar-18-20 10:00		
	<i>Analyzed:</i>	Mar-18-20 12:56	Mar-18-20 13:15	Mar-18-20 13:21	Mar-18-20 14:05		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		84.3 9.94	79.7 9.96	31.7 9.98	55.3 9.90		
TPH by SW8015 Mod	<i>Extracted:</i>	Mar-17-20 17:40	Mar-17-20 17:40	Mar-17-20 17:40	Mar-18-20 10:50		
	<i>Analyzed:</i>	Mar-18-20 04:19	Mar-18-20 04:40	Mar-18-20 05:00	Mar-18-20 11:13		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<50.3 50.3	<50.2 50.2	<50.2 50.2	<49.8 49.8		
Diesel Range Organics (DRO)		<50.3 50.3	<50.2 50.2	<50.2 50.2	<49.8 49.8		
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3	<50.2 50.2	<50.2 50.2	<49.8 49.8		
Total GRO-DRO		<50.3 50.3	<50.2 50.2	<50.2 50.2	<49.8 49.8		
Total TPH		<50.3 50.3	<50.2 50.2	<50.2 50.2	<49.8 49.8		

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Version: 1.9%

Jessica Kramer
Project Manager



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS10**
Lab Sample Id: 656011-001

Matrix: Soil
Date Collected: 03.17.20 09.00

Date Received: 03.17.20 17.08
Sample Depth: 30 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120043

Date Prep: 03.17.20 17.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	180	9.92	mg/kg	03.17.20 23.29		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120026

Date Prep: 03.17.20 17.30

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	03.17.20 22.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.17.20 22.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.17.20 22.34	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.17.20 22.34	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.17.20 22.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	03.17.20 22.34	
o-Terphenyl	84-15-1	106	%	70-135	03.17.20 22.34	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS10**
Lab Sample Id: 656011-001

Matrix: Soil
Date Collected: 03.17.20 09.00

Date Received: 03.17.20 17.08
Sample Depth: 30 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.17

Basis: Wet Weight

Seq Number: 3120001

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.17.20 23.39	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.17.20 23.39	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.17.20 23.39	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	03.17.20 23.39	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.17.20 23.39	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.17.20 23.39	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.17.20 23.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.17.20 23.39		
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.17.20 23.39		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS11** Matrix: Soil Date Received: 03.17.20 17.08
 Lab Sample Id: 656011-002 Date Collected: 03.17.20 09.10 Sample Depth: 30 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.17.20 17.00 Basis: Wet Weight
 Seq Number: 3120043

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	154	9.98	mg/kg	03.17.20 23.35		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.17.20 17.30 Basis: Wet Weight
 Seq Number: 3120026

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.17.20 22.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	03.17.20 22.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	03.17.20 22.54	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	03.17.20 22.54	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	03.17.20 22.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	03.17.20 22.54	
o-Terphenyl	84-15-1	106	%	70-135	03.17.20 22.54	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS11**
Lab Sample Id: 656011-002

Matrix: Soil
Date Collected: 03.17.20 09.10

Date Received: 03.17.20 17.08
Sample Depth: 30 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.17

Basis: Wet Weight

Seq Number: 3120001

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.18.20 00.00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.18.20 00.00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.18.20 00.00	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.18.20 00.00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.18.20 00.00	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.18.20 00.00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.18.20 00.00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.18.20 00.00		
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.18.20 00.00		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS12** Matrix: Soil Date Received: 03.17.20 17.08
 Lab Sample Id: 656011-003 Date Collected: 03.17.20 10.15 Sample Depth: 20 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.17.20 17.00 Basis: Wet Weight
 Seq Number: 3120043

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	245	9.92	mg/kg	03.17.20 23.41		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.17.20 17.30 Basis: Wet Weight
 Seq Number: 3120026

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.17.20 23.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	03.17.20 23.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	03.17.20 23.14	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	03.17.20 23.14	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	03.17.20 23.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	03.17.20 23.14	
o-Terphenyl	84-15-1	110	%	70-135	03.17.20 23.14	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS12**
Lab Sample Id: 656011-003

Matrix: Soil
Date Collected: 03.17.20 10.15

Date Received: 03.17.20 17.08
Sample Depth: 20 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.17

Basis: Wet Weight

Seq Number: 3120001

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.18.20 00.20	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.18.20 00.20	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.18.20 00.20	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.18.20 00.20	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.18.20 00.20	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.18.20 00.20	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.18.20 00.20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.18.20 00.20		
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.18.20 00.20		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS13**
Lab Sample Id: 656011-004

Matrix: Soil
Date Collected: 03.17.20 10.20

Date Received: 03.17.20 17.08
Sample Depth: 20 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120043

Date Prep: 03.17.20 17.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	452	10.0	mg/kg	03.17.20 23.48		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120026

Date Prep: 03.17.20 17.30

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	03.17.20 23.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.17.20 23.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.17.20 23.35	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.17.20 23.35	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.17.20 23.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	03.17.20 23.35	
o-Terphenyl	84-15-1	107	%	70-135	03.17.20 23.35	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS13**
Lab Sample Id: 656011-004

Matrix: Soil
Date Collected: 03.17.20 10.20

Date Received: 03.17.20 17.08
Sample Depth: 20 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.17

Basis: Wet Weight

Seq Number: 3120001

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.18.20 00.40	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.18.20 00.40	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.18.20 00.40	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.18.20 00.40	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.18.20 00.40	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.18.20 00.40	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.18.20 00.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.18.20 00.40		
1,4-Difluorobenzene	540-36-3	106	%	70-130	03.18.20 00.40		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS14** Matrix: Soil Date Received: 03.17.20 17.08
 Lab Sample Id: 656011-005 Date Collected: 03.17.20 10.25 Sample Depth: 20 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.18.20 07.30 Basis: Wet Weight
 Seq Number: 3120088

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	231	9.92	mg/kg	03.18.20 08.59		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.17.20 17.30 Basis: Wet Weight
 Seq Number: 3120026

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.17.20 23.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.17.20 23.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.17.20 23.55	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.17.20 23.55	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.17.20 23.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	03.17.20 23.55	
o-Terphenyl	84-15-1	108	%	70-135	03.17.20 23.55	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS14**
Lab Sample Id: 656011-005

Matrix: Soil
Date Collected: 03.17.20 10.25

Date Received: 03.17.20 17.08
Sample Depth: 20 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.17

Basis: Wet Weight

Seq Number: 3120001

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.18.20 01.01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.18.20 01.01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.18.20 01.01	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.18.20 01.01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.18.20 01.01	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.18.20 01.01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.18.20 01.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	03.18.20 01.01		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.18.20 01.01		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS15** Matrix: Soil Date Received: 03.17.20 17.08
 Lab Sample Id: 656011-006 Date Collected: 03.17.20 10.35 Sample Depth: 20 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.18.20 07.30 Basis: Wet Weight
 Seq Number: 3120088

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	346	9.98	mg/kg	03.18.20 09.19		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.17.20 17.30 Basis: Wet Weight
 Seq Number: 3120026

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.18.20 00.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.18.20 00.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.18.20 00.15	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	03.18.20 00.15	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.18.20 00.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	03.18.20 00.15	
o-Terphenyl	84-15-1	111	%	70-135	03.18.20 00.15	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS15**
Lab Sample Id: 656011-006

Matrix: Soil
Date Collected: 03.17.20 10.35

Date Received: 03.17.20 17.08
Sample Depth: 20 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.17

Basis: Wet Weight

Seq Number: 3120001

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00227	0.00227	mg/kg	03.18.20 01.21	U	1
Toluene	108-88-3	<0.00227	0.00227	mg/kg	03.18.20 01.21	U	1
Ethylbenzene	100-41-4	<0.00227	0.00227	mg/kg	03.18.20 01.21	U	1
m,p-Xylenes	179601-23-1	<0.00455	0.00455	mg/kg	03.18.20 01.21	U	1
o-Xylene	95-47-6	<0.00227	0.00227	mg/kg	03.18.20 01.21	U	1
Xylenes, Total	1330-20-7	<0.00227	0.00227	mg/kg	03.18.20 01.21	U	1
Total BTEX		<0.00227	0.00227	mg/kg	03.18.20 01.21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.18.20 01.21		
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.18.20 01.21		



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LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS16**
Lab Sample Id: 656011-007

Matrix: Soil
Date Collected: 03.17.20 11.40

Date Received: 03.17.20 17.08
Sample Depth: 20.5 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120088

Date Prep: 03.18.20 07.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	120	9.92	mg/kg	03.18.20 09.25		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120026

Date Prep: 03.17.20 17.30

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	03.18.20 00.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.18.20 00.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.18.20 00.36	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.18.20 00.36	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.18.20 00.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	03.18.20 00.36	
o-Terphenyl	84-15-1	106	%	70-135	03.18.20 00.36	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS16**
Lab Sample Id: 656011-007

Matrix: Soil
Date Collected: 03.17.20 11.40

Date Received: 03.17.20 17.08
Sample Depth: 20.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.17

Basis: Wet Weight

Seq Number: 3120001

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.18.20 01.41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.18.20 01.41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.18.20 01.41	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.18.20 01.41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.18.20 01.41	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.18.20 01.41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.18.20 01.41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.18.20 01.41		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.18.20 01.41		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS17**
Lab Sample Id: 656011-008

Matrix: Soil
Date Collected: 03.17.20 10.45

Date Received: 03.17.20 17.08
Sample Depth: 20 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120088

Date Prep: 03.18.20 07.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	212	10.0	mg/kg	03.18.20 09.32		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120026

Date Prep: 03.17.20 17.30

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	03.18.20 00.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.18.20 00.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.18.20 00.56	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.18.20 00.56	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.18.20 00.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	03.18.20 00.56	
o-Terphenyl	84-15-1	117	%	70-135	03.18.20 00.56	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS17**
Lab Sample Id: 656011-008

Matrix: Soil
Date Collected: 03.17.20 10.45

Date Received: 03.17.20 17.08
Sample Depth: 20 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.17

Basis: Wet Weight

Seq Number: 3120001

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.18.20 02.02	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.18.20 02.02	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.18.20 02.02	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.18.20 02.02	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.18.20 02.02	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.18.20 02.02	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.18.20 02.02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.18.20 02.02		
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.18.20 02.02		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS18** Matrix: Soil Date Received: 03.17.20 17.08
 Lab Sample Id: 656011-009 Date Collected: 03.17.20 10.50 Sample Depth: 20 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.18.20 07.30 Basis: Wet Weight
 Seq Number: 3120088

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	110	10.0	mg/kg	03.18.20 09.39		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.17.20 17.30 Basis: Wet Weight
 Seq Number: 3120049

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.17.20 22.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.17.20 22.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.17.20 22.34	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.17.20 22.34	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.17.20 22.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	03.17.20 22.34	
o-Terphenyl	84-15-1	89	%	70-135	03.17.20 22.34	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS18**
Lab Sample Id: 656011-009

Matrix: Soil
Date Collected: 03.17.20 10.50

Date Received: 03.17.20 17.08
Sample Depth: 20 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.00

Basis: Wet Weight

Seq Number: 3120093

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.18.20 05.05	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.18.20 05.05	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.18.20 05.05	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.18.20 05.05	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.18.20 05.05	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.18.20 05.05	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.18.20 05.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.18.20 05.05		
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.18.20 05.05		



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LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS19** Matrix: Soil Date Received: 03.17.20 17.08
 Lab Sample Id: 656011-010 Date Collected: 03.17.20 10.55 Sample Depth: 20 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.18.20 07.30 Basis: Wet Weight
 Seq Number: 3120088

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	169	9.98	mg/kg	03.18.20 10.00		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.17.20 17.30 Basis: Wet Weight
 Seq Number: 3120049

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.17.20 22.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.17.20 22.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.17.20 22.54	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.17.20 22.54	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.17.20 22.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	03.17.20 22.54	
o-Terphenyl	84-15-1	110	%	70-135	03.17.20 22.54	



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LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS19**
Lab Sample Id: 656011-010

Matrix: Soil
Date Collected: 03.17.20 10.55

Date Received: 03.17.20 17.08
Sample Depth: 20 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.00

Basis: Wet Weight

Seq Number: 3120093

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.18.20 05.26	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.18.20 05.26	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.18.20 05.26	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.18.20 05.26	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.18.20 05.26	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.18.20 05.26	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.18.20 05.26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.18.20 05.26		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.18.20 05.26		



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LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS20**
Lab Sample Id: 656011-011

Matrix: Soil
Date Collected: 03.17.20 11.00

Date Received: 03.17.20 17.08
Sample Depth: 20 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120088

Date Prep: 03.18.20 07.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	118	10.1	mg/kg	03.18.20 10.20		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120049

Date Prep: 03.17.20 17.30

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	03.17.20 23.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.17.20 23.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.17.20 23.14	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	03.17.20 23.14	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.17.20 23.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	03.17.20 23.14	
o-Terphenyl	84-15-1	126	%	70-135	03.17.20 23.14	



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LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS20**
Lab Sample Id: 656011-011

Matrix: Soil
Date Collected: 03.17.20 11.00

Date Received: 03.17.20 17.08
Sample Depth: 20 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.00

Basis: Wet Weight

Seq Number: 3120093

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.18.20 05.46	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.18.20 05.46	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.18.20 05.46	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.18.20 05.46	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.18.20 05.46	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.18.20 05.46	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.18.20 05.46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.18.20 05.46		
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.18.20 05.46		



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LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW08**
Lab Sample Id: 656011-012

Matrix: Soil
Date Collected: 03.17.20 09.20

Date Received: 03.17.20 17.08
Sample Depth: 20 - 30 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120088

Date Prep: 03.18.20 07.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	399	9.88	mg/kg	03.18.20 10.26		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120049

Date Prep: 03.17.20 17.30

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	03.17.20 23.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.17.20 23.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.17.20 23.35	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.17.20 23.35	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.17.20 23.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	03.17.20 23.35	
o-Terphenyl	84-15-1	111	%	70-135	03.17.20 23.35	



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LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW08**
Lab Sample Id: 656011-012

Matrix: Soil
Date Collected: 03.17.20 09.20

Date Received: 03.17.20 17.08
Sample Depth: 20 - 30 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.00

Basis: Wet Weight

Seq Number: 3120093

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.18.20 06.07	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.18.20 06.07	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.18.20 06.07	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.18.20 06.07	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.18.20 06.07	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.18.20 06.07	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.18.20 06.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.18.20 06.07		
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.18.20 06.07		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW09**
Lab Sample Id: 656011-013

Matrix: Soil
Date Collected: 03.17.20 09.30

Date Received: 03.17.20 17.08
Sample Depth: 20 - 30 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120088

Date Prep: 03.18.20 07.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	452	9.98	mg/kg	03.18.20 10.33		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120049

Date Prep: 03.17.20 17.30

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	03.17.20 23.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.17.20 23.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.17.20 23.55	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.17.20 23.55	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.17.20 23.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	03.17.20 23.55	
o-Terphenyl	84-15-1	120	%	70-135	03.17.20 23.55	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW09**
Lab Sample Id: 656011-013

Matrix: Soil
Date Collected: 03.17.20 09.30

Date Received: 03.17.20 17.08
Sample Depth: 20 - 30 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.00

Basis: Wet Weight

Seq Number: 3120093

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.18.20 06.27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.18.20 06.27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.18.20 06.27	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.18.20 06.27	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.18.20 06.27	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.18.20 06.27	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.18.20 06.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.18.20 06.27		
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.18.20 06.27		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW12**
Lab Sample Id: 656011-014

Matrix: Soil
Date Collected: 03.17.20 09.15

Date Received: 03.17.20 17.08
Sample Depth: 20 - 30 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120088

Date Prep: 03.18.20 07.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	380	9.96	mg/kg	03.18.20 10.40		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120049

Date Prep: 03.17.20 17.30

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	03.18.20 00.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.18.20 00.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.18.20 00.15	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.18.20 00.15	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.18.20 00.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	03.18.20 00.15	
o-Terphenyl	84-15-1	128	%	70-135	03.18.20 00.15	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW12**
Lab Sample Id: 656011-014

Matrix: Soil
Date Collected: 03.17.20 09.15

Date Received: 03.17.20 17.08
Sample Depth: 20 - 30 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.00

Basis: Wet Weight

Seq Number: 3120093

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.18.20 06.47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.18.20 06.47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.18.20 06.47	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.18.20 06.47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.18.20 06.47	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.18.20 06.47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.18.20 06.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	03.18.20 06.47		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.18.20 06.47		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW13**
Lab Sample Id: 656011-015

Matrix: Soil
Date Collected: 03.17.20 13.10

Date Received: 03.17.20 17.08
Sample Depth: 20 - 30 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120088

Date Prep: 03.18.20 07.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.8	9.96	mg/kg	03.18.20 10.47		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120049

Date Prep: 03.17.20 17.30

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	03.18.20 00.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.18.20 00.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.18.20 00.36	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	03.18.20 00.36	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.18.20 00.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	03.18.20 00.36	
o-Terphenyl	84-15-1	114	%	70-135	03.18.20 00.36	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW13**
Lab Sample Id: 656011-015

Matrix: Soil
Date Collected: 03.17.20 13.10

Date Received: 03.17.20 17.08
Sample Depth: 20 - 30 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.00

Basis: Wet Weight

Seq Number: 3120093

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.18.20 07.08	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.18.20 07.08	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.18.20 07.08	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.18.20 07.08	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.18.20 07.08	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.18.20 07.08	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.18.20 07.08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.18.20 07.08		
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.18.20 07.08		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW14**
Lab Sample Id: 656011-016

Matrix: Soil
Date Collected: 03.17.20 13.35

Date Received: 03.17.20 17.08
Sample Depth: 10 - 20 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120088

Date Prep: 03.18.20 07.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	243	9.96	mg/kg	03.18.20 11.07		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120049

Date Prep: 03.17.20 17.30

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	03.18.20 00.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.18.20 00.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.18.20 00.56	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.18.20 00.56	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.18.20 00.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	03.18.20 00.56	
o-Terphenyl	84-15-1	118	%	70-135	03.18.20 00.56	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW14**
Lab Sample Id: 656011-016

Matrix: Soil
Date Collected: 03.17.20 13.35

Date Received: 03.17.20 17.08
Sample Depth: 10 - 20 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120093

Prep Method: SW5030B

% Moisture:

Date Prep: 03.17.20 20.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.18.20 07.28	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.18.20 07.28	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.18.20 07.28	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	03.18.20 07.28	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.18.20 07.28	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.18.20 07.28	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.18.20 07.28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	03.18.20 07.28		
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.18.20 07.28		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW15** Matrix: Soil Date Received: 03.17.20 17.08
 Lab Sample Id: 656011-017 Date Collected: 03.17.20 13.40 Sample Depth: 10 - 20 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.18.20 07.30 Basis: Wet Weight
 Seq Number: 3120088

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	180	9.98	mg/kg	03.18.20 11.13		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.17.20 17.40 Basis: Wet Weight
 Seq Number: 3120030

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.18.20 02.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.18.20 02.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.18.20 02.38	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	03.18.20 02.38	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.18.20 02.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	03.18.20 02.38	
o-Terphenyl	84-15-1	106	%	70-135	03.18.20 02.38	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW15**
Lab Sample Id: 656011-017

Matrix: Soil
Date Collected: 03.17.20 13.40

Date Received: 03.17.20 17.08
Sample Depth: 10 - 20 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.00

Basis: Wet Weight

Seq Number: 3120093

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.18.20 07.49	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.18.20 07.49	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.18.20 07.49	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.18.20 07.49	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.18.20 07.49	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.18.20 07.49	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.18.20 07.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.18.20 07.49		
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.18.20 07.49		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW16**
Lab Sample Id: 656011-018

Matrix: Soil
Date Collected: 03.17.20 13.45

Date Received: 03.17.20 17.08
Sample Depth: 10 - 20 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120088

Date Prep: 03.18.20 07.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.90	9.90	mg/kg	03.18.20 11.33	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120030

Date Prep: 03.17.20 17.40

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	03.18.20 03.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.18.20 03.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.18.20 03.39	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.18.20 03.39	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.18.20 03.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	03.18.20 03.39	
o-Terphenyl	84-15-1	106	%	70-135	03.18.20 03.39	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW16**
Lab Sample Id: 656011-018

Matrix: Soil
Date Collected: 03.17.20 13.45

Date Received: 03.17.20 17.08
Sample Depth: 10 - 20 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120093

Date Prep: 03.17.20 20.00

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	03.18.20 08.09	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.18.20 08.09	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.18.20 08.09	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.18.20 08.09	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.18.20 08.09	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.18.20 08.09	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.18.20 08.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.18.20 08.09		
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.18.20 08.09		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW17**
Lab Sample Id: 656011-019

Matrix: Soil
Date Collected: 03.17.20 13.50

Date Received: 03.17.20 17.08
Sample Depth: 10 - 20 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120088

Date Prep: 03.18.20 07.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.7	9.92	mg/kg	03.18.20 11.47		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120030

Date Prep: 03.17.20 17.40

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	03.18.20 03.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.18.20 03.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.18.20 03.59	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.18.20 03.59	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.18.20 03.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	03.18.20 03.59	
o-Terphenyl	84-15-1	108	%	70-135	03.18.20 03.59	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW17**
Lab Sample Id: 656011-019

Matrix: Soil
Date Collected: 03.17.20 13.50

Date Received: 03.17.20 17.08
Sample Depth: 10 - 20 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.00

Basis: Wet Weight

Seq Number: 3120093

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.18.20 09.10	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.18.20 09.10	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.18.20 09.10	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	03.18.20 09.10	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.18.20 09.10	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.18.20 09.10	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.18.20 09.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.18.20 09.10		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.18.20 09.10		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW18**
Lab Sample Id: 656011-020

Matrix: Soil
Date Collected: 03.17.20 13.55

Date Received: 03.17.20 17.08
Sample Depth: 6 - 20 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120088

Date Prep: 03.18.20 07.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	39.3	9.96	mg/kg	03.18.20 11.54		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120030

Date Prep: 03.17.20 17.40

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	03.18.20 04.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.18.20 04.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.18.20 04.19	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.18.20 04.19	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.18.20 04.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	03.18.20 04.19	
o-Terphenyl	84-15-1	113	%	70-135	03.18.20 04.19	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW18**
Lab Sample Id: 656011-020

Matrix: Soil
Date Collected: 03.17.20 13.55

Date Received: 03.17.20 17.08
Sample Depth: 6 - 20 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.00

Basis: Wet Weight

Seq Number: 3120093

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.18.20 09.31	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.18.20 09.31	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.18.20 09.31	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.18.20 09.31	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.18.20 09.31	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.18.20 09.31	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.18.20 09.31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.18.20 09.31		
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.18.20 09.31		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW20**
Lab Sample Id: 656011-021

Matrix: Soil
Date Collected: 03.17.20 14.35

Date Received: 03.17.20 17.08
Sample Depth: 10 - 16 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120088

Date Prep: 03.18.20 07.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	49.2	9.98	mg/kg	03.18.20 12.00		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120030

Date Prep: 03.17.20 17.40

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	03.18.20 04.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.18.20 04.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.18.20 04.40	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.18.20 04.40	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.18.20 04.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	03.18.20 04.40	
o-Terphenyl	84-15-1	112	%	70-135	03.18.20 04.40	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW20**
Lab Sample Id: 656011-021

Matrix: Soil
Date Collected: 03.17.20 14.35

Date Received: 03.17.20 17.08
Sample Depth: 10 - 16 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.00

Basis: Wet Weight

Seq Number: 3120093

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.18.20 09.51	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.18.20 09.51	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.18.20 09.51	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.18.20 09.51	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.18.20 09.51	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.18.20 09.51	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.18.20 09.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.18.20 09.51		
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.18.20 09.51		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW21** Matrix: Soil Date Received: 03.17.20 17.08
 Lab Sample Id: 656011-022 Date Collected: 03.17.20 14.40 Sample Depth: 5 - 10 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.18.20 07.30 Basis: Wet Weight
 Seq Number: 3120088

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	35.7	9.92	mg/kg	03.18.20 12.06		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.17.20 17.40 Basis: Wet Weight
 Seq Number: 3120058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.18.20 02.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	03.18.20 02.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	03.18.20 02.38	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	03.18.20 02.38	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	03.18.20 02.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	03.18.20 02.38	
o-Terphenyl	84-15-1	129	%	70-135	03.18.20 02.38	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW21**
Lab Sample Id: 656011-022

Matrix: Soil
Date Collected: 03.17.20 14.40

Date Received: 03.17.20 17.08
Sample Depth: 5 - 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.00

Basis: Wet Weight

Seq Number: 3120093

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.18.20 10.12	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.18.20 10.12	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.18.20 10.12	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	03.18.20 10.12	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.18.20 10.12	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.18.20 10.12	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.18.20 10.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.18.20 10.12		
4-Bromofluorobenzene	460-00-4	97	%	70-130	03.18.20 10.12		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW22** Matrix: Soil Date Received: 03.17.20 17.08
 Lab Sample Id: 656011-023 Date Collected: 03.17.20 14.45 Sample Depth: 0.5 - 5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.18.20 07.30 Basis: Wet Weight
 Seq Number: 3120088

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	24.5	9.98	mg/kg	03.18.20 12.12		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.17.20 17.40 Basis: Wet Weight
 Seq Number: 3120058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.18.20 03.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.18.20 03.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.18.20 03.39	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.18.20 03.39	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.18.20 03.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	03.18.20 03.39	
o-Terphenyl	84-15-1	125	%	70-135	03.18.20 03.39	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW22**
Lab Sample Id: 656011-023

Matrix: Soil
Date Collected: 03.17.20 14.45

Date Received: 03.17.20 17.08
Sample Depth: 0.5 - 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.00

Basis: Wet Weight

Seq Number: 3120093

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.18.20 10.32	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.18.20 10.32	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.18.20 10.32	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.18.20 10.32	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.18.20 10.32	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.18.20 10.32	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.18.20 10.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.18.20 10.32		
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.18.20 10.32		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW23**
Lab Sample Id: 656011-024

Matrix: Soil
Date Collected: 03.17.20 14.50

Date Received: 03.17.20 17.08
Sample Depth: 16 - 20 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120088

Date Prep: 03.18.20 07.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	41.6	9.98	mg/kg	03.18.20 12.19		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120058

Date Prep: 03.17.20 17.40

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	03.18.20 03.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.18.20 03.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.18.20 03.59	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.18.20 03.59	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.18.20 03.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	03.18.20 03.59	
o-Terphenyl	84-15-1	122	%	70-135	03.18.20 03.59	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW23**
Lab Sample Id: 656011-024

Matrix: Soil
Date Collected: 03.17.20 14.50

Date Received: 03.17.20 17.08
Sample Depth: 16 - 20 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120093

Prep Method: SW5030B

% Moisture:

Date Prep: 03.17.20 20.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.18.20 10.52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.18.20 10.52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.18.20 10.52	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.18.20 10.52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.18.20 10.52	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.18.20 10.52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.18.20 10.52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	03.18.20 10.52		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.18.20 10.52		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW24**
Lab Sample Id: 656011-025

Matrix: Soil
Date Collected: 03.17.20 14.55

Date Received: 03.17.20 17.08
Sample Depth: 10 - 16 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120104

Date Prep: 03.18.20 10.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	84.3	9.94	mg/kg	03.18.20 12.56		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120058

Date Prep: 03.17.20 17.40

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.18.20 04.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	03.18.20 04.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	03.18.20 04.19	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	03.18.20 04.19	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	03.18.20 04.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.18.20 04.19	
o-Terphenyl	84-15-1	105	%	70-135	03.18.20 04.19	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW24**
Lab Sample Id: 656011-025

Matrix: Soil
Date Collected: 03.17.20 14.55

Date Received: 03.17.20 17.08
Sample Depth: 10 - 16 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.00

Basis: Wet Weight

Seq Number: 3120093

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.18.20 12.55	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.18.20 12.55	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.18.20 12.55	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.18.20 12.55	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.18.20 12.55	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.18.20 12.55	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.18.20 12.55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.18.20 12.55		
4-Bromofluorobenzene	460-00-4	105	%	70-130	03.18.20 12.55		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW25**
Lab Sample Id: 656011-026

Matrix: Soil
Date Collected: 03.17.20 15.00

Date Received: 03.17.20 17.08
Sample Depth: 5 - 10 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120104

Date Prep: 03.18.20 10.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	79.7	9.96	mg/kg	03.18.20 13.15		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120058

Date Prep: 03.17.20 17.40

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	03.18.20 04.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.18.20 04.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.18.20 04.40	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.18.20 04.40	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.18.20 04.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	03.18.20 04.40	
o-Terphenyl	84-15-1	111	%	70-135	03.18.20 04.40	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW25**
Lab Sample Id: 656011-026

Matrix: Soil
Date Collected: 03.17.20 15.00

Date Received: 03.17.20 17.08
Sample Depth: 5 - 10 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120093

Prep Method: SW5030B

% Moisture:

Date Prep: 03.17.20 20.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.18.20 11.13	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.18.20 11.13	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.18.20 11.13	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.18.20 11.13	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.18.20 11.13	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.18.20 11.13	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.18.20 11.13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.18.20 11.13		
4-Bromofluorobenzene	460-00-4	98	%	70-130	03.18.20 11.13		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW26**
Lab Sample Id: 656011-027

Matrix: Soil
Date Collected: 03.17.20 15.08

Date Received: 03.17.20 17.08
Sample Depth: 0.5 - 5 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120104

Date Prep: 03.18.20 10.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.7	9.98	mg/kg	03.18.20 13.21		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120058

Date Prep: 03.17.20 17.40

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	03.18.20 05.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.18.20 05.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.18.20 05.00	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.18.20 05.00	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.18.20 05.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	03.18.20 05.00	
o-Terphenyl	84-15-1	108	%	70-135	03.18.20 05.00	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW26**
Lab Sample Id: 656011-027

Matrix: Soil
Date Collected: 03.17.20 15.08

Date Received: 03.17.20 17.08
Sample Depth: 0.5 - 5 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120093

Date Prep: 03.17.20 20.00

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	03.18.20 11.33	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.18.20 11.33	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.18.20 11.33	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.18.20 11.33	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.18.20 11.33	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.18.20 11.33	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.18.20 11.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.18.20 11.33		
4-Bromofluorobenzene	460-00-4	99	%	70-130	03.18.20 11.33		



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW19** Matrix: Soil Date Received: 03.17.20 17.08
 Lab Sample Id: 656011-028 Date Collected: 03.17.20 14.30 Sample Depth: 16 - 20 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.18.20 10.00 Basis: Wet Weight
 Seq Number: 3120104

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	55.3	9.90	mg/kg	03.18.20 14.05		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.18.20 10.50 Basis: Wet Weight
 Seq Number: 3120058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.18.20 11.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.18.20 11.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.18.20 11.13	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.18.20 11.13	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.18.20 11.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.18.20 11.13	
o-Terphenyl	84-15-1	106	%	70-135	03.18.20 11.13	



Certificate of Analytical Results 656011

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW19**
Lab Sample Id: 656011-028

Matrix: Soil
Date Collected: 03.17.20 14.30

Date Received: 03.17.20 17.08
Sample Depth: 16 - 20 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.17.20 20.00

Basis: Wet Weight

Seq Number: 3120093

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.18.20 11.54	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.18.20 11.54	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.18.20 11.54	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.18.20 11.54	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.18.20 11.54	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.18.20 11.54	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.18.20 11.54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.18.20 11.54		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.18.20 11.54		



Flagging Criteria

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

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Sheep Draw Federal #003

Analytical Method: Chloride by EPA 300

Seq Number: 3120043

MB Sample Id: 7699130-1-BLK

Matrix: Solid

LCS Sample Id: 7699130-1-BKS

Prep Method: E300P

Date Prep: 03.17.20

LCSD Sample Id: 7699130-1-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	259	104	260	104	90-110	0	20	mg/kg	03.17.20 20:50	

Analytical Method: Chloride by EPA 300

Seq Number: 3120088

MB Sample Id: 7699131-1-BLK

Matrix: Solid

LCS Sample Id: 7699131-1-BKS

Prep Method: E300P

Date Prep: 03.18.20

LCSD Sample Id: 7699131-1-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	252	101	258	103	90-110	2	20	mg/kg	03.18.20 08:45	

Analytical Method: Chloride by EPA 300

Seq Number: 3120104

MB Sample Id: 7699133-1-BLK

Matrix: Solid

LCS Sample Id: 7699133-1-BKS

Prep Method: E300P

Date Prep: 03.18.20

LCSD Sample Id: 7699133-1-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	261	104	90-110	0	20	mg/kg	03.18.20 12:43	

Analytical Method: Chloride by EPA 300

Seq Number: 3120043

Parent Sample Id: 655787-003

Matrix: Soil

MS Sample Id: 655787-003 S

Prep Method: E300P

Date Prep: 03.17.20

MSD Sample Id: 655787-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	572	200	780	104	781	105	90-110	0	20	mg/kg	03.17.20 21:08	

Analytical Method: Chloride by EPA 300

Seq Number: 3120043

Parent Sample Id: 656009-008

Matrix: Soil

MS Sample Id: 656009-008 S

Prep Method: E300P

Date Prep: 03.17.20

MSD Sample Id: 656009-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	19.8	200	229	105	237	110	90-110	3	20	mg/kg	03.17.20 22:33	

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. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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.

Sheep Draw Federal #003

Analytical Method: Chloride by EPA 300

Seq Number: 3120088

Parent Sample Id: 656011-005

Matrix: Soil

MS Sample Id: 656011-005 S

Prep Method: E300P

Date Prep: 03.18.20

MSD Sample Id: 656011-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	231	199	440	105	439	105	90-110	0	20	mg/kg	03.18.20 09:05	

Analytical Method: Chloride by EPA 300

Seq Number: 3120088

Parent Sample Id: 656011-015

Matrix: Soil

MS Sample Id: 656011-015 S

Prep Method: E300P

Date Prep: 03.18.20

MSD Sample Id: 656011-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	31.8	199	249	109	246	107	90-110	1	20	mg/kg	03.18.20 10:53	

Analytical Method: Chloride by EPA 300

Seq Number: 3120104

Parent Sample Id: 656011-025

Matrix: Soil

MS Sample Id: 656011-025 S

Prep Method: E300P

Date Prep: 03.18.20

MSD Sample Id: 656011-025 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	84.3	399	509	106	504	105	90-110	1	20	mg/kg	03.18.20 13:02	

Analytical Method: Chloride by EPA 300

Seq Number: 3120104

Parent Sample Id: 656011-028

Matrix: Soil

MS Sample Id: 656011-028 S

Prep Method: E300P

Date Prep: 03.18.20

MSD Sample Id: 656011-028 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	55.3	198	261	104	262	104	90-110	0	20	mg/kg	03.18.20 14:10	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120026

MB Sample Id: 7699135-1-BLK

Matrix: Solid

LCS Sample Id: 7699135-1-BKS

Prep Method: SW8015P

Date Prep: 03.17.20

LCSD Sample Id: 7699135-1-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	918	92	892	89	70-135	3	35	mg/kg	03.17.20 14:20	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	1000	100	70-135	3	35	mg/kg	03.17.20 14:20	

Surrogate

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	91		110		109		70-135	%	03.17.20 14:20
o-Terphenyl	99		112		110		70-135	%	03.17.20 14:20

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.

Sheep Draw Federal #003

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120049

MB Sample Id: 7699137-1-BLK

Matrix: Solid

LCS Sample Id: 7699137-1-BKS

Prep Method: SW8015P

Date Prep: 03.17.20

LCSD Sample Id: 7699137-1-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	946	95	844	84	70-135	11	35	mg/kg	03.17.20 14:20	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	918	92	70-135	11	35	mg/kg	03.17.20 14:20	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	86		127		113		70-135	%	03.17.20 14:20			
o-Terphenyl	93		111		100		70-135	%	03.17.20 14:20			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120030

MB Sample Id: 7699146-1-BLK

Matrix: Solid

LCS Sample Id: 7699146-1-BKS

Prep Method: SW8015P

Date Prep: 03.17.20

LCSD Sample Id: 7699146-1-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	1010	101	966	97	70-135	4	35	mg/kg	03.18.20 01:57	
Diesel Range Organics (DRO)	<50.0	1000	1150	115	1090	109	70-135	5	35	mg/kg	03.18.20 01:57	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	91		118		120		70-135	%	03.18.20 01:57			
o-Terphenyl	101		121		116		70-135	%	03.18.20 01:57			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120058

MB Sample Id: 7699161-1-BLK

Matrix: Solid

LCS Sample Id: 7699161-1-BKS

Prep Method: SW8015P

Date Prep: 03.17.20

LCSD Sample Id: 7699161-1-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	1040	104	1040	104	70-135	0	35	mg/kg	03.18.20 01:57	
Diesel Range Organics (DRO)	<50.0	1000	1150	115	1170	117	70-135	2	35	mg/kg	03.18.20 01:57	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	101		117		119		70-135	%	03.18.20 01:57			
o-Terphenyl	110		123		125		70-135	%	03.18.20 01:57			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120026

Matrix: Solid

MB Sample Id: 7699135-1-BLK

Prep Method: SW8015P

Date Prep: 03.17.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.17.20 13:59	

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.

Sheep Draw Federal #003

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120049

Matrix: Solid

Prep Method: SW8015P

Date Prep: 03.17.20

MB Sample Id: 7699137-1-BLK

Parameter

Motor Oil Range Hydrocarbons (MRO)

MB
Result

<50.0

Units

mg/kg

Analysis
Date

03.17.20 13:59

Flag

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120030

Matrix: Solid

Prep Method: SW8015P

Date Prep: 03.17.20

MB Sample Id: 7699146-1-BLK

Parameter

Motor Oil Range Hydrocarbons (MRO)

MB
Result

<50.0

Units

mg/kg

Analysis
Date

03.18.20 01:37

Flag

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120058

Matrix: Solid

Prep Method: SW8015P

Date Prep: 03.17.20

MB Sample Id: 7699161-1-BLK

Parameter

Motor Oil Range Hydrocarbons (MRO)

MB
Result

<50.0

Units

mg/kg

Analysis
Date

03.18.20 01:37

Flag

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120026

Matrix: Soil

Prep Method: SW8015P

Date Prep: 03.17.20

Parent Sample Id: 655954-001

MS Sample Id: 655954-001 S

MSD Sample Id: 655954-001 SD

Parameter

Gasoline Range Hydrocarbons (GRO)

Parent
Result

<50.2

Spike
Amount

1000

MS
Result

956

MS
%Rec

96

MSD
Result

944

MSD
%Rec

94

Limits

70-135

%RPD

1

RPD

35

Limit

mg/kg

Units

03.17.20 15:21

Flag

Diesel Range Organics (DRO)

<50.2

1000

1110

111

1100

110

70-135

1

35

mg/kg

03.17.20 15:21

Surrogate

1-Chlorooctane

MS
%Rec

120

MS
FlagMSD
%Rec

115

MSD
Flag

Limits

70-135

Units

%

Analysis
Date

03.17.20 15:21

o-Terphenyl

118

115

70-135

%

03.17.20 15:21

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.

Sheep Draw Federal #003

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120049

Parent Sample Id: 655954-002

Matrix: Soil

MS Sample Id: 655954-002 S

Prep Method: SW8015P

Date Prep: 03.17.20

MSD Sample Id: 655954-002 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)	<50.0	1000	869	87	848	85	70-135	2	35	mg/kg	03.17.20 15:21	
Diesel Range Organics (DRO)	<50.0	1000	949	95	930	93	70-135	2	35	mg/kg	03.17.20 15:21	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		116		70-135	%	03.17.20 15:21
o-Terphenyl	104		104		70-135	%	03.17.20 15:21

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120030

Parent Sample Id: 656011-017

Matrix: Soil

MS Sample Id: 656011-017 S

Prep Method: SW8015P

Date Prep: 03.17.20

MSD Sample Id: 656011-017 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	932	92	963	96	70-135	3	35	mg/kg	03.18.20 02:58	
Diesel Range Organics (DRO)	<50.3	1010	1050	104	1090	109	70-135	4	35	mg/kg	03.18.20 02:58	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		118		70-135	%	03.18.20 02:58
o-Terphenyl	119		123		70-135	%	03.18.20 02:58

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120058

Parent Sample Id: 656011-022

Matrix: Soil

MS Sample Id: 656011-022 S

Prep Method: SW8015P

Date Prep: 03.17.20

MSD Sample Id: 656011-022 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	927	93	1050	105	70-135	12	35	mg/kg	03.18.20 02:58	
Diesel Range Organics (DRO)	<50.2	1000	1020	102	1170	117	70-135	14	35	mg/kg	03.18.20 02:58	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		127		70-135	%	03.18.20 02:58
o-Terphenyl	116		133		70-135	%	03.18.20 02:58

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. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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.

Sheep Draw Federal #003

Analytical Method: BTEX by EPA 8021B

Seq Number: 3120001

MB Sample Id: 7699108-1-BLK

Matrix: Solid

LCS Sample Id: 7699108-1-BKS

Prep Method: SW5030B

Date Prep: 03.17.20

LCSD Sample Id: 7699108-1-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	0.0995	100	0.0998	100	70-130	0	35	mg/kg	03.17.20 17:12	
Toluene	<0.00200	0.100	0.0968	97	0.0988	99	70-130	2	35	mg/kg	03.17.20 17:12	
Ethylbenzene	<0.00200	0.100	0.0939	94	0.0955	96	71-129	2	35	mg/kg	03.17.20 17:12	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.197	99	70-135	2	35	mg/kg	03.17.20 17:12	
o-Xylene	<0.00200	0.100	0.0970	97	0.0984	98	71-133	1	35	mg/kg	03.17.20 17:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		108		108		70-130	%	03.17.20 17:12
4-Bromofluorobenzene	97		91		92		70-130	%	03.17.20 17:12

Analytical Method: BTEX by EPA 8021B

Seq Number: 3120093

MB Sample Id: 7699120-1-BLK

Matrix: Solid

LCS Sample Id: 7699120-1-BKS

Prep Method: SW5030B

Date Prep: 03.17.20

LCSD Sample Id: 7699120-1-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	0.103	103	0.104	104	70-130	1	35	mg/kg	03.18.20 03:23	
Toluene	<0.00200	0.100	0.100	100	0.100	100	70-130	0	35	mg/kg	03.18.20 03:23	
Ethylbenzene	<0.00200	0.100	0.0954	95	0.0949	95	71-129	1	35	mg/kg	03.18.20 03:23	
m,p-Xylenes	<0.00400	0.200	0.195	98	0.194	97	70-135	1	35	mg/kg	03.18.20 03:23	
o-Xylene	<0.00200	0.100	0.100	100	0.0993	99	71-133	1	35	mg/kg	03.18.20 03:23	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		107		108		70-130	%	03.18.20 03:23
4-Bromofluorobenzene	97		92		90		70-130	%	03.18.20 03:23

Analytical Method: BTEX by EPA 8021B

Seq Number: 3120001

Parent Sample Id: 655954-001

Matrix: Soil

MS Sample Id: 655954-001 S

Prep Method: SW5030B

Date Prep: 03.17.20

MSD Sample Id: 655954-001 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	0.0977	99	0.108	107	70-130	10	35	mg/kg	03.17.20 17:53	
Toluene	<0.00198	0.0990	0.0950	96	0.105	104	70-130	10	35	mg/kg	03.17.20 17:53	
Ethylbenzene	<0.00198	0.0990	0.0907	92	0.100	99	71-129	10	35	mg/kg	03.17.20 17:53	
m,p-Xylenes	<0.00396	0.198	0.186	94	0.204	101	70-135	9	35	mg/kg	03.17.20 17:53	
o-Xylene	<0.00198	0.0990	0.0947	96	0.104	103	71-133	9	35	mg/kg	03.17.20 17:53	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		109		70-130	%	03.17.20 17:53
4-Bromofluorobenzene	91		92		70-130	%	03.17.20 17:53

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

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

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

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



LT Environmental, Inc.

Sheep Draw Federal #003

Analytical Method: BTEX by EPA 8021B

Seq Number: 3120093

Parent Sample Id: 656011-009

Matrix: Soil

MS Sample Id: 656011-009 S

Prep Method: SW5030B

Date Prep: 03.17.20

MSD Sample Id: 656011-009 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	0.102	101	0.0931	92	70-130	9	35	mg/kg	03.18.20 04:04	
Toluene	<0.00202	0.101	0.0976	97	0.0884	88	70-130	10	35	mg/kg	03.18.20 04:04	
Ethylbenzene	<0.00202	0.101	0.0928	92	0.0837	83	71-129	10	35	mg/kg	03.18.20 04:04	
m,p-Xylenes	<0.00403	0.202	0.191	95	0.173	86	70-135	10	35	mg/kg	03.18.20 04:04	
o-Xylene	<0.00202	0.101	0.0953	94	0.0865	86	71-133	10	35	mg/kg	03.18.20 04:04	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		108		70-130	%	03.18.20 04:04
4-Bromofluorobenzene	97		94		70-130	%	03.18.20 04:04

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: 1050011

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 1 of 3

Project Manager:	Chris McKissen	Bill to: (if different)	
Company Name:	LT Environmental	Company Name:	
Address:	820 Megan Ave, Unit 215	Address:	
City, State ZIP:	Rifle, CO 81650	City, State ZIP:	
Phone:	970 285 9905	Email:	cmckissen@ltenv.com

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

Project Name:	Sheep Draw Federal #003	Turn Around	☐
Project Number:	034820017	Routine	☐
Project Location:	Pured Eddy County	Rush:	24 HR
Sampler's Name:	Aime Byers	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT		Temp Blank:	☒ No ☐ Yes	Well Ice:	☒ Yes ☐ No
Temperature (°C):	8.3	Thermometer ID	T-224-007		
Received Intact:	☒ Yes ☐ No	Correction Factor:	-0.2		
Cooler Custody Seals:	Yes ☒ No ☐ N/A	Total Containers:	23		
Sample Custody Seals:	Yes ☒ No ☐ N/A				

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes
FS10		S	3/17/20	0900	30'	1	TPH (EPA 8015)	MeOH: Me
FS11			3/17/20	0910	30'	1	BTEX (EPA 8021)	None: NO
FS12			3/17/20	1015	30'	1	Chloride (EPA 300.0)	HNO3: HN
FS13				1020	30'	1		H2SO4: H2
FS14				1025	30'	1		HCL: HL
FS15				1035	30'	1		NaOH: Na
FS16				1140	30.5'	1		Zn Acetate+ NaOH: Zn
FS17				1045	30'	1		TAT starts the day received by the lab, if received by 4:00pm
FS18				1050	30'	1		
FS19				1055	30'	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

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
Aime Byers	[Signature]	3/17/20 17:05			



Chain of Custody

Work Order No: W5601

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 2 of 3

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

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

Project Name:	Sheep Draw Federal #623	Turn Around	
Project Number:	034820017	Routine ☐	
Project Location:	Rural Eddy County	Rush:	24HR
Sampler's Name:	Anna Byers	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temperature (°C):	Temp Blank:	Yes	No
Received Intact:	Yes	No	
Cooler Custody Seals:	Yes	No	N/A
Sample Custody Seals:	Yes	No	N/A
Total Containers:			

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	ANALYSIS REQUEST	Preservative Codes	Sample Comments
FS20		S	3/17/20	1100	8-0'	1		TPH (EPA 8015)	MeOH: Me	
SW08				0920	20-30'	1		BTEX (EPA 8021)	None: NO	
SW09				0930	20-30'	1		Chloride (EPA 300.0)	HNO3: HN	
SW12				0915	20-30'	1			H2SO4: H2	
SW13				1310	20-30'	1			HCL: HL	
SW14				1335	10-20'	1			NaOH: Na	
SW15				1340	10-20'	1			Zn Acetate+ NaOH: Zn	
SW16				1345	10-20'	1			TAT starts the day received by the lab, if received by 4:00pm	
SW17				1350	10-20'	1				
SW18				1355	6-20'	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

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		3/17/20 17:08			



Chain of Custody

Work Order No: 056011

056011

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) 520-2000 West Palm Beach, FL (561) 689-6701

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Page 3 of 3

Project Manager:	Chris McKisson	Blit 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 9485	Email:	cmckisson@ltenv.com & chye@ltenv.com

Project Name:	Shap Draw Federal #003	Turn Around	
Project Number:	034820013	Routine	☐
Project Location:	Rural Eddy Co.	Rush:	24 Hr
Sampler's Name:	Anne Byers	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT				ANALYSIS REQUEST			
Temperature (°C):	Temp Blank:	Yes	No	Wet Ice:	Yes	No	
Received Intact:	Yes	No		Thermometer ID			
Cooler Custody Seals:	Yes	No	N/A	Correction Factor:			
Sample Custody Seals:	Yes	No	N/A	Total Containers:			
Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	
SW20		S	5/17/00	1435	10-16'	1	
SW21				1440	5-10'	1	
SW22				1445	0.5-5'	1	
SW23				1450	16-20'	1	
SW24				1455	10-16'	1	
SW25				1500	5-10'	1	
SW26				1508	0.5-5'	1	
SW19				1430	16-20'	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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Anne Byers	[Signature]	5/17/20 17:08			

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03.17.2020 05.08.00 PM

Work Order #: 656011

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)?	2.2
#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?	Yes
#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: 03.17.2020

Checklist reviewed by:



Martha Castro

Date: 03.18.2020

Analytical Report 656115

**for
LT Environmental, Inc.**

Project Manager: Chris McKisson

Sheep Draw Federal #003

034820017

19-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)



19-MAR-20

Project Manager: **Chris McKisson**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **656115**

Sheep Draw Federal #003

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) 656115. 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. 656115 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 656115****LT Environmental, Inc., Arvada, CO**

Sheep Draw Federal #003

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS21	S	03-18-20 08:40	11 - 12 ft	656115-001
FS22	S	03-18-20 08:45	11 ft	656115-002
FS23	S	03-18-20 08:50	10 - 11 ft	656115-003
FS24	S	03-18-20 08:55	10 ft	656115-004
FS25	S	03-18-20 08:57	10 ft	656115-005
FS26	S	03-18-20 09:00	10 ft	656115-006
FS27	S	03-18-20 09:05	10 ft	656115-007
FS28	S	03-18-20 09:07	9 - 10 ft	656115-008
SW27	S	03-18-20 09:25	8 - 10 ft	656115-009
SW28	S	03-18-20 09:27	6 - 8 ft	656115-010
SW29	S	03-18-20 09:30	3 - 6 ft	656115-011
SW30	S	03-18-20 09:35	0.5 - 3 ft	656115-012
SW31	S	03-18-20 11:15	0.5 - 6 ft	656115-013
SW32	S	03-18-20 11:20	6 - 12 ft	656115-014
SW33	S	03-18-20 11:35	0.5 - 20 ft	656115-015
SW34	S	03-18-20 11:50	0.5 - 20 ft	656115-016



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Sheep Draw Federal #003

Project ID: 034820017

Work Order Number(s): 656115

Report Date: 19-MAR-20

Date Received: 03/18/2020

Sample receipt non conformance and comments:

Sample receipt non conformance and comments per sample:

None

Analytical non conformance and comments:

Batch: LBA-3120167 BTEX by EPA 8021B

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

Batch: LBA-3120173 BTEX by EPA 8021B

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



Certificate of Analysis Summary 656115

LT Environmental, Inc., Arvada, CO

Project Name: Sheep Draw Federal #003

Project Id: 034820017
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Wed Mar-18-20 02:37 pm
Report Date: 19-MAR-20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	656115-001	656115-002	656115-003	656115-004	656115-005	656115-006
	<i>Field Id:</i>	FS21	FS22	FS23	FS24	FS25	FS26
	<i>Depth:</i>	11-12 ft	11- ft	10-11 ft	10- ft	10- ft	10- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-18-20 08:40	Mar-18-20 08:45	Mar-18-20 08:50	Mar-18-20 08:55	Mar-18-20 08:57	Mar-18-20 09:00
BTEX by EPA 8021B	<i>Extracted:</i>	Mar-18-20 15:30	Mar-18-20 15:30	Mar-18-20 15:30	Mar-18-20 15:30	Mar-18-20 15:30	Mar-18-20 15:30
	<i>Analyzed:</i>	Mar-18-20 17:50	Mar-18-20 18:11	Mar-18-20 18:31	Mar-18-20 18:51	Mar-18-20 19:12	Mar-18-20 19:32
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00201 0.00201	<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00201 0.00201	<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00402 0.00402	<0.00403 0.00403	<0.00398 0.00398	<0.00403 0.00403	<0.00399 0.00399	<0.00399 0.00399
o-Xylene		<0.00201 0.00201	<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Xylenes, Total		<0.00201 0.00201	<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00201 0.00201	<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Mar-18-20 16:00	Mar-18-20 16:00	Mar-18-20 16:00	Mar-18-20 16:00	Mar-18-20 16:00	Mar-18-20 16:00
	<i>Analyzed:</i>	Mar-18-20 16:22	Mar-18-20 16:39	Mar-18-20 16:45	Mar-18-20 16:51	Mar-18-20 16:57	Mar-18-20 17:14
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		224 9.98	181 10.1	255 10.1	<10.0 10.0	<10.0 10.0	<10.0 10.0
TPH by SW8015 Mod	<i>Extracted:</i>	Mar-18-20 17:30	Mar-18-20 17:30	Mar-18-20 17:30	Mar-18-20 17:30	Mar-18-20 17:30	Mar-18-20 17:30
	<i>Analyzed:</i>	Mar-18-20 17:48	Mar-18-20 18:09	Mar-18-20 18:29	Mar-18-20 18:49	Mar-18-20 19:30	Mar-18-20 19:50
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<49.8 49.8	<50.2 50.2	<49.8 49.8	<50.1 50.1	<50.2 50.2
Diesel Range Organics (DRO)		<49.9 49.9	<49.8 49.8	<50.2 50.2	<49.8 49.8	<50.1 50.1	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.8 49.8	<50.2 50.2	<49.8 49.8	<50.1 50.1	<50.2 50.2
Total GRO-DRO		<49.9 49.9	<49.8 49.8	<50.2 50.2	<49.8 49.8	<50.1 50.1	<50.2 50.2
Total TPH		<49.9 49.9	<49.8 49.8	<50.2 50.2	<49.8 49.8	<50.1 50.1	<50.2 50.2

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 656115

LT Environmental, Inc., Arvada, CO

Project Name: Sheep Draw Federal #003

Project Id: 034820017
 Contact: Chris McKisson
 Project Location: Rural Eddy County

Date Received in Lab: Wed Mar-18-20 02:37 pm
 Report Date: 19-MAR-20
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	656115-007	656115-008	656115-009	656115-010	656115-011	656115-012
	Field Id:	FS27	FS28	SW27	SW28	SW29	SW30
	Depth:	10- ft	9-10 ft	8-10 ft	6-8 ft	3-6 ft	0.5-3 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Mar-18-20 09:05	Mar-18-20 09:07	Mar-18-20 09:25	Mar-18-20 09:27	Mar-18-20 09:30	Mar-18-20 09:35
BTEX by EPA 8021B	Extracted:	Mar-18-20 15:30	Mar-18-20 15:30	Mar-18-20 15:30	Mar-18-20 15:30	Mar-18-20 17:24	Mar-18-20 17:24
	Analyzed:	Mar-18-20 19:53	Mar-18-20 20:13	Mar-18-20 20:33	Mar-18-20 20:54	Mar-19-20 00:38	Mar-19-20 00:58
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00202 0.00202
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00202 0.00202
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00202 0.00202
m,p-Xylenes		<0.00399 0.00399	<0.00400 0.00400	<0.00400 0.00400	<0.00397 0.00397	<0.00398 0.00398	<0.00404 0.00404
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00202 0.00202
Xylenes, Total		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00202 0.00202
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00202 0.00202
Chloride by EPA 300	Extracted:	Mar-18-20 16:00	Mar-18-20 16:00	Mar-18-20 16:00	Mar-18-20 16:00	Mar-18-20 16:00	Mar-18-20 16:00
	Analyzed:	Mar-18-20 17:20	Mar-18-20 17:25	Mar-18-20 17:31	Mar-18-20 17:37	Mar-18-20 17:43	Mar-18-20 18:00
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<10.1 10.1	63.3 10.0	90.0 10.0	48.8 9.92	35.1 9.92	<9.98 9.98
TPH by SW8015 Mod	Extracted:	Mar-18-20 17:30	Mar-18-20 17:30	Mar-18-20 17:30	Mar-18-20 17:30	Mar-18-20 17:30	Mar-18-20 17:30
	Analyzed:	Mar-18-20 20:10	Mar-18-20 20:31	Mar-18-20 20:51	Mar-18-20 18:29	Mar-18-20 18:49	Mar-18-20 19:30
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<50.1 50.1	<49.8 49.8	<50.3 50.3	<49.8 49.8	<50.0 50.0
Diesel Range Organics (DRO)		<49.9 49.9	<50.1 50.1	<49.8 49.8	<50.3 50.3	<49.8 49.8	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.1 50.1	<49.8 49.8	<50.3 50.3	<49.8 49.8	<50.0 50.0
Total GRO-DRO		<49.9 49.9	<50.1 50.1	<49.8 49.8	<50.3 50.3	<49.8 49.8	<50.0 50.0
Total TPH		<49.9 49.9	<50.1 50.1	<49.8 49.8	<50.3 50.3	<49.8 49.8	<50.0 50.0

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 656115

LT Environmental, Inc., Arvada, CO

Project Name: Sheep Draw Federal #003

Project Id: 034820017
 Contact: Chris McKisson
 Project Location: Rural Eddy County

Date Received in Lab: Wed Mar-18-20 02:37 pm
 Report Date: 19-MAR-20
 Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	656115-013	656115-014	656115-015	656115-016		
	<i>Field Id:</i>	SW31	SW32	SW33	SW34		
	<i>Depth:</i>	0.5-6 ft	6-12 ft	0.5-20 ft	0.5-20 ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Mar-18-20 11:15	Mar-18-20 11:20	Mar-18-20 11:35	Mar-18-20 11:50		
BTEX by EPA 8021B	<i>Extracted:</i>	Mar-18-20 17:24	Mar-18-20 17:24	Mar-18-20 17:24	Mar-18-20 17:24		
	<i>Analyzed:</i>	Mar-19-20 01:19	Mar-19-20 01:39	Mar-19-20 01:59	Mar-19-20 02:20		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00198 0.00198	<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198		
Toluene		<0.00198 0.00198	<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198		
Ethylbenzene		<0.00198 0.00198	<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198		
m,p-Xylenes		<0.00395 0.00395	<0.00403 0.00403	<0.00397 0.00397	<0.00397 0.00397		
o-Xylene		<0.00198 0.00198	<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198		
Xylenes, Total		<0.00198 0.00198	<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198		
Total BTEX		<0.00198 0.00198	<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198		
Chloride by EPA 300	<i>Extracted:</i>	Mar-18-20 16:00	Mar-18-20 16:00	Mar-18-20 16:00	Mar-18-20 16:00		
	<i>Analyzed:</i>	Mar-18-20 18:06	Mar-18-20 18:23	Mar-18-20 18:29	Mar-18-20 18:35		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		<9.92 9.92	78.5 9.98	138 9.98	412 9.94		
TPH by SW8015 Mod	<i>Extracted:</i>	Mar-18-20 17:30	Mar-18-20 17:30	Mar-18-20 17:30	Mar-18-20 17:30		
	<i>Analyzed:</i>	Mar-18-20 19:50	Mar-18-20 20:10	Mar-18-20 20:31	Mar-18-20 20:51		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<49.8 49.8	<49.8 49.8	<49.8 49.8		
Diesel Range Organics (DRO)		<49.8 49.8	<49.8 49.8	<49.8 49.8	<49.8 49.8		
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<49.8 49.8	<49.8 49.8	<49.8 49.8		
Total GRO-DRO		<49.8 49.8	<49.8 49.8	<49.8 49.8	<49.8 49.8		
Total TPH		<49.8 49.8	<49.8 49.8	<49.8 49.8	<49.8 49.8		

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Jessica Kramer
 Project Manager



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: FS21 Matrix: Soil Date Received: 03.18.20 14.37
 Lab Sample Id: 656115-001 Date Collected: 03.18.20 08.40 Sample Depth: 11 - 12 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.18.20 16.00 Basis: Wet Weight
 Seq Number: 3120183

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	224	9.98	mg/kg	03.18.20 16.22		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.18.20 17.30 Basis: Wet Weight
 Seq Number: 3120217

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.18.20 17.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.18.20 17.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.18.20 17.48	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	03.18.20 17.48	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.18.20 17.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	03.18.20 17.48	
o-Terphenyl	84-15-1	119	%	70-135	03.18.20 17.48	



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS21**
Lab Sample Id: 656115-001

Matrix: Soil
Date Collected: 03.18.20 08.40

Date Received: 03.18.20 14.37
Sample Depth: 11 - 12 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MRB

Date Prep: 03.18.20 15.30

Basis: Wet Weight

Seq Number: 3120167

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.18.20 17.50	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.18.20 17.50	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.18.20 17.50	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.18.20 17.50	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.18.20 17.50	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.18.20 17.50	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.18.20 17.50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.18.20 17.50		
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.18.20 17.50		



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: FS22 Matrix: Soil Date Received: 03.18.20 14.37
 Lab Sample Id: 656115-002 Date Collected: 03.18.20 08.45 Sample Depth: 11 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.18.20 16.00 Basis: Wet Weight
 Seq Number: 3120183

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	181	10.1	mg/kg	03.18.20 16.39		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.18.20 17.30 Basis: Wet Weight
 Seq Number: 3120217

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.18.20 18.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.18.20 18.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.18.20 18.09	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.18.20 18.09	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.18.20 18.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	03.18.20 18.09	
o-Terphenyl	84-15-1	104	%	70-135	03.18.20 18.09	



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: FS22
Lab Sample Id: 656115-002

Matrix: Soil
Date Collected: 03.18.20 08.45

Date Received: 03.18.20 14.37
Sample Depth: 11 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MRB

Seq Number: 3120167

Prep Method: SW5030B

% Moisture:

Date Prep: 03.18.20 15.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.18.20 18.11	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.18.20 18.11	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.18.20 18.11	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.18.20 18.11	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.18.20 18.11	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.18.20 18.11	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.18.20 18.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.18.20 18.11		
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.18.20 18.11		



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: FS23
Lab Sample Id: 656115-003

Matrix: Soil
Date Collected: 03.18.20 08.50

Date Received: 03.18.20 14.37
Sample Depth: 10 - 11 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120183

Date Prep: 03.18.20 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	255	10.1	mg/kg	03.18.20 16.45		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120217

Date Prep: 03.18.20 17.30

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	03.18.20 18.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.18.20 18.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.18.20 18.29	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.18.20 18.29	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.18.20 18.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	03.18.20 18.29	
o-Terphenyl	84-15-1	119	%	70-135	03.18.20 18.29	



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: FS23
Lab Sample Id: 656115-003

Matrix: Soil
Date Collected: 03.18.20 08.50

Date Received: 03.18.20 14.37
Sample Depth: 10 - 11 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MRB

Date Prep: 03.18.20 15.30

Basis: Wet Weight

Seq Number: 3120167

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.18.20 18.31	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.18.20 18.31	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.18.20 18.31	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.18.20 18.31	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.18.20 18.31	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.18.20 18.31	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.18.20 18.31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	86	%	70-130	03.18.20 18.31		
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.18.20 18.31		



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS24**
Lab Sample Id: 656115-004

Matrix: Soil
Date Collected: 03.18.20 08.55

Date Received: 03.18.20 14.37
Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120183

Date Prep: 03.18.20 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	03.18.20 16.51	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120217

Date Prep: 03.18.20 17.30

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	03.18.20 18.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.18.20 18.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.18.20 18.49	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.18.20 18.49	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.18.20 18.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	03.18.20 18.49	
o-Terphenyl	84-15-1	119	%	70-135	03.18.20 18.49	



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS24**
Lab Sample Id: 656115-004

Matrix: Soil
Date Collected: 03.18.20 08.55

Date Received: 03.18.20 14.37
Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MRB

Seq Number: 3120167

Date Prep: 03.18.20 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	03.18.20 18.51	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.18.20 18.51	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.18.20 18.51	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.18.20 18.51	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.18.20 18.51	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.18.20 18.51	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.18.20 18.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.18.20 18.51		
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.18.20 18.51		



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: FS25
Lab Sample Id: 656115-005

Matrix: Soil
Date Collected: 03.18.20 08.57

Date Received: 03.18.20 14.37
Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120183

Date Prep: 03.18.20 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	03.18.20 16.57	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120217

Date Prep: 03.18.20 17.30

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	03.18.20 19.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.18.20 19.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.18.20 19.30	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.18.20 19.30	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.18.20 19.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	03.18.20 19.30	
o-Terphenyl	84-15-1	126	%	70-135	03.18.20 19.30	



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: FS25
Lab Sample Id: 656115-005

Matrix: Soil
Date Collected: 03.18.20 08.57

Date Received: 03.18.20 14.37
Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MRB

Date Prep: 03.18.20 15.30

Basis: Wet Weight

Seq Number: 3120167

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.18.20 19.12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.18.20 19.12	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.18.20 19.12	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.18.20 19.12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.18.20 19.12	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.18.20 19.12	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.18.20 19.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.18.20 19.12		
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.18.20 19.12		



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS26** Matrix: Soil Date Received: 03.18.20 14.37
 Lab Sample Id: 656115-006 Date Collected: 03.18.20 09.00 Sample Depth: 10 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.18.20 16.00 Basis: Wet Weight
 Seq Number: 3120183

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	03.18.20 17.14	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.18.20 17.30 Basis: Wet Weight
 Seq Number: 3120217

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.18.20 19.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.18.20 19.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.18.20 19.50	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.18.20 19.50	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.18.20 19.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	03.18.20 19.50	
o-Terphenyl	84-15-1	111	%	70-135	03.18.20 19.50	



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS26**
Lab Sample Id: 656115-006

Matrix: Soil
Date Collected: 03.18.20 09.00

Date Received: 03.18.20 14.37
Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MRB

Date Prep: 03.18.20 15.30

Basis: Wet Weight

Seq Number: 3120167

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.18.20 19.32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.18.20 19.32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.18.20 19.32	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.18.20 19.32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.18.20 19.32	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.18.20 19.32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.18.20 19.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.18.20 19.32		
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.18.20 19.32		



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: FS27
Lab Sample Id: 656115-007

Matrix: Soil
Date Collected: 03.18.20 09.05

Date Received: 03.18.20 14.37
Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120183

Date Prep: 03.18.20 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	03.18.20 17.20	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120217

Date Prep: 03.18.20 17.30

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	03.18.20 20.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.18.20 20.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.18.20 20.10	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	03.18.20 20.10	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.18.20 20.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	03.18.20 20.10	
o-Terphenyl	84-15-1	110	%	70-135	03.18.20 20.10	



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: FS27
Lab Sample Id: 656115-007

Matrix: Soil
Date Collected: 03.18.20 09.05

Date Received: 03.18.20 14.37
Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MRB

Seq Number: 3120167

Date Prep: 03.18.20 15.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.18.20 19.53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.18.20 19.53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.18.20 19.53	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.18.20 19.53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.18.20 19.53	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.18.20 19.53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.18.20 19.53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.18.20 19.53		
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.18.20 19.53		



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS28**
Lab Sample Id: 656115-008

Matrix: Soil
Date Collected: 03.18.20 09.07

Date Received: 03.18.20 14.37
Sample Depth: 9 - 10 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120183

Date Prep: 03.18.20 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	63.3	10.0	mg/kg	03.18.20 17.25		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120217

Date Prep: 03.18.20 17.30

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	03.18.20 20.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.18.20 20.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.18.20 20.31	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.18.20 20.31	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.18.20 20.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	03.18.20 20.31	
o-Terphenyl	84-15-1	103	%	70-135	03.18.20 20.31	



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **FS28**
Lab Sample Id: 656115-008

Matrix: Soil
Date Collected: 03.18.20 09.07

Date Received: 03.18.20 14.37
Sample Depth: 9 - 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MRB

Date Prep: 03.18.20 15.30

Basis: Wet Weight

Seq Number: 3120167

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.18.20 20.13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.18.20 20.13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.18.20 20.13	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.18.20 20.13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.18.20 20.13	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.18.20 20.13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.18.20 20.13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.18.20 20.13		
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.18.20 20.13		



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW27**
Lab Sample Id: 656115-009

Matrix: Soil
Date Collected: 03.18.20 09.25

Date Received: 03.18.20 14.37
Sample Depth: 8 - 10 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120183

Date Prep: 03.18.20 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	90.0	10.0	mg/kg	03.18.20 17.31		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120217

Date Prep: 03.18.20 17.30

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	03.18.20 20.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.18.20 20.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.18.20 20.51	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.18.20 20.51	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.18.20 20.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	03.18.20 20.51	
o-Terphenyl	84-15-1	106	%	70-135	03.18.20 20.51	



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW27**
Lab Sample Id: 656115-009

Matrix: Soil
Date Collected: 03.18.20 09.25

Date Received: 03.18.20 14.37
Sample Depth: 8 - 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MRB

Date Prep: 03.18.20 15.30

Basis: Wet Weight

Seq Number: 3120167

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.18.20 20.33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.18.20 20.33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.18.20 20.33	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.18.20 20.33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.18.20 20.33	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.18.20 20.33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.18.20 20.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.18.20 20.33		
1,4-Difluorobenzene	540-36-3	115	%	70-130	03.18.20 20.33		



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW28**
Lab Sample Id: 656115-010

Matrix: Soil
Date Collected: 03.18.20 09.27

Date Received: 03.18.20 14.37
Sample Depth: 6 - 8 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120183

Date Prep: 03.18.20 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	48.8	9.92	mg/kg	03.18.20 17.37		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120220

Date Prep: 03.18.20 17.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.18.20 18.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	03.18.20 18.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	03.18.20 18.29	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	03.18.20 18.29	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	03.18.20 18.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	03.18.20 18.29	
o-Terphenyl	84-15-1	109	%	70-135	03.18.20 18.29	



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW28**
Lab Sample Id: 656115-010

Matrix: Soil
Date Collected: 03.18.20 09.27

Date Received: 03.18.20 14.37
Sample Depth: 6 - 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MRB

Date Prep: 03.18.20 15.30

Basis: Wet Weight

Seq Number: 3120167

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.18.20 20.54	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.18.20 20.54	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.18.20 20.54	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	03.18.20 20.54	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.18.20 20.54	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.18.20 20.54	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.18.20 20.54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	03.18.20 20.54		
4-Bromofluorobenzene	460-00-4	91	%	70-130	03.18.20 20.54		



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW29** Matrix: Soil Date Received: 03.18.20 14.37
 Lab Sample Id: 656115-011 Date Collected: 03.18.20 09.30 Sample Depth: 3 - 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.18.20 16.00 Basis: Wet Weight
 Seq Number: 3120183

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	35.1	9.92	mg/kg	03.18.20 17.43		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.18.20 17.30 Basis: Wet Weight
 Seq Number: 3120220

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.18.20 18.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.18.20 18.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.18.20 18.49	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.18.20 18.49	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.18.20 18.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	03.18.20 18.49	
o-Terphenyl	84-15-1	105	%	70-135	03.18.20 18.49	



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW29**
Lab Sample Id: 656115-011

Matrix: Soil
Date Collected: 03.18.20 09.30

Date Received: 03.18.20 14.37
Sample Depth: 3 - 6 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120173

Date Prep: 03.18.20 17.24

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	03.19.20 00.38	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.19.20 00.38	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.19.20 00.38	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.19.20 00.38	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.19.20 00.38	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.19.20 00.38	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.19.20 00.38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	03.19.20 00.38		
1,4-Difluorobenzene	540-36-3	118	%	70-130	03.19.20 00.38		



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW30**
Lab Sample Id: 656115-012

Matrix: Soil
Date Collected: 03.18.20 09.35

Date Received: 03.18.20 14.37
Sample Depth: 0.5 - 3 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120183

Date Prep: 03.18.20 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	03.18.20 18.00	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120220

Date Prep: 03.18.20 17.30

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	03.18.20 19.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.18.20 19.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.18.20 19.30	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	03.18.20 19.30	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.18.20 19.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	03.18.20 19.30	
o-Terphenyl	84-15-1	106	%	70-135	03.18.20 19.30	



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW30**
Lab Sample Id: 656115-012

Matrix: Soil
Date Collected: 03.18.20 09.35

Date Received: 03.18.20 14.37
Sample Depth: 0.5 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.18.20 17.24

Basis: Wet Weight

Seq Number: 3120173

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.19.20 00.58	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.19.20 00.58	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.19.20 00.58	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	03.19.20 00.58	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.19.20 00.58	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.19.20 00.58	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.19.20 00.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.19.20 00.58		
1,4-Difluorobenzene	540-36-3	111	%	70-130	03.19.20 00.58		



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW31**
Lab Sample Id: 656115-013

Matrix: Soil
Date Collected: 03.18.20 11.15

Date Received: 03.18.20 14.37
Sample Depth: 0.5 - 6 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120183

Date Prep: 03.18.20 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.92	9.92	mg/kg	03.18.20 18.06	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120220

Date Prep: 03.18.20 17.30

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	03.18.20 19.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.18.20 19.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.18.20 19.50	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.18.20 19.50	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.18.20 19.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	03.18.20 19.50	
o-Terphenyl	84-15-1	106	%	70-135	03.18.20 19.50	



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW31**
Lab Sample Id: 656115-013

Matrix: Soil
Date Collected: 03.18.20 11.15

Date Received: 03.18.20 14.37
Sample Depth: 0.5 - 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.18.20 17.24

Basis: Wet Weight

Seq Number: 3120173

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.19.20 01.19	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.19.20 01.19	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.19.20 01.19	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	03.19.20 01.19	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.19.20 01.19	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.19.20 01.19	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.19.20 01.19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.19.20 01.19		
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.19.20 01.19		



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW32**
Lab Sample Id: 656115-014

Matrix: Soil
Date Collected: 03.18.20 11.20

Date Received: 03.18.20 14.37
Sample Depth: 6 - 12 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120183

Date Prep: 03.18.20 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	78.5	9.98	mg/kg	03.18.20 18.23		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120220

Date Prep: 03.18.20 17.30

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	03.18.20 20.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.18.20 20.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.18.20 20.10	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.18.20 20.10	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.18.20 20.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	03.18.20 20.10	
o-Terphenyl	84-15-1	108	%	70-135	03.18.20 20.10	



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW32**
Lab Sample Id: 656115-014

Matrix: Soil
Date Collected: 03.18.20 11.20

Date Received: 03.18.20 14.37
Sample Depth: 6 - 12 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.18.20 17.24

Basis: Wet Weight

Seq Number: 3120173

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.19.20 01.39	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.19.20 01.39	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.19.20 01.39	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.19.20 01.39	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.19.20 01.39	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.19.20 01.39	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.19.20 01.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.19.20 01.39		
1,4-Difluorobenzene	540-36-3	114	%	70-130	03.19.20 01.39		



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW33**
Lab Sample Id: 656115-015

Matrix: Soil
Date Collected: 03.18.20 11.35

Date Received: 03.18.20 14.37
Sample Depth: 0.5 - 20 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120183

Date Prep: 03.18.20 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	138	9.98	mg/kg	03.18.20 18.29		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120220

Date Prep: 03.18.20 17.30

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	03.18.20 20.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.18.20 20.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.18.20 20.31	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.18.20 20.31	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.18.20 20.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	03.18.20 20.31	
o-Terphenyl	84-15-1	107	%	70-135	03.18.20 20.31	



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW33**
Lab Sample Id: 656115-015

Matrix: Soil
Date Collected: 03.18.20 11.35

Date Received: 03.18.20 14.37
Sample Depth: 0.5 - 20 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120173

Prep Method: SW5030B

% Moisture:

Date Prep: 03.18.20 17.24

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.19.20 01.59	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.19.20 01.59	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.19.20 01.59	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	03.19.20 01.59	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.19.20 01.59	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.19.20 01.59	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.19.20 01.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	90	%	70-130	03.19.20 01.59		
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.19.20 01.59		



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW34**
Lab Sample Id: 656115-016

Matrix: Soil
Date Collected: 03.18.20 11.50

Date Received: 03.18.20 14.37
Sample Depth: 0.5 - 20 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120183

Date Prep: 03.18.20 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	412	9.94	mg/kg	03.18.20 18.35		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120220

Date Prep: 03.18.20 17.30

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	03.18.20 20.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.18.20 20.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.18.20 20.51	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.18.20 20.51	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.18.20 20.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	03.18.20 20.51	
o-Terphenyl	84-15-1	107	%	70-135	03.18.20 20.51	



Certificate of Analytical Results 656115

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW34**
Lab Sample Id: 656115-016

Matrix: Soil
Date Collected: 03.18.20 11.50

Date Received: 03.18.20 14.37
Sample Depth: 0.5 - 20 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120173

Date Prep: 03.18.20 17.24

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	03.19.20 02.20	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.19.20 02.20	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.19.20 02.20	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	03.19.20 02.20	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.19.20 02.20	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.19.20 02.20	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.19.20 02.20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.19.20 02.20		
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.19.20 02.20		



Flagging Criteria

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

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Sheep Draw Federal #003

Analytical Method: Chloride by EPA 300

Seq Number: 3120183

MB Sample Id: 7699236-1-BLK

Matrix: Solid

LCS Sample Id: 7699236-1-BKS

Prep Method: E300P

Date Prep: 03.18.20

LCSD Sample Id: 7699236-1-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	260	104	90-110	0	20	mg/kg	03.18.20 16:10	

Analytical Method: Chloride by EPA 300

Seq Number: 3120183

Parent Sample Id: 656115-001

Matrix: Soil

MS Sample Id: 656115-001 S

Prep Method: E300P

Date Prep: 03.18.20

MSD Sample Id: 656115-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	224	200	432	104	434	106	90-110	0	20	mg/kg	03.18.20 16:28	

Analytical Method: Chloride by EPA 300

Seq Number: 3120183

Parent Sample Id: 656115-011

Matrix: Soil

MS Sample Id: 656115-011 S

Prep Method: E300P

Date Prep: 03.18.20

MSD Sample Id: 656115-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	35.1	199	244	105	245	105	90-110	0	20	mg/kg	03.18.20 17:49	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120217

MB Sample Id: 7699257-1-BLK

Matrix: Solid

LCS Sample Id: 7699257-1-BKS

Prep Method: SW8015P

Date Prep: 03.18.20

LCSD Sample Id: 7699257-1-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	829	83	761	76	70-135	9	35	mg/kg	03.18.20 14:23	
Diesel Range Organics (DRO)	<50.0	1000	905	91	835	84	70-135	8	35	mg/kg	03.18.20 14:23	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	89		111		102		70-135	%	03.18.20 14:23
o-Terphenyl	98		98		92		70-135	%	03.18.20 14:23

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.

Sheep Draw Federal #003

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120220

MB Sample Id: 7699259-1-BLK

Matrix: Solid

LCS Sample Id: 7699259-1-BKS

Prep Method: SW8015P

Date Prep: 03.18.20

LCSD Sample Id: 7699259-1-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	1010	101	961	96	70-135	5	35	mg/kg	03.18.20 14:23	
Diesel Range Organics (DRO)	<50.0	1000	1080	108	1030	103	70-135	5	35	mg/kg	03.18.20 14:23	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		120		116		70-135	%	03.18.20 14:23
o-Terphenyl	107		112		107		70-135	%	03.18.20 14:23

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120217

Matrix: Solid

MB Sample Id: 7699257-1-BLK

Prep Method: SW8015P

Date Prep: 03.18.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.18.20 14:02	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120220

Matrix: Solid

MB Sample Id: 7699259-1-BLK

Prep Method: SW8015P

Date Prep: 03.18.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.18.20 14:02	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120217

Matrix: Soil

Parent Sample Id: 656032-001

MS Sample Id: 656032-001 S

Prep Method: SW8015P

Date Prep: 03.18.20

MSD Sample Id: 656032-001 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)	<49.8	995	850	85	966	97	70-135	13	35	mg/kg	03.18.20 15:24	
Diesel Range Organics (DRO)	<49.8	995	928	93	1070	107	70-135	14	35	mg/kg	03.18.20 15:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		115		70-135	%	03.18.20 15:24
o-Terphenyl	108		123		70-135	%	03.18.20 15:24

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.

Sheep Draw Federal #003

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120220

Parent Sample Id: 656034-001

Matrix: Soil

MS Sample Id: 656034-001 S

Prep Method: SW8015P

Date Prep: 03.18.20

MSD Sample Id: 656034-001 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)	<50.2	1000	922	92	950	95	70-135	3	35	mg/kg	03.18.20 15:24	
Diesel Range Organics (DRO)	<50.2	1000	1020	102	1040	104	70-135	2	35	mg/kg	03.18.20 15:24	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		120		70-135	%	03.18.20 15:24
o-Terphenyl	115		115		70-135	%	03.18.20 15:24

Analytical Method: BTEX by EPA 8021B

Seq Number: 3120167

MB Sample Id: 7699151-1-BLK

Matrix: Solid

LCS Sample Id: 7699151-1-BKS

Prep Method: SW5030B

Date Prep: 03.18.20

LCSD Sample Id: 7699151-1-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	0.118	118	70-130	6	35	mg/kg	03.18.20 11:43	
Toluene	<0.00200	0.100	0.102	102	0.107	107	70-130	5	35	mg/kg	03.18.20 11:43	
Ethylbenzene	<0.00200	0.100	0.0954	95	0.0996	100	71-129	4	35	mg/kg	03.18.20 11:43	
m,p-Xylenes	<0.00400	0.200	0.186	93	0.194	97	70-135	4	35	mg/kg	03.18.20 11:43	
o-Xylene	<0.00200	0.100	0.0917	92	0.0979	98	71-133	7	35	mg/kg	03.18.20 11:43	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	113		107		111		70-130	%	03.18.20 11:43
4-Bromofluorobenzene	88		80		86		70-130	%	03.18.20 11:43

Analytical Method: BTEX by EPA 8021B

Seq Number: 3120173

MB Sample Id: 7699214-1-BLK

Matrix: Solid

LCS Sample Id: 7699214-1-BKS

Prep Method: SW5030B

Date Prep: 03.18.20

LCSD Sample Id: 7699214-1-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	0.110	110	0.110	110	70-130	0	35	mg/kg	03.18.20 22:36	
Toluene	<0.00200	0.100	0.0996	100	0.0995	100	70-130	0	35	mg/kg	03.18.20 22:36	
Ethylbenzene	<0.00200	0.100	0.0923	92	0.0919	92	71-129	0	35	mg/kg	03.18.20 22:36	
m,p-Xylenes	<0.00400	0.200	0.181	91	0.179	90	70-135	1	35	mg/kg	03.18.20 22:36	
o-Xylene	<0.00200	0.100	0.0922	92	0.0916	92	71-133	1	35	mg/kg	03.18.20 22:36	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	118		112		111		70-130	%	03.18.20 22:36
4-Bromofluorobenzene	92		91		86		70-130	%	03.18.20 22:36

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.

Sheep Draw Federal #003

Analytical Method: BTEX by EPA 8021B

Seq Number: 3120167

Parent Sample Id: 656032-001

Matrix: Soil

MS Sample Id: 656032-001 S

Prep Method: SW5030B

Date Prep: 03.18.20

MSD Sample Id: 656032-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.128	129	0.122	122	70-130	5	35	mg/kg	03.18.20 12:24	
Toluene	<0.00199	0.0994	0.116	117	0.110	110	70-130	5	35	mg/kg	03.18.20 12:24	
Ethylbenzene	<0.00199	0.0994	0.107	108	0.100	100	71-129	7	35	mg/kg	03.18.20 12:24	
m,p-Xylenes	<0.00398	0.199	0.209	105	0.195	98	70-135	7	35	mg/kg	03.18.20 12:24	
o-Xylene	<0.00199	0.0994	0.105	106	0.0992	99	71-133	6	35	mg/kg	03.18.20 12:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		111		70-130	%	03.18.20 12:24
4-Bromofluorobenzene	87		90		70-130	%	03.18.20 12:24

Analytical Method: BTEX by EPA 8021B

Seq Number: 3120173

Parent Sample Id: 656115-011

Matrix: Soil

MS Sample Id: 656115-011 S

Prep Method: SW5030B

Date Prep: 03.18.20

MSD Sample Id: 656115-011 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	0.120	121	0.103	102	70-130	15	35	mg/kg	03.18.20 23:16	
Toluene	<0.00198	0.0990	0.122	123	0.0974	96	70-130	22	35	mg/kg	03.18.20 23:16	
Ethylbenzene	<0.00198	0.0990	0.102	103	0.0874	87	71-129	15	35	mg/kg	03.18.20 23:16	
m,p-Xylenes	<0.00396	0.198	0.217	110	0.177	88	70-135	20	35	mg/kg	03.18.20 23:16	
o-Xylene	<0.00198	0.0990	0.104	105	0.0877	87	71-133	17	35	mg/kg	03.18.20 23:16	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		112		70-130	%	03.18.20 23:16
4-Bromofluorobenzene	89		92		70-130	%	03.18.20 23:16

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

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

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

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



Project Manager:	Chris McKisson	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:	cmckisson@ltenv.com & abeyers@ltenv.com
Project Name:	Shoof Draw Easement #2		

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Work Order Comments

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

[illegible]

SAMPLE RECEIPT		Temp Blank:	☒ Yes	☐ No	Wet Ice:	☒ Yes	☐ No
Temperature (°C):	1.7	Thermometer ID					
Received intact:	☒ Yes ☐ No	T-NM-003					
Cooler Custody Seals:	Yes ☒ No ☐ N/A	Correction Factor: -0.2					
Sample Custody Seals:	Yes ☒ No ☐ N/A	Total Containers: 76					

Number of Containers

CEPA 80A5

CEPA 80Z

de CEPA 30

HCL: HL

NaOH: Na

Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH	BiEx	Color	received by 4:00pm
FS21		S	3/18/20	0840	11-12'	1				Sample Comments
FS22				0845	11'	1				
FS23				0850	10-11'	1				
FS24				0855	10'	1				
FS25				0857	10'	1				
FS26				0900	10'	1				
FS27				0905	10'	1				
FS28				0907	9-10'	1				
SW27				0925	8-10'	1				
SW28				0927	6-8'	1				
Total 2000.7 / 6010 2000.8 / 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	SiO ₂	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	SiO ₂	Na	Sr	Ti	Sn	U	V	Zn								

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenoco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenoco 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 Xenoco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenoco, but not analyzed. These terms will be enforced unless previously negotiated.

1631 / 245.1 / 7470 / 7471 : Hg

Reinquished by: (Signature)	Received by: (Signature)	Date/Time	Reinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Dune Egers</i>		3/18/20 14:37			
		4			
		6			



Chain of Custody

Work Order No: 052615

05/26/15

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) 689-6701

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Page 2 of 2

Project Manager:	Chris McKisson	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 7985	Email:	cmckisson@ltenvironmental.com

Project Name:	Sheep Draw Federal #203	Turn Around	
Project Number:	034820017	Routine	☐
Project Location:	Rural Eddy County	Rush: 24 HR	
Sampler's Name:	Anna Byers	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT	Temperature (°C):	Temp Blank:	Yes	No	Wet Ice:	Yes	No
	Received Intact:	Yes	No	Correction Factor:			
	Cooler Custody Seals:	Yes	No	Total Containers:			
	Sample Custody Seals:	Yes	No				

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes
SW29	S	3/18/20	0930	3-6'	1		TPH (EPA 8015)	MeOH: Me
SW30			0935	0.5-3'	1		BTEX (EPA 8021)	None: NO
SW31			1115	0.5-6'	1		Chloride (EPA 3000)	HNO3: HN
SW32			1120	6-12'	1			H2SO4: H2
SW33			1135	0.5-26'	1			HCL: HL
SW34			1145	0.5-26'	1			NaOH: Na
			1150					Zn Acetate+ NaOH: Zn
								TAT starts the day received by the lab, if received by 4:00pm
								Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr 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
Anna Byers		3/18/20 14:37			

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03.18.2020 02:37.00 PM

Work Order #: 656115

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
#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: 03.18.2020

Checklist reviewed by:



Jessica Kramer

Date: 03.19.2020

Analytical Report 656277

**for
LT Environmental, Inc.**

Project Manager: Chris McKisson

Sheep Draw #003

034820017

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): **656277**

Sheep Draw #003

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) 656277. 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. 656277 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 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW 35	S	03-18-20 15:45	0.5 - 15 ft	656277-001
SW 36	S	03-18-20 15:47	0.5 - 15 ft	656277-002
SW 37	S	03-18-20 15:55	0.5 - 15 ft	656277-003
SW 38	S	03-18-20 16:00	0.5 - 15 ft	656277-004
SW 39	S	03-18-20 16:10	0.5 - 15 ft	656277-005
SW 48	S	03-19-20 08:50	15 - 30 ft	656277-006
SW 41	S	03-18-20 16:20	0.5 - 15 ft	656277-007
SW 42	S	03-18-20 16:25	0.5 - 15 ft	656277-008
SW 43	S	03-18-20 16:30	0.5 - 15 ft	656277-009
SW 44	S	03-18-20 16:35	0.5 - 15 ft	656277-010
SW 45	S	03-19-20 11:50	0.5 - 15 ft	656277-011
SW 46	S	03-18-20 16:45	0.5 - 15 ft	656277-012
SW 49	S	03-19-20 09:00	15 - 30 ft	656277-013
SW 50	S	03-19-20 09:10	15 - 30 ft	656277-014
SW 51	S	03-19-20 09:25	15 - 30 ft	656277-015
SW 52	S	03-19-20 09:30	15 - 30 ft	656277-016
SW 53	S	03-19-20 09:40	15 - 30 ft	656277-017
SW 54	S	03-19-20 09:50	15 - 30 ft	656277-018
SW 55	S	03-19-20 10:00	15 - 30 ft	656277-019
SW 56	S	03-19-20 10:10	15 - 30 ft	656277-020
SW 57	S	03-19-20 10:15	15 - 30 ft	656277-021



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Sheep Draw #003

Project ID: 034820017

Work Order Number(s): 656277

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.

Batch: LBA-3120334 BTEX by EPA 8021B

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



Certificate of Analysis Summary 656277

LT Environmental, Inc., Arvada, CO

Project Name: Sheep Draw #003

Project Id: 034820017
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Thu Mar-19-20 01:40 pm
Report Date: 20-MAR-20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	656277-001	656277-002	656277-003	656277-004	656277-005	656277-006
	<i>Field Id:</i>	SW 35	SW 36	SW 37	SW 38	SW 39	SW 48
	<i>Depth:</i>	0.5-15 ft	0.5-15 ft	0.5-15 ft	0.5-15 ft	0.5-15 ft	15-30 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-18-20 15:45	Mar-18-20 15:47	Mar-18-20 15:55	Mar-18-20 16:00	Mar-18-20 16:10	Mar-19-20 08:50
BTEX by EPA 8021B	<i>Extracted:</i>	Mar-19-20 15:30	Mar-19-20 15:30	Mar-19-20 15:30	Mar-19-20 15:30	Mar-19-20 15:30	Mar-19-20 15:30
	<i>Analyzed:</i>	Mar-19-20 20:10	Mar-19-20 20:30	Mar-19-20 20:50	Mar-19-20 21:11	Mar-19-20 21:31	Mar-19-20 21:51
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201	<0.00199 0.00199
Toluene		<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201	<0.00199 0.00199
Ethylbenzene		<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201	<0.00199 0.00199
m,p-Xylenes		<0.00397 0.00397	<0.00403 0.00403	<0.00398 0.00398	<0.00395 0.00395	<0.00402 0.00402	<0.00398 0.00398
o-Xylene		<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201	<0.00199 0.00199
Xylenes, Total		<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201	<0.00199 0.00199
Total BTEX		<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	Mar-19-20 14:30	Mar-19-20 14:30	Mar-19-20 14:30	Mar-19-20 14:30	Mar-19-20 14:30	Mar-19-20 14:30
	<i>Analyzed:</i>	Mar-19-20 15:44	Mar-19-20 15:50	Mar-19-20 16:02	Mar-19-20 16:08	Mar-19-20 16:25	Mar-19-20 16:42
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		22.1 9.94	488 9.98	495 9.90	535 9.92	550 9.90	481 9.90
TPH by SW8015 Mod	<i>Extracted:</i>	** ** ** *	** ** ** *	** ** ** *	** ** ** *	** ** ** *	** ** ** *
	<i>Analyzed:</i>	Mar-19-20 22:37	Mar-19-20 22:58	Mar-19-20 17:35	Mar-19-20 17:55	Mar-19-20 18:14	Mar-19-20 18:35
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.2 50.2	<50.1 50.1	<50.1 50.1	<50.1 50.1	<50.2 50.2
Diesel Range Organics (DRO)		173 50.2	952 50.2	<50.1 50.1	<50.1 50.1	<50.1 50.1	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		52.7 50.2	163 50.2	<50.1 50.1	<50.1 50.1	<50.1 50.1	<50.2 50.2
Total GRO-DRO		173 50.2	952 50.2	<50.1 50.1	<50.1 50.1	<50.1 50.1	<50.2 50.2
Total TPH		226 50.2	1120 50.2	<50.1 50.1	<50.1 50.1	<50.1 50.1	<50.2 50.2

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 656277

LT Environmental, Inc., Arvada, CO

Project Name: Sheep Draw #003

Project Id: 034820017
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Thu Mar-19-20 01:40 pm
Report Date: 20-MAR-20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	656277-007	656277-008	656277-009	656277-010	656277-011	656277-012
	<i>Field Id:</i>	SW 41	SW 42	SW 43	SW 44	SW 45	SW 46
	<i>Depth:</i>	0.5-15 ft	0.5-15 ft	0.5-15 ft	0.5-15 ft	0.5-15 ft	0.5-15 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-18-20 16:20	Mar-18-20 16:25	Mar-18-20 16:30	Mar-18-20 16:35	Mar-19-20 11:50	Mar-18-20 16:45
BTEX by EPA 8021B	<i>Extracted:</i>	Mar-19-20 16:00	Mar-19-20 16:00	Mar-19-20 16:00	Mar-19-20 16:00	Mar-19-20 16:00	Mar-19-20 16:00
	<i>Analyzed:</i>	Mar-19-20 18:36	Mar-19-20 18:57	Mar-19-20 19:17	Mar-19-20 19:38	Mar-19-20 19:58	Mar-19-20 20:18
	<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	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00202 0.00202	<0.00198 0.00198
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00202 0.00202	<0.00198 0.00198
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00202 0.00202	<0.00198 0.00198
m,p-Xylenes		<0.00401 0.00401	<0.00401 0.00401	<0.00397 0.00397	<0.00398 0.00398	<0.00403 0.00403	<0.00397 0.00397
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00202 0.00202	<0.00198 0.00198
Xylenes, Total		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00202 0.00202	<0.00198 0.00198
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00202 0.00202	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	Mar-19-20 14:30	Mar-19-20 14:30	Mar-19-20 14:30	Mar-19-20 14:30	Mar-19-20 14:30	Mar-19-20 14:30
	<i>Analyzed:</i>	Mar-19-20 16:47	Mar-19-20 16:53	Mar-19-20 16:59	Mar-19-20 17:04	Mar-19-20 17:10	Mar-19-20 17:16
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		179 9.98	261 9.94	228 10.0	113 10.0	239 9.88	101 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	*** ** *	*** ** *	*** ** *	*** ** *	*** ** *	*** ** *
	<i>Analyzed:</i>	Mar-19-20 18:55	Mar-19-20 19:15	Mar-19-20 19:55	Mar-19-20 20:16	Mar-19-20 20:36	Mar-19-20 20:56
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.1 50.1	<50.2 50.2
Diesel Range Organics (DRO)		<49.9 49.9	<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.1 50.1	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.1 50.1	<50.2 50.2
Total GRO-DRO		<49.9 49.9	<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.1 50.1	<50.2 50.2
Total TPH		<49.9 49.9	<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.1 50.1	<50.2 50.2

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 656277

LT Environmental, Inc., Arvada, CO

Project Name: Sheep Draw #003

Project Id: 034820017
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Thu Mar-19-20 01:40 pm
Report Date: 20-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	656277-013	656277-014	656277-015	656277-016	656277-017	656277-018
	Field Id:	SW 49	SW 50	SW 51	SW 52	SW 53	SW 54
	Depth:	15-30 ft	15-30 ft	15-30 ft	15-30 ft	15-30 ft	15-30 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Mar-19-20 09:00	Mar-19-20 09:10	Mar-19-20 09:25	Mar-19-20 09:30	Mar-19-20 09:40	Mar-19-20 09:50
BTEX by EPA 8021B	Extracted:	Mar-19-20 16:00	Mar-19-20 16:00	Mar-19-20 16:00	Mar-19-20 16:00	Mar-19-20 16:00	Mar-19-20 16:00
	Analyzed:	Mar-19-20 20:39	Mar-19-20 20:59	Mar-19-20 21:19	Mar-19-20 21:40	Mar-19-20 23:01	Mar-19-20 23:22
	Units/RL:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		RL	RL	RL	RL	RL	RL
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	0.00477 0.00199
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00402 0.00402	<0.00401 0.00401	<0.00402 0.00402	<0.00401 0.00401	<0.00401 0.00401	0.00572 0.00398
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Xylenes, Total		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	0.00572 0.00199
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	0.0105 0.00199
Chloride by EPA 300	Extracted:	Mar-19-20 17:09	Mar-19-20 17:09	Mar-19-20 17:09	Mar-19-20 17:09	Mar-19-20 17:09	Mar-19-20 17:09
	Analyzed:	Mar-19-20 17:54	Mar-19-20 18:12	Mar-19-20 18:18	Mar-19-20 18:24	Mar-19-20 18:30	Mar-19-20 18:49
	Units/RL:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		RL	RL	RL	RL	RL	RL
Chloride		141 9.98	12.4 9.96	24.3 9.98	19.4 9.92	59.0 9.88	303 9.90
TPH by SW8015 Mod	Extracted:	*** ** *	*** ** *	*** ** *	*** ** *	Mar-19-20 17:20	Mar-19-20 17:20
	Analyzed:	Mar-19-20 21:16	Mar-19-20 21:36	Mar-19-20 21:57	Mar-19-20 22:17	Mar-19-20 17:35	Mar-19-20 17:55
	Units/RL:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		RL	RL	RL	RL	RL	RL
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<50.1 50.1	<50.2 50.2	<50.0 50.0	<50.2 50.2	<50.3 50.3
Diesel Range Organics (DRO)		<50.1 50.1	<50.1 50.1	<50.2 50.2	<50.0 50.0	<50.2 50.2	<50.3 50.3
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.1 50.1	<50.2 50.2	<50.0 50.0	<50.2 50.2	<50.3 50.3
Total GRO-DRO		<50.1 50.1	<50.1 50.1	<50.2 50.2	<50.0 50.0	<50.2 50.2	<50.3 50.3
Total TPH		<50.1 50.1	<50.1 50.1	<50.2 50.2	<50.0 50.0	<50.2 50.2	<50.3 50.3

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 656277

LT Environmental, Inc., Arvada, CO

Project Name: Sheep Draw #003

Project Id: 034820017
 Contact: Chris McKisson
 Project Location: Rural Eddy County

Date Received in Lab: Thu Mar-19-20 01:40 pm
 Report Date: 20-MAR-20
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	656277-019	656277-020	656277-021			
	Field Id:	SW 55	SW 56	SW 57			
	Depth:	15-30 ft	15-30 ft	15-30 ft			
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	Mar-19-20 10:00	Mar-19-20 10:10	Mar-19-20 10:15			
BTEX by EPA 8021B	Extracted:	Mar-19-20 16:00	Mar-19-20 16:00	Mar-19-20 16:00			
	Analyzed:	Mar-19-20 23:42	Mar-20-20 00:03	Mar-20-20 00:23			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200			
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200			
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200			
m,p-Xylenes		<0.00403 0.00403	<0.00401 0.00401	<0.00399 0.00399			
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200			
Xylenes, Total		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200			
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200			
Chloride by EPA 300	Extracted:	Mar-19-20 17:09	Mar-19-20 17:09	Mar-19-20 17:09			
	Analyzed:	Mar-19-20 18:55	Mar-19-20 19:01	Mar-19-20 19:08			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		187 49.6	80.3 10.0	15.2 9.98			
TPH by SW8015 Mod	Extracted:	Mar-19-20 17:20	Mar-19-20 17:20	Mar-19-20 17:20			
	Analyzed:	Mar-19-20 18:14	Mar-19-20 18:35	Mar-19-20 18:55			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<50.0 50.0	<50.1 50.1			
Diesel Range Organics (DRO)		<50.1 50.1	<50.0 50.0	<50.1 50.1			
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.0 50.0	<50.1 50.1			
Total GRO-DRO		<50.1 50.1	<50.0 50.0	<50.1 50.1			
Total TPH		<50.1 50.1	<50.0 50.0	<50.1 50.1			

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Jessica Kramer

Jessica Kramer
 Project Manager



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 35** Matrix: Soil Date Received: 03.19.20 13.40
 Lab Sample Id: 656277-001 Date Collected: 03.18.20 15.45 Sample Depth: 0.5 - 15 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.19.20 14.30 Basis: Wet Weight
 Seq Number: 3120336

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22.1	9.94	mg/kg	03.19.20 15.44		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.15.20 17.20 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 22.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	173	50.2	mg/kg	03.19.20 22.37		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	52.7	50.2	mg/kg	03.19.20 22.37		1
Total GRO-DRO	PHC628	173	50.2	mg/kg	03.19.20 22.37		1
Total TPH	PHC635	226	50.2	mg/kg	03.19.20 22.37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	03.19.20 22.37	
o-Terphenyl	84-15-1	107	%	70-135	03.19.20 22.37	



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: SW 35
Lab Sample Id: 656277-001

Matrix: Soil
Date Collected: 03.18.20 15.45

Date Received: 03.19.20 13.40
Sample Depth: 0.5 - 15 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.19.20 15.30

Basis: Wet Weight

Seq Number: 3120331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.19.20 20.10	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.19.20 20.10	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.19.20 20.10	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	03.19.20 20.10	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.19.20 20.10	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.19.20 20.10	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.19.20 20.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.19.20 20.10		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.19.20 20.10		



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 36** Matrix: Soil Date Received: 03.19.20 13.40
 Lab Sample Id: 656277-002 Date Collected: 03.18.20 15.47 Sample Depth: 0.5 - 15 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.19.20 14.30 Basis: Wet Weight
 Seq Number: 3120336

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	488	9.98	mg/kg	03.19.20 15.50		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.15.20 17.20 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 22.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	952	50.2	mg/kg	03.19.20 22.58		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	163	50.2	mg/kg	03.19.20 22.58		1
Total GRO-DRO	PHC628	952	50.2	mg/kg	03.19.20 22.58		1
Total TPH	PHC635	1120	50.2	mg/kg	03.19.20 22.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	03.19.20 22.58	
o-Terphenyl	84-15-1	110	%	70-135	03.19.20 22.58	



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 36**
Lab Sample Id: 656277-002

Matrix: Soil
Date Collected: 03.18.20 15.47

Date Received: 03.19.20 13.40
Sample Depth: 0.5 - 15 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.19.20 15.30

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 20.30	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.19.20 20.30	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.19.20 20.30	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.19.20 20.30	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.19.20 20.30	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.19.20 20.30	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.19.20 20.30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.19.20 20.30		
4-Bromofluorobenzene	460-00-4	101	%	70-130	03.19.20 20.30		



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 37** Matrix: Soil Date Received: 03.19.20 13.40
 Lab Sample Id: 656277-003 Date Collected: 03.18.20 15.55 Sample Depth: 0.5 - 15 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.19.20 14.30 Basis: Wet Weight
 Seq Number: 3120336

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	495	9.90	mg/kg	03.19.20 16.02		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.15.20 17.20 Basis: Wet Weight
 Seq Number: 3120393

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.19.20 17.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.19.20 17.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.19.20 17.35	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.19.20 17.35	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.19.20 17.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	03.19.20 17.35	
o-Terphenyl	84-15-1	110	%	70-135	03.19.20 17.35	



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: SW 37
Lab Sample Id: 656277-003

Matrix: Soil
Date Collected: 03.18.20 15.55

Date Received: 03.19.20 13.40
Sample Depth: 0.5 - 15 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120331

Prep Method: SW5030B

% Moisture:

Date Prep: 03.19.20 15.30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.19.20 20.50	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.19.20 20.50	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.19.20 20.50	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.19.20 20.50	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.19.20 20.50	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.19.20 20.50	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.19.20 20.50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.19.20 20.50		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.19.20 20.50		



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 38** Matrix: Soil Date Received: 03.19.20 13.40
 Lab Sample Id: 656277-004 Date Collected: 03.18.20 16.00 Sample Depth: 0.5 - 15 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.19.20 14.30 Basis: Wet Weight
 Seq Number: 3120336

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	535	9.92	mg/kg	03.19.20 16.08		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.15.20 17.20 Basis: Wet Weight
 Seq Number: 3120393

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.19.20 17.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.19.20 17.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.19.20 17.55	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.19.20 17.55	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.19.20 17.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	03.19.20 17.55	
o-Terphenyl	84-15-1	109	%	70-135	03.19.20 17.55	



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 38**
Lab Sample Id: 656277-004

Matrix: Soil
Date Collected: 03.18.20 16.00

Date Received: 03.19.20 13.40
Sample Depth: 0.5 - 15 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.19.20 15.30

Basis: Wet Weight

Seq Number: 3120331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.19.20 21.11	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.19.20 21.11	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.19.20 21.11	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	03.19.20 21.11	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.19.20 21.11	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.19.20 21.11	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.19.20 21.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.19.20 21.11		
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.19.20 21.11		



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LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 39** Matrix: Soil Date Received: 03.19.20 13.40
 Lab Sample Id: 656277-005 Date Collected: 03.18.20 16.10 Sample Depth: 0.5 - 15 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.19.20 14.30 Basis: Wet Weight
 Seq Number: 3120336

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	550	9.90	mg/kg	03.19.20 16.25		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.15.20 17.20 Basis: Wet Weight
 Seq Number: 3120393

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.19.20 18.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.19.20 18.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.19.20 18.14	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.19.20 18.14	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.19.20 18.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	03.19.20 18.14	
o-Terphenyl	84-15-1	109	%	70-135	03.19.20 18.14	



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LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 39**
Lab Sample Id: 656277-005

Matrix: Soil
Date Collected: 03.18.20 16.10

Date Received: 03.19.20 13.40
Sample Depth: 0.5 - 15 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.19.20 15.30

Basis: Wet Weight

Seq Number: 3120331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.19.20 21.31	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.19.20 21.31	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.19.20 21.31	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.19.20 21.31	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.19.20 21.31	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.19.20 21.31	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.19.20 21.31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	03.19.20 21.31		
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.19.20 21.31		



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 48** Matrix: Soil Date Received: 03.19.20 13.40
 Lab Sample Id: 656277-006 Date Collected: 03.19.20 08.50 Sample Depth: 15 - 30 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.19.20 14.30 Basis: Wet Weight
 Seq Number: 3120336

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	481	9.90	mg/kg	03.19.20 16.42		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.15.20 17.20 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 18.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.19.20 18.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.19.20 18.35	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.19.20 18.35	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.19.20 18.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	03.19.20 18.35	
o-Terphenyl	84-15-1	105	%	70-135	03.19.20 18.35	



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 48**
Lab Sample Id: 656277-006

Matrix: Soil
Date Collected: 03.19.20 08.50

Date Received: 03.19.20 13.40
Sample Depth: 15 - 30 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120331

Date Prep: 03.19.20 15.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.19.20 21.51	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.19.20 21.51	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.19.20 21.51	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.19.20 21.51	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.19.20 21.51	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.19.20 21.51	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.19.20 21.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.19.20 21.51		
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.19.20 21.51		



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LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 41** Matrix: Soil Date Received: 03.19.20 13.40
 Lab Sample Id: 656277-007 Date Collected: 03.18.20 16.20 Sample Depth: 0.5 - 15 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.19.20 14.30 Basis: Wet Weight
 Seq Number: 3120336

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	179	9.98	mg/kg	03.19.20 16.47		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.15.20 17.20 Basis: Wet Weight
 Seq Number: 3120393

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.19.20 18.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.19.20 18.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.19.20 18.55	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	03.19.20 18.55	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.19.20 18.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	03.19.20 18.55	
o-Terphenyl	84-15-1	107	%	70-135	03.19.20 18.55	



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 41**
Lab Sample Id: 656277-007

Matrix: Soil
Date Collected: 03.18.20 16.20

Date Received: 03.19.20 13.40
Sample Depth: 0.5 - 15 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120334

Prep Method: SW5030B

% Moisture:

Date Prep: 03.19.20 16.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.19.20 18.36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.19.20 18.36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.19.20 18.36	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.19.20 18.36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.19.20 18.36	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.19.20 18.36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.19.20 18.36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.19.20 18.36		
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.19.20 18.36		



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 42** Matrix: Soil Date Received: 03.19.20 13.40
 Lab Sample Id: 656277-008 Date Collected: 03.18.20 16.25 Sample Depth: 0.5 - 15 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.19.20 14.30 Basis: Wet Weight
 Seq Number: 3120336

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	261	9.94	mg/kg	03.19.20 16.53		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.15.20 17.20 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 19.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.19.20 19.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.19.20 19.15	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.19.20 19.15	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.19.20 19.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	03.19.20 19.15	
o-Terphenyl	84-15-1	105	%	70-135	03.19.20 19.15	



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 42**
Lab Sample Id: 656277-008

Matrix: Soil
Date Collected: 03.18.20 16.25

Date Received: 03.19.20 13.40
Sample Depth: 0.5 - 15 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120334

Date Prep: 03.19.20 16.00

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	03.19.20 18.57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.19.20 18.57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.19.20 18.57	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.19.20 18.57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.19.20 18.57	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.19.20 18.57	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.19.20 18.57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.19.20 18.57		
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.19.20 18.57		



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LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 43**
Lab Sample Id: 656277-009

Matrix: Soil
Date Collected: 03.18.20 16.30

Date Received: 03.19.20 13.40
Sample Depth: 0.5 - 15 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120336

Date Prep: 03.19.20 14.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	228	10.0	mg/kg	03.19.20 16.59		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120393

Date Prep: 03.15.20 17.20

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	03.19.20 19.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.19.20 19.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.19.20 19.55	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.19.20 19.55	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.19.20 19.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	03.19.20 19.55	
o-Terphenyl	84-15-1	111	%	70-135	03.19.20 19.55	



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LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 43**
Lab Sample Id: 656277-009

Matrix: Soil
Date Collected: 03.18.20 16.30

Date Received: 03.19.20 13.40
Sample Depth: 0.5 - 15 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120334

Prep Method: SW5030B

% Moisture:

Date Prep: 03.19.20 16.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.19.20 19.17	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.19.20 19.17	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.19.20 19.17	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	03.19.20 19.17	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.19.20 19.17	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.19.20 19.17	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.19.20 19.17	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	70-130	03.19.20 19.17		
1,4-Difluorobenzene	540-36-3	115	%	70-130	03.19.20 19.17		



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LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 44** Matrix: Soil Date Received: 03.19.20 13.40
 Lab Sample Id: 656277-010 Date Collected: 03.18.20 16.35 Sample Depth: 0.5 - 15 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.19.20 14.30 Basis: Wet Weight
 Seq Number: 3120336

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	113	10.0	mg/kg	03.19.20 17.04		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.15.20 17.20 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 20.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.19.20 20.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.19.20 20.16	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.19.20 20.16	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.19.20 20.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	03.19.20 20.16	
o-Terphenyl	84-15-1	107	%	70-135	03.19.20 20.16	



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 44**
Lab Sample Id: 656277-010

Matrix: Soil
Date Collected: 03.18.20 16.35

Date Received: 03.19.20 13.40
Sample Depth: 0.5 - 15 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120334

Date Prep: 03.19.20 16.00

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	03.19.20 19.38	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.19.20 19.38	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.19.20 19.38	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.19.20 19.38	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.19.20 19.38	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.19.20 19.38	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.19.20 19.38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.19.20 19.38		
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.19.20 19.38		



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LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 45** Matrix: Soil Date Received: 03.19.20 13.40
 Lab Sample Id: 656277-011 Date Collected: 03.19.20 11.50 Sample Depth: 0.5 - 15 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.19.20 14.30 Basis: Wet Weight
 Seq Number: 3120336

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	239	9.88	mg/kg	03.19.20 17.10		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.15.20 17.20 Basis: Wet Weight
 Seq Number: 3120393

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.19.20 20.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.19.20 20.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.19.20 20.36	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.19.20 20.36	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.19.20 20.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	03.19.20 20.36	
o-Terphenyl	84-15-1	108	%	70-135	03.19.20 20.36	



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 45**
Lab Sample Id: 656277-011

Matrix: Soil
Date Collected: 03.19.20 11.50

Date Received: 03.19.20 13.40
Sample Depth: 0.5 - 15 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120334

Date Prep: 03.19.20 16.00

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	03.19.20 19.58	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.19.20 19.58	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.19.20 19.58	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.19.20 19.58	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.19.20 19.58	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.19.20 19.58	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.19.20 19.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.19.20 19.58		
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.19.20 19.58		



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 46** Matrix: Soil Date Received: 03.19.20 13.40
 Lab Sample Id: 656277-012 Date Collected: 03.18.20 16.45 Sample Depth: 0.5 - 15 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.19.20 14.30 Basis: Wet Weight
 Seq Number: 3120336

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	101	9.98	mg/kg	03.19.20 17.16		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.15.20 17.20 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 20.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.19.20 20.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.19.20 20.56	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.19.20 20.56	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.19.20 20.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	03.19.20 20.56	
o-Terphenyl	84-15-1	107	%	70-135	03.19.20 20.56	



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 46**
Lab Sample Id: 656277-012

Matrix: Soil
Date Collected: 03.18.20 16.45

Date Received: 03.19.20 13.40
Sample Depth: 0.5 - 15 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120334

Prep Method: SW5030B

% Moisture:

Date Prep: 03.19.20 16.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.19.20 20.18	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.19.20 20.18	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.19.20 20.18	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	03.19.20 20.18	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.19.20 20.18	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.19.20 20.18	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.19.20 20.18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.19.20 20.18		
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.19.20 20.18		



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LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 49**
Lab Sample Id: 656277-013

Matrix: Soil
Date Collected: 03.19.20 09.00

Date Received: 03.19.20 13.40
Sample Depth: 15 - 30 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120337

Date Prep: 03.19.20 17.09

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	141	9.98	mg/kg	03.19.20 17.54		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120393

Date Prep: 03.15.20 17.20

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	03.19.20 21.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.19.20 21.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.19.20 21.16	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.19.20 21.16	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.19.20 21.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	03.19.20 21.16	
o-Terphenyl	84-15-1	107	%	70-135	03.19.20 21.16	



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LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 49**
Lab Sample Id: 656277-013

Matrix: Soil
Date Collected: 03.19.20 09.00

Date Received: 03.19.20 13.40
Sample Depth: 15 - 30 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120334

Prep Method: SW5030B

% Moisture:

Date Prep: 03.19.20 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	03.19.20 20.39	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.19.20 20.39	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.19.20 20.39	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.19.20 20.39	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.19.20 20.39	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.19.20 20.39	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.19.20 20.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.19.20 20.39		
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.19.20 20.39		



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LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 50**
Lab Sample Id: 656277-014

Matrix: Soil
Date Collected: 03.19.20 09.10

Date Received: 03.19.20 13.40
Sample Depth: 15 - 30 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120337

Date Prep: 03.19.20 17.09

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.4	9.96	mg/kg	03.19.20 18.12		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120393

Date Prep: 03.15.20 17.20

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	03.19.20 21.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.19.20 21.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.19.20 21.36	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.19.20 21.36	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.19.20 21.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	03.19.20 21.36	
o-Terphenyl	84-15-1	108	%	70-135	03.19.20 21.36	



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LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 50**
Lab Sample Id: 656277-014

Matrix: Soil
Date Collected: 03.19.20 09.10

Date Received: 03.19.20 13.40
Sample Depth: 15 - 30 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120334

Date Prep: 03.19.20 16.00

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	03.19.20 20.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.19.20 20.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.19.20 20.59	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.19.20 20.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.19.20 20.59	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.19.20 20.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.19.20 20.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	03.19.20 20.59		
4-Bromofluorobenzene	460-00-4	91	%	70-130	03.19.20 20.59		



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LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 51**
Lab Sample Id: 656277-015

Matrix: Soil
Date Collected: 03.19.20 09.25

Date Received: 03.19.20 13.40
Sample Depth: 15 - 30 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120337

Date Prep: 03.19.20 17.09

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	24.3	9.98	mg/kg	03.19.20 18.18		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120393

Date Prep: 03.15.20 17.20

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	03.19.20 21.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.19.20 21.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.19.20 21.57	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.19.20 21.57	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.19.20 21.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	03.19.20 21.57	
o-Terphenyl	84-15-1	105	%	70-135	03.19.20 21.57	



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LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 51**
Lab Sample Id: 656277-015

Matrix: Soil
Date Collected: 03.19.20 09.25

Date Received: 03.19.20 13.40
Sample Depth: 15 - 30 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.19.20 16.00

Basis: Wet Weight

Seq Number: 3120334

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.19.20 21.19	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.19.20 21.19	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.19.20 21.19	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.19.20 21.19	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.19.20 21.19	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.19.20 21.19	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.19.20 21.19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.19.20 21.19		
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.19.20 21.19		



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LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: SW 52 Matrix: Soil Date Received: 03.19.20 13.40
 Lab Sample Id: 656277-016 Date Collected: 03.19.20 09.30 Sample Depth: 15 - 30 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.19.20 17.09 Basis: Wet Weight
 Seq Number: 3120337

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	19.4	9.92	mg/kg	03.19.20 18.24		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.15.20 17.20 Basis: Wet Weight
 Seq Number: 3120393

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.19.20 22.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.19.20 22.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.19.20 22.17	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	03.19.20 22.17	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.19.20 22.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	03.19.20 22.17	
o-Terphenyl	84-15-1	106	%	70-135	03.19.20 22.17	



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: SW 52
Lab Sample Id: 656277-016

Matrix: Soil
Date Collected: 03.19.20 09.30

Date Received: 03.19.20 13.40
Sample Depth: 15 - 30 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120334

Prep Method: SW5030B

% Moisture:

Date Prep: 03.19.20 16.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.19.20 21.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.19.20 21.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.19.20 21.40	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.19.20 21.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.19.20 21.40	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.19.20 21.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.19.20 21.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.19.20 21.40		
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.19.20 21.40		



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: SW 53
Lab Sample Id: 656277-017

Matrix: Soil
Date Collected: 03.19.20 09.40

Date Received: 03.19.20 13.40
Sample Depth: 15 - 30 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120337

Date Prep: 03.19.20 17.09

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	59.0	9.88	mg/kg	03.19.20 18.30		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120382

Date Prep: 03.19.20 17.20

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	03.19.20 17.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.19.20 17.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.19.20 17.35	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.19.20 17.35	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.19.20 17.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	03.19.20 17.35	
o-Terphenyl	84-15-1	111	%	70-135	03.19.20 17.35	



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 53**
Lab Sample Id: 656277-017

Matrix: Soil
Date Collected: 03.19.20 09.40

Date Received: 03.19.20 13.40
Sample Depth: 15 - 30 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120334

Prep Method: SW5030B

% Moisture:

Date Prep: 03.19.20 16.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.19.20 23.01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.19.20 23.01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.19.20 23.01	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.19.20 23.01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.19.20 23.01	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.19.20 23.01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.19.20 23.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.19.20 23.01		
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.19.20 23.01		



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 54**
Lab Sample Id: 656277-018

Matrix: Soil
Date Collected: 03.19.20 09.50

Date Received: 03.19.20 13.40
Sample Depth: 15 - 30 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120337

Date Prep: 03.19.20 17.09

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	303	9.90	mg/kg	03.19.20 18.49		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120382

Date Prep: 03.19.20 17.20

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.19.20 17.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	03.19.20 17.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	03.19.20 17.55	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	03.19.20 17.55	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	03.19.20 17.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	03.19.20 17.55	
o-Terphenyl	84-15-1	110	%	70-135	03.19.20 17.55	



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 54**
Lab Sample Id: 656277-018

Matrix: Soil
Date Collected: 03.19.20 09.50

Date Received: 03.19.20 13.40
Sample Depth: 15 - 30 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120334

Date Prep: 03.19.20 16.00

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	03.19.20 23.22	U	1
Toluene	108-88-3	0.00477	0.00199	mg/kg	03.19.20 23.22		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.19.20 23.22	U	1
m,p-Xylenes	179601-23-1	0.00572	0.00398	mg/kg	03.19.20 23.22		1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.19.20 23.22	U	1
Xylenes, Total	1330-20-7	0.00572	0.00199	mg/kg	03.19.20 23.22		1
Total BTEX		0.0105	0.00199	mg/kg	03.19.20 23.22		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.19.20 23.22		
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.19.20 23.22		



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: SW 55
Lab Sample Id: 656277-019

Matrix: Soil
Date Collected: 03.19.20 10.00

Date Received: 03.19.20 13.40
Sample Depth: 15 - 30 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120337

Date Prep: 03.19.20 17.09

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	187	49.6	mg/kg	03.19.20 18.55		5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120382

Date Prep: 03.19.20 17.20

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	03.19.20 18.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.19.20 18.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.19.20 18.14	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.19.20 18.14	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.19.20 18.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	03.19.20 18.14	
o-Terphenyl	84-15-1	115	%	70-135	03.19.20 18.14	



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: SW 55	Matrix: Soil	Date Received: 03.19.20 13.40
Lab Sample Id: 656277-019	Date Collected: 03.19.20 10.00	Sample Depth: 15 - 30 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 03.19.20 16.00	Basis: Wet Weight
Seq Number: 3120334		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.19.20 23.42	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.19.20 23.42	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.19.20 23.42	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.19.20 23.42	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.19.20 23.42	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.19.20 23.42	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.19.20 23.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.19.20 23.42		
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.19.20 23.42		



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 56** Matrix: Soil Date Received: 03.19.20 13.40
 Lab Sample Id: 656277-020 Date Collected: 03.19.20 10.10 Sample Depth: 15 - 30 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.19.20 17.09 Basis: Wet Weight
 Seq Number: 3120337

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	80.3	10.0	mg/kg	03.19.20 19.01		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.19.20 17.20 Basis: Wet Weight
 Seq Number: 3120382

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.19.20 18.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.19.20 18.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.19.20 18.35	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	03.19.20 18.35	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.19.20 18.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	03.19.20 18.35	
o-Terphenyl	84-15-1	118	%	70-135	03.19.20 18.35	



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: **SW 56**
Lab Sample Id: 656277-020

Matrix: Soil
Date Collected: 03.19.20 10.10

Date Received: 03.19.20 13.40
Sample Depth: 15 - 30 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120334

Date Prep: 03.19.20 16.00

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	03.20.20 00.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.20.20 00.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.20.20 00.03	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.20.20 00.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.20.20 00.03	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.20.20 00.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.20.20 00.03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.20.20 00.03		
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.20.20 00.03		



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: SW 57 Matrix: Soil Date Received: 03.19.20 13.40
 Lab Sample Id: 656277-021 Date Collected: 03.19.20 10.15 Sample Depth: 15 - 30 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.19.20 17.09 Basis: Wet Weight
 Seq Number: 3120337

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15.2	9.98	mg/kg	03.19.20 19.08		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.19.20 17.20 Basis: Wet Weight
 Seq Number: 3120382

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.19.20 18.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.19.20 18.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.19.20 18.55	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.19.20 18.55	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.19.20 18.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	03.19.20 18.55	
o-Terphenyl	84-15-1	103	%	70-135	03.19.20 18.55	



Certificate of Analytical Results 656277

LT Environmental, Inc., Arvada, CO

Sheep Draw #003

Sample Id: SW 57
Lab Sample Id: 656277-021

Matrix: Soil
Date Collected: 03.19.20 10.15

Date Received: 03.19.20 13.40
Sample Depth: 15 - 30 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3120334

Date Prep: 03.19.20 16.00

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	03.20.20 00.23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.20.20 00.23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.20.20 00.23	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.20.20 00.23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.20.20 00.23	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.20.20 00.23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.20.20 00.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.20.20 00.23		
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.20.20 00.23		



Flagging Criteria

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

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Sheep Draw #003

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: 3120337

MB Sample Id: 7699316-1-BLK

Matrix: Solid

LCS Sample Id: 7699316-1-BKS

Prep Method: E300P

Date Prep: 03.19.20

LCSD Sample Id: 7699316-1-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	261	104	261	104	90-110	0	20	mg/kg	03.19.20 17:41	

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: Chloride by EPA 300

Seq Number: 3120337

Parent Sample Id: 656277-013

Matrix: Soil

MS Sample Id: 656277-013 S

Prep Method: E300P

Date Prep: 03.19.20

MSD Sample Id: 656277-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	141	200	354	107	352	106	90-110	1	20	mg/kg	03.19.20 18:00	

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. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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.

Sheep Draw #003

Analytical Method: Chloride by EPA 300

Seq Number: 3120337

Parent Sample Id: 656301-002

Matrix: Soil

MS Sample Id: 656301-002 S

Prep Method: E300P

Date Prep: 03.19.20

MSD Sample Id: 656301-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	295	200	508	107	507	106	90-110	0	20	mg/kg	03.19.20 19:26	

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: 3120382

MB Sample Id: 7699380-1-BLK

Matrix: Solid

LCS Sample Id: 7699380-1-BKS

Prep Method: SW8015P

Date Prep: 03.19.20

LCSD Sample Id: 7699380-1-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	1050	105	70-135	11	35	mg/kg	03.19.20 14:52	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	1160	116	70-135	10	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	88		111		126		70-135	%	03.19.20 14:52
o-Terphenyl	98		119		134		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.

Sheep Draw #003

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120382

Matrix: Solid

Prep Method: SW8015P

Date Prep: 03.19.20

MB Sample Id: 7699380-1-BLK

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

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120393

Matrix: Soil

Prep Method: SW8015P

Date Prep: 03.15.20

Parent Sample Id: 656197-001

MS Sample Id: 656197-001 S

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: TPH by SW8015 Mod

Seq Number: 3120382

Matrix: Soil

Prep Method: SW8015P

Date Prep: 03.19.20

Parent Sample Id: 656196-001

MS Sample Id: 656196-001 S

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
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	903	90	924	92	70-135	2	35	mg/kg	03.19.20 15:53	
Diesel Range Organics (DRO)	<50.1	1000	983	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	106		111		70-135	%	03.19.20 15:53
o-Terphenyl	111		117		70-135	%	03.19.20 15:53

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

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

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.

Sheep Draw #003

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-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	0.108	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: 3120334

MB Sample Id: 7699317-1-BLK

Matrix: Solid

LCS Sample Id: 7699317-1-BKS

Prep Method: SW5030B

Date Prep: 03.19.20

LCSD Sample Id: 7699317-1-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	0.122	122	0.124	124	70-130	2	35	mg/kg	03.19.20 16:34	
Toluene	<0.00200	0.100	0.111	111	0.113	113	70-130	2	35	mg/kg	03.19.20 16:34	
Ethylbenzene	<0.00200	0.100	0.103	103	0.105	105	71-129	2	35	mg/kg	03.19.20 16:34	
m,p-Xylenes	<0.00400	0.200	0.200	100	0.204	102	70-135	2	35	mg/kg	03.19.20 16:34	
o-Xylene	<0.00200	0.100	0.102	102	0.104	104	71-133	2	35	mg/kg	03.19.20 16:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	117		112		110		70-130	%	03.19.20 16:34
4-Bromofluorobenzene	92		87		88		70-130	%	03.19.20 16:34

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



LT Environmental, Inc.

Sheep Draw #003

Analytical Method: BTEX by EPA 8021B

Seq Number: 3120334

Parent Sample Id: 656277-007

Matrix: Soil

MS Sample Id: 656277-007 S

Prep Method: SW5030B

Date Prep: 03.19.20

MSD Sample Id: 656277-007 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	0.121	121	0.124	124	70-130	2	35	mg/kg	03.19.20 17:15	
Toluene	<0.00200	0.100	0.110	110	0.113	113	70-130	3	35	mg/kg	03.19.20 17:15	
Ethylbenzene	<0.00200	0.100	0.102	102	0.106	106	71-129	4	35	mg/kg	03.19.20 17:15	
m,p-Xylenes	<0.00401	0.200	0.201	101	0.206	102	70-135	2	35	mg/kg	03.19.20 17:15	
o-Xylene	<0.00200	0.100	0.101	101	0.103	103	71-133	2	35	mg/kg	03.19.20 17:15	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		111		70-130	%	03.19.20 17:15
4-Bromofluorobenzene	88		86		70-130	%	03.19.20 17:15

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

Work Order No:

256277

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Page 1 of 2

Project Manager:	Chris McKisson	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:	cmckisson@ltenv.com & lveyes@ltenv.com

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

Project Name: <i>Sheep Draw Federal #223</i>										Turn Around	
Project Number: <i>034820017</i>										Routine ☐	
Project Location: <i>Rural Eddy County</i>										Rush: <i>24 Hr</i>	
Sampler's Name: <i>Anna Ryea</i>										Due Date:	
PO #:										Quote #:	

SAMPLE RECEIPT										Temp Blank: ☒ Yes ☐ No		Wet Ice: ☒ Yes ☐ No	
Temperature (°C): <i>2.0</i>										Thermometer ID <i>TNMD07</i>			
Received Intact: ☒ Yes ☐ No													
Cooler Custody Seals: Yes ☒ No ☐ N/A										Correction Factor: <i>-0.7</i>			
Sample Custody Seals: Yes ☐ No ☒ N/A										Total Containers: <i>27</i>			

Pres. Code										ANALYSIS REQUEST										Preservative Codes									
																				MeOH: Me									
																				None: NO									
																				HNO3: HN									
																				H2SO4: H2									
																				HCL: HL									
																				NaOH: Na									
																				Zn Acetate+ NaOH: Zn									
TAT starts the day received by the lab. If received by 4:00pm																													

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH	BTEX	Chloro.
	SW35	S	3/18/90	1545	0.5-15'	1	X	X	X
	SW36		3/18/90	1535 1547	0.5-15'	1	X	X	X
	SW37		3/18/90	1555	0.5-15'	1	X	X	X
	SW38		3/18/90	1600	0.5-15'	1	X	X	X
	SW39		3/18/90	1610	0.5-15'	1	X	X	X
	SW48		3/19/90	0850	15-130'	1	X	X	X
	SW41		3/18/90	1620	0.5-15'	1	X	X	X
	SW42		3/18/90	1625	0.5-15'	1	X	X	X
	SW43		3/18/90	1630	0.5-15'	1	X	X	X
	SW44		3/18/90	1635	0.5-15'	1	X	X	X

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	SiO ₂	Na	Sr	Ti	Sn	U	V	Zn
TLCP / SPLP 6010:	8RCRA	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Tl	U													

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Ann Byers</i>	<i>[Signature]</i>	3/19/20 13:40			



Chain of Custody

Work Order No:

10570277

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) 589-6701

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Page 2 of 3

Project Manager:	Chris McKisson	Bit to (if different):	
Company Name:	LI Environmental	Company Name:	
Address:	810 Megan Ave, Unit B	Address:	
City, State ZIP:	Rifle, CO 81650	City, State ZIP:	
Phone:	970 285 9285	Email:	cmckisson@lienv.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:	Sheep Draw Federal #203	Turn Around	☐
Project Number:	034820017	Routine	☐
Project Location:	Rural Eddy County	Rush:	24 HR
Sampler's Name:	Anna Byers	Due Date:	
PO #:		Quote #:	

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

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	ANALYSIS REQUEST																Preservative Codes		Sample Comments
SW45		S	3/19/20	11:50	0.5-15'		X	X	X															
SW46		S	3/18/20	10:45	0.5-15'		X	X	X															
SW49		S	3/19/20	09:00	15-30'		X	X	X															
SW50		S		09:10			X	X	X															
SW51		S		09:25			X	X	X															
SW52		S		09:30			X	X	X															
SW53		S		09:40			X	X	X															
SW54		S		09:50			X	X	X															

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		3/19/20 13:40			



Chain of Custody

Work Order No:

1056277

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) 355-0800 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 699-6701

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Page 3 of 3

Project Manager:	Chris McKisson	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:	cmckisson@ltenv.com & abayer@ltenv.com

Project Name:	Sheep Draw Federal #603	Turn Around	
Project Number:	034822017	Routine	☐
Project Location:	Rural Elderly County	Rush:	24 HR
Sampler's Name:	Anna Byers	Due Date:	
PO #:		Quote #:	

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

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Analysis Request	Preservative Codes	Sample Comments
SW55		S	3/19/20	1000	15-30'	1	TPH (EPA 8015)	MeOH: Me	
SW56		S	3/19/20	1010		1	BTEX (EPA 8021)	None: NO	
SW57		S	3/19/20	1015		1	Chloride (EPA 800.0)	HNO3: HN	
								H2SO4: H2	
								HCL: HL	
								NaOH: Na	
								Zn Acetate+ NaOH: Zn	
								TAT starts the day received by the lab, if received by 4:00pm	

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		3/19/20 13:40			

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03.19.2020 01.40.00 PM

Work Order #: 656277

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)?	2
#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

Analytical Report 656353

**for
LT Environmental, Inc.**

Project Manager: Chris McKisson

Sheep Draw Federal #003

034820017

23-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)



23-MAR-20

Project Manager: **Chris McKisson**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **656353**

Sheep Draw Federal #003

Project Address: 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) 656353. 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. 656353 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 656353****LT Environmental, Inc., Arvada, CO**

Sheep Draw Federal #003

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW40	S	03-19-20 16:20	0.5 - 15 ft	656353-001
SW47	S	03-19-20 16:40	15 - 30 ft	656353-002



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Sheep Draw Federal #003

Project ID: 034820017

Work Order Number(s): 656353

Report Date: 23-MAR-20

Date Received: 03/20/2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3120548 BTEX by EPA 8021B

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



Certificate of Analysis Summary 656353

LT Environmental, Inc., Arvada, CO

Project Name: Sheep Draw Federal #003

Project Id: 034820017
 Contact: Chris McKisson
 Project Location: Eddy County

Date Received in Lab: Fri Mar-20-20 08:15 am
 Report Date: 23-MAR-20
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	656353-001	656353-002				
	Field Id:	SW40	SW47				
	Depth:	0.5-15 ft	15-30 ft				
	Matrix:	SOIL	SOIL				
	Sampled:	Mar-19-20 16:20	Mar-19-20 16:40				
BTEX by EPA 8021B	Extracted:	Mar-20-20 11:00	Mar-20-20 11:00				
	Analyzed:	Mar-20-20 13:18	Mar-20-20 13:39				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.000485 0.00200	<0.000487 0.00201				
Toluene		<0.000527 0.00200	<0.000530 0.00201				
Ethylbenzene		<0.000405 0.00200	<0.000408 0.00201				
m,p-Xylenes		<0.000752 0.00399	<0.000757 0.00402				
o-Xylene		<0.000402 0.00200	<0.000405 0.00201				
Total Xylenes		<0.000402 0.00200	<0.000405 0.00201				
Total BTEX		<0.000402 0.00200	<0.000405 0.00201				
Chloride by EPA 300	Extracted:	Mar-20-20 11:00	Mar-20-20 11:00				
	Analyzed:	Mar-20-20 12:04	Mar-20-20 12:21				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		257 9.94	433 9.98				
TPH by SW8015 Mod	Extracted:	Mar-20-20 14:30	Mar-20-20 14:30				
	Analyzed:	Mar-20-20 15:45	Mar-20-20 15:45				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<14.0 50.3	<13.9 50.1				
Diesel Range Organics (DRO)		<11.5 50.3	<11.5 50.1				
Motor Oil Range Hydrocarbons (MRO)		<11.5 50.3	<11.5 50.1				
Total TPH		<11.5 50.3	<11.5 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.

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

Version: 1.0%

Jessica Kramer
Project Manager



Certificate of Analytical Results 656353

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW40**
Lab Sample Id: 656353-001

Matrix: Soil
Date Collected: 03.19.20 16.20

Date Received: 03.20.20 08.15
Sample Depth: 0.5 - 15 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120551

Date Prep: 03.20.20 11.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	257	9.94	mg/kg	03.20.20 12.04		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120489

Date Prep: 03.20.20 14.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.0	50.3	mg/kg	03.20.20 15.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<11.5	50.3	mg/kg	03.20.20 15.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<11.5	50.3	mg/kg	03.20.20 15.45	U	1
Total TPH	PHC635	<11.5	50.3	mg/kg	03.20.20 15.45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	111	%	70-135	03.20.20 15.45		
o-Terphenyl	84-15-1	119	%	70-135	03.20.20 15.45		



Certificate of Analytical Results 656353

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW40**
Lab Sample Id: 656353-001

Matrix: Soil
Date Collected: 03.19.20 16.20

Date Received: 03.20.20 08.15
Sample Depth: 0.5 - 15 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.20.20 11.00

Basis: Wet Weight

Seq Number: 3120548

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000485	0.00200	mg/kg	03.20.20 13.18	U	1
Toluene	108-88-3	<0.000527	0.00200	mg/kg	03.20.20 13.18	U	1
Ethylbenzene	100-41-4	<0.000405	0.00200	mg/kg	03.20.20 13.18	U	1
m,p-Xylenes	179601-23-1	<0.000752	0.00399	mg/kg	03.20.20 13.18	U	1
o-Xylene	95-47-6	<0.000402	0.00200	mg/kg	03.20.20 13.18	U	1
Total Xylenes	1330-20-7	<0.000402	0.00200	mg/kg	03.20.20 13.18	U	1
Total BTEX		<0.000402	0.00200	mg/kg	03.20.20 13.18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	03.20.20 13.18		
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.20.20 13.18		



Certificate of Analytical Results 656353

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW47**
Lab Sample Id: 656353-002

Matrix: Soil
Date Collected: 03.19.20 16.40

Date Received: 03.20.20 08.15
Sample Depth: 15 - 30 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120551

Date Prep: 03.20.20 11.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	433	9.98	mg/kg	03.20.20 12.21		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120544

Date Prep: 03.20.20 14.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<13.9	50.1	mg/kg	03.20.20 15.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<11.5	50.1	mg/kg	03.20.20 15.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<11.5	50.1	mg/kg	03.20.20 15.45	U	1
Total TPH	PHC635	<11.5	50.1	mg/kg	03.20.20 15.45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	111	%	70-135	03.20.20 15.45		
o-Terphenyl	84-15-1	120	%	70-135	03.20.20 15.45		



Certificate of Analytical Results 656353

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW47**
Lab Sample Id: 656353-002

Matrix: Soil
Date Collected: 03.19.20 16.40

Date Received: 03.20.20 08.15
Sample Depth: 15 - 30 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.20.20 11.00

Basis: Wet Weight

Seq Number: 3120548

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000487	0.00201	mg/kg	03.20.20 13.39	U	1
Toluene	108-88-3	<0.000530	0.00201	mg/kg	03.20.20 13.39	U	1
Ethylbenzene	100-41-4	<0.000408	0.00201	mg/kg	03.20.20 13.39	U	1
m,p-Xylenes	179601-23-1	<0.000757	0.00402	mg/kg	03.20.20 13.39	U	1
o-Xylene	95-47-6	<0.000405	0.00201	mg/kg	03.20.20 13.39	U	1
Total Xylenes	1330-20-7	<0.000405	0.00201	mg/kg	03.20.20 13.39	U	1
Total BTEX		<0.000405	0.00201	mg/kg	03.20.20 13.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	03.20.20 13.39		
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.20.20 13.39		



Flagging Criteria

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

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Sheep Draw Federal #003

Analytical Method: Chloride by EPA 300

Seq Number: 3120551

MB Sample Id: 7699402-1-BLK

Matrix: Solid

LCS Sample Id: 7699402-1-BKS

Prep Method: E300P

Date Prep: 03.20.20

LCSD Sample Id: 7699402-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.354	250	262	105	262	105	90-110	0	20	mg/kg	03.20.20 11:53	

Analytical Method: Chloride by EPA 300

Seq Number: 3120551

Parent Sample Id: 656353-001

Matrix: Soil

MS Sample Id: 656353-001 S

Prep Method: E300P

Date Prep: 03.20.20

MSD Sample Id: 656353-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	257	199	468	106	471	107	90-110	1	20	mg/kg	03.20.20 12:10	

Analytical Method: Chloride by EPA 300

Seq Number: 3120551

Parent Sample Id: 656368-008

Matrix: Soil

MS Sample Id: 656368-008 S

Prep Method: E300P

Date Prep: 03.20.20

MSD Sample Id: 656368-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1030	200	1230	100	1240	104	90-110	1	20	mg/kg	03.20.20 13:30	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120489

MB Sample Id: 7699446-1-BLK

Matrix: Solid

LCS Sample Id: 7699446-1-BKS

Prep Method: SW8015P

Date Prep: 03.20.20

LCSD Sample Id: 7699446-1-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)	<13.9	1000	915	92	918	92	70-135	0	35	mg/kg	03.20.20 15:04	
Diesel Range Organics (DRO)	<11.5	1000	996	100	1000	100	70-135	0	35	mg/kg	03.20.20 15:04	

Surrogate

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	120		108		110		70-135	%	03.20.20 15:04
o-Terphenyl	126		108		113		70-135	%	03.20.20 15:04

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.

Sheep Draw Federal #003

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120544

MB Sample Id: 7699472-1-BLK

Matrix: Solid

LCS Sample Id: 7699472-1-BKS

Prep Method: SW8015P

Date Prep: 03.20.20

LCSD Sample Id: 7699472-1-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)	<13.9	1000	957	96	942	94	70-135	2	35	mg/kg	03.20.20 15:04	
Diesel Range Organics (DRO)	<11.5	1000	1020	102	1010	101	70-135	1	35	mg/kg	03.20.20 15:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		117		117		70-135	%	03.20.20 15:04
o-Terphenyl	102		116		116		70-135	%	03.20.20 15:04

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120489

Matrix: Solid

MB Sample Id: 7699446-1-BLK

Prep Method: SW8015P

Date Prep: 03.20.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<11.5	mg/kg	03.20.20 14:44	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120544

Matrix: Solid

MB Sample Id: 7699472-1-BLK

Prep Method: SW8015P

Date Prep: 03.20.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<11.5	mg/kg	03.20.20 14:44	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120489

Matrix: Soil

Parent Sample Id: 656353-001

MS Sample Id: 656353-001 S

Prep Method: SW8015P

Date Prep: 03.20.20

MSD Sample Id: 656353-001 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)	<13.9	1000	1050	105	926	93	70-135	13	35	mg/kg	03.20.20 16:05	
Diesel Range Organics (DRO)	<11.5	1000	1110	111	979	98	70-135	13	35	mg/kg	03.20.20 16:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		121		70-135	%	03.20.20 16:05
o-Terphenyl	118		118		70-135	%	03.20.20 16:05

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

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

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.

Sheep Draw Federal #003

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120544

Parent Sample Id: 656353-002

Matrix: Soil

MS Sample Id: 656353-002 S

Prep Method: SW8015P

Date Prep: 03.20.20

MSD Sample Id: 656353-002 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)	<13.9	1000	914	91	900	90	70-135	2	35	mg/kg	03.20.20 16:05	
Diesel Range Organics (DRO)	<11.5	1000	988	99	974	97	70-135	1	35	mg/kg	03.20.20 16:05	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		117		70-135	%	03.20.20 16:05
o-Terphenyl	121		121		70-135	%	03.20.20 16:05

Analytical Method: BTEX by EPA 8021B

Seq Number: 3120548

MB Sample Id: 7699401-1-BLK

Matrix: Solid

LCS Sample Id: 7699401-1-BKS

Prep Method: SW5030B

Date Prep: 03.20.20

LCSD Sample Id: 7699401-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000486	0.100	0.107	107	0.110	110	70-130	3	35	mg/kg	03.20.20 11:36	
Toluene	<0.000528	0.100	0.103	103	0.105	105	70-130	2	35	mg/kg	03.20.20 11:36	
Ethylbenzene	<0.000406	0.100	0.0976	98	0.100	100	71-129	2	35	mg/kg	03.20.20 11:36	
m,p-Xylenes	<0.000754	0.200	0.202	101	0.207	104	70-135	2	35	mg/kg	03.20.20 11:36	
o-Xylene	<0.000403	0.100	0.101	101	0.105	105	71-133	4	35	mg/kg	03.20.20 11:36	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		108		109		70-130	%	03.20.20 11:36
4-Bromofluorobenzene	97		91		92		70-130	%	03.20.20 11:36

Analytical Method: BTEX by EPA 8021B

Seq Number: 3120548

Parent Sample Id: 656353-001

Matrix: Soil

MS Sample Id: 656353-001 S

Prep Method: SW5030B

Date Prep: 03.20.20

MSD Sample Id: 656353-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000486	0.100	0.0865	87	0.0946	95	70-130	9	35	mg/kg	03.20.20 12:17	
Toluene	<0.000528	0.100	0.0881	88	0.0930	93	70-130	5	35	mg/kg	03.20.20 12:17	
Ethylbenzene	<0.000406	0.100	0.0844	84	0.0892	90	71-129	6	35	mg/kg	03.20.20 12:17	
m,p-Xylenes	<0.000754	0.200	0.175	88	0.184	92	70-135	5	35	mg/kg	03.20.20 12:17	
o-Xylene	<0.000403	0.100	0.0875	88	0.0924	93	71-133	5	35	mg/kg	03.20.20 12:17	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		107		70-130	%	03.20.20 12:17
4-Bromofluorobenzene	94		97		70-130	%	03.20.20 12:17

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

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

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



Chain of Custody

Work Order No: 656353

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 Crashtad, 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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Page 1 of 1

Project Manager:	Chris Melkisson	Bit to (if different)	
Company Name:	LT Environmental	Company Name:	
Address:	820 Meyer Ave, Unit B	Address:	
City, State ZIP:	Rifle, CO 81650	City, State ZIP:	
Phone:	970 285 9985	Email:	cmelkisson@ltenv.com

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

Project Name:	Sheep Draw Federal #003	Turn Around	
Project Number:	03462017	Routine	☐
Project Location:	Eddy County	Rush:	24 Hrs
Sample's Name:	Anna Byers	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT	Temp Blank:	Yes ☐ No ☒	Wet Ice:	Yes ☐ No ☒
Temperature (°C):	2.0	Thermometer ID	TMM007	
Received Intact:	Yes ☒ No ☐	Correction Factor:	-0.2	
Cooler Custody Seals:	Yes ☒ No ☐	Total Containers:	2	
Sample Custody Seals:	Yes ☒ No ☐			

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	ANALYSIS REQUEST																Preservative Codes			
SW40		S	3/19/20	1620	05-15'	1	X	TPH (EPA 8015)																		MeOH: Me	
SW47		S	3/19/20	1640	15-30'	1	X	BTEX (EPA 8021)																		None: NO	
							X	Chloride (EPA 300.0)																		HNO3: HN	
							X																			H2SO4: H2	
																										HCL: HL	
																										NaOH: Na	
																										Zn Acetate+ NaOH: Zn	
																										TAT starts the day received by the lab, if received by 4:00pm	
																										Sample Comments	

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

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>Chris Melkisson</i>	<i>Willie Byers</i>	3/20/20 7:50am	<i>Willie Byers</i>	<i>Willie Byers</i>	3/20/20 08:15

Analytical Report 656417

**for
LT Environmental, Inc.**

Project Manager: Chris McKisson

Sheep Draw Federal #003

034820017

23-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)



23-MAR-20

Project Manager: **Chris McKisson**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **656417**

Sheep Draw Federal #003

Project Address: 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) 656417. 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. 656417 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 656417****LT Environmental, Inc., Arvada, CO**

Sheep Draw Federal #003

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP01	S	03-19-20 17:15		656417-001
SP02	S	03-19-20 17:20		656417-002
SP03	S	03-19-20 17:25		656417-003
SP04	S	03-19-20 17:30		656417-004
SP05	S	03-19-20 17:35		656417-005



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Sheep Draw Federal #003

Project ID: 034820017

Work Order Number(s): 656417

Report Date: 23-MAR-20

Date Received: 03/20/2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3120548 BTEX by EPA 8021B

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



Certificate of Analysis Summary 656417

LT Environmental, Inc., Arvada, CO

Project Name: Sheep Draw Federal #003

Project Id: 034820017
Contact: Chris McKisson
Project Location: Eddy County

Date Received in Lab: Fri Mar-20-20 12:03 pm
Report Date: 23-MAR-20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	656417-001	656417-002	656417-003	656417-004	656417-005	
	<i>Field Id:</i>	SP01	SP02	SP03	SP04	SP05	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Mar-19-20 17:15	Mar-19-20 17:20	Mar-19-20 17:25	Mar-19-20 17:30	Mar-19-20 17:35	
BTEX by EPA 8021B	<i>Extracted:</i>	Mar-20-20 14:30	Mar-20-20 14:30	Mar-20-20 14:30	Mar-20-20 14:30	Mar-20-20 14:30	
	<i>Analyzed:</i>	Mar-20-20 19:25	Mar-20-20 19:46	Mar-20-20 20:06	Mar-20-20 20:27	Mar-20-20 20:47	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	
Toluene		<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	
Ethylbenzene		<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	
m,p-Xylenes		<0.00402 0.00402	<0.00403 0.00403	<0.00397 0.00397	<0.00401 0.00401	<0.00398 0.00398	
o-Xylene		<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	
Xylenes, Total		<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	
Total BTEX		<0.00201 0.00201	<0.00202 0.00202	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	
Chloride by EPA 300	<i>Extracted:</i>	Mar-20-20 14:07	Mar-20-20 14:07	Mar-20-20 14:07	Mar-20-20 14:07	Mar-20-20 14:07	
	<i>Analyzed:</i>	Mar-20-20 15:47	Mar-20-20 15:52	Mar-20-20 16:09	Mar-20-20 16:19	Mar-20-20 16:29	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		306 9.98	218 10.0	113 10.0	156 10.1	50.5 10.1	
TPH by SW8015 Mod	<i>Extracted:</i>	Mar-20-20 16:50	Mar-20-20 16:50	Mar-20-20 16:50	Mar-20-20 16:50	Mar-20-20 16:50	
	<i>Analyzed:</i>	Mar-20-20 18:47	Mar-20-20 19:07	Mar-20-20 19:27	Mar-20-20 19:07	Mar-20-20 19:27	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.8 49.8	<50.1 50.1	<50.2 50.2	<50.2 50.2	
Diesel Range Organics (DRO)		86.2 50.0	<49.8 49.8	<50.1 50.1	<50.2 50.2	<50.2 50.2	
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.8 49.8	<50.1 50.1	<50.2 50.2	<50.2 50.2	
Total GRO-DRO		86.2 50.0	<49.8 49.8	<50.1 50.1	<50.2 50.2	<50.2 50.2	
Total TPH		86.2 50.0	<49.8 49.8	<50.1 50.1	<50.2 50.2	<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
Project Manager



Certificate of Analytical Results 656417

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SP01**
Lab Sample Id: 656417-001

Matrix: Soil
Date Collected: 03.19.20 17.15

Date Received: 03.20.20 12.03

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.20.20 14.07

Basis: Wet Weight

Seq Number: 3120561

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	306	9.98	mg/kg	03.20.20 15.47		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 03.20.20 16.50

Basis: Wet Weight

Seq Number: 3120544

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.20.20 18.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	86.2	50.0	mg/kg	03.20.20 18.47		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.20.20 18.47	U	1
Total GRO-DRO	PHC628	86.2	50.0	mg/kg	03.20.20 18.47		1
Total TPH	PHC635	86.2	50.0	mg/kg	03.20.20 18.47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	03.20.20 18.47	
o-Terphenyl	84-15-1	116	%	70-135	03.20.20 18.47	



Certificate of Analytical Results 656417

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SP01**
Lab Sample Id: 656417-001

Matrix: Soil
Date Collected: 03.19.20 17.15

Date Received: 03.20.20 12.03

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.20.20 14.30

Basis: Wet Weight

Seq Number: 3120548

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.20.20 19.25	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.20.20 19.25	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.20.20 19.25	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.20.20 19.25	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.20.20 19.25	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.20.20 19.25	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.20.20 19.25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	03.20.20 19.25		
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.20.20 19.25		



Certificate of Analytical Results 656417

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SP02**
Lab Sample Id: 656417-002

Matrix: Soil
Date Collected: 03.19.20 17.20

Date Received: 03.20.20 12.03

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.20.20 14.07

Basis: Wet Weight

Seq Number: 3120561

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	218	10.0	mg/kg	03.20.20 15.52		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 03.20.20 16.50

Basis: Wet Weight

Seq Number: 3120544

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.20.20 19.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.20.20 19.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.20.20 19.07	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.20.20 19.07	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.20.20 19.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	03.20.20 19.07	
o-Terphenyl	84-15-1	120	%	70-135	03.20.20 19.07	



Certificate of Analytical Results 656417

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SP02**
Lab Sample Id: 656417-002

Matrix: Soil
Date Collected: 03.19.20 17.20

Date Received: 03.20.20 12.03

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.20.20 14.30

Basis: Wet Weight

Seq Number: 3120548

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.20.20 19.46	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.20.20 19.46	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.20.20 19.46	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.20.20 19.46	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.20.20 19.46	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.20.20 19.46	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.20.20 19.46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.20.20 19.46		
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.20.20 19.46		



Certificate of Analytical Results 656417

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SP03**
Lab Sample Id: 656417-003

Matrix: Soil
Date Collected: 03.19.20 17.25

Date Received: 03.20.20 12.03

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.20.20 14.07

Basis: Wet Weight

Seq Number: 3120561

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	113	10.0	mg/kg	03.20.20 16.09		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 03.20.20 16.50

Basis: Wet Weight

Seq Number: 3120544

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.20.20 19.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.20.20 19.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.20.20 19.27	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.20.20 19.27	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.20.20 19.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	03.20.20 19.27	
o-Terphenyl	84-15-1	118	%	70-135	03.20.20 19.27	



Certificate of Analytical Results 656417

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SP03**
Lab Sample Id: 656417-003

Matrix: Soil
Date Collected: 03.19.20 17.25

Date Received: 03.20.20 12.03

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.20.20 14.30

Basis: Wet Weight

Seq Number: 3120548

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.20.20 20.06	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.20.20 20.06	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.20.20 20.06	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	03.20.20 20.06	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.20.20 20.06	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.20.20 20.06	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.20.20 20.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.20.20 20.06		
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.20.20 20.06		



Certificate of Analytical Results 656417

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SP04**
Lab Sample Id: 656417-004

Matrix: Soil
Date Collected: 03.19.20 17.30

Date Received: 03.20.20 12.03

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.20.20 14.07

Basis: Wet Weight

Seq Number: 3120561

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	156	10.1	mg/kg	03.20.20 16.19		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 03.20.20 16.50

Basis: Wet Weight

Seq Number: 3120489

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.20.20 19.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.20.20 19.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.20.20 19.07	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.20.20 19.07	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.20.20 19.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	131	%	70-135	03.20.20 19.07	
o-Terphenyl	84-15-1	134	%	70-135	03.20.20 19.07	



Certificate of Analytical Results 656417

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SP04**
Lab Sample Id: 656417-004

Matrix: Soil
Date Collected: 03.19.20 17.30

Date Received: 03.20.20 12.03

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.20.20 14.30

Basis: Wet Weight

Seq Number: 3120548

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.20.20 20.27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.20.20 20.27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.20.20 20.27	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.20.20 20.27	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.20.20 20.27	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.20.20 20.27	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.20.20 20.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.20.20 20.27		
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.20.20 20.27		



Certificate of Analytical Results 656417

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SP05**
Lab Sample Id: 656417-005

Matrix: Soil
Date Collected: 03.19.20 17.35

Date Received: 03.20.20 12.03

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.20.20 14.07

Basis: Wet Weight

Seq Number: 3120561

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	50.5	10.1	mg/kg	03.20.20 16.29		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 03.20.20 16.50

Basis: Wet Weight

Seq Number: 3120489

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.20.20 19.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.20.20 19.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.20.20 19.27	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.20.20 19.27	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.20.20 19.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	03.20.20 19.27	
o-Terphenyl	84-15-1	128	%	70-135	03.20.20 19.27	



Certificate of Analytical Results 656417

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SP05**
Lab Sample Id: 656417-005

Matrix: Soil
Date Collected: 03.19.20 17.35

Date Received: 03.20.20 12.03

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.20.20 14.30

Basis: Wet Weight

Seq Number: 3120548

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.20.20 20.47	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.20.20 20.47	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.20.20 20.47	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.20.20 20.47	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.20.20 20.47	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.20.20 20.47	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.20.20 20.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	03.20.20 20.47		
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.20.20 20.47		



Flagging Criteria

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

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Sheep Draw Federal #003

Analytical Method: Chloride by EPA 300

Seq Number: 3120561

MB Sample Id: 7699403-1-BLK

Matrix: Solid

LCS Sample Id: 7699403-1-BKS

Prep Method: E300P

Date Prep: 03.20.20

LCSD Sample Id: 7699403-1-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	261	104	261	104	90-110	0	20	mg/kg	03.20.20 15:01	

Analytical Method: Chloride by EPA 300

Seq Number: 3120561

Parent Sample Id: 656375-008

Matrix: Soil

MS Sample Id: 656375-008 S

Prep Method: E300P

Date Prep: 03.20.20

MSD Sample Id: 656375-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1650	200	1830	90	1870	110	90-110	2	20	mg/kg	03.20.20 15:24	

Analytical Method: Chloride by EPA 300

Seq Number: 3120561

Parent Sample Id: 656456-002

Matrix: Soil

MS Sample Id: 656456-002 S

Prep Method: E300P

Date Prep: 03.20.20

MSD Sample Id: 656456-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	391	200	602	106	599	104	90-110	0	20	mg/kg	03.20.20 18:36	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120489

MB Sample Id: 7699446-1-BLK

Matrix: Solid

LCS Sample Id: 7699446-1-BKS

Prep Method: SW8015P

Date Prep: 03.20.20

LCSD Sample Id: 7699446-1-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	915	92	918	92	70-135	0	35	mg/kg	03.20.20 15:04	
Diesel Range Organics (DRO)	<50.0	1000	996	100	1000	100	70-135	0	35	mg/kg	03.20.20 15:04	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	120		108		110		70-135	%	03.20.20 15:04
o-Terphenyl	126		108		113		70-135	%	03.20.20 15:04

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. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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.

Sheep Draw Federal #003

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120544

MB Sample Id: 7699472-1-BLK

Matrix: Solid

LCS Sample Id: 7699472-1-BKS

Prep Method: SW8015P

Date Prep: 03.20.20

LCSD Sample Id: 7699472-1-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	957	96	942	94	70-135	2	35	mg/kg	03.20.20 15:04	
Diesel Range Organics (DRO)	<50.0	1000	1020	102	1010	101	70-135	1	35	mg/kg	03.20.20 15:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		117		117		70-135	%	03.20.20 15:04
o-Terphenyl	102		116		116		70-135	%	03.20.20 15:04

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120489

Matrix: Solid

MB Sample Id: 7699446-1-BLK

Prep Method: SW8015P

Date Prep: 03.20.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.20.20 14:44	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120544

Matrix: Solid

MB Sample Id: 7699472-1-BLK

Prep Method: SW8015P

Date Prep: 03.20.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.20.20 14:44	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120489

Matrix: Soil

Parent Sample Id: 656353-001

MS Sample Id: 656353-001 S

Prep Method: SW8015P

Date Prep: 03.20.20

MSD Sample Id: 656353-001 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	1000	1050	105	926	93	70-135	13	35	mg/kg	03.20.20 16:05	
Diesel Range Organics (DRO)	<50.0	1000	1110	111	979	98	70-135	13	35	mg/kg	03.20.20 16:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		121		70-135	%	03.20.20 16:05
o-Terphenyl	118		118		70-135	%	03.20.20 16:05

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

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

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.

Sheep Draw Federal #003

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120544

Parent Sample Id: 656353-002

Matrix: Soil

MS Sample Id: 656353-002 S

Prep Method: SW8015P

Date Prep: 03.20.20

MSD Sample Id: 656353-002 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)	<50.1	1000	914	91	900	90	70-135	2	35	mg/kg	03.20.20 16:05	
Diesel Range Organics (DRO)	<50.1	1000	988	99	974	97	70-135	1	35	mg/kg	03.20.20 16:05	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		117		70-135	%	03.20.20 16:05
o-Terphenyl	121		121		70-135	%	03.20.20 16:05

Analytical Method: BTEX by EPA 8021B

Seq Number: 3120548

MB Sample Id: 7699401-1-BLK

Matrix: Solid

LCS Sample Id: 7699401-1-BKS

Prep Method: SW5030B

Date Prep: 03.20.20

LCSD Sample Id: 7699401-1-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	0.110	110	70-130	3	35	mg/kg	03.20.20 11:36	
Toluene	<0.00200	0.100	0.103	103	0.105	105	70-130	2	35	mg/kg	03.20.20 11:36	
Ethylbenzene	<0.00200	0.100	0.0976	98	0.100	100	71-129	2	35	mg/kg	03.20.20 11:36	
m,p-Xylenes	<0.00400	0.200	0.202	101	0.207	104	70-135	2	35	mg/kg	03.20.20 11:36	
o-Xylene	<0.00200	0.100	0.101	101	0.105	105	71-133	4	35	mg/kg	03.20.20 11:36	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		108		109		70-130	%	03.20.20 11:36
4-Bromofluorobenzene	97		91		92		70-130	%	03.20.20 11:36

Analytical Method: BTEX by EPA 8021B

Seq Number: 3120548

Parent Sample Id: 656353-001

Matrix: Soil

MS Sample Id: 656353-001 S

Prep Method: SW5030B

Date Prep: 03.20.20

MSD Sample Id: 656353-001 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	0.0865	87	0.0946	95	70-130	9	35	mg/kg	03.20.20 12:17	
Toluene	<0.00200	0.100	0.0881	88	0.0930	93	70-130	5	35	mg/kg	03.20.20 12:17	
Ethylbenzene	<0.00200	0.100	0.0844	84	0.0892	90	71-129	6	35	mg/kg	03.20.20 12:17	
m,p-Xylenes	<0.00400	0.200	0.175	88	0.184	92	70-135	5	35	mg/kg	03.20.20 12:17	
o-Xylene	<0.00200	0.100	0.0875	88	0.0924	93	71-133	5	35	mg/kg	03.20.20 12:17	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		107		70-130	%	03.20.20 12:17
4-Bromofluorobenzene	94		97		70-130	%	03.20.20 12:17

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

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

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

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



Chain of Custody

Work Order No: 1650417

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 Crashback, 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

www.xenco.com

Page 1 of 1

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

Project Name:	Sheep Draw Federal #203	Turn Around	
Project Number:	034820017	Routine	☐
Project Location:	Eddy County	Rush:	24 Hrs
Sampler's Name:	Ann Byers	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT	Temperature (°C):	Temp Blank:	Yes ☒ No ☐	Wet Ice:	Yes ☒ No ☐
	Received Intact:	Yes ☒ No ☐	Thermometer ID	TNM007	
	Cooler Custody Seals:	Yes ☒ No ☐	Correction Factor:	-0.2	
	Sample Custody Seals:	Yes ☒ No ☐	Total Containers:	5	

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes	Sample Comments
SP01		S	5/19/20	1715	N/A	1	TPH (EPA 8015)		
SP02		S		1720		1	BTEX (EPA 8021)		
SP03		S		1725		1	Chloride (EPA 800.0)		
SP04		S		1730		1			
SP05		S		1735		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

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
Ann Byers		3/20/20 18:03			

Analytical Report 656456

**for
LT Environmental, Inc.**

Project Manager: Chris McKisson

Sheep Draw Federal #003

034820017

23-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)



23-MAR-20

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

Reference: XENCO Report No(s): **656456**
Sheep Draw Federal #003
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) 656456. 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. 656456 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 656456****LT Environmental, Inc., Arvada, CO**

Sheep Draw Federal #003

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW58	S	03-20-20 15:30	0.5 - 15 ft	656456-001
SW59	S	03-20-20 15:35	0.5 - 15 ft	656456-002



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Sheep Draw Federal #003

Project ID: 034820017

Work Order Number(s): 656456

Report Date: 23-MAR-20

Date Received: 03/20/2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3120549 BTEX by EPA 8021B

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



Certificate of Analysis Summary 656456

LT Environmental, Inc., Arvada, CO

Project Name: Sheep Draw Federal #003

Project Id: 034820017
Contact: Chris McKisson
Project Location: Rural Eddy County

Date Received in Lab: Fri Mar-20-20 04:47 pm
Report Date: 23-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	656456-001	656456-002				
	Field Id:	SW58	SW59				
	Depth:	0.5-15 ft	0.5-15 ft				
	Matrix:	SOIL	SOIL				
	Sampled:	Mar-20-20 15:30	Mar-20-20 15:35				
BTEX by EPA 8021B	Extracted:	Mar-20-20 19:36	Mar-20-20 19:36				
	Analyzed:	Mar-20-20 20:49	Mar-20-20 21:10				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00199 0.00199	<0.00199 0.00199				
Toluene		<0.00199 0.00199	<0.00199 0.00199				
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199				
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398				
o-Xylene		<0.00199 0.00199	<0.00199 0.00199				
Xylenes, Total		<0.00199 0.00199	<0.00199 0.00199				
Total BTEX		<0.00199 0.00199	<0.00199 0.00199				
Chloride by EPA 300	Extracted:	** ** ** *	** ** ** *				
	Analyzed:	Mar-20-20 18:25	Mar-20-20 18:30				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		420 9.92	391 9.98				
TPH by SW8015 Mod	Extracted:	Mar-20-20 16:50	Mar-20-20 16:50				
	Analyzed:	Mar-20-20 20:07	Mar-20-20 20:07				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0				
Diesel Range Organics (DRO)		69.2 50.0	58.4 50.0				
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0				
Total GRO-DRO		69.2 50.0	58.4 50.0				
Total TPH		69.2 50.0	58.4 50.0				

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

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

Jessica Kramer
Project Manager



Certificate of Analytical Results 656456

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW58**
Lab Sample Id: 656456-001

Matrix: Soil
Date Collected: 03.20.20 15.30

Date Received: 03.20.20 16.47
Sample Depth: 0.5 - 15 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3120561

Date Prep: 03.20.20 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	420	9.92	mg/kg	03.20.20 18.25		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3120489

Date Prep: 03.20.20 16.50

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	03.20.20 20.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	69.2	50.0	mg/kg	03.20.20 20.07		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.20.20 20.07	U	1
Total GRO-DRO	PHC628	69.2	50.0	mg/kg	03.20.20 20.07		1
Total TPH	PHC635	69.2	50.0	mg/kg	03.20.20 20.07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	130	%	70-135	03.20.20 20.07	
o-Terphenyl	84-15-1	132	%	70-135	03.20.20 20.07	



Certificate of Analytical Results 656456

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW58**
Lab Sample Id: 656456-001

Matrix: Soil
Date Collected: 03.20.20 15.30

Date Received: 03.20.20 16.47
Sample Depth: 0.5 - 15 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.20.20 19.36

Basis: Wet Weight

Seq Number: 3120549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.20.20 20.49	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.20.20 20.49	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.20.20 20.49	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.20.20 20.49	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.20.20 20.49	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.20.20 20.49	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.20.20 20.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.20.20 20.49		
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.20.20 20.49		



Certificate of Analytical Results 656456

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW59** Matrix: Soil Date Received: 03.20.20 16.47
 Lab Sample Id: 656456-002 Date Collected: 03.20.20 15.35 Sample Depth: 0.5 - 15 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.20.20 16.00 Basis: Wet Weight
 Seq Number: 3120561

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	391	9.98	mg/kg	03.20.20 18.30		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 03.20.20 16.50 Basis: Wet Weight
 Seq Number: 3120544

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.20.20 20.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	58.4	50.0	mg/kg	03.20.20 20.07		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.20.20 20.07	U	1
Total GRO-DRO	PHC628	58.4	50.0	mg/kg	03.20.20 20.07		1
Total TPH	PHC635	58.4	50.0	mg/kg	03.20.20 20.07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	03.20.20 20.07	
o-Terphenyl	84-15-1	125	%	70-135	03.20.20 20.07	



Certificate of Analytical Results 656456

LT Environmental, Inc., Arvada, CO

Sheep Draw Federal #003

Sample Id: **SW59**
Lab Sample Id: 656456-002

Matrix: Soil
Date Collected: 03.20.20 15.35

Date Received: 03.20.20 16.47
Sample Depth: 0.5 - 15 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.20.20 19.36

Basis: Wet Weight

Seq Number: 3120549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.20.20 21.10	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.20.20 21.10	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.20.20 21.10	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.20.20 21.10	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.20.20 21.10	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.20.20 21.10	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.20.20 21.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.20.20 21.10		
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.20.20 21.10		



Flagging Criteria

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

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Sheep Draw Federal #003

Analytical Method: Chloride by EPA 300

Seq Number: 3120561

MB Sample Id: 7699403-1-BLK

Matrix: Solid

LCS Sample Id: 7699403-1-BKS

Prep Method: E300P

Date Prep: 03.20.20

LCSD Sample Id: 7699403-1-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	261	104	261	104	90-110	0	20	mg/kg	03.20.20 15:01	

Analytical Method: Chloride by EPA 300

Seq Number: 3120561

Parent Sample Id: 656375-008

Matrix: Soil

MS Sample Id: 656375-008 S

Prep Method: E300P

Date Prep: 03.20.20

MSD Sample Id: 656375-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1650	200	1830	90	1870	110	90-110	2	20	mg/kg	03.20.20 15:24	

Analytical Method: Chloride by EPA 300

Seq Number: 3120561

Parent Sample Id: 656456-002

Matrix: Soil

MS Sample Id: 656456-002 S

Prep Method: E300P

Date Prep: 03.20.20

MSD Sample Id: 656456-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	391	200	602	106	599	104	90-110	0	20	mg/kg	03.20.20 18:36	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120489

MB Sample Id: 7699446-1-BLK

Matrix: Solid

LCS Sample Id: 7699446-1-BKS

Prep Method: SW8015P

Date Prep: 03.20.20

LCSD Sample Id: 7699446-1-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	915	92	918	92	70-135	0	35	mg/kg	03.20.20 15:04	
Diesel Range Organics (DRO)	<50.0	1000	996	100	1000	100	70-135	0	35	mg/kg	03.20.20 15:04	

Surrogate

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	120		108		110		70-135	%	03.20.20 15:04
o-Terphenyl	126		108		113		70-135	%	03.20.20 15:04

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. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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.

Sheep Draw Federal #003

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120544

MB Sample Id: 7699472-1-BLK

Matrix: Solid

LCS Sample Id: 7699472-1-BKS

Prep Method: SW8015P

Date Prep: 03.20.20

LCSD Sample Id: 7699472-1-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	957	96	942	94	70-135	2	35	mg/kg	03.20.20 15:04	
Diesel Range Organics (DRO)	<50.0	1000	1020	102	1010	101	70-135	1	35	mg/kg	03.20.20 15:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		117		117		70-135	%	03.20.20 15:04
o-Terphenyl	102		116		116		70-135	%	03.20.20 15:04

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120489

Matrix: Solid

MB Sample Id: 7699446-1-BLK

Prep Method: SW8015P

Date Prep: 03.20.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.20.20 14:44	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120544

Matrix: Solid

MB Sample Id: 7699472-1-BLK

Prep Method: SW8015P

Date Prep: 03.20.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.20.20 14:44	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120489

Matrix: Soil

Parent Sample Id: 656353-001

MS Sample Id: 656353-001 S

Prep Method: SW8015P

Date Prep: 03.20.20

MSD Sample Id: 656353-001 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	1000	1050	105	926	93	70-135	13	35	mg/kg	03.20.20 16:05	
Diesel Range Organics (DRO)	<50.0	1000	1110	111	979	98	70-135	13	35	mg/kg	03.20.20 16:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		121		70-135	%	03.20.20 16:05
o-Terphenyl	118		118		70-135	%	03.20.20 16:05

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

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

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.

Sheep Draw Federal #003

Analytical Method: TPH by SW8015 Mod

Seq Number: 3120544

Parent Sample Id: 656353-002

Matrix: Soil

MS Sample Id: 656353-002 S

Prep Method: SW8015P

Date Prep: 03.20.20

MSD Sample Id: 656353-002 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)	<50.1	1000	914	91	900	90	70-135	2	35	mg/kg	03.20.20 16:05	
Diesel Range Organics (DRO)	<50.1	1000	988	99	974	97	70-135	1	35	mg/kg	03.20.20 16:05	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		117		70-135	%	03.20.20 16:05
o-Terphenyl	121		121		70-135	%	03.20.20 16:05

Analytical Method: BTEX by EPA 8021B

Seq Number: 3120549

MB Sample Id: 7699447-1-BLK

Matrix: Solid

LCS Sample Id: 7699447-1-BKS

Prep Method: SW5030B

Date Prep: 03.20.20

LCSD Sample Id: 7699447-1-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	0.121	121	0.125	125	70-130	3	35	mg/kg	03.20.20 18:47	
Toluene	<0.00200	0.100	0.119	119	0.113	113	70-130	5	35	mg/kg	03.20.20 18:47	
Ethylbenzene	<0.00200	0.100	0.111	111	0.105	105	71-129	6	35	mg/kg	03.20.20 18:47	
m,p-Xylenes	<0.00400	0.200	0.217	109	0.206	103	70-135	5	35	mg/kg	03.20.20 18:47	
o-Xylene	<0.00200	0.100	0.109	109	0.104	104	71-133	5	35	mg/kg	03.20.20 18:47	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	117		111		112		70-130	%	03.20.20 18:47
4-Bromofluorobenzene	91		90		88		70-130	%	03.20.20 18:47

Analytical Method: BTEX by EPA 8021B

Seq Number: 3120549

Parent Sample Id: 656456-001

Matrix: Soil

MS Sample Id: 656456-001 S

Prep Method: SW5030B

Date Prep: 03.20.20

MSD Sample Id: 656456-001 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	0.128	128	0.122	123	70-130	5	35	mg/kg	03.20.20 19:28	
Toluene	<0.00200	0.100	0.113	113	0.106	107	70-130	6	35	mg/kg	03.20.20 19:28	
Ethylbenzene	<0.00200	0.100	0.0992	99	0.0923	93	71-129	7	35	mg/kg	03.20.20 19:28	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.180	91	70-135	7	35	mg/kg	03.20.20 19:28	
o-Xylene	<0.00200	0.100	0.0964	96	0.0897	91	71-133	7	35	mg/kg	03.20.20 19:28	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		111		70-130	%	03.20.20 19:28
4-Bromofluorobenzene	84		84		70-130	%	03.20.20 19:28

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



Chain of Custody

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 Crashtad, 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

Work Order No: 105144518

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Page 1 of 1

Project Manager:	Chris McKisson	Bill to: (if different)	
Company Name:	LT Environmental	Company Name:	
Address:	826 Meagan Avenue Unit B	Address:	
City, State ZIP:	Rifle, CO 81650	City, State ZIP:	
Phone:	970 285 9985	Email:	cmckisson@ltenv.com

Project Name:	Sheep Draw Federal #203	Turn Around	
Project Number:	034820017	Routine	☐
Project Location:	Rural Eddy County	Rush: 24 HR	
Sampler's Name:	Anna Byers	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT		Temp Blank:	Yes ☒ No ☐	Wet Ice:	Yes ☒ No ☐
Temperature (°C):	0.4	Thermometer ID	T-NM-007		
Received Intact:	Yes ☒ No ☐	Correction Factor:	-0.2		
Cooler Custody Seals:	Yes ☒ No ☐	Total Containers:	2		
Sample Custody Seals:	Yes ☒ No ☐				

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST	Preservative Codes	Sample Comments
SW58		S	3/20/20	1530	0.5-15'	1	X	X	X		MeOH: Me None: NO HNO3: HN H2SO4: H2 HCL: HL NaOH: Na Zn Acetate+ NaOH: Zn	
SW59		S	3/20/20	1535	0.5-15'	1	X	X	X		TAT starts the day received by the lab, if received by 4:00pm	

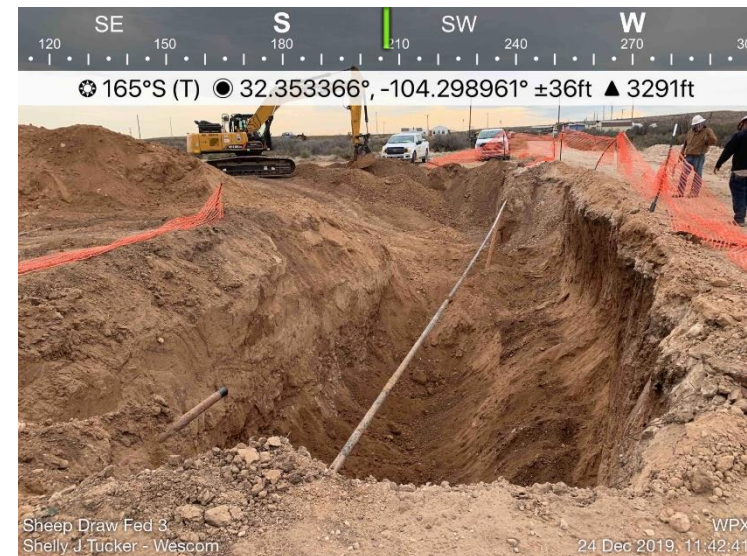
Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

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
Anna Byers	CMCK	3/20/20 16:47			



PHOTOGRAPHIC LOG

**Photograph 1:** View of the Site facing south. Photo by courtesy of Wescom.**Photograph 2:** View of the Site facing northeast. Photo by courtesy of Wescom.**Photograph 3:** View of the Site facing south. Photo by courtesy of Wescom.**Photograph 4:** View of the Site facing south. Photo by courtesy of Wescom

Sheep Draw Federal #003
32.3505402, -104.3002625

Photographs Taken: October 30, 2019 through March 24, 2020

PHOTOGRAPHIC LOG



Photograph 5: View of the excavation facing north.



Photograph 6: View of the excavation facing southwest.



Photograph 7: View of the excavation facing northeast.



Photograph 8: View of the excavation facing north.

PHOTOGRAPHIC LOG



Photograph 9: View of the excavation facing east.



Photograph 10: View of the excavation facing east.



Photograph 11: View of the excavation facing southwest.



Photograph 12: View of the excavation facing north.

PHOTOGRAPHIC LOG



Photograph 13: View of the excavation facing northeast.



Photograph 14: View of the excavation facing east.



Photograph 15: View of the excavation facing southeast.



Photograph 16: View of the excavation facing northwest.