

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	NCE2002450037
District RP	
Facility ID	
Application ID	

4G4V4-200313-C-1410

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Tyler Newton	Contact Telephone 575-361-1583
Contact email tyler_newton@xtoenergy.com	Incident # (assigned by OCD)
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.005760 Longitude -103.896042
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Ross Draw CDP	Site Type Gas CDP
Date Release Discovered 11/18/19	API# (if applicable)

Unit Letter	Section	Township	Range	County
A	S32	T26S	R30E	Eddy County

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

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) .87	Volume Recovered (bbls) 0
☐ Produced Water	Volume Released (bbls) 0	Volume Recovered (bbls) 0
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☒ Other (describe) Freshwater	Volume/Weight Released (provide units) 28 bbls	Volume/Weight Recovered (provide units) 0 bbls

Cause of Release Accidental release from a water truck while spraying facility pad.

Form C-141

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State of New Mexico
Oil Conservation Division

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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? Release was greater than 25 bbls.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, notification was made by Adrian Baker to OCD: Mike Bratcher, Rob Hamlet, Victoria Venegas, Jim Griswold, and Ryan Mann via email on 11/19/19 at 10:08am.	

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

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

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

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

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

Printed Name: Tyler Newton

Title: SSHE Coordinator

Signature: 

Date: 11/25/19

email: tyler_newton@xtoenergy.com

Telephone: 575-361-1583

OCD Only

Received by: Cristina Eads

Date: 01/24/2020

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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?	<u>>100</u> (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.

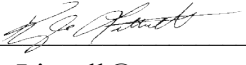
Characterization Report Checklist: Each of the following items must be included in the report.

- ☒ 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.

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

Printed Name: Kyle Littrell Title: SH&E Supervisor
Signature:  Date: 03/13/2020
email: Kyle_Littrell@xtoenergy.com Telephone: _____

OCD Only

Received by: _____ Date: _____

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Remediation Plan

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

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

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

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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor
Signature:  Date: 03/13/2020
email: Kyle_Littrell@xtoenergy.com Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____



LT Environmental, Inc.

3300 North "A" Street
Building 1, Unit 222
Midland, Texas 79705
432.704.5178

March 13, 2020

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

4G4V4-200313-C-1410

**RE: Deferral Request
Ross Draw CDP
Incident Number NCE2002450037
Eddy County, New Mexico**

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Deferral Request detailing site assessment, soil sampling, and remediation activities at the Ross Draw Central Delivery Point (CDP) (Site) in Unit A, Section 32, Township 26 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to confirm the presence or absence of impacts to soil by a release of crude oil and freshwater during dust suppression operations at the Site and adjacent road. Based on field observations, field screening, and laboratory analytical results from soil sampling activities, XTO is submitting this Deferral Request and respectfully requesting no further action (NFA) for Incident Number NCE2002450037 until the Site is reconstructed, and/or the well pad is abandoned.

RELEASE BACKGROUND

On November 18, 2019, an accidental release of freshwater and limited crude oil from a water truck occurred on the well pad and adjacent road (State Line Road) during the application of freshwater as a dust suppressant during pad construction. The release consisted of approximately 0.87 barrels (bbls) of crude oil and approximately 28 bbls of freshwater. No free liquids were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on November 25, 2019 and was subsequently assigned Incident Number NCE2002450037.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater





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well with depth to groundwater data is United States Geological Survey (USGS) well 320125103514701, located approximately two miles northeast of the Site (Figure 1). The groundwater well has a reported depth to groundwater of 117 feet bgs and the total well depth was not reported. Depth to groundwater data was not available for New Mexico Office of the State Engineer (NMOSE) wells C 03793 and C 03792, which are closer to the Site. The closest continuously flowing water or significant watercourse is an unnamed intermittent streambed, located approximately 1,437 feet southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is located in a high potential karst area.

CLOSURE CRITERIA

Based on the results of the site characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH): 100 mg/kg
- Chloride: 600 mg/kg

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On November 19, 2019, LTE personnel inspected the Site to evaluate the release extent. The release occurred along State Line Road and flowed over the pipeline right-of-way (ROW) and onto the well pad being constructed. Preliminary soil samples were collected at eight locations (SS01 through SS08) within and around the release extent. Preliminary soil samples SS01, SS02 and SS08 were collected along the road, SS07 was collected in the ROW, and SS03 through SS06 were collected in the area of well pad construction. Locations of the preliminary soil samples are presented on Figure 2. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS).

The eight preliminary soil samples were collected at a depth of 0.5 feet bgs. Soil samples were field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. All soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler's 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 Carlsbad, New Mexico, 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-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for preliminary assessment soil samples SS02 and SS03 indicated that TPH concentrations exceeded the Closure Criteria. In addition, laboratory analytical results for preliminary assessment soil samples SS01, SS03, and SS08 indicated that chloride concentrations exceeded the Closure Criteria. Based on visible soil staining within the release areas, field screening results, and laboratory analytical results, soil delineation and excavation appeared to be warranted.

EXCAVATION OF IMPACTED SOIL

From November 20 through December 6, 2019, LTE oversaw excavation activities to remediate impacted soil as indicated by visual observations, field screening results, and preliminary soil sample results. Excavation activities were performed using a backhoe, grader, and transport vehicles throughout the release extent. Excavation occurred in three main areas: the well pad construction area, the pipeline ROW, and the lease road. Excavation extents are presented on Figures 3A and 3B.

Excavation began in the well pad construction area. The depth of this excavation area ranged from 0.5 feet bgs to 1.5 feet bgs. An estimated 17,075 square feet of the well pad construction area were excavated and approximately 475 cubic yards of impacted soil were removed.

The depth of excavation in the pipeline ROW was restricted to a depth of 0.5 feet bgs due the presence of multiple high-pressure pipelines. An estimated 9,075 square feet of the pipeline ROW was excavated, and 170 cubic yards of impacted soil was removed. However, in order to follow the XTO safety policy regarding earth moving activities within two feet of active pipelines and based on instruction from, Kinder Morgan, the third-party pipeline operator, the excavation was limited to 0.5 feet bgs.

Depth of the excavation along the lease road varied from 0.5 feet bgs to 1.25 feet bgs. An estimated 18,470 square feet of lease road were excavated and approximately 490 cubic yards of impacted soil were removed.

Following removal of impacted soil, LTE collected 5-point composite soil samples every 200 square feet from the floor of the excavations. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Soil from the confirmation floor samples was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. A total of 138 composite soil floor samples were collected from the floor of the excavation. Floor samples were collected at depths ranging from 0.5 feet bgs to 1.5 feet bgs.





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Due to the limited depth of the excavation, floor samples represented soil contained in the floor and sidewalls of the excavation. The excavation soil samples were collected, handled, and analyzed as described above at Xenco in Carlsbad, New Mexico. The locations of final excavation confirmation samples are presented on Figures 3A and 3B. Photographic documentation was conducted during the remediation activities and is included in Attachment 2.

The excavation extent totaled approximately 44,620 square feet. A total of approximately 1,135 cubic yards of impacted soil were removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 landfill facility located in Orla, Texas. Following the completion of confirmation sampling, the excavation was backfilled so that operations could resume.

EXCAVATION ANALYTICAL RESULTS

Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were compliant with Closure Criteria in the confirmation soil samples. In the 138 confirmation samples, chloride concentrations were compliant with the Closure Criteria, with the exception of FS15, FS16, FS41, FS41A, FS42, FS43, FS46, FS66 through FS81, FS103 through FS106, FS108 through FS112, FS114 through FS117. Floor samples FS66, and FS68 through FS72 were located along the pipeline ROW where excavation was restricted due to the presence of underground pipelines. Concentrations of chloride exceeding Closure Criteria in samples collected from the excavation in the pipeline ROW ranged from 2,070 mg/kg to 4,670 mg/kg.

Chloride concentrations in samples collected from the road excavation exceeded Closure Criteria in 21 samples. Chloride concentrations exceeding 600 mg/kg in the road ranged from 666 mg/kg to 2,300 mg/kg. Laboratory analytical results are summarized in Table 1 and the complete laboratory data reports are included in Attachment 3.

DELINEATION SOIL SAMPLING

Delineation soil sampling was conducted from December 4 through December 6, 2019 in coordination with excavation activities to determine the vertical and lateral extent of residual impacted soil in the pipeline ROW and investigate elevated chloride concentrations in the road. Seventeen boreholes (BH01 through BH17) were advanced to a depth of approximately two feet bgs and two discrete soil samples were collected from each borehole utilizing hand-auger equipment. Delineation soil samples were collected at depths of approximately one foot bgs and two feet bgs. Because the boreholes were manually advanced with a hand auger, boreholes within the pipeline ROW were allowed to deeper depths than mechanical excavation. In addition, pothole PH07 was advanced to a depth of approximately four feet bgs and four discrete samples were collected for laboratory analysis for chloride. Soil from the boreholes/pothole was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride





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QuanTab[®] test strips, respectively. Field screening results and observations for the boreholes/pothole were logged on lithologic/soil sampling logs, which are included in Attachment 1. The locations of the delineation boreholes BH01 through BH17 and pothole PH07 are presented on Figure 4 in relation to excavation confirmation soil samples that exceeded Closure Criteria. The discrete delineation soil samples were collected, handled, and analyzed as described above at Xenco in Carlsbad, New Mexico.

Because confirmation soil samples collected in the excavation along the lease road indicated that chloride concentrations exceeded the Closure Criteria, LTE personnel collected two soil samples (BG01 and BG02) along the lease road to determine chloride concentrations of the source material used for the lease road. The lease road background samples were collected between 70 and 90 feet to the east and west of the release extent. The background soil sample locations are depicted on Figure 4.

DELINEATION SOIL ANALYTICAL RESULTS

Laboratory analytical results for the 38 borehole and 1 pothole delineation samples collected within the pipeline ROW indicated chloride concentrations were below the Closure Criteria. The laboratory analytical results are summarized below and in Table 1 and laboratory analytical reports are attached. The residual chloride impacts in the pipeline ROW are delineated vertically by BH15 through BH17, laterally to the east by boreholes BH11 and BH12, and laterally to the west by boreholes BH13 and BH14. Laboratory analytical results are summarized in Table 1 and the complete laboratory data reports are included in Attachment 3.

Background samples BG01 and BG02 contained chloride concentrations of 2,020 mg/kg and 1,810 mg/kg, respectively. All confirmation samples collected along the lease road (FS73 through FS102 and FS104 through FS117) contained chloride within these background concentrations, ranging from 19.7 mg/kg in FS95 to 2,300 mg/kg in FS117. Chloride concentration in soil in floor sample FS117 is within approximately 13% of the highest background chloride concentrations collected along the lease road. Floor sample FS117 chloride concentration appears to be within background chloride concentrations along the lease road.

CONCLUSIONS

Approximately 1,135 cubic yards of impacted soil were excavated from the Site and all identified elevated concentrations of TPH were removed; however, residual chloride impacted soil in the pipeline ROW at the northern end of the pad that is under construction was left in place for compliance with the XTO safety policy regarding earth-moving activities within two feet of active pipelines. In addition, Kinder Morgan restricted XTO from excavating deeper than 0.5 feet bgs within the pipeline ROW as part of their internal safety procedures regarding high pressure pipelines. The residual chloride impacts near the active pipelines are delineated vertically by





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BH15 through BH17, to the east by boreholes BH11 and BH12, and laterally to the west by boreholes BH13 and BH14.

Highly variable chloride concentrations were identified in field screening results and in sample analytical results from samples collected on the road. The variability motivated LTE to investigate the chloride concentrations in the material used to construct the road. A chloride background soil concentration range of 1,810 mg/kg to 2,020 mg/kg was established in background samples collected east and west of the release extent. All excavation confirmation samples collected from the excavation confirmation samples in the road were within range of the established background concentrations and indicate the road has been remediated to background conditions.

DEFERRAL REQUEST

Laboratory analytical results for the soil samples indicated benzene, BTEX, and TPH concentrations were compliant with the Closure Criteria in all excavation confirmation samples. Chloride concentrations were below Closure Criteria in the well pad construction area and portions of the pipeline ROW in the northern portion of the construction area. Chloride concentrations in excavation confirmation samples were below background concentrations established for the road construction material.

Residual elevated chloride concentrations exceeding 600 mg/kg remain above the active pipelines in the pipeline ROW. XTO requests deferral of final remediation of this soil for Incident Number NCE2002450037. Based on delineation sampling results, approximately 115 cubic yards of residual impacted soil remain. LTE and XTO do not believe deferment will result in an imminent risk to human health, the environment, or groundwater. No saturated soil remains in place and XTO removed as much soil as was safely possible to remove above the active pipelines according to XTO and Kinder Morgan policy regarding earth moving activities.

Upon approval of this Deferral Request, XTO will complete remediation of the remaining impacted soil during any future major construction or final pipeline abandonment, whichever occurs first.

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





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Sincerely,

LT ENVIRONMENTAL, INC.

Kevin M. Axe, P.G.
Senior Geologist

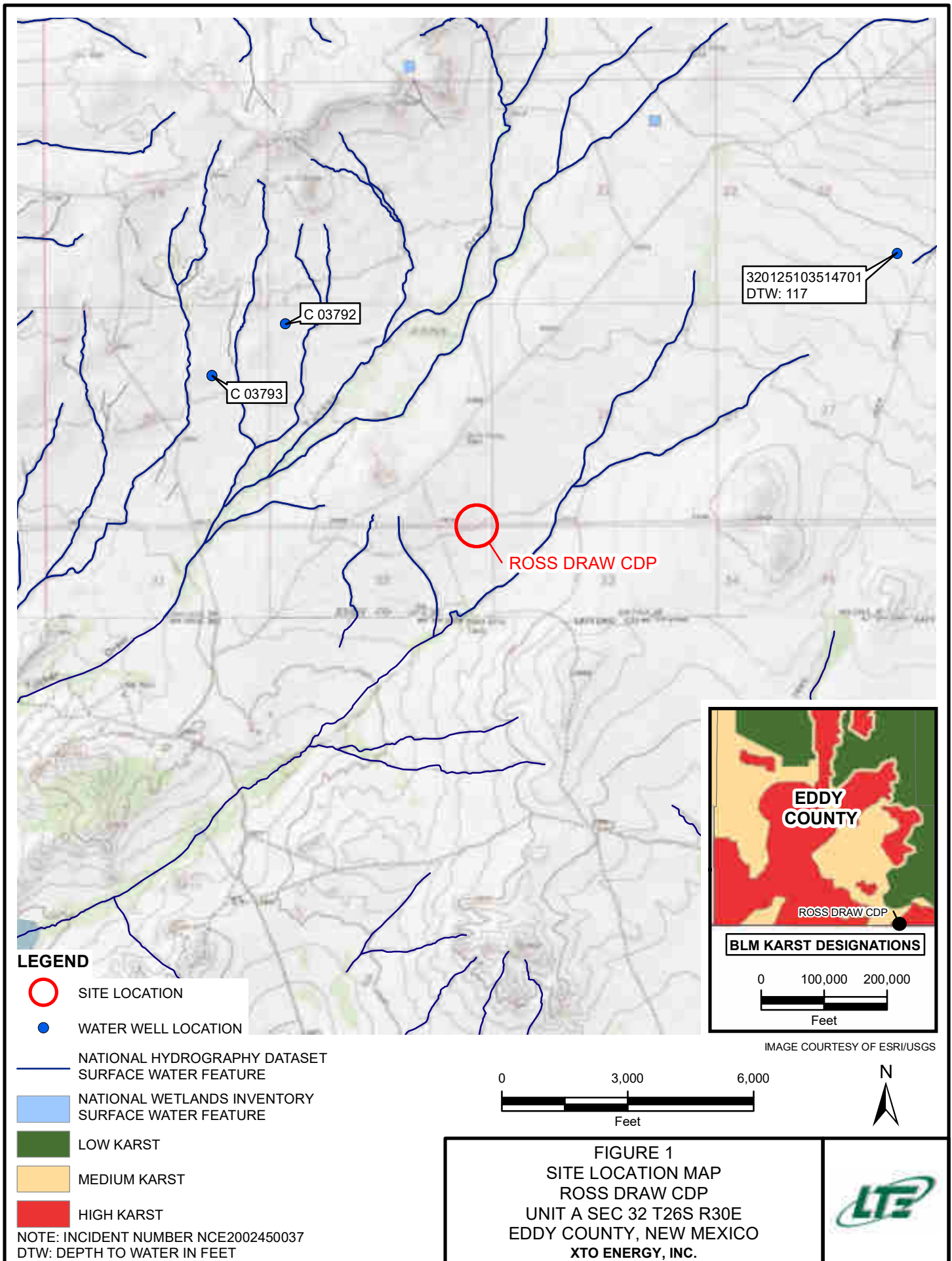
Ashley L. Ager, P.G.
Senior Geologist

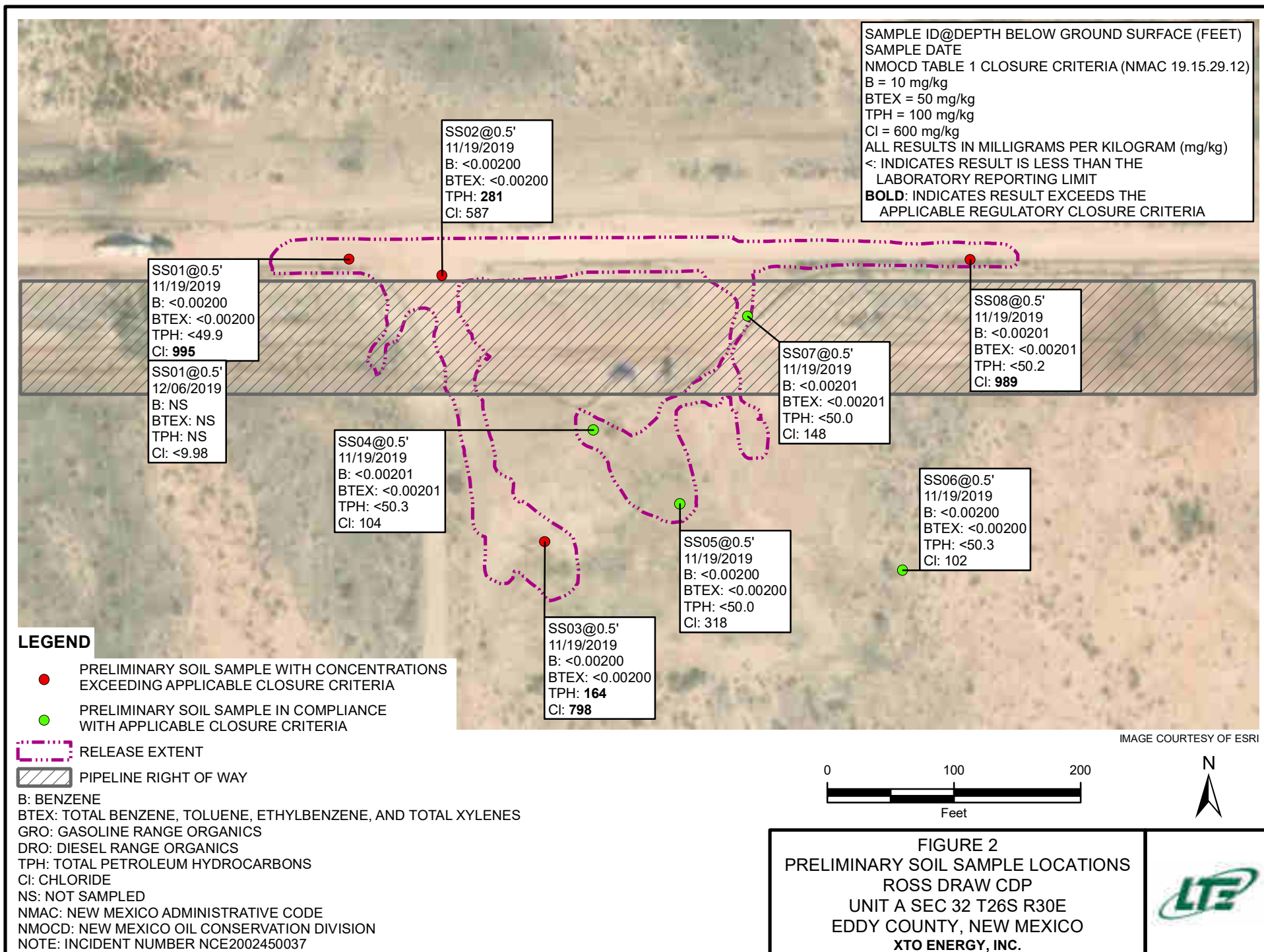
cc: Kyle Littrell, XTO
United States Bureau of Land Management – New Mexico
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD

Attachments:

Figure 1 Site Location Map
Figure 2 Preliminary Soil Sample Locations
Figure 3A Excavation Soil Sample locations
Figure 3B Excavation Soil Sample locations
Figure 4 Delineation Soil Sample Locations
Table 1 Soil Analytical Results
Attachment 1 Lithologic / Soil Sampling Logs
Attachment 2 Photographic Log
Attachment 3 Laboratory Analytical Reports







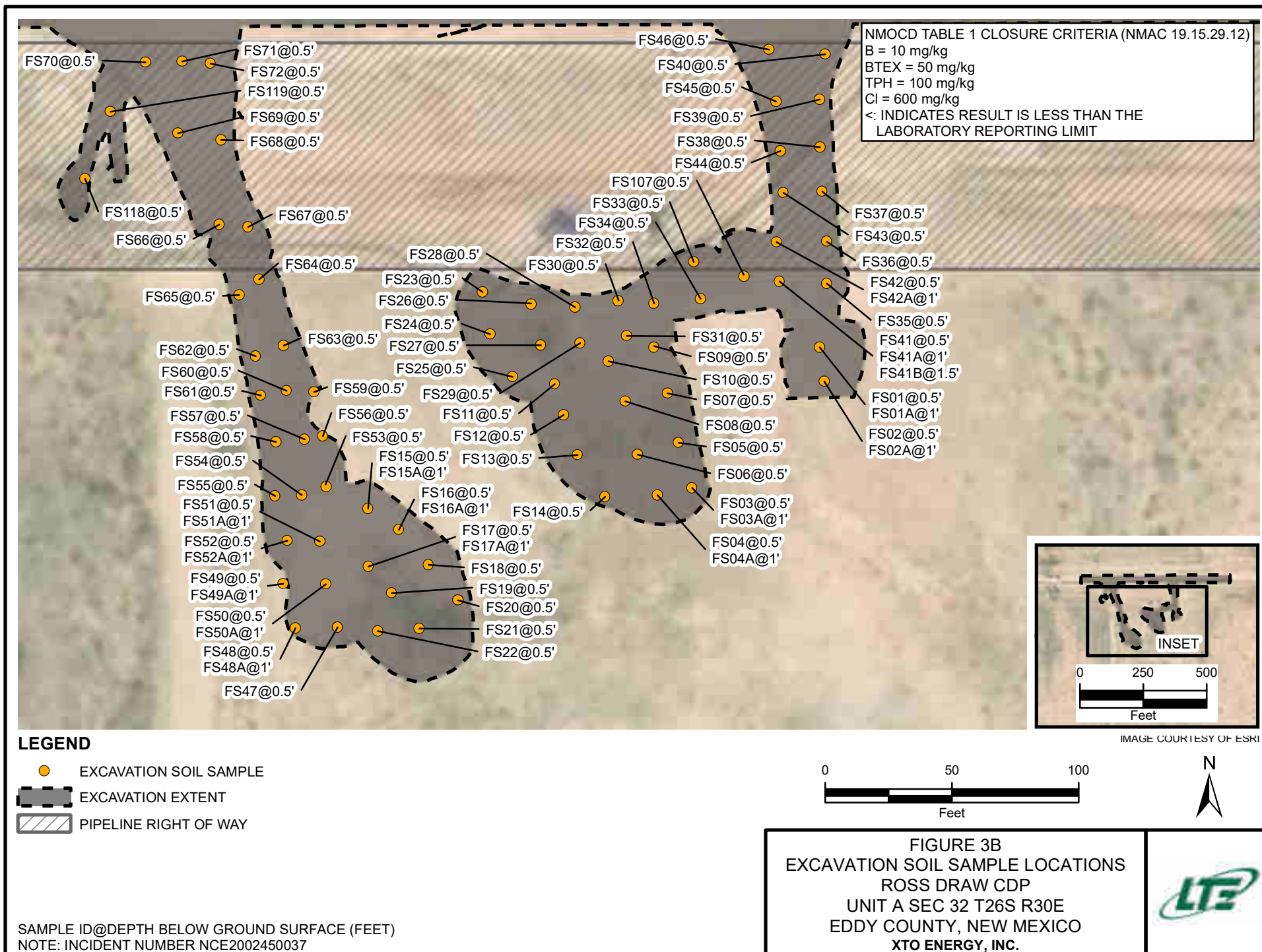


 EXCAVATION SOIL SAMPLE
 EXCAVATION EXTENT
 PIPELINE RIGHT OF WAY

0 70 140

Feet





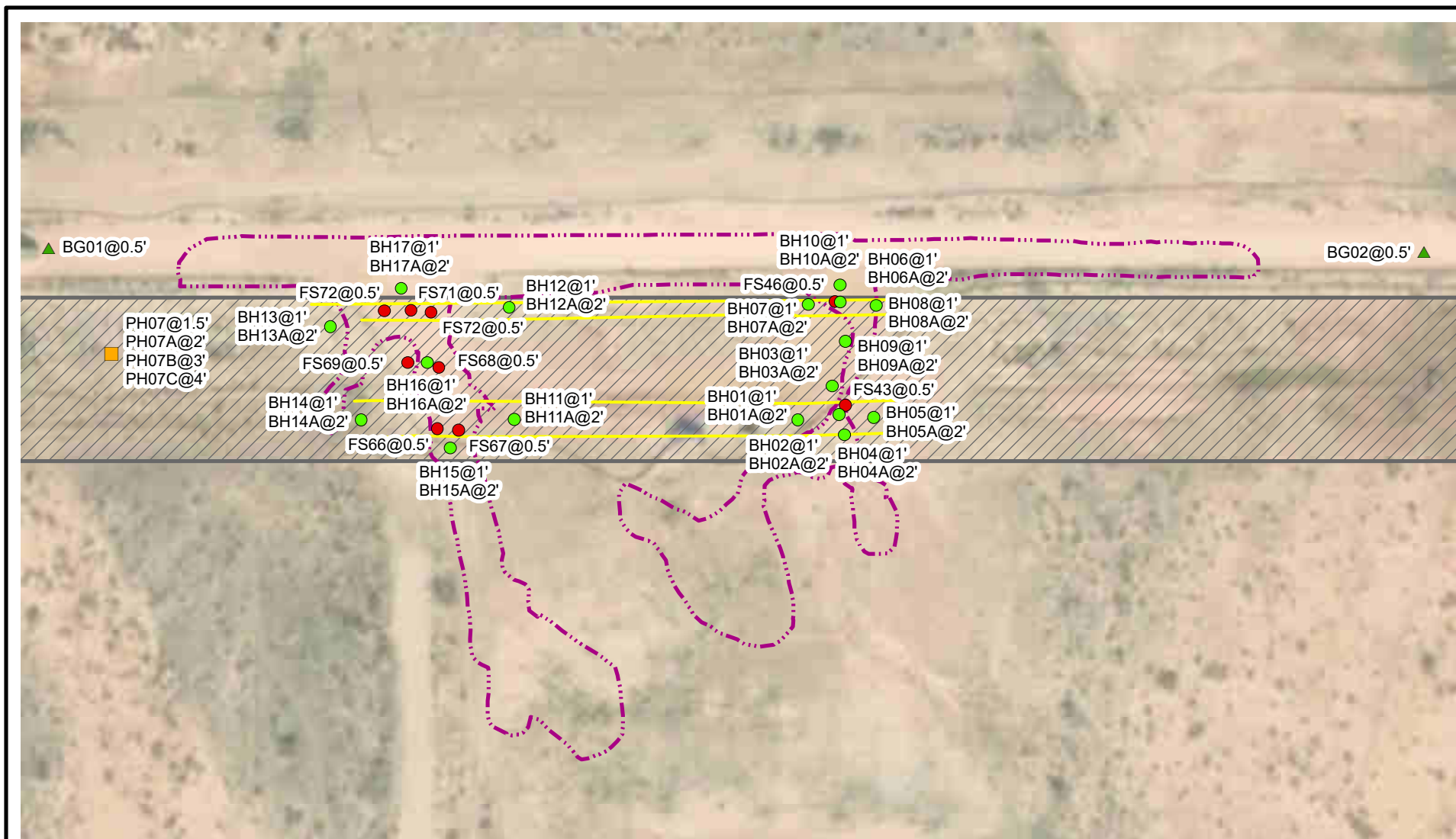


IMAGE COURTESY OF ESRI

LEGEND

- EXCAVATION SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- DELINEATION SOIL SAMPLE
- ▲ BACKGROUND SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- GAS LINE
- - - RELEASE EXTENT
- ▨ PIPELINE RIGHT OF WAY

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
 NOTE: INCIDENT NUMBER NCE2002450037

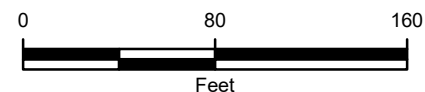


FIGURE 4
DELINEATION SOIL SAMPLE LOCATIONS
 ROSS DRAW CDP
 UNIT A SEC 32 T26S R30E
 EDDY COUNTY, NEW MEXICO
 XTO ENERGY, INC.



TABLES



**TABLE 1
SOIL ANALYTICAL RESULTS**

**ROSS DRAW CDP
INCIDENT NUMBER NCE2002450037
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.**

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)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
SS01	0.5	11/19/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	995
SS02	0.5	11/19/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	281	<50.1	281	281	587
SS03	0.5	11/19/2019	<0.00200	<0.00200	<0.00200	0.00225	0.00225	<50.1	164	<50.1	164	164	798
SS04	0.5	11/19/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	104
SS05	0.5	11/19/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	318
SS06	0.5	11/19/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	102
SS07	0.5	11/19/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	148
SS08	0.5	11/19/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	989
PH07	1.5	12/06/2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50.4
PH07A	2	12/06/2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	403
PH07B	3	12/06/2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	554
PH07C	4	12/06/2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	544
BH01	1	12/04/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	36.5
BH01A	2	12/04/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	<10.0
BH02	1	12/04/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	296
BH02A	2	12/04/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	181
BH03	1	12/04/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	<9.94
BH03A	2	12/04/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	16.1
BH04	1	12/04/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	330
BH04A	2	12/04/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	484
BH05	1	12/04/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<9.92
BH05A	2	12/04/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	<9.90



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TABLE 1
SOIL ANALYTICAL RESULTS

ROSS DRAW CDP
INCIDENT NUMBER NCE2002450037
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

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)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
BH06	1	12/04/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.3	<50.3	<50.3	<50.3	<50.3	<9.94
BH06A	2	12/04/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	322
BH07	1	12/04/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	476
BH07A	2	12/04/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	311
BH08	1	12/04/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	33.9
BH08A	2	12/04/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	77.9
BH09	1	12/04/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	<9.98
BH09A	2	12/04/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	215
BH10	1	12/04/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	589
BH10A	2	12/04/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	270
BH11	1	12/05/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	48.6
BH11A	2	12/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	182
BH12	1	12/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	21.3
BH12A	2	12/05/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	48.9
BH13	1	12/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	70.6
BH13A	2	12/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	45.2
BH14	1	12/05/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	68.3
BH14A	2	12/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	116
BH15	1	12/05/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	24.9
BH15A	2	12/05/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	<10.0
BH16	1	12/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	77.8
BH16A	2	12/05/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	<10.1

**TABLE 1
SOIL ANALYTICAL RESULTS**

**ROSS DRAW CDP
INCIDENT NUMBER NCE2002450037
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.**

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)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
BH17	1	12/06/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	346
BH17A	2	12/06/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	169
FS01	0.5	11/20/2019	<0.00200	<0.00200	<0.00200	0.00458	0.00458	<50.2	327	149	327	476	118
FS01A	1	12/02/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	39.2
FS02	0.5	11/20/2019	<0.00200	<0.00200	<0.00200	0.00486	0.00486	<50.3	148	99.3	148	247	22.3
FS02A	1	12/02/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	434
FS03	0.5	11/20/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	95.1	65.5	95.1	161	83.3
FS03A	1	12/02/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	110
FS04	0.5	11/20/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	68.4	50.1	68.4	119	189
FS04A	1	12/02/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	86.3
FS05	0.5	11/20/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	85.8
FS06	0.5	11/20/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	80.2
FS07	0.5	11/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	21.8
FS08	0.5	11/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	68.1
FS09	0.5	11/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	26.1
FS10	0.5	11/20/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	233
FS11	0.5	11/20/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	246
FS12	0.5	11/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	76.0
FS13	0.5	11/20/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	58.9
FS14	0.5	11/20/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	62.8
FS15	0.5	11/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	426	100	426	526	610
FS15A	1	12/02/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	537



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**TABLE 1
SOIL ANALYTICAL RESULTS**

**ROSS DRAW CDP
INCIDENT NUMBER NCE2002450037
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.**

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)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
FS16	0.5	11/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	880
FS16A	1	12/02/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	560
FS17	0.5	11/20/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	71.0	56.5	71.0	128	154
FS17A	1	12/02/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.3	<50.3	<50.3	<50.3	<50.3	247
FS18	0.5	11/20/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	73.2	<49.8	73.2	73.2	392
FS19	0.5	11/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	111
FS20	0.5	11/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	480
FS21	0.5	11/20/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	88.6
FS22	0.5	11/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	119
FS23	0.5	11/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	400
FS24	0.5	11/22/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	125
FS25	0.5	11/22/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	37.0
FS26	0.5	11/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	155
FS27	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	332
FS28	0.5	11/22/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	123
FS29	0.5	11/22/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	154
FS30	0.5	11/22/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	54.6
FS31	0.5	11/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	88.1
FS32	0.5	11/22/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	19.0
FS33	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	17.4
FS34	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	39.5
FS35	0.5	11/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	116
FS36	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	101

TABLE 1
SOIL ANALYTICAL RESULTS

ROSS DRAW CDP
INCIDENT NUMBER NCE2002450037
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

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)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
FS37	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	166
FS38	0.5	11/22/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	135
FS39	0.5	11/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	93.1
FS40	0.5	11/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	331
FS41	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	944
FS41A	1	12/03/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	2,290
FS41B	1.5	12/05/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	298
FS42	0.5	11/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.3	<50.3	<50.3	<50.3	<50.3	663
FS42A	1	12/03/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	570
FS43	0.5	11/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	61.9	<50.3	61.9	61.9	1,200
FS44	0.5	11/22/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	531
FS45	0.5	11/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	319
FS46	0.5	11/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	790
FS47	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	179
FS48	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	1090	<50.2	1090	1,090	31.7
FS48A	1	12/02/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	157
FS49	0.5	11/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.3	207	<50.3	207	207	51.5
FS49A	1	12/02/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	80.0
FS50	0.5	11/22/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	587	102	587	689	259
FS50A	1	12/03/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	294
FS51	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	746	558	746	1,300	178
FS51A	1	12/02/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	117



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**TABLE 1
SOIL ANALYTICAL RESULTS**

**ROSS DRAW CDP
INCIDENT NUMBER NCE2002450037
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.**

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)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
FS52	0.5	11/22/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	268	60.6	268	329	142
FS52A	1	12/02/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	111
FS53	0.5	11/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	70.1
FS54	0.5	11/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	122
FS55	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	112
FS56	0.5	11/22/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	18.1
FS57	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	30.8
FS58	0.5	11/22/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	49.2
FS59	0.5	11/23/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	21.3
FS60	0.5	11/23/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	64.1
FS61	0.5	11/23/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	70.7
FS62	0.5	11/23/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	84.3
FS63	0.5	11/23/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	22.3
FS64	0.5	11/23/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	51.7
FS65	0.5	11/23/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	87.1
FS66	0.5	11/23/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	2,070
FS67	0.5	11/23/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	1,890
FS68	0.5	11/23/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	2,740
FS69	0.5	11/23/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	2,270
FS70	0.5	11/23/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	4,210
FS71	0.5	11/23/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	4,670
FS72	0.5	11/23/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	4,490
FS73	1.25	12/06/2019	<0.00197	<0.00197	<0.00197	<0.00197	<0.00197	<49.8	<49.8	<49.8	<49.8	<49.8	1,930

**TABLE 1
SOIL ANALYTICAL RESULTS**

**ROSS DRAW CDP
INCIDENT NUMBER NCE2002450037
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.**

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)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
FS74	1.25	12/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	999
FS75	0.5	11/23/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	1,050
FS75A	1.25	12/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	732
FS76	1.25	12/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	1,050
FS77	0.5	11/23/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	1,860
FS77A	1.25	12/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	870
FS78	0.5	11/23/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	1,030
FS78A	1.25	12/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	733
FS79	0.5	11/23/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	1,530
FS79A	1.25	12/06/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	1,010
FS80	0.5	11/23/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	961
FS80A	1.25	12/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	755
FS81	0.5	11/25/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	880
FS81A	1.25	12/06/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	943
FS82	0.5	11/25/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	583
FS83	0.5	11/25/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	306
FS84	0.5	11/25/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	278
FS85	0.5	11/25/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	118
FS86	0.5	11/25/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	181
FS87	0.5	11/25/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	<101
FS88	0.5	11/25/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	50.1
FS89	0.5	11/25/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	108

**TABLE 1
SOIL ANALYTICAL RESULTS**

**ROSS DRAW CDP
INCIDENT NUMBER NCE2002450037
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.**

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)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
FS90	0.5	11/25/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	222
FS91	0.5	11/25/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	143
FS92	0.5	11/25/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	78.9
FS94	0.5	11/25/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	192
FS95	0.5	11/26/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	19.7
FS96	0.5	11/26/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	21.1
FS97	0.5	11/26/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	60.2
FS98	0.5	11/26/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	24.6
FS99	0.5	11/26/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	31.2
FS100	0.5	11/26/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	83.1
FS101	0.5	11/26/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	39.6
FS102	0.5	11/26/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	28.6
FS103	0.75	12/05/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	679
FS104	0.75	12/05/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	1,310
FS105	0.75	12/05/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	963
FS106	0.75	12/05/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	1,290
FS107	0.5	12/03/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	381
FS108	0.75	12/09/2019	<0.00189	<0.00189	<0.00189	<0.00189	<0.00189	<50.1	<50.1	<50.1	<50.1	<50.1	886
FS109	0.75	12/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	1,290
FS110	0.75	12/05/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	709
FS111	0.75	12/05/2019	<0.00197	<0.00197	<0.00197	<0.00197	<0.00197	<50.2	<50.2	<50.2	<50.2	<50.2	666
FS112	0.75	12/05/2019	<0.00197	<0.00197	<0.00197	<0.00197	<0.00197	<50.3	<50.3	<50.3	<50.3	<50.3	698

**TABLE 1
SOIL ANALYTICAL RESULTS**

**ROSS DRAW CDP
INCIDENT NUMBER NCE2002450037
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.**

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)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
FS113	0.75	12/05/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	555
FS114	0.75	12/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	907
FS115	0.75	12/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	1,960
FS116	0.75	12/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	1,450
FS117	0.75	12/06/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	2,300
FS118	0.5	12/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	22.0
FS119	0.5	12/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	21.1
BG01	0.5	01/21/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,020
BG02	0.5	01/21/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,810

Notes:

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

MRO - motor oil range organics

NMAC - New Mexico Administrative Code

NMOCD - New Mexico Oil Conservation Division

NE - not established

TPH - total petroleum hydrocarbons

Bold - indicates result exceeds the applicable regulatory standard

< - indicates result is below laboratory reporting limits

Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018

NA - not analyzed

Greyed data represents samples that were excavated



		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: BH01		Date: 12/04/19		
				Project Name: Ross Draw CDP		RP Number:		
LITHOLOGIC / SOIL SAMPLING LOG								
Log/Long:		Field Screening:		Logged By: Robert M.		Method: Hand Auger		
				Hole Diameter: 3"		Total Depth: 2'		
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	114	25.0	N		0			
					1	1'	S	SP-SC Brown
D	121	25.0	N		2	2'	S	↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance - Engineering - Remediation		Identifier: BH02		Date: 12/04/19		
				Project Name: Ross Draw LDP		EP Number:		
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long:		Field Screening:		Logged By: Robert M		Method: Hand Auger		
				Hole Diameter: 3"		Total Depth: 2'		
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	380	<5.0	N		0			
					1	1'	S	SP-SC Brown
D	260	<5.0	N		2	2'	S	↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: B403		Date: 12/04/19		
				Project Name: Ross Draw CDP		RP Number:		
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long:		Field Screening:		Logged By: Robert M Hole Diameter: 3"		Method: Hand Auger Total Depth: 2'		
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
D	214	<5.0	N		1	1'	S	SP-SC Brown
D	214	<5.0	N		2	2'	S	↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: B1104 Date: 12/04/19						
Project Name: Res Draw CDP		RP Number:						
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long:	Field Screening:	Logged By: Robert M Hole Diameter: 3" Method: Hand Auger Total Depth: 2'						
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	380	<5.0	N		0			
					1	1'	S	SP-SC Brown
D	<128	<5.0	N		2	2'	S	↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance • Engineering • Remediation		Identifier: BH05	Date: 12/04/19					
		Project Name: Ross Draw CDP	RP Number:					
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: Robert M.	Method: Hand Auger					
Lat/Long:		Field Screening:	Hole Diameter: 3"					
			Total Depth: 2'					
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
D	<124	<5.0	N		1	1'	S	SP-SC Brown 
D	<124	<5.0	N		2	2'	S	
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			



LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier: B106

Date: 12/04/19

Project Name:
Ross Draw CDP

RP Number:

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:

Logged By: Robert M.

Method: Hand Auger

Hole Diameter: 3"

Total Depth: 2'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
D	<124	25.0	N		1	1'	S	SP-SC Brown
D	320	<5.0	N		2	2'	S	↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance • Engineering • Remediation		Identifier: B407	Date: 12/04/19					
		Project Name: Ross Draw CDP	RP Number:					
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long:		Field Screening:	Logged By: Robert M. Hole Diameter: 3"					
Comments:		Method: Hand Auger Total Depth: 2'						
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
D	480	<5.0	N		1	1'	S	SP-SC Brown
D	580	<5.0	N		2	2'	S	↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: BH08		Date: 12/04/19		
				Project Name: Ross Draw CDP		RP Number:		
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long:		Field Screening:		Logged By: Robert M.		Method: Hand Auger		
				Hole Diameter: 3"		Total Depth: 2'		
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bga.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
D	<124	<5.0	N		1	1'	S	SP-SC Brown
D	<124	<5.0	N		2	2'	S	↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance • Engineering • Remediation		Identifier: BH09 Date: 12/04/19
Project Name: Ross Draw CDP		RP Number:
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: Robert M. Method: Hand Auger
Lat/Long:	Field Screening:	Hole Diameter: 3" Total Depth: 2'
Comments:		
Moisture Content	Chloride (ppm)	Vapor (ppm)
Staining	Sample #	Depth (ft. bgs.)
Sample #	Sample Depth	Soil/Rock Type
Lithology/Remarks		
D	2124	25.0
N	200	25.0
D	200	25.0
N	200	25.0
0	1'	S
2	2'	S
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

SP-SC Brown

↓

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance • Engineering • Remediation		Identifier: BH10 Date: 12/04/19
Project Name: Ross Draw CDP		RP Number:
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: Robert M Method: Hand Auger
Lat/Long:	Field Screening:	Hole Diameter: 3" Total Depth: 2'
Comments:		
Moisture Content	Chloride (ppm)	Vapor (ppm)
Staining	Sample #	Depth (ft. bgs.)
Sample #	Sample Depth	Soil/Rock Type
Lithology/Remarks		
D	524	<5.0
N	1	1'
S	2	2'
D	380	<5.0
N	3	3'
S	4	4'
D	5	5'
N	6	6'
S	7	7'
D	8	8'
N	9	9'
S	10	10'
D	11	11'
N	12	12'

SP-SC trace CHCE Brown/tan

↓

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: BH11	Date: 12/05/19					
		Project Name: Ross Draw CDP	RP Number:					
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long:		Field Screening:	Logged By: Robert M. Hole Diameter: 3"					
			Method: Hand Auger Total Depth: 2'					
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	214	25.0	N		0			SP-SC Brown ↓
D	200	<5.0	N		1	1'	S	
					2	2'		
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance - Engineering - Remediation		Identifier: BH12	Date: 12/05/19					
		Project Name: Ross Draw CDP	RP Number:					
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long:		Field Screening:	Logged By: Robert M.					
			Method: Hand Auger					
		Hole Diameter: 3"	Total Depth: 2'					
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
D	2134	250	N		1	1'	S	SP-SC Brown 
D	2124	25.0	N		2	2'	S	
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: BH13		Date: 12/05/19		
				Project Name: Ross Draw CDP		RP Number:		
LITHOLOGIC / SOIL SAMPLING LOG								
Lab/Log:		Field Screening:		Logged By: Robert M.		Method: Hand Auger		
				Hole Diameter: 3"		Total Depth: 2'		
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	110	<5.0	N		0			
					1	1'	S	
D	124	<5.0	N		2	2'	S	
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

SP-SC Brown
↓

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance - Engineering - Remediation		Identifier: BH14		Date: 12/05/19	
Project Name: Ross Draw CDP		RP Number:					
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: Robert M		Method: Hand Auger	
Lat/Long:				Field Screening:		Hole Diameter: 3'	
Comments:				Total Depth: 2'			

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
D	<124	<5.0	N		1	1'	S	SP-SC Brown
D	<124	<5.0	N		2	2'	S	↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: BH15 Date: 12/05/19						
Project Name: Ross Draw CDP		RP Number:						
LITHOLOGIC / SOIL SAMPLING LOG								
Log/Log:	Field Screening:	Logged By: Robert M. Hole Diameter: 3"						
Comments:		Method: Hand Auger Total Depth: 2'						
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	<104	<5.0	N		0			
					1	1'	S	
D	<104	<5.0	N		2	2'	S	SP-SC trace CHCE Brown/tan 
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: BH16		Date: 12/05/19		
				Project Name: Ross Draw CDP		RP Number:		
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: Robert M.		Method: Hand Auger		
Lat/Long:		Field Screening:		Hole Diameter: 3"		Total Depth: 2'		
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	2124	<60	N		0			
					1	1'	S	SP-SC trace CHCE Brown tan
D	2124	<60	N		2	2'	S	↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: BH17 Date: 12/06/19						
Project Name: Ross Draw CDP		RP Number:						
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: Robert M Method: Hand Auger						
Test Log:		Field Screening:						
Hole Diameter: 3"		Total Depth: 2'						
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
1404 D	380	<5.0	N		1	1'	S	CHCE trace Brown sand tan
1435 D	<124	<5.0	N		2	2'	S	SP-SC / CHCE Brown / tan
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

ATTACHMENT 2: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG



Photograph 1: View of the release extent facing north from center of pad.



Photograph 2: View of the release extent facing north along the lease road.



Photograph 3: View of the excavation on pad facing south.



Photograph 4: View of the excavation on the pad facing east.

PHOTOGRAPHIC LOG



Photograph 5: View south of western side of pad after scraping.



Photograph 6: View of excavation in center of pad facing north.



Photograph 7: View east of lease road after scraping road.



Photograph 8: View north of lease road after scraping road.

ATTACHMENT 3: LABORATORY ANALYTICAL RESULTS





Analytical Report 643862

for

LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CTB

012919277

11.21.2019

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: TN102385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



11.21.2019

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **643862**

Ross Draw CTB

Project Address: Eddy County

Dan Moir:

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) 643862. 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. 643862 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 Assistant

A Small Business and Minority Company

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

**Sample Cross Reference 643862****LT Environmental, Inc., Arvada, CO**

Ross Draw CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	11.19.2019 13:35	0.5 ft	643862-001
SS02	S	11.19.2019 13:40	0.5 ft	643862-002
SS03	S	11.19.2019 13:45	0.5 ft	643862-003
SS04	S	11.19.2019 13:50	0.5 ft	643862-004
SS05	S	11.19.2019 14:30	0.5 ft	643862-005
SS06	S	11.19.2019 14:35	0.5 ft	643862-006
SS07	S	11.19.2019 14:40	0.5 ft	643862-007
SS08	S	11.19.2019 14:45	0.5 ft	643862-008

**CASE NARRATIVE****Client Name: LT Environmental, Inc.****Project Name: Ross Draw CTB**Project ID: 012919277
Work Order Number(s): 643862Report Date: 11.21.2019
Date Received: 11.20.2019

Sample receipt non conformances and comments:None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3108185 BTEX by EPA 8021B

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

Batch: LBA-3108187 Chloride by EPA 300

Lab Sample ID 643864-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 643862-001, -002, -003, -004, -005, -006, -007, -008.

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



Certificate of Analysis Summary 643862

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CTB

Project Id: 012919277

Contact: Dan Moir

Project Location: Eddy County

Date Received in Lab: Wed 11.20.2019 12:35

Report Date: 11.21.2019 12:20

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	643862-001	643862-002	643862-003	643862-004	643862-005	643862-006
	Field Id:	SS01	SS02	SS03	SS04	SS05	SS06
	Depth:	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	11.19.2019 13:35	11.19.2019 13:40	11.19.2019 13:45	11.19.2019 13:50	11.19.2019 14:30	11.19.2019 14:35
BTEX by EPA 8021B	Extracted:	11.20.2019 14:11	11.20.2019 14:11	11.20.2019 14:11	11.20.2019 14:11	11.20.2019 14:11	11.20.2019 14:11
	Analyzed:	11.20.2019 19:33	11.20.2019 19:50	11.20.2019 20:08	11.20.2019 20:25	11.20.2019 20:42	11.20.2019 21:00
	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	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00200 0.00200	<0.00200 0.00200	0.00225 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	0.00225 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	0.00225 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	Extracted:	11.20.2019 16:11	11.20.2019 16:11	11.20.2019 16:11	11.20.2019 16:11	11.20.2019 16:11	11.20.2019 16:11
	Analyzed:	11.20.2019 19:52	11.20.2019 20:11	11.20.2019 20:18	11.20.2019 20:37	11.20.2019 20:43	11.20.2019 20:49
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		995 493	587 496	798 493	104 9.82	318 10.0	102 9.92
TPH by SW8015 Mod	Extracted:	11.20.2019 16:30	11.20.2019 16:30	11.20.2019 16:30	11.20.2019 16:30	11.20.2019 16:30	11.20.2019 16:30
	Analyzed:	11.20.2019 18:53	11.20.2019 19:13	11.20.2019 19:33	11.20.2019 19:53	11.20.2019 20:13	11.20.2019 20:33
	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	<50.1 50.1	<50.3 50.3	<50.0 50.0	<50.3 50.3
Diesel Range Organics (DRO)		<49.9 49.9	281 50.1	164 50.1	<50.3 50.3	<50.0 50.0	<50.3 50.3
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.1 50.1	<50.1 50.1	<50.3 50.3	<50.0 50.0	<50.3 50.3
Total GRO-DRO		<49.9 49.9	281 50.1	164 50.1	<50.3 50.3	<50.0 50.0	<50.3 50.3
Total TPH		<49.9 49.9	281 50.1	164 50.1	<50.3 50.3	<50.0 50.0	<50.3 50.3

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

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 643862

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CTB

Project Id: 012919277

Contact: Dan Moir

Project Location: Eddy County

Date Received in Lab: Wed 11.20.2019 12:35

Report Date: 11.21.2019 12:20

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	643862-007	643862-008				
	Field Id:	SS07	SS08				
	Depth:	0.5- ft	0.5- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	11.19.2019 14:40	11.19.2019 14:45				
BTEX by EPA 8021B	Extracted:	11.20.2019 14:11	11.20.2019 14:11				
	Analyzed:	11.20.2019 21:17	11.20.2019 21:34				
	Units/RL:	mg/kg RL	mg/kg RL				
	Benzene	<0.00201 0.00201	<0.00201 0.00201				
	Toluene	<0.00201 0.00201	<0.00201 0.00201				
	Ethylbenzene	<0.00201 0.00201	<0.00201 0.00201				
	m,p-Xylenes	<0.00201 0.00201	<0.00201 0.00201				
	o-Xylene	<0.00201 0.00201	<0.00201 0.00201				
	Total Xylenes	<0.00201 0.00201	<0.00201 0.00201				
	Total BTEX	<0.00201 0.00201	<0.00201 0.00201				
Chloride by EPA 300	Extracted:	11.20.2019 16:11	11.20.2019 16:11				
	Analyzed:	11.20.2019 20:56	11.20.2019 21:02				
	Units/RL:	mg/kg RL	mg/kg RL				
	Chloride	148 9.98	989 504				
TPH by SW8015 Mod	Extracted:	11.20.2019 16:30	11.20.2019 16:30				
	Analyzed:	11.20.2019 20:53	11.20.2019 21:13				
	Units/RL:	mg/kg RL	mg/kg RL				
	Gasoline Range Hydrocarbons (GRO)	<50.0 50.0	<50.2 50.2				
	Diesel Range Organics (DRO)	<50.0 50.0	<50.2 50.2				
	Motor Oil Range Hydrocarbons (MRO)	<50.0 50.0	<50.2 50.2				
	Total GRO-DRO	<50.0 50.0	<50.2 50.2				
	Total TPH	<50.0 50.0	<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

Jessica Kramer
Project Assistant



Certificate of Analytical Results 643862

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS01** Matrix: Soil Date Received: 11.20.2019 12:35
 Lab Sample Id: 643862-001 Date Collected: 11.19.2019 13:35 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.20.2019 16:11 Basis: Wet Weight
 Seq Number: 3108187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	995	493	mg/kg	11.20.2019 19:52		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.20.2019 16:30 Basis: Wet Weight
 Seq Number: 3108192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.20.2019 18:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.20.2019 18:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.20.2019 18:53	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.20.2019 18:53	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.20.2019 18:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	11.20.2019 18:53	
o-Terphenyl	84-15-1	112	%	70-135	11.20.2019 18:53	



Certificate of Analytical Results 643862

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS01**
Lab Sample Id: 643862-001

Matrix: Soil
Date Collected: 11.19.2019 13:35

Date Received: 11.20.2019 12:35
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.20.2019 14:11

Basis: Wet Weight

Seq Number: 3108185

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.20.2019 19:33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.20.2019 19:33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.20.2019 19:33	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.20.2019 19:33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.20.2019 19:33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.20.2019 19:33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.20.2019 19:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.20.2019 19:33	
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.20.2019 19:33	



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS02** Matrix: Soil Date Received: 11.20.2019 12:35
 Lab Sample Id: 643862-002 Date Collected: 11.19.2019 13:40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.20.2019 16:11 Basis: Wet Weight
 Seq Number: 3108187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	587	496	mg/kg	11.20.2019 20:11		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.20.2019 16:30 Basis: Wet Weight
 Seq Number: 3108192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.20.2019 19:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	281	50.1	mg/kg	11.20.2019 19:13		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.20.2019 19:13	U	1
Total GRO-DRO	PHC628	281	50.1	mg/kg	11.20.2019 19:13		1
Total TPH	PHC635	281	50.1	mg/kg	11.20.2019 19:13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	11.20.2019 19:13	
o-Terphenyl	84-15-1	108	%	70-135	11.20.2019 19:13	



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS02**
Lab Sample Id: 643862-002

Matrix: Soil
Date Collected: 11.19.2019 13:40

Date Received: 11.20.2019 12:35
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.20.2019 14:11

Basis: Wet Weight

Seq Number: 3108185

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.20.2019 19:50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.20.2019 19:50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.20.2019 19:50	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.20.2019 19:50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.20.2019 19:50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.20.2019 19:50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.20.2019 19:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.20.2019 19:50	
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.20.2019 19:50	



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS03** Matrix: Soil Date Received: 11.20.2019 12:35
 Lab Sample Id: 643862-003 Date Collected: 11.19.2019 13:45 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.20.2019 16:11 Basis: Wet Weight
 Seq Number: 3108187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	798	493	mg/kg	11.20.2019 20:18		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.20.2019 16:30 Basis: Wet Weight
 Seq Number: 3108192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.20.2019 19:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	164	50.1	mg/kg	11.20.2019 19:33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.20.2019 19:33	U	1
Total GRO-DRO	PHC628	164	50.1	mg/kg	11.20.2019 19:33		1
Total TPH	PHC635	164	50.1	mg/kg	11.20.2019 19:33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.20.2019 19:33	
o-Terphenyl	84-15-1	106	%	70-135	11.20.2019 19:33	



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS03**
Lab Sample Id: 643862-003

Matrix: Soil
Date Collected: 11.19.2019 13:45

Date Received: 11.20.2019 12:35
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.20.2019 14:11

Basis: Wet Weight

Seq Number: 3108185

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.20.2019 20:08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.20.2019 20:08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.20.2019 20:08	U	1
m,p-Xylenes	179601-23-1	0.00225	0.00200	mg/kg	11.20.2019 20:08		1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.20.2019 20:08	U	1
Total Xylenes	1330-20-7	0.00225	0.00200	mg/kg	11.20.2019 20:08		1
Total BTEX		0.00225	0.00200	mg/kg	11.20.2019 20:08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.20.2019 20:08	
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.20.2019 20:08	



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS04** Matrix: Soil Date Received: 11.20.2019 12:35
 Lab Sample Id: 643862-004 Date Collected: 11.19.2019 13:50 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.20.2019 16:11 Basis: Wet Weight
 Seq Number: 3108187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	104	9.82	mg/kg	11.20.2019 20:37		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.20.2019 16:30 Basis: Wet Weight
 Seq Number: 3108192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.20.2019 19:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.20.2019 19:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.20.2019 19:53	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.20.2019 19:53	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.20.2019 19:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	11.20.2019 19:53	
o-Terphenyl	84-15-1	103	%	70-135	11.20.2019 19:53	



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS04**
Lab Sample Id: 643862-004

Matrix: Soil
Date Collected: 11.19.2019 13:50

Date Received: 11.20.2019 12:35
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.20.2019 14:11

Basis: Wet Weight

Seq Number: 3108185

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.20.2019 20:25	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.20.2019 20:25	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.20.2019 20:25	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.20.2019 20:25	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.20.2019 20:25	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.20.2019 20:25	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.20.2019 20:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.20.2019 20:25	
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.20.2019 20:25	



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS05** Matrix: Soil Date Received: 11.20.2019 12:35
 Lab Sample Id: 643862-005 Date Collected: 11.19.2019 14:30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.20.2019 16:11 Basis: Wet Weight
 Seq Number: 3108187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	318	10.0	mg/kg	11.20.2019 20:43		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.20.2019 16:30 Basis: Wet Weight
 Seq Number: 3108192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.20.2019 20:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.20.2019 20:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.20.2019 20:13	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.20.2019 20:13	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.20.2019 20:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	11.20.2019 20:13	
o-Terphenyl	84-15-1	103	%	70-135	11.20.2019 20:13	



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS05**
Lab Sample Id: 643862-005

Matrix: Soil
Date Collected: 11.19.2019 14:30

Date Received: 11.20.2019 12:35
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.20.2019 14:11

Basis: Wet Weight

Seq Number: 3108185

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.20.2019 20:42	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.20.2019 20:42	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.20.2019 20:42	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.20.2019 20:42	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.20.2019 20:42	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.20.2019 20:42	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.20.2019 20:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.20.2019 20:42	
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.20.2019 20:42	



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS06** Matrix: Soil Date Received: 11.20.2019 12:35
 Lab Sample Id: 643862-006 Date Collected: 11.19.2019 14:35 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.20.2019 16:11 Basis: Wet Weight
 Seq Number: 3108187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	102	9.92	mg/kg	11.20.2019 20:49		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.20.2019 16:30 Basis: Wet Weight
 Seq Number: 3108192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.20.2019 20:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.20.2019 20:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.20.2019 20:33	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.20.2019 20:33	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.20.2019 20:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	11.20.2019 20:33	
o-Terphenyl	84-15-1	122	%	70-135	11.20.2019 20:33	



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS06**
Lab Sample Id: 643862-006

Matrix: Soil
Date Collected: 11.19.2019 14:35

Date Received: 11.20.2019 12:35
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.20.2019 14:11

Basis: Wet Weight

Seq Number: 3108185

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.20.2019 21:00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.20.2019 21:00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.20.2019 21:00	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.20.2019 21:00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.20.2019 21:00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.20.2019 21:00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.20.2019 21:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	89	%	70-130	11.20.2019 21:00	
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.20.2019 21:00	



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Ross Draw CTB

Sample Id: **SS07** Matrix: Soil Date Received: 11.20.2019 12:35
 Lab Sample Id: 643862-007 Date Collected: 11.19.2019 14:40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.20.2019 16:11 Basis: Wet Weight
 Seq Number: 3108187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	148	9.98	mg/kg	11.20.2019 20:56		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.20.2019 16:30 Basis: Wet Weight
 Seq Number: 3108192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.20.2019 20:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.20.2019 20:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.20.2019 20:53	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.20.2019 20:53	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.20.2019 20:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	11.20.2019 20:53	
o-Terphenyl	84-15-1	120	%	70-135	11.20.2019 20:53	



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS07**
Lab Sample Id: 643862-007

Matrix: Soil
Date Collected: 11.19.2019 14:40

Date Received: 11.20.2019 12:35
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.20.2019 14:11

Basis: Wet Weight

Seq Number: 3108185

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.20.2019 21:17	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.20.2019 21:17	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.20.2019 21:17	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.20.2019 21:17	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.20.2019 21:17	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.20.2019 21:17	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.20.2019 21:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.20.2019 21:17	
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.20.2019 21:17	



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Ross Draw CTB

Sample Id: **SS08** Matrix: Soil Date Received: 11.20.2019 12:35
 Lab Sample Id: 643862-008 Date Collected: 11.19.2019 14:45 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.20.2019 16:11 Basis: Wet Weight
 Seq Number: 3108187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	989	504	mg/kg	11.20.2019 21:02		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.20.2019 16:30 Basis: Wet Weight
 Seq Number: 3108192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.20.2019 21:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.20.2019 21:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.20.2019 21:13	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.20.2019 21:13	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.20.2019 21:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.20.2019 21:13	
o-Terphenyl	84-15-1	106	%	70-135	11.20.2019 21:13	



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS08**
Lab Sample Id: 643862-008

Matrix: Soil
Date Collected: 11.19.2019 14:45

Date Received: 11.20.2019 12:35
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3108185

Prep Method: SW5030B

% Moisture:

Date Prep: 11.20.2019 14:11

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.20.2019 21:34	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.20.2019 21:34	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.20.2019 21:34	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.20.2019 21:34	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.20.2019 21:34	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.20.2019 21:34	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.20.2019 21:34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.20.2019 21:34		
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.20.2019 21:34		



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.

Ross Draw CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3108187

MB Sample Id: 7690830-1-BLK

Matrix: Solid

LCS Sample Id: 7690830-1-BKS

Prep Method: E300P

Date Prep: 11.20.2019

LCSD Sample Id: 7690830-1-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	249	100	251	100	90-110	1	20	mg/kg	11.20.2019 18:23	

Analytical Method: Chloride by EPA 300

Seq Number: 3108187

Parent Sample Id: 643862-001

Matrix: Soil

MS Sample Id: 643862-001 S

Prep Method: E300P

Date Prep: 11.20.2019

MSD Sample Id: 643862-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	995	196	1140	74	1160	83	90-110	2	20	mg/kg	11.20.2019 19:59	X

Analytical Method: Chloride by EPA 300

Seq Number: 3108187

Parent Sample Id: 643864-001

Matrix: Soil

MS Sample Id: 643864-001 S

Prep Method: E300P

Date Prep: 11.20.2019

MSD Sample Id: 643864-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.90	198	207	105	207	104	90-110	0	20	mg/kg	11.20.2019 18:41	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108192

MB Sample Id: 7690829-1-BLK

Matrix: Solid

LCS Sample Id: 7690829-1-BKS

Prep Method: SW8015P

Date Prep: 11.20.2019

LCSD Sample Id: 7690829-1-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	813	81	787	79	70-135	3	35	mg/kg	11.20.2019 16:34	
Diesel Range Organics (DRO)	<50.0	1000	947	95	917	92	70-135	3	35	mg/kg	11.20.2019 16:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		101		99		70-135	%	11.20.2019 16:34
o-Terphenyl	96		98		96		70-135	%	11.20.2019 16:34

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108192

Matrix: Solid

MB Sample Id: 7690829-1-BLK

Prep Method: SW8015P

Date Prep: 11.20.2019

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.20.2019 16:14	

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.

Ross Draw CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108192

Parent Sample Id: 643861-001

Matrix: Soil

MS Sample Id: 643861-001 S

Prep Method: SW8015P

Date Prep: 11.20.2019

MSD Sample Id: 643861-001 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	1110	111	897	90	70-135	21	35	mg/kg	11.20.2019 17:36	
Diesel Range Organics (DRO)	<50.0	999	1290	129	1050	105	70-135	21	35	mg/kg	11.20.2019 17:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		131		70-135	%	11.20.2019 17:36
o-Terphenyl	128		116		70-135	%	11.20.2019 17:36

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108185

MB Sample Id: 7690825-1-BLK

Matrix: Solid

LCS Sample Id: 7690825-1-BKS

Prep Method: SW5030B

Date Prep: 11.20.2019

LCSD Sample Id: 7690825-1-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	0.0980	98	0.0920	92	70-130	6	35	mg/kg	11.20.2019 15:30	
Toluene	<0.00200	0.100	0.0890	89	0.0838	84	70-130	6	35	mg/kg	11.20.2019 15:30	
Ethylbenzene	<0.00200	0.100	0.0967	97	0.0910	91	71-129	6	35	mg/kg	11.20.2019 15:30	
m,p-Xylenes	<0.00200	0.200	0.191	96	0.180	90	70-135	6	35	mg/kg	11.20.2019 15:30	
o-Xylene	<0.00200	0.100	0.0945	95	0.0891	89	71-133	6	35	mg/kg	11.20.2019 15:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		102		100		70-130	%	11.20.2019 15:30
4-Bromofluorobenzene	107		100		98		70-130	%	11.20.2019 15:30

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108185

Parent Sample Id: 643861-001

Matrix: Soil

MS Sample Id: 643861-001 S

Prep Method: SW5030B

Date Prep: 11.20.2019

MSD Sample Id: 643861-001 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	0.0736	74	0.0943	94	70-130	25	35	mg/kg	11.20.2019 17:49	
Toluene	<0.00200	0.100	0.0694	69	0.0879	88	70-130	24	35	mg/kg	11.20.2019 17:49	X
Ethylbenzene	<0.00200	0.100	0.0757	76	0.0960	96	71-129	24	35	mg/kg	11.20.2019 17:49	
m,p-Xylenes	<0.00200	0.200	0.151	76	0.191	96	70-135	23	35	mg/kg	11.20.2019 17:49	
o-Xylene	<0.00200	0.100	0.0743	74	0.0936	94	71-133	23	35	mg/kg	11.20.2019 17:49	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		70-130	%	11.20.2019 17:49
4-Bromofluorobenzene	103		101		70-130	%	11.20.2019 17:49

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



Houston, TX (281) 240-4200 Dallas, TX (214) 902-3910 San Antonio, TX (210) 509-5534
 Midland, TX (432-704-5440) El Paso, TX (915) 555-3443 Lubbock, TX (806) 784-1256
 Hobbs, NM (505-352-7550) Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-3100

Chain of Custody

Work Order No:

643862

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Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Little
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street Midland, TX 79705	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	(432) 235-3949	Email:	enx@xenco.com, dmoir@xenco.com

Program: UST/ST		☐ CRP	☐ Greenfields	☐ RC	☐ Refurbish
State of Project:					
Reporting Level II	☐ Level III	☐ ST/AST	☐ CRP	☐ Level IV	☐
Deliverables: ETRD	☐	Adapt	☐	Other	☐

Project Name:	Ess Dam CTB	Turn Around		ANALYSIS REQUEST												Work Order Notes				
Project Number:	012919277	Routine	☐																	
P.O. Number:	Eddy County	Rush: 24 hours																		
Sampler's Name:	Elizabeth Naka	Due Date:																		
SAMPLE RECEIPT				Temp Blank	Yes/No	Wet Ice	Yes/No													
Temperature (°C):	12	Thermometer ID																		
Received Initial:	Yes/No	Calibration Factor	-0.2																	
Cooler Custody Seal:	Yes/No	Total Containers:	5																	
Sample Custody Seal:	Yes/No																			
Sample Identification				Matrix	Date Sampled	Time Sampled	Depth	Number of Containers												TAT starts the day received by the lab. It includes by 4:30pm
								TPH (EPA 8015)												
								BTEX (EPA 8-8021)												
								Chloride (EPA 300.0)												

Total 200.7 / 6010 200.8 / 6020:

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

1631 / 245.1 / 7470 / 7471 Hg

Notice: Signatures of this document and relinquishment of custody certifies a valid purchase under terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any issues or responses submitted by the client if such issues 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 subject unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Elizabeth Naka	Elizabeth Naka	11/20/19 12:35			



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/20/2019 12:35:00 PM

Work Order #: 643862

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: 11/20/2019

Checklist reviewed by:

Jessica Kramer

Date: 11/21/2019

Analytical Report 644199

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

25-NOV-19

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)



25-NOV-19

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **644199**

Ross Draw CDP

Project Address:

Dan Moir:

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) 644199. 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. 644199 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 Assistant

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

Certified and approved by numerous States and Agencies.

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

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



Sample Cross Reference 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	11-20-19 13:25	0.5 ft	644199-001
FS02	S	11-20-19 13:30	0.5 ft	644199-002
FS03	S	11-20-19 13:40	0.5 ft	644199-003
FS04	S	11-20-19 13:45	0.5 ft	644199-004
FS05	S	11-20-19 13:50	0.5 ft	644199-005
FS06	S	11-20-19 13:55	0.5 ft	644199-006
FS07	S	11-20-19 14:00	0.5 ft	644199-007
FS08	S	11-20-19 14:05	0.5 ft	644199-008
FS09	S	11-20-19 14:10	0.5 ft	644199-009
FS10	S	11-20-19 14:15	0.5 ft	644199-010
FS11	S	11-20-19 14:20	0.5 ft	644199-011
FS12	S	11-20-19 14:25	0.5 ft	644199-012
FS13	S	11-20-19 14:30	0.5 ft	644199-013
FS14	S	11-20-19 14:35	0.5 ft	644199-014
FS15	S	11-20-19 15:00	0.5 ft	644199-015
FS16	S	11-20-19 15:05	0.5 ft	644199-016
FS17	S	11-20-19 15:10	0.5 ft	644199-017
FS18	S	11-20-19 15:15	0.5 ft	644199-018
FS19	S	11-20-19 15:20	0.5 ft	644199-019
FS20	S	11-20-19 15:25	0.5 ft	644199-020
FS21	S	11-20-19 15:30	0.5 ft	644199-021
FS22	S	11-20-19 15:40	0.5 ft	644199-022



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 644199

Report Date: 25-NOV-19
Date Received: 11/22/2019

Sample receipt non conformance and comments:

None

Sample receipt non conformance and comments per sample:

None

Analytical non conformance and comments:

Batch: LBA-3108514 BTEX by EPA 8021B

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

Batch: LBA-3108515 BTEX by EPA 8021B

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

Certificate of Analysis Summary 644199



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Nov-22-19 09:12 am

Report Date: 25-NOV-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	644199-001	644199-002	644199-003	644199-004	644199-005	644199-006
	Field Id:	FS01	FS02	FS03	FS04	FS05	FS06
	Depth:	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Nov-20-19 13:25	Nov-20-19 13:30	Nov-20-19 13:40	Nov-20-19 13:45	Nov-20-19 13:50	Nov-20-19 13:55
BTEX by EPA 8021B	Extracted:	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11
	Analyzed:	Nov-23-19 03:31	Nov-23-19 03:51	Nov-23-19 04:10	Nov-23-19 04:29	Nov-23-19 04:48	Nov-23-19 05:07
	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	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		0.00458 0.00400	<0.00399 0.00399	<0.00400 0.00400	<0.00402 0.00402	<0.00402 0.00402	<0.00400 0.00400
o-Xylene		<0.00200 0.00200	0.00486 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		0.00458 0.00200	0.00486 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		0.00458 0.00200	0.00486 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300	Extracted:	Nov-22-19 13:11	Nov-22-19 13:11	Nov-22-19 13:11	Nov-22-19 13:11	Nov-22-19 13:11	Nov-22-19 13:11
	Analyzed:	Nov-22-19 20:27	Nov-22-19 20:33	Nov-22-19 20:40	Nov-22-19 20:59	Nov-22-19 21:05	Nov-22-19 21:12
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		118 10.1	22.3 9.92	83.3 9.98	189 10.1	85.8 10.0	80.2 9.92
TPH by SW8015 Mod	Extracted:	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30
	Analyzed:	Nov-23-19 00:21	Nov-23-19 00:41	Nov-23-19 01:01	Nov-23-19 01:20	Nov-23-19 02:00	Nov-23-19 02:19
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.3 50.3	<49.9 49.9	<49.9 49.9	<50.2 50.2	<49.8 49.8
Diesel Range Organics (DRO)		327 50.2	148 50.3	95.1 49.9	68.4 49.9	<50.2 50.2	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		149 50.2	99.3 50.3	65.5 49.9	50.1 49.9	<50.2 50.2	<49.8 49.8
Total GRO-DRO		327 50.2	148 50.3	95.1 49.9	68.4 49.9	<50.2 50.2	<49.8 49.8
Total TPH		476 50.2	247 50.3	161 49.9	119 49.9	<50.2 50.2	<49.8 49.8

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 Assistant

Certificate of Analysis Summary 644199



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Nov-22-19 09:12 am

Report Date: 25-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644199-007	644199-008	644199-009	644199-010	644199-011	644199-012
	<i>Field Id:</i>	FS07	FS08	FS09	FS10	FS11	FS12
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-20-19 14:00	Nov-20-19 14:05	Nov-20-19 14:10	Nov-20-19 14:15	Nov-20-19 14:20	Nov-20-19 14:25
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11
	<i>Analyzed:</i>	Nov-23-19 05:26	Nov-23-19 05:45	Nov-23-19 06:04	Nov-22-19 22:34	Nov-22-19 22:52	Nov-22-19 23:09
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Toluene		<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Ethylbenzene		<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
m,p-Xylenes		<0.00403 0.00403	<0.00404 0.00404	<0.00403 0.00403	<0.00402 0.00402	<0.00402 0.00402	<0.00403 0.00403
o-Xylene		<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Total Xylenes		<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Total BTEX		<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	Nov-22-19 13:11	Nov-22-19 13:11	Nov-22-19 13:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11
	<i>Analyzed:</i>	Nov-22-19 21:18	Nov-22-19 21:25	Nov-22-19 21:31	Nov-23-19 09:18	Nov-23-19 09:36	Nov-23-19 09:42
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		21.8 9.94	68.1 10.1	26.1 9.98	233 9.98	246 9.94	76.0 9.96
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30
	<i>Analyzed:</i>	Nov-23-19 02:39	Nov-23-19 02:59	Nov-23-19 03:18	Nov-23-19 03:38	Nov-23-19 03:58	Nov-23-19 04:17
	<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	<49.9 49.9	<50.0 50.0	<49.8 49.8
Diesel Range Organics (DRO)		<50.2 50.2	<50.1 50.1	<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.8 49.8
Total GRO-DRO		<50.2 50.2	<50.1 50.1	<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.8 49.8
Total TPH		<50.2 50.2	<50.1 50.1	<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.8 49.8

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 644199

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Nov-22-19 09:12 am

Report Date: 25-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644199-013	644199-014	644199-015	644199-016	644199-017	644199-018
	<i>Field Id:</i>	FS13	FS14	FS15	FS16	FS17	FS18
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-20-19 14:30	Nov-20-19 14:35	Nov-20-19 15:00	Nov-20-19 15:05	Nov-20-19 15:10	Nov-20-19 15:15
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11
	<i>Analyzed:</i>	Nov-22-19 23:27	Nov-22-19 23:44	Nov-23-19 00:02	Nov-23-19 00:19	Nov-23-19 00:36	Nov-23-19 00:54
	<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	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201
m,p-Xylenes		<0.00402 0.00402	<0.00401 0.00401	<0.00404 0.00404	<0.00404 0.00404	<0.00401 0.00401	<0.00402 0.00402
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11
	<i>Analyzed:</i>	Nov-23-19 09:48	Nov-23-19 09:53	Nov-23-19 09:59	Nov-23-19 10:17	Nov-23-19 10:23	Nov-23-19 10:29
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		58.9 9.88	62.8 10.1	610 10.0	880 10.1	154 10.1	392 10.0
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30
	<i>Analyzed:</i>	Nov-23-19 04:37	Nov-23-19 04:57	Nov-23-19 08:52	Nov-23-19 07:34	Nov-23-19 07:53	Nov-23-19 08:13
	<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)		<50.3 50.3	<49.8 49.8	<49.9 49.9	<50.2 50.2	<49.9 49.9	<49.8 49.8
Diesel Range Organics (DRO)		<50.3 50.3	<49.8 49.8	426 49.9	<50.2 50.2	71.0 49.9	73.2 49.8
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3	<49.8 49.8	100 49.9	<50.2 50.2	56.5 49.9	<49.8 49.8
Total GRO-DRO		<50.3 50.3	<49.8 49.8	426 49.9	<50.2 50.2	71.0 49.9	73.2 49.8
Total TPH		<50.3 50.3	<49.8 49.8	526 49.9	<50.2 50.2	128 49.9	73.2 49.8

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 644199

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Nov-22-19 09:12 am

Report Date: 25-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644199-019	644199-020	644199-021	644199-022		
	<i>Field Id:</i>	FS19	FS20	FS21	FS22		
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Nov-20-19 15:20	Nov-20-19 15:25	Nov-20-19 15:30	Nov-20-19 15:40		
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11		
	<i>Analyzed:</i>	Nov-23-19 01:11	Nov-23-19 02:20	Nov-23-19 02:38	Nov-23-19 02:55		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202		
Toluene		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202		
Ethylbenzene		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202		
m,p-Xylenes		<0.00403 0.00403	<0.00403 0.00403	<0.00402 0.00402	<0.00404 0.00404		
o-Xylene		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202		
Total Xylenes		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202		
Total BTEX		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202		
Chloride by EPA 300	<i>Extracted:</i>	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11		
	<i>Analyzed:</i>	Nov-23-19 10:35	Nov-23-19 10:40	Nov-23-19 10:46	Nov-23-19 11:04		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		111 9.94	480 9.98	88.6 9.82	119 9.88		
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30		
	<i>Analyzed:</i>	Nov-23-19 08:33	Nov-23-19 08:52	Nov-23-19 09:12	Nov-23-19 09:32		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<49.9 49.9	<50.3 50.3	<50.1 50.1		
Diesel Range Organics (DRO)		<50.2 50.2	<49.9 49.9	<50.3 50.3	<50.1 50.1		
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<49.9 49.9	<50.3 50.3	<50.1 50.1		
Total GRO-DRO		<50.2 50.2	<49.9 49.9	<50.3 50.3	<50.1 50.1		
Total TPH		<50.2 50.2	<49.9 49.9	<50.3 50.3	<50.1 50.1		

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Jessica Kramer
Project Assistant



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS01** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-001 Date Collected: 11.20.19 13.25 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 13.11 Basis: Wet Weight
 Seq Number: 3108483

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	118	10.1	mg/kg	11.23.19 08.13		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.23.19 00.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	327	50.2	mg/kg	11.23.19 00.21		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	149	50.2	mg/kg	11.23.19 00.21		1
Total GRO-DRO	PHC628	327	50.2	mg/kg	11.23.19 00.21		1
Total TPH	PHC635	476	50.2	mg/kg	11.23.19 00.21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	11.23.19 00.21	
o-Terphenyl	84-15-1	122	%	70-135	11.23.19 00.21	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS01**
 Lab Sample Id: 644199-001

Matrix: Soil
 Date Collected: 11.20.19 13.25

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108514

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 03.31	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 03.31	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 03.31	U	1
m,p-Xylenes	179601-23-1	0.00458	0.00400	mg/kg	11.23.19 03.31		1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 03.31	U	1
Total Xylenes	1330-20-7	0.00458	0.00200	mg/kg	11.23.19 03.31		1
Total BTEX		0.00458	0.00200	mg/kg	11.23.19 03.31		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	123	%	70-130	11.23.19 03.31		
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.23.19 03.31		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS02** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-002 Date Collected: 11.20.19 13.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 13.11 Basis: Wet Weight
 Seq Number: 3108483

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22.3	9.92	mg/kg	11.23.19 08.19		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.23.19 00.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	148	50.3	mg/kg	11.23.19 00.41		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	99.3	50.3	mg/kg	11.23.19 00.41		1
Total GRO-DRO	PHC628	148	50.3	mg/kg	11.23.19 00.41		1
Total TPH	PHC635	247	50.3	mg/kg	11.23.19 00.41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	11.23.19 00.41	
o-Terphenyl	84-15-1	122	%	70-135	11.23.19 00.41	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS02**
 Lab Sample Id: 644199-002

Matrix: Soil
 Date Collected: 11.20.19 13.30

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108514

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 03.51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 03.51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 03.51	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.23.19 03.51	U	1
o-Xylene	95-47-6	0.00486	0.00200	mg/kg	11.23.19 03.51		1
Total Xylenes	1330-20-7	0.00486	0.00200	mg/kg	11.23.19 03.51		1
Total BTEX		0.00486	0.00200	mg/kg	11.23.19 03.51		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.23.19 03.51		
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.23.19 03.51		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS03** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-003 Date Collected: 11.20.19 13.40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 13.11 Basis: Wet Weight
 Seq Number: 3108483

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	83.3	9.98	mg/kg	11.23.19 08.25		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 01.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	95.1	49.9	mg/kg	11.23.19 01.01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	65.5	49.9	mg/kg	11.23.19 01.01		1
Total GRO-DRO	PHC628	95.1	49.9	mg/kg	11.23.19 01.01		1
Total TPH	PHC635	161	49.9	mg/kg	11.23.19 01.01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	11.23.19 01.01	
o-Terphenyl	84-15-1	98	%	70-135	11.23.19 01.01	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS03**
 Lab Sample Id: 644199-003

Matrix: Soil
 Date Collected: 11.20.19 13.40

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108514

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 04.10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 04.10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 04.10	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.23.19 04.10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 04.10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 04.10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 04.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.23.19 04.10		
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.23.19 04.10		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS04** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-004 Date Collected: 11.20.19 13.45 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 13.11 Basis: Wet Weight
 Seq Number: 3108483

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	189	10.1	mg/kg	11.23.19 08.31		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 01.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	68.4	49.9	mg/kg	11.23.19 01.20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	50.1	49.9	mg/kg	11.23.19 01.20		1
Total GRO-DRO	PHC628	68.4	49.9	mg/kg	11.23.19 01.20		1
Total TPH	PHC635	119	49.9	mg/kg	11.23.19 01.20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	11.23.19 01.20	
o-Terphenyl	84-15-1	113	%	70-135	11.23.19 01.20	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS04**
 Lab Sample Id: 644199-004

Matrix: Soil
 Date Collected: 11.20.19 13.45

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108514

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 04.29	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 04.29	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 04.29	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 04.29	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 04.29	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 04.29	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 04.29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	11.23.19 04.29		
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.23.19 04.29		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS05** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-005 Date Collected: 11.20.19 13.50 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 13.11 Basis: Wet Weight
 Seq Number: 3108483

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	85.8	10.0	mg/kg	11.23.19 08.37		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.23.19 02.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.23.19 02.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.23.19 02.00	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.23.19 02.00	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.23.19 02.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	11.23.19 02.00	
o-Terphenyl	84-15-1	120	%	70-135	11.23.19 02.00	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS05**
 Lab Sample Id: 644199-005

Matrix: Soil
 Date Collected: 11.20.19 13.50

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108514

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 04.48	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 04.48	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 04.48	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 04.48	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 04.48	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 04.48	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 04.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.23.19 04.48		
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.23.19 04.48		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS06** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-006 Date Collected: 11.20.19 13.55 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 13.11 Basis: Wet Weight
 Seq Number: 3108483

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	80.2	9.92	mg/kg	11.23.19 08.43		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.23.19 02.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.23.19 02.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.23.19 02.19	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.23.19 02.19	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.23.19 02.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	11.23.19 02.19	
o-Terphenyl	84-15-1	117	%	70-135	11.23.19 02.19	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS06**
 Lab Sample Id: 644199-006

Matrix: Soil
 Date Collected: 11.20.19 13.55

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108514

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 05.07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 05.07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 05.07	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.23.19 05.07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 05.07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 05.07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 05.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	11.23.19 05.07		
4-Bromofluorobenzene	460-00-4	109	%	70-130	11.23.19 05.07		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS07** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-007 Date Collected: 11.20.19 14.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 13.11 Basis: Wet Weight
 Seq Number: 3108483

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.8	9.94	mg/kg	11.23.19 08.49		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.23.19 02.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.23.19 02.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.23.19 02.39	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.23.19 02.39	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.23.19 02.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	11.23.19 02.39	
o-Terphenyl	84-15-1	110	%	70-135	11.23.19 02.39	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS07**
 Lab Sample Id: 644199-007

Matrix: Soil
 Date Collected: 11.20.19 14.00

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108514

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 05.26	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 05.26	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 05.26	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.23.19 05.26	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 05.26	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 05.26	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 05.26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.23.19 05.26		
1,4-Difluorobenzene	540-36-3	95	%	70-130	11.23.19 05.26		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS08** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-008 Date Collected: 11.20.19 14.05 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 13.11 Basis: Wet Weight
 Seq Number: 3108483

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	68.1	10.1	mg/kg	11.23.19 08.55		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.23.19 02.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.23.19 02.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.23.19 02.59	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.23.19 02.59	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.23.19 02.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	11.23.19 02.59	
o-Terphenyl	84-15-1	103	%	70-135	11.23.19 02.59	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS08**
 Lab Sample Id: 644199-008

Matrix: Soil
 Date Collected: 11.20.19 14.05

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108514

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 05.45	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 05.45	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 05.45	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.23.19 05.45	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 05.45	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 05.45	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 05.45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	11.23.19 05.45		
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.23.19 05.45		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS09** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-009 Date Collected: 11.20.19 14.10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 13.11 Basis: Wet Weight
 Seq Number: 3108483

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	26.1	9.98	mg/kg	11.23.19 09.01		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.23.19 03.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.23.19 03.18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.23.19 03.18	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.23.19 03.18	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.23.19 03.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	11.23.19 03.18	
o-Terphenyl	84-15-1	97	%	70-135	11.23.19 03.18	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS09**
 Lab Sample Id: 644199-009

Matrix: Soil
 Date Collected: 11.20.19 14.10

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108514

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 06.04	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 06.04	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 06.04	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.23.19 06.04	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 06.04	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 06.04	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 06.04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	11.23.19 06.04		
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.23.19 06.04		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS10** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-010 Date Collected: 11.20.19 14.15 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	233	9.98	mg/kg	11.23.19 09.18		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 03.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.23.19 03.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.23.19 03.38	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.23.19 03.38	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.23.19 03.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	11.23.19 03.38	
o-Terphenyl	84-15-1	99	%	70-135	11.23.19 03.38	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS10**
 Lab Sample Id: 644199-010

Matrix: Soil
 Date Collected: 11.20.19 14.15

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.22.19 22.34	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.22.19 22.34	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.22.19 22.34	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.22.19 22.34	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.22.19 22.34	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.22.19 22.34	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.22.19 22.34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.22.19 22.34		
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.22.19 22.34		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS11** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-011 Date Collected: 11.20.19 14.20 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	246	9.94	mg/kg	11.23.19 09.36		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.23.19 03.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.23.19 03.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.23.19 03.58	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.23.19 03.58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.23.19 03.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	11.23.19 03.58	
o-Terphenyl	84-15-1	98	%	70-135	11.23.19 03.58	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS11**
 Lab Sample Id: 644199-011

Matrix: Soil
 Date Collected: 11.20.19 14.20

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.22.19 22.52	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.22.19 22.52	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.22.19 22.52	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.22.19 22.52	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.22.19 22.52	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.22.19 22.52	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.22.19 22.52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	11.22.19 22.52		
1,4-Difluorobenzene	540-36-3	91	%	70-130	11.22.19 22.52		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS12** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-012 Date Collected: 11.20.19 14.25 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	76.0	9.96	mg/kg	11.23.19 09.42		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.23.19 04.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.23.19 04.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.23.19 04.17	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.23.19 04.17	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.23.19 04.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	11.23.19 04.17	
o-Terphenyl	84-15-1	100	%	70-135	11.23.19 04.17	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS12**
 Lab Sample Id: 644199-012

Matrix: Soil
 Date Collected: 11.20.19 14.25

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.22.19 23.09	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.22.19 23.09	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.22.19 23.09	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.22.19 23.09	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.22.19 23.09	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.22.19 23.09	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.22.19 23.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	93	%	70-130	11.22.19 23.09		
4-Bromofluorobenzene	460-00-4	118	%	70-130	11.22.19 23.09		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS13** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-013 Date Collected: 11.20.19 14.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	58.9	9.88	mg/kg	11.23.19 09.48		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.23.19 04.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.23.19 04.37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.23.19 04.37	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.23.19 04.37	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.23.19 04.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.23.19 04.37	
o-Terphenyl	84-15-1	104	%	70-135	11.23.19 04.37	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS13**
 Lab Sample Id: 644199-013

Matrix: Soil
 Date Collected: 11.20.19 14.30

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.22.19 23.27	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.22.19 23.27	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.22.19 23.27	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.22.19 23.27	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.22.19 23.27	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.22.19 23.27	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.22.19 23.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	70-130	11.22.19 23.27		
1,4-Difluorobenzene	540-36-3	92	%	70-130	11.22.19 23.27		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS14** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-014 Date Collected: 11.20.19 14.35 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	62.8	10.1	mg/kg	11.23.19 09.53		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.23.19 04.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.23.19 04.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.23.19 04.57	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.23.19 04.57	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.23.19 04.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	11.23.19 04.57	
o-Terphenyl	84-15-1	100	%	70-135	11.23.19 04.57	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS14**
 Lab Sample Id: 644199-014

Matrix: Soil
 Date Collected: 11.20.19 14.35

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.22.19 23.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.22.19 23.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.22.19 23.44	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.22.19 23.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.22.19 23.44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.22.19 23.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.22.19 23.44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.22.19 23.44		
4-Bromofluorobenzene	460-00-4	124	%	70-130	11.22.19 23.44		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS15** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-015 Date Collected: 11.20.19 15.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	610	10.0	mg/kg	11.23.19 09.59		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108589

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 08.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	426	49.9	mg/kg	11.23.19 08.52		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	100	49.9	mg/kg	11.23.19 08.52		1
Total GRO-DRO	PHC628	426	49.9	mg/kg	11.23.19 08.52		1
Total TPH	PHC635	526	49.9	mg/kg	11.23.19 08.52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.23.19 08.52	
o-Terphenyl	84-15-1	107	%	70-135	11.23.19 08.52	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS15**
 Lab Sample Id: 644199-015

Matrix: Soil
 Date Collected: 11.20.19 15.00

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 00.02	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 00.02	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 00.02	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.23.19 00.02	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 00.02	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 00.02	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 00.02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.23.19 00.02		
1,4-Difluorobenzene	540-36-3	94	%	70-130	11.23.19 00.02		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS16** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-016 Date Collected: 11.20.19 15.05 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	880	10.1	mg/kg	11.23.19 10.17		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108577

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.23.19 07.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.23.19 07.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.23.19 07.34	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.23.19 07.34	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.23.19 07.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	11.23.19 07.34	
o-Terphenyl	84-15-1	115	%	70-135	11.23.19 07.34	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS16**
 Lab Sample Id: 644199-016

Matrix: Soil
 Date Collected: 11.20.19 15.05

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 00.19	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 00.19	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 00.19	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.23.19 00.19	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 00.19	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 00.19	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 00.19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.23.19 00.19		
4-Bromofluorobenzene	460-00-4	121	%	70-130	11.23.19 00.19		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS17** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-017 Date Collected: 11.20.19 15.10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	154	10.1	mg/kg	11.23.19 10.23		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108577

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 07.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	71.0	49.9	mg/kg	11.23.19 07.53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	56.5	49.9	mg/kg	11.23.19 07.53		1
Total GRO-DRO	PHC628	71.0	49.9	mg/kg	11.23.19 07.53		1
Total TPH	PHC635	128	49.9	mg/kg	11.23.19 07.53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	11.23.19 07.53	
o-Terphenyl	84-15-1	107	%	70-135	11.23.19 07.53	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS17**
 Lab Sample Id: 644199-017

Matrix: Soil
 Date Collected: 11.20.19 15.10

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 00.36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 00.36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 00.36	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.23.19 00.36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 00.36	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 00.36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 00.36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.23.19 00.36		
1,4-Difluorobenzene	540-36-3	93	%	70-130	11.23.19 00.36		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS18** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-018 Date Collected: 11.20.19 15.15 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	392	10.0	mg/kg	11.23.19 10.29		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108577

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.23.19 08.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	73.2	49.8	mg/kg	11.23.19 08.13		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.23.19 08.13	U	1
Total GRO-DRO	PHC628	73.2	49.8	mg/kg	11.23.19 08.13		1
Total TPH	PHC635	73.2	49.8	mg/kg	11.23.19 08.13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.23.19 08.13	
o-Terphenyl	84-15-1	111	%	70-135	11.23.19 08.13	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS18**
 Lab Sample Id: 644199-018

Matrix: Soil
 Date Collected: 11.20.19 15.15

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 00.54	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 00.54	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 00.54	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 00.54	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 00.54	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 00.54	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 00.54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	11.23.19 00.54		
1,4-Difluorobenzene	540-36-3	93	%	70-130	11.23.19 00.54		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS19** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-019 Date Collected: 11.20.19 15.20 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	111	9.94	mg/kg	11.23.19 10.35		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108577

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.23.19 08.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.23.19 08.33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.23.19 08.33	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.23.19 08.33	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.23.19 08.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.23.19 08.33	
o-Terphenyl	84-15-1	105	%	70-135	11.23.19 08.33	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS19**
 Lab Sample Id: 644199-019

Matrix: Soil
 Date Collected: 11.20.19 15.20

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 01.11	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 01.11	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 01.11	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.23.19 01.11	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 01.11	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 01.11	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 01.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	93	%	70-130	11.23.19 01.11		
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.23.19 01.11		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS20** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-020 Date Collected: 11.20.19 15.25 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	480	9.98	mg/kg	11.23.19 10.40		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108577

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 08.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.23.19 08.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.23.19 08.52	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.23.19 08.52	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.23.19 08.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	11.23.19 08.52	
o-Terphenyl	84-15-1	103	%	70-135	11.23.19 08.52	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS20**
 Lab Sample Id: 644199-020

Matrix: Soil
 Date Collected: 11.20.19 15.25

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 02.20	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 02.20	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 02.20	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.23.19 02.20	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 02.20	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 02.20	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 02.20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	11.23.19 02.20		
1,4-Difluorobenzene	540-36-3	92	%	70-130	11.23.19 02.20		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS21** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-021 Date Collected: 11.20.19 15.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	88.6	9.82	mg/kg	11.23.19 10.46		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108577

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.23.19 09.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.23.19 09.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.23.19 09.12	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.23.19 09.12	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.23.19 09.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	11.23.19 09.12	
o-Terphenyl	84-15-1	102	%	70-135	11.23.19 09.12	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS21**
 Lab Sample Id: 644199-021

Matrix: Soil
 Date Collected: 11.20.19 15.30

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 02.38	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 02.38	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 02.38	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 02.38	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 02.38	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 02.38	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 02.38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	70-130	11.23.19 02.38		
1,4-Difluorobenzene	540-36-3	92	%	70-130	11.23.19 02.38		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: FS22 Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-022 Date Collected: 11.20.19 15.40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	119	9.88	mg/kg	11.23.19 11.04		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108577

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.23.19 09.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.23.19 09.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.23.19 09.32	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.23.19 09.32	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.23.19 09.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.23.19 09.32	
o-Terphenyl	84-15-1	106	%	70-135	11.23.19 09.32	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: FS22
Lab Sample Id: 644199-022

Matrix: Soil
Date Collected: 11.20.19 15.40

Date Received: 11.22.19 09.12
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 02.55	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 02.55	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 02.55	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.23.19 02.55	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 02.55	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 02.55	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 02.55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	127	%	70-130	11.23.19 02.55		
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.23.19 02.55		



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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3108483

MB Sample Id: 7691021-1-BLK

Matrix: Solid

LCS Sample Id: 7691021-1-BKS

Prep Method: E300P

Date Prep: 11.22.19

LCSD Sample Id: 7691021-1-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	254	102	255	102	90-110	0	20	mg/kg	11.22.19 18:22	

Analytical Method: Chloride by EPA 300

Seq Number: 3108509

MB Sample Id: 7691034-1-BLK

Matrix: Solid

LCS Sample Id: 7691034-1-BKS

Prep Method: E300P

Date Prep: 11.23.19

LCSD Sample Id: 7691034-1-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	256	102	255	102	90-110	0	20	mg/kg	11.23.19 07:48	

Analytical Method: Chloride by EPA 300

Seq Number: 3108483

Parent Sample Id: 644196-001

Matrix: Soil

MS Sample Id: 644196-001 S

Prep Method: E300P

Date Prep: 11.22.19

MSD Sample Id: 644196-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	9.96	202	213	101	212	100	90-110	0	20	mg/kg	11.22.19 18:42	

Analytical Method: Chloride by EPA 300

Seq Number: 3108483

Parent Sample Id: 644196-011

Matrix: Soil

MS Sample Id: 644196-011 S

Prep Method: E300P

Date Prep: 11.22.19

MSD Sample Id: 644196-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	41.3	202	249	103	248	102	90-110	0	20	mg/kg	11.22.19 20:13	

Analytical Method: Chloride by EPA 300

Seq Number: 3108509

Parent Sample Id: 644199-010

Matrix: Soil

MS Sample Id: 644199-010 S

Prep Method: E300P

Date Prep: 11.23.19

MSD Sample Id: 644199-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	233	198	441	105	449	108	90-110	2	20	mg/kg	11.23.19 09:24	

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108577

MB Sample Id: 7691103-1-BLK

Matrix: Solid

LCS Sample Id: 7691103-1-BKS

Prep Method: SW8015P

Date Prep: 11.22.19

LCSD Sample Id: 7691103-1-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	913	91	896	90	70-135	2	35	mg/kg	11.23.19 05:55	
Diesel Range Organics (DRO)	<50.0	1000	1140	114	1080	108	70-135	5	35	mg/kg	11.23.19 05:55	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date	Flag		
1-Chlorooctane	112		125		130		70-135	%	11.23.19 05:55			
o-Terphenyl	122		128		121		70-135	%	11.23.19 05:55			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108589

MB Sample Id: 7691104-1-BLK

Matrix: Solid

LCS Sample Id: 7691104-1-BKS

Prep Method: SW8015P

Date Prep: 11.22.19

LCSD Sample Id: 7691104-1-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	930	93	911	91	70-135	2	35	mg/kg	11.23.19 05:55	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	1050	105	70-135	0	35	mg/kg	11.23.19 05:55	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	133		121		118		70-135	%	11.23.19 05:55			
o-Terphenyl	128		117		118		70-135	%	11.23.19 05:55			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108599

MB Sample Id: 7691101-1-BLK

Matrix: Solid

LCS Sample Id: 7691101-1-BKS

Prep Method: SW8015P

Date Prep: 11.22.19

LCSD Sample Id: 7691101-1-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	947	95	859	86	70-135	10	35	mg/kg	11.22.19 21:04	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	991	99	70-135	10	35	mg/kg	11.22.19 21:04	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag		LCSD %Rec	LCSD Flag	Limits		Units	Analysis Date	
1-Chlorooctane	91		117			108		70-135		%	11.22.19 21:04	
o-Terphenyl	97		118			109		70-135		%	11.22.19 21:04	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108577

Matrix: Solid

MB Sample Id: 7691103-1-BLK

Prep Method: SW8015P

Date Prep: 11.22.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.23.19 05:36	

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108589

Matrix: Solid

Prep Method: SW8015P

Date Prep: 11.22.19

MB Sample Id: 7691104-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.23.19 05:36	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108589

Matrix: Solid

Prep Method: SW8015P

Date Prep: 11.22.19

MB Sample Id: 7691101-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.22.19 20:44	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108577

Matrix: Soil

Prep Method: SW8015P

Date Prep: 11.22.19

Parent Sample Id: 644205-013

MS Sample Id: 644205-013 S

MSD Sample Id: 644205-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	930	93	889	89	70-135	5	35	mg/kg	11.23.19 06:54	
Diesel Range Organics (DRO)	<49.9	997	1130	113	1060	106	70-135	6	35	mg/kg	11.23.19 06:54	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		127		70-135	%	11.23.19 06:54
o-Terphenyl	122		113		70-135	%	11.23.19 06:54

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108589

Matrix: Soil

Prep Method: SW8015P

Date Prep: 11.22.19

Parent Sample Id: 644205-011

MS Sample Id: 644205-011 S

MSD Sample Id: 644205-011 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	919	92	886	89	70-135	4	35	mg/kg	11.23.19 06:54	
Diesel Range Organics (DRO)	247	1000	1040	79	1020	77	70-135	2	35	mg/kg	11.23.19 06:54	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		114		70-135	%	11.23.19 06:54
o-Terphenyl	112		112		70-135	%	11.23.19 06:54

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108599

Parent Sample Id: 644196-006

Matrix: Soil

MS Sample Id: 644196-006 S

Prep Method: SW8015P

Date Prep: 11.22.19

MSD Sample Id: 644196-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	923	93	1080	107	70-135	16	35	mg/kg	11.22.19 22:04	
Diesel Range Organics (DRO)	<49.9	997	1050	105	1210	120	70-135	14	35	mg/kg	11.22.19 22:04	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		131		70-135	%	11.22.19 22:04
o-Terphenyl	112		127		70-135	%	11.22.19 22:04

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108514

MB Sample Id: 7691041-1-BLK

Matrix: Solid

LCS Sample Id: 7691041-1-BKS

Prep Method: SW5030B

Date Prep: 11.22.19

LCSD Sample Id: 7691041-1-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	0.0890	89	0.0913	91	70-130	3	35	mg/kg	11.22.19 21:34	
Toluene	<0.00200	0.100	0.0894	89	0.0916	92	70-130	2	35	mg/kg	11.22.19 21:34	
Ethylbenzene	<0.00200	0.100	0.0885	89	0.0903	90	71-129	2	35	mg/kg	11.22.19 21:34	
m,p-Xylenes	<0.00400	0.200	0.187	94	0.191	96	70-135	2	35	mg/kg	11.22.19 21:34	
o-Xylene	<0.00200	0.100	0.0948	95	0.0974	97	71-133	3	35	mg/kg	11.22.19 21:34	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		102		103		70-130	%	11.22.19 21:34
4-Bromofluorobenzene	108		113		117		70-130	%	11.22.19 21:34

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108515

MB Sample Id: 7691042-1-BLK

Matrix: Solid

LCS Sample Id: 7691042-1-BKS

Prep Method: SW5030B

Date Prep: 11.22.19

LCSD Sample Id: 7691042-1-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	0.0963	96	70-130	9	35	mg/kg	11.22.19 20:50	
Toluene	0.000810	0.100	0.0975	98	0.0909	91	70-130	7	35	mg/kg	11.22.19 20:50	
Ethylbenzene	<0.00200	0.100	0.106	106	0.0993	99	71-129	7	35	mg/kg	11.22.19 20:50	
m,p-Xylenes	<0.00400	0.200	0.211	106	0.197	99	70-135	7	35	mg/kg	11.22.19 20:50	
o-Xylene	<0.00200	0.100	0.105	105	0.0988	99	71-133	6	35	mg/kg	11.22.19 20:50	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		96		93		70-130	%	11.22.19 20:50
4-Bromofluorobenzene	111		117		117		70-130	%	11.22.19 20:50

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.

Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108514

Parent Sample Id: 644196-001

Matrix: Soil

MS Sample Id: 644196-001 S

Prep Method: SW5030B

Date Prep: 11.22.19

MSD Sample Id: 644196-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0832	82	0.0822	81	70-130	1	35	mg/kg	11.22.19 22:12	
Toluene	<0.00202	0.101	0.0855	85	0.0859	85	70-130	0	35	mg/kg	11.22.19 22:12	
Ethylbenzene	<0.00202	0.101	0.0851	84	0.0852	84	71-129	0	35	mg/kg	11.22.19 22:12	
m,p-Xylenes	<0.00101	0.202	0.181	90	0.181	90	70-135	0	35	mg/kg	11.22.19 22:12	
o-Xylene	<0.00202	0.101	0.0918	91	0.0920	91	71-133	0	35	mg/kg	11.22.19 22:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		101		70-130	%	11.22.19 22:12
4-Bromofluorobenzene	118		120		70-130	%	11.22.19 22:12

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108515

Parent Sample Id: 644199-010

Matrix: Soil

MS Sample Id: 644199-010 S

Prep Method: SW5030B

Date Prep: 11.22.19

MSD Sample Id: 644199-010 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	0.0777	77	0.0866	87	70-130	11	35	mg/kg	11.22.19 21:25	
Toluene	0.000833	0.101	0.0760	74	0.0812	80	70-130	7	35	mg/kg	11.22.19 21:25	
Ethylbenzene	<0.00202	0.101	0.0809	80	0.0878	88	71-129	8	35	mg/kg	11.22.19 21:25	
m,p-Xylenes	<0.00101	0.202	0.162	80	0.174	87	70-135	7	35	mg/kg	11.22.19 21:25	
o-Xylene	<0.00202	0.101	0.0811	80	0.0872	87	71-133	7	35	mg/kg	11.22.19 21:25	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		94		70-130	%	11.22.19 21:25
4-Bromofluorobenzene	123		116		70-130	%	11.22.19 21:25

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

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

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

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



Chain of Custody

Work Order No: 0444 199

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 668-3334
Midland, TX (432) 704-5449 El Paso, TX (915) 555-3443 Lubbock, TX (806) 794-1200
Hodges, NM (877-382-7100) Phoenix, AZ (480) 555-6901 Atlanta, GA (770) 448-8000 Tampa, FL (813) 400-2000

Bill to (if different) Kyle Little

www.xenco.com Page 1 of 3

Project Manager:	Dan Abair	Company Name:	L.T. Environmental, Inc. - Permian office	Confirmy Name:	XTO-Enery	Program: UST/AST	☐ PRP ☐ brownfields ☐ RC ☐ Superfund
Address:	3300 North A Street	City, State ZIP:	Midland, TX 79705	Address:		State of Project:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:		Confirmy Name:	XTO-Enery	Reporting Level II	☐ Level III ☐ UST/AST ☐ PRP ☐ Level IV
Phone:	432.704.5478	City, State ZIP:		City, State ZIP:		Deliverables: EDO	☐ ADAPT ☐ Other:
Project Name:	Res. Draw CDP	Turn Around		Project Number:	012917277	Work Order Comments:	
P.O. Number:	11/18/17	Routine	☐	Due Date:		Work Order Notes:	
Sampler's Name:	Robert McAlister	Due Date:					

Project Name:	Res. Draw CDP	Turn Around		Project Number:	012917277	Routine	☐	Due Date:	
P.O. Number:	11/18/17	Routine	☐	Due Date:					
Sampler's Name:	Robert McAlister	Due Date:							
Temperature (°C):	14	Temp Blank	☒ Yes ☐ No	Thermometer ID	T-NM-007	Correction Factor	-0.2	Total Containers:	82
Placed in black:	Yes	Yes	☒ No ☐ Yes						
Cooler Custody Seals:	Yes	Yes	☒ No ☐ Yes						
Sample Custody Seals:	Yes	Yes	☒ No ☐ Yes						

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers											TAT starts the day material by the lab. If received by a client	Sample Comments
					TPH (EPA 8016)	BTEX (EPA 8-8021)	Chloride (EPA 300.0)										
F501	S	11/20/17	1325	0.5'	X	X	X										
F502			1410		X	X	X										
F503			1340		X	X	X										
F504			1345		X	X	X										
F505			1350		X	X	X										
F506			1355		X	X	X										
F507			1400		X	X	X										
F508			1405		X	X	X										
F509			1410		X	X	X										
F510			1415		X	X	X										

Total 200.7 / 6010 200.8 / 6020:	BRCRA 13PPM Toxics 11 A Sb As Ba Be B Cd Cr Co Cu Pb Mn Mo Ni K Se Ag SnO2 Na Si Ti Sn U V Zn	1631 / 245.1 / 7470 / 7471 : Hg
Circle Method(s) and Matrix(s) to be analyzed:	TCLP / SPLP 6010 BRCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	
Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns certain terms and conditions to the client. Xenco will be the owner of the 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 \$5.00 for each sample submitted to Xenco, but not analyzed. These fees will be reduced where previously negotiated.		
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
11/21/17 9:05	11/21/17 9:05	11/21/17 9:05

Work Order No:

Oct 2/ 1999

Houston, TX (281) 240-4200
Dallas, TX (214) 902-0200
San Antonio, TX (210) 530-3333
Midland, TX (432) 704-5440
El Paso, TX (915) 255-3443
Lubbock, TX (806) 794-1236
Phoenix, AZ (480) 355-0900
Atlanta, GA (770) 445-8400
Tampa, FL (813) 282-7556

www.ponco.com

Page 4 of 5

Trusted Mailings:	Don McEl	Mail box (if different)	Kyle Laird
Company Name:	LT Environmental, Inc., Flammian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432.704.5178	Email:	dmcel@ltenv.com

Work Order Comments

Program: UST/EST ☐ Prop ☐ Brownfields ☐ RC ☐ Superfund ☐

State of Project:

Reporting Level II ☐ Level III ☐ STATUS ☐ Prop ☐ Level IV ☐

Deliverables: EDO ☐ ADSEF ☐ Other:

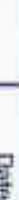
[illegible]

SAMPLE RECEIPT	Trip Blank	Yes	No	Wet Ice	Yes	No
Temperature ($^{\circ}\text{C}$)						
Receiving Initial:	Yes	No				
Cooler Custody Seal:	Yes	No	N/A	Correction Factor		
Sample Custody Seal:	~~Yes~~	~~No~~	~~N/A~~	Total Containers:		

Sample Identification	Matrix	Date Collected	Time Sampled	Depth	Number	TH (EP)	BTEX (IE)	Chloride	Sample Comments
F511	S	11/20/19	1820	0.5'	1	X	X	X	
F512			1825			X	X	X	
F513			1830			X	X	X	
F514			1835			X	X	X	
F515			1800			X	X	X	
F516			1805			X	X	X	
F517			1510			X	X	X	
F518			1515			X	X	X	
F519			1520			X	X	X	
F520			1525			X	X	X	

Total	200.7 / 6010	200.8 / 6020	
Circle Methods) and Method(s) to be analyzed	8RCRA 1SPM Texas 11	Al Sb As Ba Bi B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SnO2	Ni Sr Ti Sn U V Zn
	TCLP / SPLP 6010	8RCRA Sb As Ba Bi B Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	
			1631 / 245.1 / 7470 / 7471 - Hg

regarding the use of correction factors (adjustment of sample characteristics) a valid justification other than client (company in Korea), its affiliates and subcontractors. It assigns statistical terms and conditions to the client. Xerox 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 Xerox. A minimum charge of \$7.00 will be applied to each project and a charge of \$3 per each sample submitted to Xerox, but not less than \$100. These terms will be enforced before proceeding to print.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		11/22/19 9:05			11/24/19 9:12

Work Order No: 2644 199

Page 2 of 2

Work Order Comments

Program: UST1ST ☐ PWP ☐ Brownfields ☐ RC ☐ Superfund ☐

State of Project:

Reporting Level II ☐ Level III ☐ UST/AST ☐ PWP ☐ Level IV ☐

Designations: EDO ☐ Albany ☐ Other: _____

[illegible][illegible]

Number		TPH (EPA)	BTEX (EPA)	Chloride
1	X	X	X	
1	X	X	X	
Sample Comments				
Composite				
Composite				

09 PM

Signature of this participant and prequalification of elements capabilities is sent pursuant order from client company to Xerox, its affiliates and subcontractors. It assigns standard terms and conditions. Xerox will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client of such losses are due to circumstances beyond the control of Xerox. A minimum charge of \$75.00 will be applied to each project and a charge of \$5.00 per hour sample submitted to Xerox, for and analysis. These terms will be subject to terms previously approved.

Total	2000.7 / 6010	200.8 / 6020:
Circle Method(s) and Method(s) to be analyzed	BRCPRA 13PRA Texas 11 A Sb As Ba Be B Cd Ca Cr Co Cu Pb Mn Mo Ni Se Ag Ti U TCLP / SPLP 6010: BRCPRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	
1631 / 245 / 7470 / 7474 : Hg		

Disinstructed by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		11/2/19 9:05			11/22/19 9:12



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/22/2019 09:12:00 AM

Work Order #: 644199

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)?	1.4
#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: 11/22/2019

Checklist reviewed by:

Jessica Kramer

Date: 11/23/2019

Analytical Report 644299

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

25-NOV-19

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)



25-NOV-19

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

Reference: XENCO Report No(s): **644299**
Ross Draw CDP
Project Address:

Dan Moir:

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) 644299. 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. 644299 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 Assistant

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

Certified and approved by numerous States and Agencies.

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

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



Sample Cross Reference 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS23	S	11-22-19 12:40	0.5 ft	644299-001
FS24	S	11-22-19 12:43	0.5 ft	644299-002
FS25	S	11-22-19 12:49	0.5 ft	644299-003
FS26	S	11-22-19 14:05	0.5 ft	644299-004
FS27	S	11-22-19 14:08	0.5 ft	644299-005
FS28	S	11-22-19 14:13	0.5 ft	644299-006
FS29	S	11-22-19 14:17	0.5 ft	644299-007
FS30	S	11-22-19 14:21	0.5 ft	644299-008
FS31	S	11-22-19 14:26	0.5 ft	644299-009
FS32	S	11-22-19 14:30	0.5 ft	644299-010
FS33	S	11-22-19 14:34	0.5 ft	644299-011
FS34	S	11-22-19 14:38	0.5 ft	644299-012
FS35	S	11-22-19 12:40	0.5 ft	644299-013
FS36	S	11-22-19 12:45	0.5 ft	644299-014
FS37	S	11-22-19 12:50	0.5 ft	644299-015
FS38	S	11-22-19 12:55	0.5 ft	644299-016
FS39	S	11-22-19 13:00	0.5 ft	644299-017
FS40	S	11-22-19 13:10	0.5 ft	644299-018
FS41	S	11-22-19 13:01	0.5 ft	644299-019
FS42	S	11-22-19 13:05	0.5 ft	644299-020
FS43	S	11-22-19 13:08	0.5 ft	644299-021
FS44	S	11-22-19 13:13	0.5 ft	644299-022
FS45	S	11-22-19 13:17	0.5 ft	644299-023
FS46	S	11-22-19 13:21	0.5 ft	644299-024

**CASE NARRATIVE****Client Name: LT Environmental, Inc.****Project Name: Ross Draw CDP**Project ID: 012919277
Work Order Number(s): 644299Report Date: 25-NOV-19
Date Received: 11/22/2019**Sample receipt non conformances and comments:**

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3108516 BTEX by EPA 8021B

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

Batch: LBA-3108517 BTEX by EPA 8021B

Lab Sample ID 644299-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 644299-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020.

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

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

Certificate of Analysis Summary 644299



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Nov-22-19 04:48 pm

Report Date: 25-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644299-001	644299-002	644299-003	644299-004	644299-005	644299-006
	<i>Field Id:</i>	FS23	FS24	FS25	FS26	FS27	FS28
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-22-19 12:40	Nov-22-19 12:43	Nov-22-19 12:49	Nov-22-19 14:05	Nov-22-19 14:08	Nov-22-19 14:13
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11
	<i>Analyzed:</i>	Nov-23-19 09:10	Nov-23-19 09:29	Nov-23-19 09:48	Nov-23-19 10:13	Nov-23-19 10:26	Nov-23-19 10:45
	<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	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Toluene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Ethylbenzene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
m,p-Xylenes		<0.00402 0.00402	<0.00403 0.00403	<0.00403 0.00403	<0.00402 0.00402	<0.00401 0.00401	<0.00403 0.00403
o-Xylene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Total BTEX		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11
	<i>Analyzed:</i>	Nov-23-19 15:02	Nov-23-19 15:09	Nov-23-19 15:15	Nov-23-19 15:21	Nov-24-19 13:28	Nov-24-19 13:45
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		400 9.88	125 9.98	37.0 10.0	155 10.1	332 10.1	123 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00
	<i>Analyzed:</i>	Nov-22-19 21:44	Nov-22-19 22:43	Nov-22-19 23:03	Nov-22-19 23:22	Nov-22-19 23:42	Nov-23-19 00:02
	<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	<50.3 50.3	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0
Diesel Range Organics (DRO)		<50.1 50.1	<50.3 50.3	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.3 50.3	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0
Total GRO-DRO		<50.1 50.1	<50.3 50.3	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0
Total TPH		<50.1 50.1	<50.3 50.3	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0

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Jessica Kramer
Project Assistant

Certificate of Analysis Summary 644299



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Nov-22-19 04:48 pm

Report Date: 25-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644299-007	644299-008	644299-009	644299-010	644299-011	644299-012
	<i>Field Id:</i>	FS29	FS30	FS31	FS32	FS33	FS34
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-22-19 14:17	Nov-22-19 14:21	Nov-22-19 14:26	Nov-22-19 14:30	Nov-22-19 14:34	Nov-22-19 14:38
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11
	<i>Analyzed:</i>	Nov-23-19 11:04	Nov-23-19 11:24	Nov-23-19 11:43	Nov-23-19 12:02	Nov-23-19 13:05	Nov-23-19 13:25
	<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	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00404 0.00404	<0.00404 0.00404	<0.00402 0.00402	<0.00403 0.00403	<0.00399 0.00399	<0.00401 0.00401
o-Xylene		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11
	<i>Analyzed:</i>	Nov-24-19 13:51	Nov-24-19 13:57	Nov-24-19 14:03	Nov-24-19 11:24	Nov-24-19 11:30	Nov-24-19 11:36
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		154 9.92	54.6 9.94	88.1 9.98	19.0 10.1	17.4 10.1	39.5 10.1
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00
	<i>Analyzed:</i>	Nov-23-19 00:21	Nov-23-19 00:41	Nov-23-19 01:01	Nov-23-19 01:20	Nov-23-19 02:00	Nov-23-19 02:19
	<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	<50.0 50.0	<50.1 50.1	<50.2 50.2	<50.1 50.1
Diesel Range Organics (DRO)		<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.1 50.1	<50.2 50.2	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.1 50.1	<50.2 50.2	<50.1 50.1
Total GRO-DRO		<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.1 50.1	<50.2 50.2	<50.1 50.1
Total TPH		<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.1 50.1	<50.2 50.2	<50.1 50.1

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Jessica Kramer
Project Assistant

Certificate of Analysis Summary 644299



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Nov-22-19 04:48 pm

Report Date: 25-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644299-013	644299-014	644299-015	644299-016	644299-017	644299-018
	<i>Field Id:</i>	FS35	FS36	FS37	FS38	FS39	FS40
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-22-19 12:40	Nov-22-19 12:45	Nov-22-19 12:50	Nov-22-19 12:55	Nov-22-19 13:00	Nov-22-19 13:10
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11
	<i>Analyzed:</i>	Nov-23-19 13:44	Nov-23-19 14:03	Nov-23-19 14:22	Nov-23-19 14:41	Nov-23-19 15:01	Nov-23-19 15:20
	<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	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201
m,p-Xylenes		<0.00402 0.00402	<0.00401 0.00401	<0.00399 0.00399	<0.00397 0.00397	<0.00398 0.00398	<0.00402 0.00402
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11
	<i>Analyzed:</i>	Nov-24-19 11:41	Nov-24-19 11:47	Nov-24-19 11:53	Nov-24-19 12:11	Nov-24-19 12:17	Nov-24-19 12:34
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		116 10.1	101 9.88	166 9.92	135 9.98	93.1 10.0	331 D 101
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00
	<i>Analyzed:</i>	Nov-23-19 02:39	Nov-23-19 02:59	Nov-23-19 03:18	Nov-23-19 03:38	Nov-23-19 03:58	Nov-23-19 04:17
	<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	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.2 50.2
Diesel Range Organics (DRO)		<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.2 50.2
Total GRO-DRO		<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.2 50.2
Total TPH		<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.2 50.2

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Jessica Kramer
Project Assistant

Certificate of Analysis Summary 644299



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Nov-22-19 04:48 pm

Report Date: 25-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644299-019	644299-020	644299-021	644299-022	644299-023	644299-024
	<i>Field Id:</i>	FS41	FS42	FS43	FS44	FS45	FS46
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-22-19 13:01	Nov-22-19 13:05	Nov-22-19 13:08	Nov-22-19 13:13	Nov-22-19 13:17	Nov-22-19 13:21
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11
	<i>Analyzed:</i>	Nov-23-19 15:39	Nov-23-19 15:58	Nov-23-19 11:36	Nov-23-19 11:54	Nov-23-19 12:11	Nov-23-19 12:28
	<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	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201
m,p-Xylenes		<0.00399 0.00399	<0.00398 0.00398	<0.00402 0.00402	<0.00397 0.00397	<0.00402 0.00402	<0.00402 0.00402
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11
	<i>Analyzed:</i>	Nov-24-19 12:40	Nov-24-19 12:46	Nov-24-19 12:52	Nov-24-19 12:58	Nov-24-19 13:04	Nov-24-19 13:10
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		944 D 99.2	663 D 99.8	1200 D 100	531 D 98.8	319 D 98.8	790 D 99.8
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30
	<i>Analyzed:</i>	Nov-23-19 04:37	Nov-23-19 04:57	Nov-23-19 09:12	Nov-23-19 09:32	Nov-23-19 09:51	Nov-23-19 10:11
	<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	<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.2 50.2	<50.0 50.0
Diesel Range Organics (DRO)		<50.1 50.1	<50.3 50.3	61.9 50.3	<50.3 50.3	<50.2 50.2	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.2 50.2	<50.0 50.0
Total GRO-DRO		<50.1 50.1	<50.3 50.3	61.9 50.3	<50.3 50.3	<50.2 50.2	<50.0 50.0
Total TPH		<50.1 50.1	<50.3 50.3	61.9 50.3	<50.3 50.3	<50.2 50.2	<50.0 50.0

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Jessica Kramer
Project Assistant



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS23** Matrix: **Soil** Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-001 Date Collected: 11.22.19 12.40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 11.23.19 08.11 Basis: **Wet Weight**
 Seq Number: 3108510

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	400	9.88	mg/kg	11.23.19 15.02		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 11.22.19 17.00 Basis: **Wet Weight**
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.22.19 21.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.22.19 21.44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.22.19 21.44	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.22.19 21.44	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.22.19 21.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	11.22.19 21.44	
o-Terphenyl	84-15-1	104	%	70-135	11.22.19 21.44	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS23**
 Lab Sample Id: 644299-001

Matrix: Soil
 Date Collected: 11.22.19 12.40

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 09.10	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 09.10	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 09.10	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 09.10	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 09.10	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 09.10	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 09.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.23.19 09.10		
4-Bromofluorobenzene	460-00-4	103	%	70-130	11.23.19 09.10		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS24** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-002 Date Collected: 11.22.19 12.43 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108510

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	125	9.98	mg/kg	11.23.19 15.09		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.22.19 22.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.22.19 22.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.22.19 22.43	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.22.19 22.43	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.22.19 22.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	11.22.19 22.43	
o-Terphenyl	84-15-1	108	%	70-135	11.22.19 22.43	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS24**
 Lab Sample Id: 644299-002

Matrix: Soil
 Date Collected: 11.22.19 12.43

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 09.29	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 09.29	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 09.29	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.23.19 09.29	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 09.29	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 09.29	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 09.29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	11.23.19 09.29		
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.23.19 09.29		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: FS25 Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-003 Date Collected: 11.22.19 12.49 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108510

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	37.0	10.0	mg/kg	11.23.19 15.15		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.22.19 23.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.22.19 23.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.22.19 23.03	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.22.19 23.03	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.22.19 23.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-135	11.22.19 23.03	
o-Terphenyl	84-15-1	86	%	70-135	11.22.19 23.03	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS25**
 Lab Sample Id: 644299-003

Matrix: Soil
 Date Collected: 11.22.19 12.49

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 09.48	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 09.48	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 09.48	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.23.19 09.48	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 09.48	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 09.48	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 09.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	11.23.19 09.48		
1,4-Difluorobenzene	540-36-3	107	%	70-130	11.23.19 09.48		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS26** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-004 Date Collected: 11.22.19 14.05 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108510

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	155	10.1	mg/kg	11.23.19 15.21		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.22.19 23.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.22.19 23.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.22.19 23.22	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.22.19 23.22	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.22.19 23.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	11.22.19 23.22	
o-Terphenyl	84-15-1	111	%	70-135	11.22.19 23.22	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS26**
 Lab Sample Id: 644299-004

Matrix: Soil
 Date Collected: 11.22.19 14.05

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 10.13	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 10.13	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 10.13	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 10.13	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 10.13	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 10.13	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 10.13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.23.19 10.13		
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.23.19 10.13		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: FS27 Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-005 Date Collected: 11.22.19 14.08 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	332	10.1	mg/kg	11.24.19 13.28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.22.19 23.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.22.19 23.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.22.19 23.42	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.22.19 23.42	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.22.19 23.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	11.22.19 23.42	
o-Terphenyl	84-15-1	116	%	70-135	11.22.19 23.42	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS27**
 Lab Sample Id: 644299-005

Matrix: **Soil**
 Date Collected: 11.22.19 14.08

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: 11.22.19 18.11

Basis: **Wet Weight**

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 10.26	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 10.26	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 10.26	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.23.19 10.26	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 10.26	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 10.26	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 10.26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	122	%	70-130	11.23.19 10.26		
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.23.19 10.26		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS28** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-006 Date Collected: 11.22.19 14.13 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	123	9.98	mg/kg	11.24.19 13.45		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.23.19 00.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.23.19 00.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.23.19 00.02	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.23.19 00.02	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.23.19 00.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	11.23.19 00.02	
o-Terphenyl	84-15-1	113	%	70-135	11.23.19 00.02	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS28**
 Lab Sample Id: 644299-006

Matrix: Soil
 Date Collected: 11.22.19 14.13

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 10.45	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 10.45	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 10.45	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.23.19 10.45	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 10.45	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 10.45	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 10.45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	118	%	70-130	11.23.19 10.45		
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.23.19 10.45		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS29** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-007 Date Collected: 11.22.19 14.17 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	154	9.92	mg/kg	11.24.19 13.51		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 00.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.23.19 00.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.23.19 00.21	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.23.19 00.21	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.23.19 00.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	11.23.19 00.21	
o-Terphenyl	84-15-1	118	%	70-135	11.23.19 00.21	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS29**
 Lab Sample Id: 644299-007

Matrix: Soil
 Date Collected: 11.22.19 14.17

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 11.04	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 11.04	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 11.04	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.23.19 11.04	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 11.04	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 11.04	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 11.04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.23.19 11.04		
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.23.19 11.04		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS30** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-008 Date Collected: 11.22.19 14.21 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	54.6	9.94	mg/kg	11.24.19 13.57		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.23.19 00.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.23.19 00.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.23.19 00.41	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.23.19 00.41	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.23.19 00.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	11.23.19 00.41	
o-Terphenyl	84-15-1	110	%	70-135	11.23.19 00.41	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS30** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-008 Date Collected: 11.22.19 14.21 Sample Depth: 0.5 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 18.11 Basis: Wet Weight
 Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 11.24	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 11.24	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 11.24	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.23.19 11.24	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 11.24	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 11.24	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 11.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	70-130	11.23.19 11.24		
1,4-Difluorobenzene	540-36-3	82	%	70-130	11.23.19 11.24		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS31** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-009 Date Collected: 11.22.19 14.26 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	88.1	9.98	mg/kg	11.24.19 14.03		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.23.19 01.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.23.19 01.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.23.19 01.01	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.23.19 01.01	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.23.19 01.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	11.23.19 01.01	
o-Terphenyl	84-15-1	113	%	70-135	11.23.19 01.01	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS31** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-009 Date Collected: 11.22.19 14.26 Sample Depth: 0.5 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 18.11 Basis: Wet Weight
 Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 11.43	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 11.43	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 11.43	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 11.43	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 11.43	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 11.43	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 11.43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.23.19 11.43		
4-Bromofluorobenzene	460-00-4	114	%	70-130	11.23.19 11.43		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS32** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-010 Date Collected: 11.22.19 14.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	19.0	10.1	mg/kg	11.24.19 11.24		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.23.19 01.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.23.19 01.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.23.19 01.20	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.23.19 01.20	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.23.19 01.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	11.23.19 01.20	
o-Terphenyl	84-15-1	116	%	70-135	11.23.19 01.20	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS32**
 Lab Sample Id: 644299-010

Matrix: Soil
 Date Collected: 11.22.19 14.30

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 12.02	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 12.02	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 12.02	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.23.19 12.02	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 12.02	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 12.02	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 12.02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	123	%	70-130	11.23.19 12.02		
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.23.19 12.02		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS33** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-011 Date Collected: 11.22.19 14.34 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17.4	10.1	mg/kg	11.24.19 11.30		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.23.19 02.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.23.19 02.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.23.19 02.00	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.23.19 02.00	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.23.19 02.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	11.23.19 02.00	
o-Terphenyl	84-15-1	109	%	70-135	11.23.19 02.00	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS33**
 Lab Sample Id: 644299-011

Matrix: Soil
 Date Collected: 11.22.19 14.34

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 13.05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 13.05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 13.05	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.23.19 13.05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 13.05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 13.05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 13.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	11.23.19 13.05		
4-Bromofluorobenzene	460-00-4	109	%	70-130	11.23.19 13.05		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS34** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-012 Date Collected: 11.22.19 14.38 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	39.5	10.1	mg/kg	11.24.19 11.36		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.23.19 02.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.23.19 02.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.23.19 02.19	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.23.19 02.19	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.23.19 02.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	11.23.19 02.19	
o-Terphenyl	84-15-1	106	%	70-135	11.23.19 02.19	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS34**
 Lab Sample Id: 644299-012

Matrix: Soil
 Date Collected: 11.22.19 14.38

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 13.25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 13.25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 13.25	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.23.19 13.25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 13.25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 13.25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 13.25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	88	%	70-130	11.23.19 13.25		
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.23.19 13.25		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS35** Matrix: **Soil** Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-013 Date Collected: 11.22.19 12.40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 11.23.19 08.11 Basis: **Wet Weight**
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	116	10.1	mg/kg	11.24.19 11.41		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 11.22.19 17.00 Basis: **Wet Weight**
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.23.19 02.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.23.19 02.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.23.19 02.39	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.23.19 02.39	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.23.19 02.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	11.23.19 02.39	
o-Terphenyl	84-15-1	111	%	70-135	11.23.19 02.39	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS35**
 Lab Sample Id: 644299-013

Matrix: Soil
 Date Collected: 11.22.19 12.40

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 13.44	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 13.44	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 13.44	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 13.44	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 13.44	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 13.44	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 13.44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	85	%	70-130	11.23.19 13.44		
4-Bromofluorobenzene	460-00-4	97	%	70-130	11.23.19 13.44		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS36** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-014 Date Collected: 11.22.19 12.45 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	101	9.88	mg/kg	11.24.19 11.47		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 02.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.23.19 02.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.23.19 02.59	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.23.19 02.59	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.23.19 02.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	11.23.19 02.59	
o-Terphenyl	84-15-1	108	%	70-135	11.23.19 02.59	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS36**
 Lab Sample Id: 644299-014

Matrix: Soil
 Date Collected: 11.22.19 12.45

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 14.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 14.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 14.03	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.23.19 14.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 14.03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 14.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 14.03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.23.19 14.03		
4-Bromofluorobenzene	460-00-4	118	%	70-130	11.23.19 14.03		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS37** Matrix: **Soil** Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-015 Date Collected: 11.22.19 12.50 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 11.23.19 08.11 Basis: **Wet Weight**
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	166	9.92	mg/kg	11.24.19 11.53		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 11.22.19 17.00 Basis: **Wet Weight**
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.23.19 03.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.23.19 03.18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.23.19 03.18	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.23.19 03.18	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.23.19 03.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	11.23.19 03.18	
o-Terphenyl	84-15-1	107	%	70-135	11.23.19 03.18	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS37**
 Lab Sample Id: 644299-015

Matrix: Soil
 Date Collected: 11.22.19 12.50

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 14.22	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 14.22	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 14.22	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.23.19 14.22	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 14.22	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 14.22	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 14.22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.23.19 14.22		
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.23.19 14.22		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS38** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-016 Date Collected: 11.22.19 12.55 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	135	9.98	mg/kg	11.24.19 12.11		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 03.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.23.19 03.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.23.19 03.38	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.23.19 03.38	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.23.19 03.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	11.23.19 03.38	
o-Terphenyl	84-15-1	111	%	70-135	11.23.19 03.38	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS38**
 Lab Sample Id: 644299-016

Matrix: Soil
 Date Collected: 11.22.19 12.55

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.23.19 14.41	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.23.19 14.41	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.23.19 14.41	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.23.19 14.41	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.23.19 14.41	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.23.19 14.41	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.23.19 14.41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.23.19 14.41		
4-Bromofluorobenzene	460-00-4	124	%	70-130	11.23.19 14.41		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS39** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-017 Date Collected: 11.22.19 13.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	93.1	10.0	mg/kg	11.24.19 12.17		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 03.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.23.19 03.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.23.19 03.58	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.23.19 03.58	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.23.19 03.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	11.23.19 03.58	
o-Terphenyl	84-15-1	111	%	70-135	11.23.19 03.58	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS39** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-017 Date Collected: 11.22.19 13.00 Sample Depth: 0.5 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 18.11 Basis: Wet Weight
 Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.23.19 15.01	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.23.19 15.01	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.23.19 15.01	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.23.19 15.01	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.23.19 15.01	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.23.19 15.01	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.23.19 15.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	11.23.19 15.01		
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.23.19 15.01		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS40** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-018 Date Collected: 11.22.19 13.10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	331	101	mg/kg	11.25.19 08.38	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.23.19 04.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.23.19 04.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.23.19 04.17	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.23.19 04.17	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.23.19 04.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	11.23.19 04.17	
o-Terphenyl	84-15-1	112	%	70-135	11.23.19 04.17	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS40**
 Lab Sample Id: 644299-018

Matrix: Soil
 Date Collected: 11.22.19 13.10

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 15.20	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 15.20	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 15.20	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 15.20	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 15.20	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 15.20	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 15.20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.23.19 15.20		
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.23.19 15.20		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS41** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-019 Date Collected: 11.22.19 13.01 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	944	99.2	mg/kg	11.25.19 08.44	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.23.19 04.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.23.19 04.37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.23.19 04.37	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.23.19 04.37	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.23.19 04.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	11.23.19 04.37	
o-Terphenyl	84-15-1	114	%	70-135	11.23.19 04.37	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS41**
 Lab Sample Id: 644299-019

Matrix: Soil
 Date Collected: 11.22.19 13.01

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 15.39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 15.39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 15.39	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.23.19 15.39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 15.39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 15.39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 15.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	86	%	70-130	11.23.19 15.39		
4-Bromofluorobenzene	460-00-4	102	%	70-130	11.23.19 15.39		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS42** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-020 Date Collected: 11.22.19 13.05 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	663	99.8	mg/kg	11.25.19 08.50	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.23.19 04.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.23.19 04.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.23.19 04.57	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.23.19 04.57	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.23.19 04.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	11.23.19 04.57	
o-Terphenyl	84-15-1	111	%	70-135	11.23.19 04.57	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS42**
 Lab Sample Id: 644299-020

Matrix: Soil
 Date Collected: 11.22.19 13.05

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.23.19 15.58	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.23.19 15.58	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.23.19 15.58	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.23.19 15.58	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.23.19 15.58	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.23.19 15.58	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.23.19 15.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.23.19 15.58		
4-Bromofluorobenzene	460-00-4	120	%	70-130	11.23.19 15.58		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS43** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-021 Date Collected: 11.22.19 13.08 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1200	100	mg/kg	11.25.19 08.55	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108589

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.23.19 09.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	61.9	50.3	mg/kg	11.23.19 09.12		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.23.19 09.12	U	1
Total GRO-DRO	PHC628	61.9	50.3	mg/kg	11.23.19 09.12		1
Total TPH	PHC635	61.9	50.3	mg/kg	11.23.19 09.12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	11.23.19 09.12	
o-Terphenyl	84-15-1	125	%	70-135	11.23.19 09.12	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS43**
 Lab Sample Id: 644299-021

Matrix: Soil
 Date Collected: 11.22.19 13.08

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108516

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 11.36	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 11.36	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 11.36	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 11.36	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 11.36	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 11.36	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 11.36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	125	%	70-130	11.23.19 11.36		
1,4-Difluorobenzene	540-36-3	94	%	70-130	11.23.19 11.36		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS44** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-022 Date Collected: 11.22.19 13.13 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	531	98.8	mg/kg	11.25.19 09.01	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108589

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.23.19 09.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.23.19 09.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.23.19 09.32	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.23.19 09.32	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.23.19 09.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.23.19 09.32	
o-Terphenyl	84-15-1	104	%	70-135	11.23.19 09.32	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS44**
 Lab Sample Id: 644299-022

Matrix: Soil
 Date Collected: 11.22.19 13.13

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108516

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.23.19 11.54	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.23.19 11.54	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.23.19 11.54	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.23.19 11.54	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.23.19 11.54	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.23.19 11.54	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.23.19 11.54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	123	%	70-130	11.23.19 11.54		
1,4-Difluorobenzene	540-36-3	91	%	70-130	11.23.19 11.54		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS45** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-023 Date Collected: 11.22.19 13.17 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	319	98.8	mg/kg	11.25.19 09.07	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108589

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.23.19 09.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.23.19 09.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.23.19 09.51	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.23.19 09.51	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.23.19 09.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	11.23.19 09.51	
o-Terphenyl	84-15-1	108	%	70-135	11.23.19 09.51	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS45**
 Lab Sample Id: 644299-023

Matrix: Soil
 Date Collected: 11.22.19 13.17

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108516

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 12.11	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 12.11	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 12.11	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 12.11	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 12.11	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 12.11	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 12.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	88	%	70-130	11.23.19 12.11		
4-Bromofluorobenzene	460-00-4	130	%	70-130	11.23.19 12.11		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS46** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-024 Date Collected: 11.22.19 13.21 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	790	99.8	mg/kg	11.25.19 09.13	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108589

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.23.19 10.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.23.19 10.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.23.19 10.11	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.23.19 10.11	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.23.19 10.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	11.23.19 10.11	
o-Terphenyl	84-15-1	109	%	70-135	11.23.19 10.11	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS46**
 Lab Sample Id: 644299-024

Matrix: Soil
 Date Collected: 11.22.19 13.21

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108516

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 12.28	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 12.28	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 12.28	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 12.28	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 12.28	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 12.28	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 12.28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	90	%	70-130	11.23.19 12.28		
4-Bromofluorobenzene	460-00-4	129	%	70-130	11.23.19 12.28		



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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3108510

MB Sample Id: 7691037-1-BLK

Matrix: Solid

LCS Sample Id: 7691037-1-BKS

Prep Method: E300P

Date Prep: 11.23.19

LCSD Sample Id: 7691037-1-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	256	102	257	103	90-110	0	20	mg/kg	11.23.19 12:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3108511

MB Sample Id: 7691038-1-BLK

Matrix: Solid

LCS Sample Id: 7691038-1-BKS

Prep Method: E300P

Date Prep: 11.23.19

LCSD Sample Id: 7691038-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	258	103	259	104	90-110	0	20	mg/kg	11.24.19 11:00	

Analytical Method: Chloride by EPA 300

Seq Number: 3108510

Parent Sample Id: 644205-006

Matrix: Soil

MS Sample Id: 644205-006 S

Prep Method: E300P

Date Prep: 11.23.19

MSD Sample Id: 644205-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	462	200	646	92	655	96	90-110	1	20	mg/kg	11.23.19 12:51	

Analytical Method: Chloride by EPA 300

Seq Number: 3108510

Parent Sample Id: 644205-016

Matrix: Soil

MS Sample Id: 644205-016 S

Prep Method: E300P

Date Prep: 11.23.19

MSD Sample Id: 644205-016 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	677	202	881	101	880	101	90-110	0	20	mg/kg	11.23.19 14:18	

Analytical Method: Chloride by EPA 300

Seq Number: 3108511

Parent Sample Id: 644299-005

Matrix: Soil

MS Sample Id: 644299-005 S

Prep Method: E300P

Date Prep: 11.23.19

MSD Sample Id: 644299-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	332	202	541	103	540	104	90-110	0	20	mg/kg	11.24.19 13:34	

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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3108511

Parent Sample Id: 644299-015

Matrix: Soil

MS Sample Id: 644299-015 S

Prep Method: E300P

Date Prep: 11.23.19

MSD Sample Id: 644299-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	166	198	381	109	384	109	90-110	1	20	mg/kg	11.24.19 11:59	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108572

MB Sample Id: 7691097-1-BLK

Matrix: Solid

LCS Sample Id: 7691097-1-BKS

Prep Method: SW8015P

Date Prep: 11.22.19

LCSD Sample Id: 7691097-1-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	922	92	894	89	70-135	3	35	mg/kg	11.22.19 21:04	
Diesel Range Organics (DRO)	<50.0	1000	1070	107	1060	106	70-135	1	35	mg/kg	11.22.19 21:04	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		122		117		70-135	%	11.22.19 21:04
o-Terphenyl	127		119		118		70-135	%	11.22.19 21:04

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108589

MB Sample Id: 7691104-1-BLK

Matrix: Solid

LCS Sample Id: 7691104-1-BKS

Prep Method: SW8015P

Date Prep: 11.22.19

LCSD Sample Id: 7691104-1-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	930	93	911	91	70-135	2	35	mg/kg	11.23.19 05:55	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	1050	105	70-135	0	35	mg/kg	11.23.19 05:55	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	133		121		118		70-135	%	11.23.19 05:55
o-Terphenyl	128		117		118		70-135	%	11.23.19 05:55

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108572

Matrix: Solid

MB Sample Id: 7691097-1-BLK

Prep Method: SW8015P

Date Prep: 11.22.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.22.19 20:44	

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108589

Matrix: Solid

Prep Method: SW8015P

Date Prep: 11.22.19

MB Sample Id: 7691104-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.23.19 05:36	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108572

Matrix: Soil

Prep Method: SW8015P

Date Prep: 11.22.19

Parent Sample Id: 644299-001

MS Sample Id: 644299-001 S

MSD Sample Id: 644299-001 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	970	97	900	90	70-135	7	35	mg/kg	11.22.19 22:04	
Diesel Range Organics (DRO)	<50.2	1000	1180	118	1080	108	70-135	9	35	mg/kg	11.22.19 22:04	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		129		70-135	%	11.22.19 22:04
o-Terphenyl	129		118		70-135	%	11.22.19 22:04

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108589

Matrix: Soil

Prep Method: SW8015P

Date Prep: 11.22.19

Parent Sample Id: 644205-011

MS Sample Id: 644205-011 S

MSD Sample Id: 644205-011 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	919	92	886	89	70-135	4	35	mg/kg	11.23.19 06:54	
Diesel Range Organics (DRO)	247	1000	1040	79	1020	77	70-135	2	35	mg/kg	11.23.19 06:54	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		114		70-135	%	11.23.19 06:54
o-Terphenyl	112		112		70-135	%	11.23.19 06:54

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.

Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108516

MB Sample Id: 7691043-1-BLK

Matrix: Solid

LCS Sample Id: 7691043-1-BKS

Prep Method: SW5030B

Date Prep: 11.22.19

LCSD Sample Id: 7691043-1-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	0.0960	96	0.0938	94	70-130	2	35	mg/kg	11.23.19 06:23	
Toluene	0.000810	0.100	0.0917	92	0.0894	89	70-130	3	35	mg/kg	11.23.19 06:23	
Ethylbenzene	<0.00200	0.100	0.100	100	0.0974	97	71-129	3	35	mg/kg	11.23.19 06:23	
m,p-Xylenes	<0.00400	0.200	0.199	100	0.193	97	70-135	3	35	mg/kg	11.23.19 06:23	
o-Xylene	<0.00200	0.100	0.0979	98	0.0968	97	71-133	1	35	mg/kg	11.23.19 06:23	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		92		93		70-130	%	11.23.19 06:23
4-Bromofluorobenzene	119		116		124		70-130	%	11.23.19 06:23

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108517

MB Sample Id: 7691044-1-BLK

Matrix: Solid

LCS Sample Id: 7691044-1-BKS

Prep Method: SW5030B

Date Prep: 11.22.19

LCSD Sample Id: 7691044-1-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	0.0853	85	0.0836	84	70-130	2	35	mg/kg	11.23.19 07:28	
Toluene	<0.00200	0.100	0.0866	87	0.0851	85	70-130	2	35	mg/kg	11.23.19 07:28	
Ethylbenzene	<0.00200	0.100	0.0853	85	0.0845	85	71-129	1	35	mg/kg	11.23.19 07:28	
m,p-Xylenes	<0.00400	0.200	0.181	91	0.180	90	70-135	1	35	mg/kg	11.23.19 07:28	
o-Xylene	<0.00200	0.100	0.0927	93	0.0918	92	71-133	1	35	mg/kg	11.23.19 07:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		103		104		70-130	%	11.23.19 07:28
4-Bromofluorobenzene	109		116		118		70-130	%	11.23.19 07:28

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108516

Parent Sample Id: 644205-008

Matrix: Soil

MS Sample Id: 644205-008 S

Prep Method: SW5030B

Date Prep: 11.22.19

MSD Sample Id: 644205-008 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	0.0876	87	0.0827	82	70-130	6	35	mg/kg	11.23.19 06:58	
Toluene	0.000790	0.101	0.0811	80	0.0842	83	70-130	4	35	mg/kg	11.23.19 06:58	
Ethylbenzene	<0.00202	0.101	0.0849	84	0.0935	93	71-129	10	35	mg/kg	11.23.19 06:58	
m,p-Xylenes	<0.00101	0.202	0.162	80	0.179	89	70-135	10	35	mg/kg	11.23.19 06:58	
o-Xylene	<0.00202	0.101	0.0836	83	0.0901	89	71-133	7	35	mg/kg	11.23.19 06:58	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		87		70-130	%	11.23.19 06:58
4-Bromofluorobenzene	120		124		70-130	%	11.23.19 06:58

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. = 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.

Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108517

Parent Sample Id: 644299-001

Matrix: Soil

MS Sample Id: 644299-001 S

Prep Method: SW5030B

Date Prep: 11.22.19

MSD Sample Id: 644299-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0666	66	0.0675	68	70-130	1	35	mg/kg	11.23.19 08:06	X
Toluene	<0.00202	0.101	0.0648	64	0.0660	66	70-130	2	35	mg/kg	11.23.19 08:06	X
Ethylbenzene	<0.00202	0.101	0.0623	62	0.0634	63	71-129	2	35	mg/kg	11.23.19 08:06	X
m,p-Xylenes	<0.00403	0.202	0.130	64	0.132	66	70-135	2	35	mg/kg	11.23.19 08:06	X
o-Xylene	<0.00202	0.101	0.0651	64	0.0655	66	71-133	1	35	mg/kg	11.23.19 08:06	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		106		70-130	%	11.23.19 08:06
4-Bromofluorobenzene	122		121		70-130	%	11.23.19 08:06

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

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

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

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



Chain of Custody

Work Order No: 15491/1-91

Project Manager:		Dean Mober	Bill to: (if different)	Kyle Lillard
Company Name:		LT Environmental, Inc. - Permian office	Company Name:	XTO-Energy
Address:		3300 North A Street	Address:	Carlsbad, NM
City, State Zip:		Midland, TX 79705	City, State Zip:	
Phone:		432.704.5178	Email:	dmober@xtoenergy.com

Work Order Comments Program: UST/ST ☐ HRP ☐ Brownfields ☐ RC ☐ Superfund State of Project: Reporting Level II ☐ Level III ☐ ST/UST ☐ HRP ☐ Level IV Exclusion: ☐ EEO ☐ ADA/FIT ☐ Other:					Work Order Notes				

[illegible]

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (%)	BTEX	Chlor	Sample Comments
F523	5	11/20/19	1200	0.5'	1	X	X	X	Caprock
F524			1213			X	X	X	
F525			1349			X	X	X	
F526			1405			X	X	X	
F527			1443			X	X	X	
F528			1415			X	X	X	
F529			1417			X	X	X	
F530			1421			X	X	X	
F531			1426			X	X	X	
F532			1430			X	X	X	

Total	200.7 / 6010	200.8 / 6020:

Circle Method(s) and Molecule(s) to be Analyzed

BRCA1 13PPI Toxin 1 A SD AS BA DE B CO CE C CO CU CE PU MG NH AND TN SE PG
TCLP / SPLP 5010 BRCA1 Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
1631 / 245.1 / 7470 / 7471 : Hg

office. Signatures of the document and acknowledgment of acceptance constitutes a valid purchase order from client company to Xerox, its affiliates and subcontractors. It assigns standard terms and conditions applicable to all Xerox products and services. Xerox 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 Xerox. Payment for samples shall be made by the client to Xerox, but not assigned. These terms will be embodied across previously mentioned.

Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time
	11/22/19 16:39		
			



Chain of Custody

Work Order No: 1644299

Houston, TX (281) 240-4200 Dallas, TX (214) 802-8300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 El Paso, TX (915) 685-3443 Lubbock, TX (806) 794-1296
 Houston, TX (281) 240-4200 Phoenix, AZ (480) 355-0000 Atlanta, GA (770) 449-0000 Tampa, FL (813) 629-3000

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Page 2 of 3

Project Manager:	Dan Moir	Fill to: (address)	Kyle Librel
Company Name:	LT Environmental, Inc., Permit office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Clallish, NM
Phone:	432 704 5178	Email:	info@xenco.com

Project Name:	Res 55 Drive CDP	Turn Around	
Project Number:	012919277	Routing:	☐
P.O. Number:	11/8/19	Route:	211
Sampler's Name:	Robert McAlister	Date Date:	

Temperature (°C):		Temp Blank:	Yes	No	Well top:	Yes	No
Received intact:	Yes	No					
Cooler Cavity Shells:	Yes	No					
Sample Cavity Seal:	Yes	No					

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	STEX (EPA 8-8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST										Work Order Notes									
FS33	S	11/21/19	1434	0.5'	1	X	X	X																				
FS34		11/21/19	1438			X	X	X																				
FS35			1240			X	X	X																				
FS36			1246			X	X	X																				
FS37			1250			X	X	X																				
FS38			1245			X	X	X																				
FS39			1300			X	X	X																				
FS40			1316			X	X	X																				
FS41			1301			X	X	X																				
FS42			1305			X	X	X																				

Total 200.7 / 6010	200.8 / 6010:	8RCRA 13CPM Texas 11	AN SB AS BA BB B CD CA CR CO CU PB MN MO NI K SB AG SIO2 NG SR TI SN U V ZN
Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010	8RCRA SB AS BA BB B CD CA CR CO CU PB MN MO NI Se Ag TI U	1631 / 246.1 / 7470 / 7471 - Hg

Signature of the recipient and implementation of sample constitutes a valid purchase order from client company to Xenco. Its officers and sub-contractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and other 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 \$750.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, and 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>Robert McAlister</i>	<i>Kyle Librel</i>	11/21/19 16:30	<i>Robert McAlister</i>	<i>Robert McAlister</i>	11/21/19 16:30



Chain of Custody

Work Order No: 1044299

Houston, TX (281) 240-4200 Dallas, TX (214) 902-9000 San Antonio, TX (210) 506-3334
 Midland, TX (432) 704-0440 El Paso, TX (915) 565-3443 Lubbock, TX (806) 764-1296
 Austin, TX (512) 302-7000 Phoenix, AZ (480) 365-0000 Atlanta, GA (770) 440-8800 Tampa, FL (813) 620-2000

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Project Manager:	Don Mair	Bill for (if different):	Kyle Littel
Company Name:	LT Environmental, Inc., Permittion office	Company Name:	ATO Energy
Address:	3100 North A Street	Address:	
City, State Zip:	Midland, TX 79705	City, State Zip:	Carrizosa, NM
Phone:	432 704-5178	Email:	donmair@xenco.com kylelittel@atoenergy.com
Project Name:	R-55 Day CDP	Turn Around	
Project Number:	012919277	Routine	☐
P.O. Number:	11/18/19	Rush:	24 hr
Sampler's Name:	Robert McAfee	Date:	

SAMPLE RECEIPT				ANALYSIS REQUEST				Work Order Notes	
Temperature (°C)	Temp Blank	Yes	No	Wet Ice	Yes	No			
Frozen/Thawed	Yes	No	NA	Tranquilizer	Yes	No			
Cooler Custody Seals:	Yes	No	NA	Correction Factor					
Sample Custody Seal:	Yes	No	NA	Total Containers:					
Sample Identification	Matrix	Date	Time	Depth	Number of Containers				
F343	S	11/22/19	1308	0.5'	1	TPH (EPA 8015)	STX (EPA 8-8021)	Chloride (EPA 300.0)	
F344			1315		X	X	X		
F345			1317		X	X	X		
F346			1321		X	X	X		
TAT starts the day received by the lab, if received by 4:30pm Sample Comments: Composite									

Total 200.7 / 6010 200.8 / 6020- BRCHA 13PPM Texas 11 A Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SnO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Method(s) to be analyzed TCLEP / SPLP 6010 BRCHA Sb As Ba Be Cd Cr Co Cu Fe Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471: Hg

Note: Signatures of the document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, an affiliate and subcontractor. It assigns standard terms and conditions. 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 \$15.00 will be applied to each sample 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
		11/22/19 14:30			11/22/19 16:35



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/22/2019 04:48:00 PM

Work Order #: 644299

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: 11/22/2019

Checklist reviewed by:

Jessica Kramer

Date: 11/25/2019

Analytical Report 644351

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

26-NOV-19

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)



26-NOV-19

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

Reference: XENCO Report No(s): **644351**
Ross Draw CDP
Project Address:

Dan Moir:

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) 644351. 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. 644351 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 Assistant

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

Certified and approved by numerous States and Agencies.

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

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

**Sample Cross Reference 644351****LT Environmental, Inc., Arvada, CO**

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS47	S	11-22-19 15:30	0.5 ft	644351-001
FS48	S	11-22-19 15:35	0.5 ft	644351-002
FS49	S	11-22-19 15:40	0.5 ft	644351-003
FS50	S	11-22-19 15:45	0.5 ft	644351-004
FS51	S	11-22-19 15:55	0.5 ft	644351-005
FS52	S	11-22-19 16:00	0.5 ft	644351-006
FS53	S	11-22-19 16:05	0.5 ft	644351-007
FS54	S	11-22-19 16:10	0.5 ft	644351-008
FS55	S	11-22-19 16:15	0.5 ft	644351-009
FS56	S	11-22-19 16:20	0.5 ft	644351-010
FS57	S	11-22-19 16:25	0.5 ft	644351-011
FS58	S	11-22-19 16:30	0.5 ft	644351-012
FS59	S	11-23-19 10:40	0.5 ft	644351-013
FS60	S	11-23-19 10:45	0.5 ft	644351-014
FS61	S	11-23-19 10:46	0.5 ft	644351-015
FS62	S	11-23-19 10:50	0.5 ft	644351-016
FS63	S	11-23-19 10:51	0.5 ft	644351-017
FS64	S	11-23-19 10:55	0.5 ft	644351-018
FS65	S	11-23-19 10:56	0.5 ft	644351-019



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 644351

Report Date: 26-NOV-19
Date Received: 11/25/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3108713 BTEX by EPA 8021B

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



Certificate of Analysis Summary 644351

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Nov-25-19 11:00 am

Report Date: 26-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644351-001	644351-002	644351-003	644351-004	644351-005	644351-006
	<i>Field Id:</i>	FS47	FS48	FS49	FS50	FS51	FS52
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-22-19 15:30	Nov-22-19 15:35	Nov-22-19 15:40	Nov-22-19 15:45	Nov-22-19 15:55	Nov-22-19 16:00
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11
	<i>Analyzed:</i>	Nov-25-19 19:32	Nov-25-19 19:51	Nov-25-19 20:10	Nov-25-19 20:30	Nov-25-19 20:49	Nov-25-19 21:08
	<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	<0.00200 0.00200	<0.00198 0.00198
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198
m,p-Xylenes		<0.00401 0.00401	<0.00399 0.00399	<0.00398 0.00398	<0.00397 0.00397	<0.00399 0.00399	<0.00397 0.00397
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00
	<i>Analyzed:</i>	Nov-25-19 14:04	Nov-25-19 14:21	Nov-25-19 14:27	Nov-25-19 14:33	Nov-25-19 14:39	Nov-25-19 14:57
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		179 10.0	31.7 9.98	51.5 9.94	259 9.90	178 9.88	142 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50
	<i>Analyzed:</i>	Nov-25-19 19:41	Nov-25-19 20:40	Nov-25-19 20:59	Nov-25-19 21:19	Nov-25-19 21:39	Nov-25-19 21:58
	<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	<50.3 50.3	<50.2 50.2	<50.3 50.3	<49.8 49.8
Diesel Range Organics (DRO)		<49.8 49.8	1090 50.2	207 50.3	587 50.2	746 50.3	268 49.8
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.2 50.2	<50.3 50.3	102 50.2	558 50.3	60.6 49.8
Total GRO-DRO		<49.8 49.8	1090 50.2	207 50.3	587 50.2	746 50.3	268 49.8
Total TPH		<49.8 49.8	1090 50.2	207 50.3	689 50.2	1300 50.3	329 49.8

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 Assistant



Certificate of Analysis Summary 644351

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Nov-25-19 11:00 am

Report Date: 26-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644351-007	644351-008	644351-009	644351-010	644351-011	644351-012
	<i>Field Id:</i>	FS53	FS54	FS55	FS56	FS57	FS58
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-22-19 16:05	Nov-22-19 16:10	Nov-22-19 16:15	Nov-22-19 16:20	Nov-22-19 16:25	Nov-22-19 16:30
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11
	<i>Analyzed:</i>	Nov-25-19 21:27	Nov-25-19 21:46	Nov-25-19 22:05	Nov-25-19 22:24	Nov-25-19 23:28	Nov-25-19 23:47
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202
Toluene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398	<0.00399 0.00399	<0.00397 0.00397	<0.00400 0.00400	<0.00403 0.00403
o-Xylene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202
Total BTEX		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00
	<i>Analyzed:</i>	Nov-25-19 15:03	Nov-25-19 15:08	Nov-25-19 15:14	Nov-25-19 15:20	Nov-25-19 15:26	Nov-25-19 15:44
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		70.1 9.94	122 9.96	112 9.98	18.1 10.0	30.8 10.0	49.2 9.92
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50
	<i>Analyzed:</i>	Nov-25-19 22:18	Nov-25-19 22:38	Nov-25-19 22:57	Nov-25-19 23:17	Nov-25-19 23:57	Nov-26-19 00:17
	<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	<50.1 50.1	<50.2 50.2	<50.2 50.2	<49.9 49.9	<50.2 50.2
Diesel Range Organics (DRO)		<49.9 49.9	<50.1 50.1	<50.2 50.2	<50.2 50.2	<49.9 49.9	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.1 50.1	<50.2 50.2	<50.2 50.2	<49.9 49.9	<50.2 50.2
Total GRO-DRO		<49.9 49.9	<50.1 50.1	<50.2 50.2	<50.2 50.2	<49.9 49.9	<50.2 50.2
Total TPH		<49.9 49.9	<50.1 50.1	<50.2 50.2	<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.

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 644351



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Nov-25-19 11:00 am

Report Date: 26-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644351-013	644351-014	644351-015	644351-016	644351-017	644351-018
	<i>Field Id:</i>	FS59	FS60	FS61	FS62	FS63	FS64
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-23-19 10:40	Nov-23-19 10:45	Nov-23-19 10:46	Nov-23-19 10:50	Nov-23-19 10:51	Nov-23-19 10:55
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11
	<i>Analyzed:</i>	Nov-26-19 00:06	Nov-26-19 00:25	Nov-26-19 00:44	Nov-26-19 01:03	Nov-26-19 01:23	Nov-26-19 01:42
	<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	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Toluene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Ethylbenzene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
m,p-Xylenes		<0.00401 0.00401	<0.00403 0.00403	<0.00401 0.00401	<0.00402 0.00402	<0.00402 0.00402	<0.00403 0.00403
o-Xylene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Total Xylenes		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Total BTEX		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00
	<i>Analyzed:</i>	Nov-25-19 15:50	Nov-25-19 16:07	Nov-25-19 16:13	Nov-25-19 16:19	Nov-25-19 16:25	Nov-25-19 16:31
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		21.3 9.90	64.1 9.90	70.7 9.96	84.3 9.98	22.3 9.96	51.7 9.94
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50
	<i>Analyzed:</i>	Nov-26-19 00:36	Nov-26-19 00:56	Nov-26-19 01:16	Nov-26-19 01:36	Nov-26-19 01:56	Nov-26-19 02:15
	<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)		<49.9 49.9	<50.3 50.3	<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.3 50.3
Diesel Range Organics (DRO)		<49.9 49.9	<50.3 50.3	<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.3 50.3
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.3 50.3	<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.3 50.3
Total GRO-DRO		<49.9 49.9	<50.3 50.3	<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.3 50.3
Total TPH		<49.9 49.9	<50.3 50.3	<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.3 50.3

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 644351

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Nov-25-19 11:00 am

Report Date: 26-NOV-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	644351-019					
	Field Id:	FS65					
	Depth:	0.5- ft					
	Matrix:	SOIL					
	Sampled:	Nov-23-19 10:56					
BTEX by EPA 8021B	Extracted:	Nov-25-19 12:11					
	Analyzed:	Nov-26-19 02:01					
	Units/RL:	mg/kg RL					
	Benzene	<0.00202 0.00202					
	Toluene	<0.00202 0.00202					
Ethylbenzene		<0.00202 0.00202					
m,p-Xylenes		<0.00403 0.00403					
o-Xylene		<0.00202 0.00202					
Total Xylenes		<0.00202 0.00202					
Total BTEX		<0.00202 0.00202					
Chloride by EPA 300	Extracted:	Nov-25-19 12:00					
	Analyzed:	Nov-25-19 16:37					
	Units/RL:	mg/kg RL					
	Chloride	87.1 9.90					
TPH by SW8015 Mod	Extracted:	Nov-25-19 13:50					
	Analyzed:	Nov-26-19 02:35					
	Units/RL:	mg/kg RL					
	Gasoline Range Hydrocarbons (GRO)	<50.3 50.3					
	Diesel Range Organics (DRO)	<50.3 50.3					
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3					
Total GRO-DRO		<50.3 50.3					
Total TPH		<50.3 50.3					

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Jessica Kramer
Project Assistant



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS47** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-001 Date Collected: 11.22.19 15.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	179	10.0	mg/kg	11.25.19 14.04		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.25.19 19.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.25.19 19.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.25.19 19.41	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.25.19 19.41	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.25.19 19.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.25.19 19.41	
o-Terphenyl	84-15-1	107	%	70-135	11.25.19 19.41	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS47**
 Lab Sample Id: 644351-001

Matrix: Soil
 Date Collected: 11.22.19 15.30

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.25.19 19.32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.25.19 19.32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.25.19 19.32	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.25.19 19.32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.25.19 19.32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.25.19 19.32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.25.19 19.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.25.19 19.32		
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.25.19 19.32		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS48** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-002 Date Collected: 11.22.19 15.35 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.7	9.98	mg/kg	11.25.19 14.21		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.25.19 20.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	1090	50.2	mg/kg	11.25.19 20.40		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.25.19 20.40	U	1
Total GRO-DRO	PHC628	1090	50.2	mg/kg	11.25.19 20.40		1
Total TPH	PHC635	1090	50.2	mg/kg	11.25.19 20.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	11.25.19 20.40	
o-Terphenyl	84-15-1	114	%	70-135	11.25.19 20.40	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS48**
 Lab Sample Id: 644351-002

Matrix: Soil
 Date Collected: 11.22.19 15.35

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.25.19 19.51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.25.19 19.51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.25.19 19.51	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.25.19 19.51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.25.19 19.51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.25.19 19.51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.25.19 19.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	92	%	70-130	11.25.19 19.51		
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.25.19 19.51		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS49** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-003 Date Collected: 11.22.19 15.40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	51.5	9.94	mg/kg	11.25.19 14.27		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.25.19 20.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	207	50.3	mg/kg	11.25.19 20.59		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.25.19 20.59	U	1
Total GRO-DRO	PHC628	207	50.3	mg/kg	11.25.19 20.59		1
Total TPH	PHC635	207	50.3	mg/kg	11.25.19 20.59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.25.19 20.59	
o-Terphenyl	84-15-1	109	%	70-135	11.25.19 20.59	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS49**
 Lab Sample Id: 644351-003

Matrix: Soil
 Date Collected: 11.22.19 15.40

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.25.19 20.10	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.25.19 20.10	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.25.19 20.10	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.25.19 20.10	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.25.19 20.10	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.25.19 20.10	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.25.19 20.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.25.19 20.10		
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.25.19 20.10		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS50** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-004 Date Collected: 11.22.19 15.45 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	259	9.90	mg/kg	11.25.19 14.33		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.25.19 21.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	587	50.2	mg/kg	11.25.19 21.19		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	102	50.2	mg/kg	11.25.19 21.19		1
Total GRO-DRO	PHC628	587	50.2	mg/kg	11.25.19 21.19		1
Total TPH	PHC635	689	50.2	mg/kg	11.25.19 21.19		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.25.19 21.19	
o-Terphenyl	84-15-1	110	%	70-135	11.25.19 21.19	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS50**
 Lab Sample Id: 644351-004

Matrix: Soil
 Date Collected: 11.22.19 15.45

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.25.19 20.30	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.25.19 20.30	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.25.19 20.30	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.25.19 20.30	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.25.19 20.30	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.25.19 20.30	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.25.19 20.30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.25.19 20.30		
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.25.19 20.30		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS51** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-005 Date Collected: 11.22.19 15.55 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	178	9.88	mg/kg	11.25.19 14.39		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.25.19 21.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	746	50.3	mg/kg	11.25.19 21.39		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	558	50.3	mg/kg	11.25.19 21.39		1
Total GRO-DRO	PHC628	746	50.3	mg/kg	11.25.19 21.39		1
Total TPH	PHC635	1300	50.3	mg/kg	11.25.19 21.39		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	11.25.19 21.39	
o-Terphenyl	84-15-1	108	%	70-135	11.25.19 21.39	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS51**
 Lab Sample Id: 644351-005

Matrix: Soil
 Date Collected: 11.22.19 15.55

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.25.19 20.49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.25.19 20.49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.25.19 20.49	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.25.19 20.49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.25.19 20.49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.25.19 20.49	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.25.19 20.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.25.19 20.49		
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.25.19 20.49		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: FS52 Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-006 Date Collected: 11.22.19 16.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	142	9.98	mg/kg	11.25.19 14.57		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.25.19 21.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	268	49.8	mg/kg	11.25.19 21.58		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	60.6	49.8	mg/kg	11.25.19 21.58		1
Total GRO-DRO	PHC628	268	49.8	mg/kg	11.25.19 21.58		1
Total TPH	PHC635	329	49.8	mg/kg	11.25.19 21.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	11.25.19 21.58	
o-Terphenyl	84-15-1	108	%	70-135	11.25.19 21.58	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: FS52
Lab Sample Id: 644351-006

Matrix: Soil
Date Collected: 11.22.19 16.00

Date Received: 11.25.19 11.00
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.25.19 21.08	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.25.19 21.08	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.25.19 21.08	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.25.19 21.08	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.25.19 21.08	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.25.19 21.08	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.25.19 21.08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	123	%	70-130	11.25.19 21.08		
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.25.19 21.08		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS53** Matrix: **Soil** Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-007 Date Collected: 11.22.19 16.05 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 11.25.19 12.00 Basis: **Wet Weight**
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	70.1	9.94	mg/kg	11.25.19 15.03		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 11.25.19 13.50 Basis: **Wet Weight**
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.25.19 22.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.25.19 22.18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.25.19 22.18	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.25.19 22.18	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.25.19 22.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.25.19 22.18	
o-Terphenyl	84-15-1	105	%	70-135	11.25.19 22.18	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS53**
 Lab Sample Id: 644351-007

Matrix: Soil
 Date Collected: 11.22.19 16.05

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.25.19 21.27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.25.19 21.27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.25.19 21.27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.25.19 21.27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.25.19 21.27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.25.19 21.27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.25.19 21.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.25.19 21.27		
4-Bromofluorobenzene	460-00-4	128	%	70-130	11.25.19 21.27		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS54** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-008 Date Collected: 11.22.19 16.10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	122	9.96	mg/kg	11.25.19 15.08		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.25.19 22.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.25.19 22.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.25.19 22.38	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.25.19 22.38	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.25.19 22.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	11.25.19 22.38	
o-Terphenyl	84-15-1	108	%	70-135	11.25.19 22.38	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS54**
 Lab Sample Id: 644351-008

Matrix: Soil
 Date Collected: 11.22.19 16.10

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.25.19 21.46	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.25.19 21.46	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.25.19 21.46	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.25.19 21.46	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.25.19 21.46	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.25.19 21.46	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.25.19 21.46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	90	%	70-130	11.25.19 21.46		
1,4-Difluorobenzene	540-36-3	82	%	70-130	11.25.19 21.46		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: FS55 Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-009 Date Collected: 11.22.19 16.15 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	112	9.98	mg/kg	11.25.19 15.14		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.25.19 22.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.25.19 22.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.25.19 22.57	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.25.19 22.57	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.25.19 22.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	11.25.19 22.57	
o-Terphenyl	84-15-1	103	%	70-135	11.25.19 22.57	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS55** Matrix: **Soil** Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-009 Date Collected: 11.22.19 16.15 Sample Depth: 0.5 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 11.25.19 12.11 Basis: **Wet Weight**
 Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.25.19 22.05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.25.19 22.05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.25.19 22.05	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.25.19 22.05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.25.19 22.05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.25.19 22.05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.25.19 22.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	70-130	11.25.19 22.05		
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.25.19 22.05		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS56** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-010 Date Collected: 11.22.19 16.20 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18.1	10.0	mg/kg	11.25.19 15.20		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.25.19 23.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.25.19 23.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.25.19 23.17	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.25.19 23.17	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.25.19 23.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.25.19 23.17	
o-Terphenyl	84-15-1	108	%	70-135	11.25.19 23.17	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS56**
 Lab Sample Id: 644351-010

Matrix: Soil
 Date Collected: 11.22.19 16.20

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.25.19 22.24	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.25.19 22.24	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.25.19 22.24	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.25.19 22.24	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.25.19 22.24	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.25.19 22.24	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.25.19 22.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.25.19 22.24		
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.25.19 22.24		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: FS57 Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-011 Date Collected: 11.22.19 16.25 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	30.8	10.0	mg/kg	11.25.19 15.26		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.25.19 23.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.25.19 23.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.25.19 23.57	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.25.19 23.57	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.25.19 23.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.25.19 23.57	
o-Terphenyl	84-15-1	107	%	70-135	11.25.19 23.57	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: FS57
Lab Sample Id: 644351-011

Matrix: Soil
Date Collected: 11.22.19 16.25

Date Received: 11.25.19 11.00
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.25.19 23.28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.25.19 23.28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.25.19 23.28	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.25.19 23.28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.25.19 23.28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.25.19 23.28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.25.19 23.28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	83	%	70-130	11.25.19 23.28		
4-Bromofluorobenzene	460-00-4	104	%	70-130	11.25.19 23.28		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS58** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-012 Date Collected: 11.22.19 16.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	49.2	9.92	mg/kg	11.25.19 15.44		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.26.19 00.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.26.19 00.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.26.19 00.17	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.26.19 00.17	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.26.19 00.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.26.19 00.17	
o-Terphenyl	84-15-1	108	%	70-135	11.26.19 00.17	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS58**
 Lab Sample Id: 644351-012

Matrix: Soil
 Date Collected: 11.22.19 16.30

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.25.19 23.47	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.25.19 23.47	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.25.19 23.47	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.25.19 23.47	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.25.19 23.47	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.25.19 23.47	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.25.19 23.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	126	%	70-130	11.25.19 23.47		
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.25.19 23.47		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS59** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-013 Date Collected: 11.23.19 10.40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.3	9.90	mg/kg	11.25.19 15.50		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.26.19 00.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.26.19 00.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.26.19 00.36	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.26.19 00.36	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.26.19 00.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	11.26.19 00.36	
o-Terphenyl	84-15-1	106	%	70-135	11.26.19 00.36	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS59**
 Lab Sample Id: 644351-013

Matrix: Soil
 Date Collected: 11.23.19 10.40

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.26.19 00.06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.26.19 00.06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.26.19 00.06	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.26.19 00.06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.26.19 00.06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.26.19 00.06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.26.19 00.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	86	%	70-130	11.26.19 00.06		
1,4-Difluorobenzene	540-36-3	81	%	70-130	11.26.19 00.06		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS60** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-014 Date Collected: 11.23.19 10.45 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	64.1	9.90	mg/kg	11.25.19 16.07		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.26.19 00.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.26.19 00.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.26.19 00.56	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.26.19 00.56	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.26.19 00.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	11.26.19 00.56	
o-Terphenyl	84-15-1	102	%	70-135	11.26.19 00.56	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS60**
 Lab Sample Id: 644351-014

Matrix: Soil
 Date Collected: 11.23.19 10.45

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.26.19 00.25	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.26.19 00.25	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.26.19 00.25	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.26.19 00.25	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.26.19 00.25	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.26.19 00.25	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.26.19 00.25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	87	%	70-130	11.26.19 00.25		
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.26.19 00.25		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS61** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-015 Date Collected: 11.23.19 10.46 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	70.7	9.96	mg/kg	11.25.19 16.13		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.26.19 01.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.26.19 01.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.26.19 01.16	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.26.19 01.16	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.26.19 01.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	11.26.19 01.16	
o-Terphenyl	84-15-1	103	%	70-135	11.26.19 01.16	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS61**
 Lab Sample Id: 644351-015

Matrix: Soil
 Date Collected: 11.23.19 10.46

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.26.19 00.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.26.19 00.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.26.19 00.44	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.26.19 00.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.26.19 00.44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.26.19 00.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.26.19 00.44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.26.19 00.44		
4-Bromofluorobenzene	460-00-4	117	%	70-130	11.26.19 00.44		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS62** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-016 Date Collected: 11.23.19 10.50 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	84.3	9.98	mg/kg	11.25.19 16.19		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.26.19 01.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.26.19 01.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.26.19 01.36	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.26.19 01.36	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.26.19 01.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	11.26.19 01.36	
o-Terphenyl	84-15-1	107	%	70-135	11.26.19 01.36	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS62**
 Lab Sample Id: 644351-016

Matrix: Soil
 Date Collected: 11.23.19 10.50

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.26.19 01.03	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.26.19 01.03	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.26.19 01.03	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.26.19 01.03	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.26.19 01.03	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.26.19 01.03	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.26.19 01.03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.26.19 01.03		
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.26.19 01.03		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS63** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-017 Date Collected: 11.23.19 10.51 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22.3	9.96	mg/kg	11.25.19 16.25		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.26.19 01.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.26.19 01.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.26.19 01.56	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.26.19 01.56	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.26.19 01.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	11.26.19 01.56	
o-Terphenyl	84-15-1	98	%	70-135	11.26.19 01.56	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS63**
 Lab Sample Id: 644351-017

Matrix: Soil
 Date Collected: 11.23.19 10.51

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.26.19 01.23	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.26.19 01.23	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.26.19 01.23	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.26.19 01.23	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.26.19 01.23	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.26.19 01.23	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.26.19 01.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	11.26.19 01.23		
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.26.19 01.23		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS64** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-018 Date Collected: 11.23.19 10.55 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	51.7	9.94	mg/kg	11.25.19 16.31		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.26.19 02.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.26.19 02.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.26.19 02.15	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.26.19 02.15	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.26.19 02.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	11.26.19 02.15	
o-Terphenyl	84-15-1	105	%	70-135	11.26.19 02.15	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS64**
 Lab Sample Id: 644351-018

Matrix: Soil
 Date Collected: 11.23.19 10.55

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.26.19 01.42	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.26.19 01.42	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.26.19 01.42	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.26.19 01.42	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.26.19 01.42	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.26.19 01.42	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.26.19 01.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	11.26.19 01.42		
1,4-Difluorobenzene	540-36-3	80	%	70-130	11.26.19 01.42		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS65** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-019 Date Collected: 11.23.19 10.56 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	87.1	9.90	mg/kg	11.25.19 16.37		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.26.19 02.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.26.19 02.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.26.19 02.35	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.26.19 02.35	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.26.19 02.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	11.26.19 02.35	
o-Terphenyl	84-15-1	102	%	70-135	11.26.19 02.35	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS65** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-019 Date Collected: 11.23.19 10.56 Sample Depth: 0.5 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.11 Basis: Wet Weight
 Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.26.19 02.01	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.26.19 02.01	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.26.19 02.01	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.26.19 02.01	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.26.19 02.01	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.26.19 02.01	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.26.19 02.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.26.19 02.01		
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.26.19 02.01		



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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3108695

MB Sample Id: 7691115-1-BLK

Matrix: Solid

LCS Sample Id: 7691115-1-BKS

Prep Method: E300P

Date Prep: 11.25.19

LCSD Sample Id: 7691115-1-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	255	102	257	103	90-110	1	20	mg/kg	11.25.19 13:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3108695

Parent Sample Id: 644351-001

Matrix: Soil

MS Sample Id: 644351-001 S

Prep Method: E300P

Date Prep: 11.25.19

MSD Sample Id: 644351-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	179	201	393	106	396	107	90-110	1	20	mg/kg	11.25.19 14:10	

Analytical Method: Chloride by EPA 300

Seq Number: 3108695

Parent Sample Id: 644351-011

Matrix: Soil

MS Sample Id: 644351-011 S

Prep Method: E300P

Date Prep: 11.25.19

MSD Sample Id: 644351-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	30.8	200	241	105	252	110	90-110	4	20	mg/kg	11.25.19 15:32	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108717

MB Sample Id: 7691195-1-BLK

Matrix: Solid

LCS Sample Id: 7691195-1-BKS

Prep Method: SW8015P

Date Prep: 11.25.19

LCSD Sample Id: 7691195-1-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	890	89	70-135	3	35	mg/kg	11.25.19 19:01	
Diesel Range Organics (DRO)	<50.0	1000	1120	112	1070	107	70-135	5	35	mg/kg	11.25.19 19:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		123		131		70-135	%	11.25.19 19:01
o-Terphenyl	128		124		119		70-135	%	11.25.19 19:01

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108717

Matrix: Solid

MB Sample Id: 7691195-1-BLK

Prep Method: SW8015P

Date Prep: 11.25.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.25.19 18:41	

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108717

Parent Sample Id: 644351-001

Matrix: Soil

MS Sample Id: 644351-001 S

Prep Method: SW8015P

Date Prep: 11.25.19

MSD Sample Id: 644351-001 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	845	85	833	83	70-135	1	35	mg/kg	11.25.19 20:00	
Diesel Range Organics (DRO)	<50.2	1000	1030	103	1000	100	70-135	3	35	mg/kg	11.25.19 20:00	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		128		70-135	%	11.25.19 20:00
o-Terphenyl	113		118		70-135	%	11.25.19 20:00

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108713

MB Sample Id: 7691118-1-BLK

Matrix: Solid

LCS Sample Id: 7691118-1-BKS

Prep Method: SW5030B

Date Prep: 11.25.19

LCSD Sample Id: 7691118-1-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	0.0949	95	0.0943	94	70-130	1	35	mg/kg	11.26.19 02:20	
Toluene	<0.00200	0.100	0.0954	95	0.0956	96	70-130	0	35	mg/kg	11.26.19 02:20	
Ethylbenzene	<0.00200	0.100	0.0937	94	0.0938	94	71-129	0	35	mg/kg	11.26.19 02:20	
m,p-Xylenes	<0.00400	0.200	0.198	99	0.199	100	70-135	1	35	mg/kg	11.26.19 02:20	
o-Xylene	<0.00200	0.100	0.101	101	0.102	102	71-133	1	35	mg/kg	11.26.19 02:20	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		104		105		70-130	%	11.26.19 02:20
4-Bromofluorobenzene	107		116		119		70-130	%	11.26.19 02:20

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108713

Parent Sample Id: 644351-001

Matrix: Soil

MS Sample Id: 644351-001 S

Prep Method: SW5030B

Date Prep: 11.25.19

MSD Sample Id: 644351-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0740	74	0.0871	87	70-130	16	35	mg/kg	11.25.19 18:28	
Toluene	<0.00201	0.100	0.0798	80	0.0894	89	70-130	11	35	mg/kg	11.25.19 18:28	
Ethylbenzene	<0.00201	0.100	0.0808	81	0.0885	89	71-129	9	35	mg/kg	11.25.19 18:28	
m,p-Xylenes	<0.00402	0.201	0.174	87	0.188	94	70-135	8	35	mg/kg	11.25.19 18:28	
o-Xylene	<0.00201	0.100	0.0892	89	0.0959	96	71-133	7	35	mg/kg	11.25.19 18:28	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		105		70-130	%	11.25.19 18:28
4-Bromofluorobenzene	124		123		70-130	%	11.25.19 18:28

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

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

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

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



Chain of Custody

Work Order No:

1244251

Houston, TX (281) 240-4306 Dallas, TX (214) 902-0370 San Antonio, TX (210) 509-3334
 Midland, TX (432-704-5440) El Paso, TX (915) 865-3440 Lubbock, TX (806) 794-1280

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Page 1 of 2

Houston, TX (281-352-2553) Phoenix, AZ (480-365-0000) Atlanta, GA (770-448-8800) Tampa, FL (813-829-3030)

Project Manager:	Dan Moe	(fill in if different)	Kyle Litrel
Company Name:	LT Environmental, Inc. Permit office	Company Name:	XTO-Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432 704 5178	Email:	dmoe@xencolab.com, klitrel@xencolab.com

Project Name:	Fast Draw CDP	Turn Around:	Routine ☐ Rush: 24hr
Project Number:	012919297	Due Date:	
P.O. Number:	000		
Sampler's Name:	Robert McAlister		

ANALYSIS REQUEST

Work Order Notes

Temperature (°C):	6.8	Thermometer ID:	T-2011-007
Received Inlet:	Yes ☒ No ☐	Correction Factor:	
Coiler Custody Seal:	Yes ☒ No ☐	Total Containers:	19
Sample Custody Seal:	Yes ☒ No ☐		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EP	BTEX (E	Chloride	Sample Comments															
F547	S	11/22/19	1530	0.5	1	X	X	X	Composite															
F548			1535			X	X	X																
F549			1540			X	X	X																
F550			1545			X	X	X																
F551			1555			X	X	X																
F552			1600			X	X	X																
F553			1605			X	X	X																
F554			1610			X	X	X																
F555			1615			X	X	X																
F556			1620			X	X	X	Composite															

Sample Comments

Composite

TAT starts 8:00 a.m. receipt by the lab, if received by 4:30pm

Total 200.7 / 6010 200.6 / 6020: BRCRA 13PPM Toxic 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SnO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed: TCLP / SPLP 6010 BRCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
 1631 / 245.1 / 7470 / 7471 : Hg

See Signatures of this document and relinquishment of sample constitutes a valid purchase order from client company to Xenco, for analysis and subordination. It is the 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 \$1.00 for each sample submitted to Xenco, but not analyzed. These terms will be reduced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Robert McAlister</i>	<i>Robert McAlister</i>	11/25/19 11:00			



Chain of Custody

Work Order No:

044351

Houston, TX (281) 240-4200 Dallas, TX (214) 502-0200 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5449 El Paso, TX (915) 555-3443 Lubbock, TX (806) 784-1290
 Hobbs, NM (505) 392-7551 Phoenix, AZ (480) 355-0800 Atlanta, GA (770) 448-8800 Tampa, FL (813) 528-3000

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Page

2 of 2

Project Manager:	Dan Moe	Bill to: (if different)	Kyle Little
Company Name:	LT Environmental, Inc. Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Catabed, NM
Phone:	432-704-5178	Email:	frank@xencolab.com
Project Name:	K&S DMV CDP	Turn Around:	
Project Number:	012919277	Routine:	☐
P.O. Number:		Rush:	2 YAC
Sampler's Name:	Robert McAttee	Due Date:	

SAMPLE RECEIPT				ANALYSIS REQUEST										Work Order Notes			
Temperature (°C)	Temp Blank	Yes	No	Well log:	Yes	No	Number of Containers										Sample Comments
Received intact:	Yes	No	Correction Factor:														
Condit Custody Spills:	Yes	No	Total Containers:														
Sample Custody Seals:	Yes	No															
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	TPH (EPA 8015)	BTEX (EPA 0-0021)	Chloride (EPA 300.0)										
F557	S	11/23/19	1625	0.5'	X	X	X										
F558		11/23/19	1630		X	X	X										
F559		11/23/19	1040		X	X	X										
F560			1045		X	X	X										
F561			1046		X	X	X										
F562			1050		X	X	X										
F563			1051		X	X	X										
F564			1055		X	X	X										
F565			1056		X	X	X										
					Composite												

Total 200.7 / 6010 200.8 / 6020: BRCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Cs Cr Co Cu Pb Mn Mo Ni K Se Ag SnO2 Na Sr Ti Sn U V Zn
 Circle (Multiplies) and (Multiplies) to the 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

Note: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, the affiant 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 indicated unless previously stipulated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Robert McAttee</i>	<i>Robert McAttee</i>	11/25/19 11:00			



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/25/2019 11:00:00 AM

Work Order #: 644351

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)?	.8
#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: 11/25/2019

Checklist reviewed by:

Jessica Kramer

Date: 11/25/2019

Analytical Report 644613

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

02-DEC-19

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)



02-DEC-19

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

Reference: XENCO Report No(s): **644613**
Ross Draw CDP
Project Address:

Dan Moir:

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) 644613. 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. 644613 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 Assistant

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

Certified and approved by numerous States and Agencies.

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

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

**Sample Cross Reference 644613****LT Environmental, Inc., Arvada, CO**

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS95	S	11-26-19 11:10	0.5 ft	644613-001
FS96	S	11-26-19 11:05	0.5 ft	644613-002
FS97	S	11-26-19 11:15	0.5 ft	644613-003
FS98	S	11-26-19 11:20	0.5 ft	644613-004
FS99	S	11-26-19 11:25	0.5 ft	644613-005
FS100	S	11-26-19 11:30	0.5 ft	644613-006
FS101	S	11-26-19 11:40	0.5 ft	644613-007
FS102	S	11-26-19 12:00	0.5 ft	644613-008

**CASE NARRATIVE****Client Name: LT Environmental, Inc.****Project Name: Ross Draw CDP**Project ID: 012919277
Work Order Number(s): 644613Report Date: 02-DEC-19
Date Received: 11/27/2019**Sample receipt non conformances and comments:**

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109035 BTEX by EPA 8021B

Lab Sample ID 644613-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 644613-001, -002, -003, -004, -005, -006, -007, -008.

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

Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.

Samples in the analytical batch are: 644613-001, -002, -003, -004, -005, -006, -007, -008

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



Certificate of Analysis Summary 644613

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Nov-27-19 09:50 am

Report Date: 02-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644613-001	644613-002	644613-003	644613-004	644613-005	644613-006
	<i>Field Id:</i>	FS95	FS96	FS97	FS98	FS99	FS100
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-26-19 11:10	Nov-26-19 11:05	Nov-26-19 11:15	Nov-26-19 11:20	Nov-26-19 11:25	Nov-26-19 11:30
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11
	<i>Analyzed:</i>	Nov-28-19 09:15	Nov-28-19 09:34	Nov-28-19 09:53	Nov-28-19 10:12	Nov-28-19 10:32	Nov-28-19 10:51
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00403 0.00403	<0.00403 0.00403	<0.00399 0.00399	<0.00398 0.00398	<0.00399 0.00399	<0.00398 0.00398
o-Xylene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11
	<i>Analyzed:</i>	Nov-27-19 19:04	Nov-27-19 19:10	Nov-27-19 19:16	Nov-27-19 19:22	Nov-27-19 19:28	Nov-27-19 19:46
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		19.7 9.98	21.1 10.1	60.2 10.1	24.6 10.0	31.2 9.94	83.1 10.1
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-27-19 13:00	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30
	<i>Analyzed:</i>	Nov-27-19 19:03	Nov-27-19 20:03	Nov-27-19 20:23	Nov-27-19 20:43	Nov-27-19 20:43	Nov-27-19 21:02
	<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	<50.3 50.3	<50.1 50.1	<50.2 50.2	<49.9 49.9
Diesel Range Organics (DRO)		<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.1 50.1	<50.2 50.2	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.1 50.1	<50.2 50.2	<49.9 49.9
Total GRO-DRO		<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.1 50.1	<50.2 50.2	<49.9 49.9
Total TPH		<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.1 50.1	<50.2 50.2	<49.9 49.9

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: 1.9%

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 644613

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Nov-27-19 09:50 am

Report Date: 02-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	644613-007	644613-008				
	Field Id:	FS101	FS102				
	Depth:	0.5- ft	0.5- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	Nov-26-19 11:40	Nov-26-19 12:00				
BTEX by EPA 8021B	Extracted:	Nov-27-19 16:11	Nov-27-19 16:11				
	Analyzed:	Nov-28-19 11:10	Nov-28-19 11:29				
	Units/RL:	mg/kg RL	mg/kg RL				
	Benzene	<0.00198 0.00198	<0.00200 0.00200				
	Toluene	<0.00198 0.00198	<0.00200 0.00200				
Ethylbenzene		<0.00198 0.00198	<0.00200 0.00200				
m,p-Xylenes		<0.00397 0.00397	<0.00400 0.00400				
o-Xylene		<0.00198 0.00198	<0.00200 0.00200				
Total Xylenes		<0.00198 0.00198	<0.00200 0.00200				
Total BTEX		<0.00198 0.00198	<0.00200 0.00200				
Chloride by EPA 300	Extracted:	Nov-27-19 13:11	Nov-27-19 13:11				
	Analyzed:	Nov-27-19 19:52	Nov-27-19 19:58				
	Units/RL:	mg/kg RL	mg/kg RL				
	Chloride	39.6 10.0	28.6 10.1				
TPH by SW8015 Mod	Extracted:	Nov-27-19 15:30	Nov-27-19 15:30				
	Analyzed:	Nov-27-19 21:02	Nov-27-19 21:22				
	Units/RL:	mg/kg RL	mg/kg RL				
	Gasoline Range Hydrocarbons (GRO)	<50.3 50.3	<50.2 50.2				
	Diesel Range Organics (DRO)	<50.3 50.3	<50.2 50.2				
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3	<50.2 50.2				
Total GRO-DRO		<50.3 50.3	<50.2 50.2				
Total TPH		<50.3 50.3	<50.2 50.2				

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Version: 1.0%

Jessica Kramer
Project Assistant



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS95** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644613-001 Date Collected: 11.26.19 11.10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	19.7	9.98	mg/kg	11.27.19 19.04		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 13.00 Basis: Wet Weight
 Seq Number: 3109042

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.27.19 19.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.27.19 19.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.27.19 19.03	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.27.19 19.03	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.27.19 19.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	11.27.19 19.03	
o-Terphenyl	84-15-1	130	%	70-135	11.27.19 19.03	



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS95**
 Lab Sample Id: 644613-001

Matrix: Soil
 Date Collected: 11.26.19 11.10

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.28.19 09.15	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.28.19 09.15	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.28.19 09.15	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.28.19 09.15	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.28.19 09.15	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.28.19 09.15	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.28.19 09.15	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	11.28.19 09.15		
1,4-Difluorobenzene	540-36-3	82	%	70-130	11.28.19 09.15		



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS96** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644613-002 Date Collected: 11.26.19 11.05 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.1	10.1	mg/kg	11.27.19 19.10		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.27.19 20.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.27.19 20.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.27.19 20.03	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.27.19 20.03	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.27.19 20.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	129	%	70-135	11.27.19 20.03	
o-Terphenyl	84-15-1	129	%	70-135	11.27.19 20.03	



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS96** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644613-002 Date Collected: 11.26.19 11.05 Sample Depth: 0.5 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 16.11 Basis: Wet Weight
 Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.28.19 09.34	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.28.19 09.34	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.28.19 09.34	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.28.19 09.34	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.28.19 09.34	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.28.19 09.34	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.28.19 09.34	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102		%	70-130	11.28.19 09.34	
1,4-Difluorobenzene	540-36-3	94		%	70-130	11.28.19 09.34	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS97** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644613-003 Date Collected: 11.26.19 11.15 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	60.2	10.1	mg/kg	11.27.19 19.16		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.27.19 20.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.27.19 20.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.27.19 20.23	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.27.19 20.23	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.27.19 20.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	11.27.19 20.23	
o-Terphenyl	84-15-1	116	%	70-135	11.27.19 20.23	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS97**
 Lab Sample Id: 644613-003

Matrix: Soil
 Date Collected: 11.26.19 11.15

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 09.53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 09.53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 09.53	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.28.19 09.53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 09.53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 09.53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 09.53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.28.19 09.53		
1,4-Difluorobenzene	540-36-3	94	%	70-130	11.28.19 09.53		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS98** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644613-004 Date Collected: 11.26.19 11.20 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	24.6	10.0	mg/kg	11.27.19 19.22		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.27.19 20.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.27.19 20.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.27.19 20.43	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.27.19 20.43	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.27.19 20.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	11.27.19 20.43	
o-Terphenyl	84-15-1	132	%	70-135	11.27.19 20.43	



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS98**
 Lab Sample Id: 644613-004

Matrix: Soil
 Date Collected: 11.26.19 11.20

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.28.19 10.12	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.28.19 10.12	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.28.19 10.12	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.28.19 10.12	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.28.19 10.12	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.28.19 10.12	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.28.19 10.12	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		101	%	70-130	11.28.19 10.12	
1,4-Difluorobenzene	540-36-3		82	%	70-130	11.28.19 10.12	



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS99** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644613-005 Date Collected: 11.26.19 11.25 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.2	9.94	mg/kg	11.27.19 19.28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.27.19 20.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.27.19 20.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.27.19 20.43	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.27.19 20.43	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.27.19 20.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	11.27.19 20.43	
o-Terphenyl	84-15-1	114	%	70-135	11.27.19 20.43	



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS99**
 Lab Sample Id: 644613-005

Matrix: Soil
 Date Collected: 11.26.19 11.25

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 10.32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 10.32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 10.32	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.28.19 10.32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 10.32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 10.32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 10.32	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		95	%	70-130	11.28.19 10.32	
1,4-Difluorobenzene	540-36-3		81	%	70-130	11.28.19 10.32	



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS100** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644613-006 Date Collected: 11.26.19 11.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	83.1	10.1	mg/kg	11.27.19 19.46		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.27.19 21.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.27.19 21.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.27.19 21.02	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.27.19 21.02	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.27.19 21.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	11.27.19 21.02	
o-Terphenyl	84-15-1	114	%	70-135	11.27.19 21.02	



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS100**
 Lab Sample Id: 644613-006

Matrix: Soil
 Date Collected: 11.26.19 11.30

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.28.19 10.51	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.28.19 10.51	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.28.19 10.51	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.28.19 10.51	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.28.19 10.51	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.28.19 10.51	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.28.19 10.51	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		86	%	70-130	11.28.19 10.51	
1,4-Difluorobenzene	540-36-3		81	%	70-130	11.28.19 10.51	



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS101** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644613-007 Date Collected: 11.26.19 11.40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	39.6	10.0	mg/kg	11.27.19 19.52		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.27.19 21.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.27.19 21.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.27.19 21.02	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.27.19 21.02	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.27.19 21.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	11.27.19 21.02	
o-Terphenyl	84-15-1	114	%	70-135	11.27.19 21.02	



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS101**
 Lab Sample Id: 644613-007

Matrix: Soil
 Date Collected: 11.26.19 11.40

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.28.19 11.10	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.28.19 11.10	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.28.19 11.10	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.28.19 11.10	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.28.19 11.10	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.28.19 11.10	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.28.19 11.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	83	%	70-130	11.28.19 11.10		
4-Bromofluorobenzene	460-00-4	92	%	70-130	11.28.19 11.10		



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS102** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644613-008 Date Collected: 11.26.19 12.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	28.6	10.1	mg/kg	11.27.19 19.58		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.27.19 21.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.27.19 21.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.27.19 21.22	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.27.19 21.22	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.27.19 21.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	11.27.19 21.22	
o-Terphenyl	84-15-1	118	%	70-135	11.27.19 21.22	



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS102**
 Lab Sample Id: 644613-008

Matrix: Soil
 Date Collected: 11.26.19 12.00

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 11.29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 11.29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 11.29	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.28.19 11.29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 11.29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 11.29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 11.29	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		83	%	70-130	11.28.19 11.29	
4-Bromofluorobenzene	460-00-4		99	%	70-130	11.28.19 11.29	



Flagging Criteria

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

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

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109018

MB Sample Id: 7691385-1-BLK

Matrix: Solid

LCS Sample Id: 7691385-1-BKS

Prep Method: E300P

Date Prep: 11.27.19

LCSD Sample Id: 7691385-1-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	266	106	272	109	90-110	2	20	mg/kg	11.27.19 18:34	

Analytical Method: Chloride by EPA 300

Seq Number: 3109018

Parent Sample Id: 644612-001

Matrix: Soil

MS Sample Id: 644612-001 S

Prep Method: E300P

Date Prep: 11.27.19

MSD Sample Id: 644612-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	682	201	877	97	871	94	90-110	1	20	mg/kg	11.27.19 18:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3109018

Parent Sample Id: 644618-002

Matrix: Soil

MS Sample Id: 644618-002 S

Prep Method: E300P

Date Prep: 11.27.19

MSD Sample Id: 644618-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1860	198	2040	91	2060	100	90-110	1	20	mg/kg	11.27.19 20:17	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109042

MB Sample Id: 7691370-1-BLK

Matrix: Solid

LCS Sample Id: 7691370-1-BKS

Prep Method: SW8015P

Date Prep: 11.27.19

LCSD Sample Id: 7691370-1-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	897	90	1120	112	70-135	22	35	mg/kg	11.27.19 15:05	
Diesel Range Organics (DRO)	<50.0	1000	1110	111	1290	129	70-135	15	35	mg/kg	11.27.19 15:05	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		122		134		70-135	%	11.27.19 15:05
o-Terphenyl	114		129		126		70-135	%	11.27.19 15:05

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

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

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

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109048

MB Sample Id: 7691371-1-BLK

Matrix: Solid

LCS Sample Id: 7691371-1-BKS

Prep Method: SW8015P

Date Prep: 11.27.19

LCSD Sample Id: 7691371-1-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	980	98	918	92	70-135	7	35	mg/kg	11.27.19 19:43	
Diesel Range Organics (DRO)	<50.0	1000	1140	114	1120	112	70-135	2	35	mg/kg	11.27.19 19:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		129		128		70-135	%	11.27.19 19:43
o-Terphenyl	111		134		130		70-135	%	11.27.19 19:43

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109042

Matrix: Solid

MB Sample Id: 7691370-1-BLK

Prep Method: SW8015P

Date Prep: 11.27.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.27.19 15:05	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109048

Matrix: Solid

MB Sample Id: 7691371-1-BLK

Prep Method: SW8015P

Date Prep: 11.27.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.27.19 19:23	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109042

Matrix: Soil

Parent Sample Id: 644605-009

MS Sample Id: 644605-009 S

Prep Method: SW8015P

Date Prep: 11.27.19

MSD Sample Id: 644605-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1050	105	895	90	70-135	16	35	mg/kg	11.27.19 15:45	
Diesel Range Organics (DRO)	<50.2	1000	1080	108	1280	128	70-135	17	35	mg/kg	11.27.19 15:45	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	84		104		70-135	%	11.27.19 15:45
o-Terphenyl	90		124		70-135	%	11.27.19 15:45

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

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

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109048

Parent Sample Id: 644613-002

Matrix: Soil

MS Sample Id: 644613-002 S

Prep Method: SW8015P

Date Prep: 11.27.19

MSD Sample Id: 644613-002 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	924	92	1010	101	70-135	9	35	mg/kg	11.27.19 20:03	
Diesel Range Organics (DRO)	<50.1	1000	1120	112	1180	118	70-135	5	35	mg/kg	11.27.19 20:03	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		133		70-135	%	11.27.19 20:03
o-Terphenyl	126		129		70-135	%	11.27.19 20:03

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109035

MB Sample Id: 7691379-1-BLK

Matrix: Solid

LCS Sample Id: 7691379-1-BKS

Prep Method: SW5030B

Date Prep: 11.27.19

LCSD Sample Id: 7691379-1-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	0.0773	77	0.0848	85	70-130	9	35	mg/kg	11.28.19 07:33	
Toluene	<0.00200	0.100	0.0791	79	0.0879	88	70-130	11	35	mg/kg	11.28.19 07:33	
Ethylbenzene	<0.00200	0.100	0.0771	77	0.0860	86	71-129	11	35	mg/kg	11.28.19 07:33	
m,p-Xylenes	<0.00400	0.200	0.165	83	0.184	92	70-135	11	35	mg/kg	11.28.19 07:33	
o-Xylene	<0.00200	0.100	0.0861	86	0.0963	96	71-133	11	35	mg/kg	11.28.19 07:33	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		101		70-130	%	11.28.19 07:33
4-Bromofluorobenzene	104		107		109		70-130	%	11.28.19 07:33

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109035

Parent Sample Id: 644613-001

Matrix: Soil

MS Sample Id: 644613-001 S

Prep Method: SW5030B

Date Prep: 11.27.19

MSD Sample Id: 644613-001 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	0.0346	35	0.0190	19	70-130	58	35	mg/kg	11.28.19 08:11	XF
Toluene	<0.00200	0.100	0.0412	41	0.0241	24	70-130	52	35	mg/kg	11.28.19 08:11	XF
Ethylbenzene	<0.00200	0.100	0.0418	42	0.0245	25	71-129	52	35	mg/kg	11.28.19 08:11	XF
m,p-Xylenes	<0.00401	0.200	0.0896	45	0.0520	26	70-135	53	35	mg/kg	11.28.19 08:11	XF
o-Xylene	<0.00200	0.100	0.0514	51	0.0315	32	71-133	48	35	mg/kg	11.28.19 08:11	XF

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		93		70-130	%	11.28.19 08:11
4-Bromofluorobenzene	117		116		70-130	%	11.28.19 08:11

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

[illegible]

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH	BTEX	Chloro	Sample Comments
FS95	S	11/2/17	110	0.5'	1	X	X	X	
FS96			1105			X	X	X	
FS97			1115			X	X	X	
FS98			1120			X	X	X	
FS99			1125			X	X	X	
FS100			1130			X	X	X	
FS101			1140			X	X	X	
FS102			1200			X	X	X	
						Composite			

BRCCFA 13PPM Texas 11 Al Sb As Ba Bi B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Sn Ag SiO2 Na S Ti Sn U V Zn
1631/245.1/7470/7471 Hg

[illegible]

Notice: Registration of files does not constitute a valid purchase order from client company to Xerox. Its affirms end subcontractors. It assigns identified items and conditions to Xerox. Xerox will bear the cost of samples sent and shall not assume any responsibility for any losses or damages incurred by the client if such losses are due to circumstances beyond the control of Xerox. Samples will be held until the time of return and a charge of \$5 per each sample submitted to Xerox, but not returned. These terms will be enforceable unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	11/27/19 9:30	<i>[Signature]</i>	<i>[Signature]</i>	11/27/19 1:50

Printed Date: 01/13/2020 20



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/27/2019 09:50:00 AM

Work Order #: 644613

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist

Comments

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 11/27/2019

Checklist reviewed by:

Jessica Kramer

Date: 11/27/2019

Analytical Report 644618

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

02-DEC-19

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)



02-DEC-19

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

Reference: XENCO Report No(s): **644618**
Ross Draw CDP
Project Address:

Dan Moir:

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) 644618. 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. 644618 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 Assistant

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

Certified and approved by numerous States and Agencies.

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

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

**Sample Cross Reference 644618****LT Environmental, Inc., Arvada, CO**

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS75	S	11-23-19 13:15	0.5 ft	644618-001
FS77	S	11-23-19 13:20	0.5 ft	644618-002
FS78	S	11-23-19 13:25	0.5 ft	644618-003
FS79	S	11-23-19 13:30	0.5 ft	644618-004
FS80	S	11-23-19 14:00	0.5 ft	644618-005
FS81	S	11-25-19 13:00	0.5 ft	644618-006
FS82	S	11-25-19 13:10	0.5 ft	644618-007
FS83	S	11-25-19 13:15	0.5 ft	644618-008
FS84	S	11-25-19 13:20	0.5 ft	644618-009
FS85	S	11-25-19 13:25	0.5 ft	644618-010
FS86	S	11-25-19 13:30	0.5 ft	644618-011
FS87	S	11-25-19 13:35	0.5 ft	644618-012
FS88	S	11-25-19 13:40	0.5 ft	644618-013
FS89	S	11-25-19 14:00	0.5 ft	644618-014
FS90	S	11-25-19 14:10	0.5 ft	644618-015
FS91	S	11-25-19 14:20	0.5 ft	644618-016
FS92	S	11-25-19 14:30	0.5 ft	644618-017
FS94	S	11-25-19 14:40	0.5 ft	644618-018

**CASE NARRATIVE****Client Name: LT Environmental, Inc.****Project Name: Ross Draw CDP**Project ID: 012919277
Work Order Number(s): 644618Report Date: 02-DEC-19
Date Received: 11/27/2019**Sample receipt non conformances and comments:**

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109022 Chloride by EPA 300

Lab Sample ID 644623-004 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 644618-012, -013, -014, -015, -016, -017, -018.

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

Batch: LBA-3109035 BTEX by EPA 8021B

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

Batch: LBA-3109038 BTEX by EPA 8021B

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

Lab Sample ID 644618-013 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 644618-013, -014, -015, -016, -017, -018.

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

Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.

Samples in the analytical batch are: 644618-013, -014, -015, -016, -017, -018

Batch: LBA-3109059 TPH by SW8015 Mod

Surrogate 1-Chlorooctane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 644618-014 SD.

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 644618-017.



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 644618

Report Date: 02-DEC-19
Date Received: 11/27/2019



Certificate of Analysis Summary 644618

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Nov-27-19 09:50 am

Report Date: 02-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644618-001	644618-002	644618-003	644618-004	644618-005	644618-006
	<i>Field Id:</i>	FS75	FS77	FS78	FS79	FS80	FS81
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-23-19 13:15	Nov-23-19 13:20	Nov-23-19 13:25	Nov-23-19 13:30	Nov-23-19 14:00	Nov-25-19 13:00
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11
	<i>Analyzed:</i>	Nov-28-19 11:48	Nov-28-19 12:07	Nov-28-19 13:11	Nov-28-19 13:30	Nov-28-19 13:49	Nov-28-19 14:09
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Toluene		<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Ethylbenzene		<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
m,p-Xylenes		<0.00395 0.00395	<0.00403 0.00403	<0.00401 0.00401	<0.00401 0.00401	<0.00402 0.00402	<0.00403 0.00403
o-Xylene		<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Total Xylenes		<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Total BTEX		<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11
	<i>Analyzed:</i>	Nov-27-19 20:04	Nov-27-19 20:11	Nov-27-19 20:29	Nov-27-19 20:35	Nov-27-19 20:41	Nov-27-19 20:47
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1050 100	1860 99.8	1030 98.8	1530 99.2	961 98.8	880 99.8
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30
	<i>Analyzed:</i>	Nov-27-19 21:22	Nov-27-19 21:42	Nov-27-19 21:42	Nov-27-19 22:02	Nov-27-19 22:22	Nov-27-19 22:22
	<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)		<50.3 50.3	<50.3 50.3	<49.9 49.9	<50.3 50.3	<50.1 50.1	<50.2 50.2
Diesel Range Organics (DRO)		<50.3 50.3	<50.3 50.3	<49.9 49.9	<50.3 50.3	<50.1 50.1	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3	<50.3 50.3	<49.9 49.9	<50.3 50.3	<50.1 50.1	<50.2 50.2
Total GRO-DRO		<50.3 50.3	<50.3 50.3	<49.9 49.9	<50.3 50.3	<50.1 50.1	<50.2 50.2
Total TPH		<50.3 50.3	<50.3 50.3	<49.9 49.9	<50.3 50.3	<50.1 50.1	<50.2 50.2

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 644618

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Nov-27-19 09:50 am

Report Date: 02-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644618-007	644618-008	644618-009	644618-010	644618-011	644618-012
	<i>Field Id:</i>	FS82	FS83	FS84	FS85	FS86	FS87
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-25-19 13:10	Nov-25-19 13:15	Nov-25-19 13:20	Nov-25-19 13:25	Nov-25-19 13:30	Nov-25-19 13:35
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11
	<i>Analyzed:</i>	Nov-28-19 14:28	Nov-28-19 14:47	Nov-28-19 15:06	Nov-28-19 15:25	Nov-28-19 15:44	Nov-28-19 16:03
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00404 0.00404	<0.00399 0.00399	<0.00398 0.00398	<0.00401 0.00401	<0.00402 0.00402	<0.00399 0.00399
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11	Nov-30-19 17:11
	<i>Analyzed:</i>	Nov-27-19 20:53	Nov-27-19 20:59	Nov-27-19 21:17	Nov-27-19 21:23	Nov-27-19 21:29	Nov-30-19 18:00
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		583 99.2	306 99.8	278 D 9.92	118 D 10.0	181 D 9.88	<101 101
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30
	<i>Analyzed:</i>	Nov-27-19 22:42	Nov-27-19 22:42	Nov-27-19 23:01	Nov-27-19 23:01	Nov-27-19 23:21	Nov-27-19 23:21
	<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	<49.9 49.9	<49.9 49.9	<50.2 50.2	<49.8 49.8
Diesel Range Organics (DRO)		<50.2 50.2	<50.1 50.1	<49.9 49.9	<49.9 49.9	<50.2 50.2	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<49.9 49.9	<49.9 49.9	<50.2 50.2	<49.8 49.8
Total GRO-DRO		<50.2 50.2	<50.1 50.1	<49.9 49.9	<49.9 49.9	<50.2 50.2	<49.8 49.8
Total TPH		<50.2 50.2	<50.1 50.1	<49.9 49.9	<49.9 49.9	<50.2 50.2	<49.8 49.8

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Jessica Kramer
Project Assistant

Certificate of Analysis Summary 644618



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Nov-27-19 09:50 am

Report Date: 02-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644618-013	644618-014	644618-015	644618-016	644618-017	644618-018
	<i>Field Id:</i>	FS88	FS89	FS90	FS91	FS92	FS94
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-25-19 13:40	Nov-25-19 14:00	Nov-25-19 14:10	Nov-25-19 14:20	Nov-25-19 14:30	Nov-25-19 14:40
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-27-19 17:11	Nov-27-19 17:11	Nov-27-19 17:11	Nov-27-19 17:11	Nov-27-19 17:11	Nov-27-19 17:11
	<i>Analyzed:</i>	Nov-28-19 19:09	Nov-28-19 19:28	Nov-28-19 19:47	Nov-28-19 20:06	Nov-28-19 20:25	Nov-28-19 20:44
	<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	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200
m,p-Xylenes		<0.00403 0.00403	<0.00399 0.00399	<0.00398 0.00398	<0.00403 0.00403	<0.00404 0.00404	<0.00401 0.00401
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Nov-30-19 17:11	Nov-30-19 17:11	Nov-30-19 17:11	Nov-30-19 17:11	Nov-30-19 17:11	Nov-30-19 17:11
	<i>Analyzed:</i>	Nov-30-19 18:16	Nov-30-19 18:22	Nov-30-19 18:28	Nov-30-19 18:44	Nov-30-19 18:50	Nov-30-19 18:55
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		50.1 10.0	108 49.9	222 9.94	143 9.98	78.9 9.94	192 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-27-19 15:30	Nov-27-19 17:00	Nov-27-19 17:00	Nov-27-19 17:00	Nov-27-19 17:00	Nov-27-19 17:00
	<i>Analyzed:</i>	Nov-27-19 23:41	Nov-28-19 00:20	Nov-28-19 01:00	Nov-28-19 01:00	Nov-28-19 01:20	Nov-28-19 01:20
	<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	<49.8 49.8	<50.1 50.1	<49.8 49.8	<50.1 50.1
Diesel Range Organics (DRO)		<50.2 50.2	<50.1 50.1	<49.8 49.8	<50.1 50.1	<49.8 49.8	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<49.8 49.8	<50.1 50.1	<49.8 49.8	<50.1 50.1
Total GRO-DRO		<50.2 50.2	<50.1 50.1	<49.8 49.8	<50.1 50.1	<49.8 49.8	<50.1 50.1
Total TPH		<50.2 50.2	<50.1 50.1	<49.8 49.8	<50.1 50.1	<49.8 49.8	<50.1 50.1

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Jessica Kramer
Project Assistant



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS75** Matrix: **Soil** Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-001 Date Collected: 11.23.19 13.15 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 11.27.19 13.11 Basis: **Wet Weight**
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1050	100	mg/kg	11.27.19 20.04		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 11.27.19 15.30 Basis: **Wet Weight**
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.27.19 21.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.27.19 21.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.27.19 21.22	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.27.19 21.22	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.27.19 21.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	11.27.19 21.22	
o-Terphenyl	84-15-1	116	%	70-135	11.27.19 21.22	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS75**
 Lab Sample Id: 644618-001

Matrix: Soil
 Date Collected: 11.23.19 13.15

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.28.19 11.48	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.28.19 11.48	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.28.19 11.48	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	11.28.19 11.48	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.28.19 11.48	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.28.19 11.48	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.28.19 11.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	11.28.19 11.48		
1,4-Difluorobenzene	540-36-3	95	%	70-130	11.28.19 11.48		



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS77** Matrix: **Soil** Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-002 Date Collected: 11.23.19 13.20 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 11.27.19 13.11 Basis: **Wet Weight**
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1860	99.8	mg/kg	11.27.19 20.11		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 11.27.19 15.30 Basis: **Wet Weight**
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.27.19 21.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.27.19 21.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.27.19 21.42	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.27.19 21.42	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.27.19 21.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	11.27.19 21.42	
o-Terphenyl	84-15-1	119	%	70-135	11.27.19 21.42	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS77**
 Lab Sample Id: 644618-002

Matrix: Soil
 Date Collected: 11.23.19 13.20

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.28.19 12.07	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.28.19 12.07	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.28.19 12.07	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.28.19 12.07	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.28.19 12.07	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.28.19 12.07	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.28.19 12.07	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	84	%	70-130	11.28.19 12.07		
4-Bromofluorobenzene	460-00-4	90	%	70-130	11.28.19 12.07		



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS78** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-003 Date Collected: 11.23.19 13.25 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1030	98.8	mg/kg	11.27.19 20.29		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.27.19 21.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.27.19 21.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.27.19 21.42	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.27.19 21.42	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.27.19 21.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	11.27.19 21.42	
o-Terphenyl	84-15-1	118	%	70-135	11.27.19 21.42	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS78**
 Lab Sample Id: 644618-003

Matrix: Soil
 Date Collected: 11.23.19 13.25

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 13.11	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 13.11	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 13.11	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.28.19 13.11	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 13.11	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 13.11	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 13.11	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		107	%	70-130	11.28.19 13.11	
1,4-Difluorobenzene	540-36-3		99	%	70-130	11.28.19 13.11	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS79** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-004 Date Collected: 11.23.19 13.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1530	99.2	mg/kg	11.27.19 20.35		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.27.19 22.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.27.19 22.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.27.19 22.02	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.27.19 22.02	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.27.19 22.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	11.27.19 22.02	
o-Terphenyl	84-15-1	119	%	70-135	11.27.19 22.02	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS79**
 Lab Sample Id: 644618-004

Matrix: Soil
 Date Collected: 11.23.19 13.30

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 13.30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 13.30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 13.30	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.28.19 13.30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 13.30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 13.30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 13.30	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		86	%	70-130	11.28.19 13.30	
4-Bromofluorobenzene	460-00-4		101	%	70-130	11.28.19 13.30	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS80** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-005 Date Collected: 11.23.19 14.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	961	98.8	mg/kg	11.27.19 20.41		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.27.19 22.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.27.19 22.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.27.19 22.22	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.27.19 22.22	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.27.19 22.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	11.27.19 22.22	
o-Terphenyl	84-15-1	122	%	70-135	11.27.19 22.22	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS80**
 Lab Sample Id: 644618-005

Matrix: Soil
 Date Collected: 11.23.19 14.00

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.28.19 13.49	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.28.19 13.49	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.28.19 13.49	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.28.19 13.49	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.28.19 13.49	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.28.19 13.49	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.28.19 13.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.28.19 13.49		
1,4-Difluorobenzene	540-36-3	97	%	70-130	11.28.19 13.49		



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS81** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-006 Date Collected: 11.25.19 13.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	880	99.8	mg/kg	11.27.19 20.47		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.27.19 22.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.27.19 22.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.27.19 22.22	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.27.19 22.22	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.27.19 22.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	11.27.19 22.22	
o-Terphenyl	84-15-1	118	%	70-135	11.27.19 22.22	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS81**
 Lab Sample Id: 644618-006

Matrix: Soil
 Date Collected: 11.25.19 13.00

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.28.19 14.09	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.28.19 14.09	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.28.19 14.09	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.28.19 14.09	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.28.19 14.09	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.28.19 14.09	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.28.19 14.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.28.19 14.09		
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.28.19 14.09		



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS82** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-007 Date Collected: 11.25.19 13.10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	583	99.2	mg/kg	11.27.19 20.53		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.27.19 22.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.27.19 22.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.27.19 22.42	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.27.19 22.42	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.27.19 22.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	11.27.19 22.42	
o-Terphenyl	84-15-1	121	%	70-135	11.27.19 22.42	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS82**
 Lab Sample Id: 644618-007

Matrix: Soil
 Date Collected: 11.25.19 13.10

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.28.19 14.28	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.28.19 14.28	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.28.19 14.28	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.28.19 14.28	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.28.19 14.28	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.28.19 14.28	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.28.19 14.28	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		81	%	70-130	11.28.19 14.28	
4-Bromofluorobenzene	460-00-4		85	%	70-130	11.28.19 14.28	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS83** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-008 Date Collected: 11.25.19 13.15 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	306	99.8	mg/kg	11.27.19 20.59		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.27.19 22.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.27.19 22.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.27.19 22.42	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.27.19 22.42	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.27.19 22.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	11.27.19 22.42	
o-Terphenyl	84-15-1	120	%	70-135	11.27.19 22.42	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS83**
 Lab Sample Id: 644618-008

Matrix: Soil
 Date Collected: 11.25.19 13.15

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 14.47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 14.47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 14.47	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.28.19 14.47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 14.47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 14.47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 14.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	11.28.19 14.47		
1,4-Difluorobenzene	540-36-3	85	%	70-130	11.28.19 14.47		



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS84** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-009 Date Collected: 11.25.19 13.20 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	278	9.92	mg/kg	11.30.19 17.43	D	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.27.19 23.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.27.19 23.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.27.19 23.01	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.27.19 23.01	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.27.19 23.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	11.27.19 23.01	
o-Terphenyl	84-15-1	116	%	70-135	11.27.19 23.01	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS84**
 Lab Sample Id: 644618-009

Matrix: Soil
 Date Collected: 11.25.19 13.20

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.28.19 15.06	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.28.19 15.06	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.28.19 15.06	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.28.19 15.06	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.28.19 15.06	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.28.19 15.06	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.28.19 15.06	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		100	%	70-130	11.28.19 15.06	
1,4-Difluorobenzene	540-36-3		90	%	70-130	11.28.19 15.06	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS85** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-010 Date Collected: 11.25.19 13.25 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	118	10.0	mg/kg	11.30.19 17.48	D	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.27.19 23.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.27.19 23.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.27.19 23.01	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.27.19 23.01	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.27.19 23.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	11.27.19 23.01	
o-Terphenyl	84-15-1	116	%	70-135	11.27.19 23.01	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS85**
 Lab Sample Id: 644618-010

Matrix: Soil
 Date Collected: 11.25.19 13.25

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 15.25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 15.25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 15.25	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.28.19 15.25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 15.25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 15.25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 15.25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	11.28.19 15.25		
1,4-Difluorobenzene	540-36-3	85	%	70-130	11.28.19 15.25		



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS86** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-011 Date Collected: 11.25.19 13.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	181	9.88	mg/kg	11.30.19 17.54	D	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.27.19 23.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.27.19 23.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.27.19 23.21	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.27.19 23.21	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.27.19 23.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	11.27.19 23.21	
o-Terphenyl	84-15-1	117	%	70-135	11.27.19 23.21	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS86**
 Lab Sample Id: 644618-011

Matrix: Soil
 Date Collected: 11.25.19 13.30

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.28.19 15.44	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.28.19 15.44	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.28.19 15.44	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.28.19 15.44	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.28.19 15.44	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.28.19 15.44	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.28.19 15.44	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	11.28.19 15.44		
1,4-Difluorobenzene	540-36-3	83	%	70-130	11.28.19 15.44		



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS87** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-012 Date Collected: 11.25.19 13.35 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<101	101	mg/kg	11.30.19 18.00	U	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.27.19 23.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.27.19 23.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.27.19 23.21	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.27.19 23.21	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.27.19 23.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	11.27.19 23.21	
o-Terphenyl	84-15-1	118	%	70-135	11.27.19 23.21	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS87**
 Lab Sample Id: 644618-012

Matrix: Soil
 Date Collected: 11.25.19 13.35

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 16.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 16.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 16.03	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.28.19 16.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 16.03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 16.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 16.03	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		115	%	70-130	11.28.19 16.03	
1,4-Difluorobenzene	540-36-3		97	%	70-130	11.28.19 16.03	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS88** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-013 Date Collected: 11.25.19 13.40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	50.1	10.0	mg/kg	12.01.19 11.13		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.27.19 23.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.27.19 23.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.27.19 23.41	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.27.19 23.41	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.27.19 23.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	11.27.19 23.41	
o-Terphenyl	84-15-1	120	%	70-135	11.27.19 23.41	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS88**
 Lab Sample Id: 644618-013

Matrix: Soil
 Date Collected: 11.25.19 13.40

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 17.11

Basis: Wet Weight

Seq Number: 3109038

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.28.19 19.09	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.28.19 19.09	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.28.19 19.09	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.28.19 19.09	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.28.19 19.09	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.28.19 19.09	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.28.19 19.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	11.28.19 19.09		
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.28.19 19.09		



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS89** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-014 Date Collected: 11.25.19 14.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	108	49.9	mg/kg	11.30.19 18.22		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.28.19 00.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.28.19 00.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.28.19 00.20	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.28.19 00.20	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.28.19 00.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	11.28.19 00.20	
o-Terphenyl	84-15-1	97	%	70-135	11.28.19 00.20	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS89**
 Lab Sample Id: 644618-014

Matrix: Soil
 Date Collected: 11.25.19 14.00

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 17.11

Basis: Wet Weight

Seq Number: 3109038

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 19.28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 19.28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 19.28	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.28.19 19.28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 19.28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 19.28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 19.28	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		113	%	70-130	11.28.19 19.28	
1,4-Difluorobenzene	540-36-3		96	%	70-130	11.28.19 19.28	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS90** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-015 Date Collected: 11.25.19 14.10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	222	9.94	mg/kg	12.01.19 11.19		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.28.19 01.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.28.19 01.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.28.19 01.00	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.28.19 01.00	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.28.19 01.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	127	%	70-135	11.28.19 01.00	
o-Terphenyl	84-15-1	132	%	70-135	11.28.19 01.00	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS90**
 Lab Sample Id: 644618-015

Matrix: Soil
 Date Collected: 11.25.19 14.10

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 17.11

Basis: Wet Weight

Seq Number: 3109038

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.28.19 19.47	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.28.19 19.47	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.28.19 19.47	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.28.19 19.47	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.28.19 19.47	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.28.19 19.47	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.28.19 19.47	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		101	%	70-130	11.28.19 19.47	
4-Bromofluorobenzene	460-00-4		114	%	70-130	11.28.19 19.47	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS91** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-016 Date Collected: 11.25.19 14.20 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	143	9.98	mg/kg	12.01.19 11.24		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.28.19 01.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.28.19 01.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.28.19 01.00	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.28.19 01.00	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.28.19 01.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	11.28.19 01.00	
o-Terphenyl	84-15-1	132	%	70-135	11.28.19 01.00	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS91**
 Lab Sample Id: 644618-016

Matrix: Soil
 Date Collected: 11.25.19 14.20

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 17.11

Basis: Wet Weight

Seq Number: 3109038

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.28.19 20.06	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.28.19 20.06	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.28.19 20.06	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.28.19 20.06	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.28.19 20.06	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.28.19 20.06	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.28.19 20.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.28.19 20.06		
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.28.19 20.06		



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS92** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-017 Date Collected: 11.25.19 14.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	78.9	9.94	mg/kg	12.01.19 11.30		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.28.19 01.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.28.19 01.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.28.19 01.20	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.28.19 01.20	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.28.19 01.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	134	%	70-135	11.28.19 01.20	
o-Terphenyl	84-15-1	136	%	70-135	11.28.19 01.20	**



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS92**
 Lab Sample Id: 644618-017

Matrix: Soil
 Date Collected: 11.25.19 14.30

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 17.11

Basis: Wet Weight

Seq Number: 3109038

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.28.19 20.25	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.28.19 20.25	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.28.19 20.25	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.28.19 20.25	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.28.19 20.25	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.28.19 20.25	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.28.19 20.25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	84	%	70-130	11.28.19 20.25		
4-Bromofluorobenzene	460-00-4	101	%	70-130	11.28.19 20.25		



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS94** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-018 Date Collected: 11.25.19 14.40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	192	9.98	mg/kg	12.01.19 11.35		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.28.19 01.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.28.19 01.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.28.19 01.20	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.28.19 01.20	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.28.19 01.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	126	%	70-135	11.28.19 01.20	
o-Terphenyl	84-15-1	134	%	70-135	11.28.19 01.20	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS94**
 Lab Sample Id: 644618-018

Matrix: Soil
 Date Collected: 11.25.19 14.40

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 17.11

Basis: Wet Weight

Seq Number: 3109038

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 20.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 20.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 20.44	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.28.19 20.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 20.44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 20.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 20.44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	112	%	70-130	11.28.19 20.44		
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.28.19 20.44		



Flagging Criteria

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

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

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109018

MB Sample Id: 7691385-1-BLK

Matrix: Solid

LCS Sample Id: 7691385-1-BKS

Prep Method: E300P

Date Prep: 11.27.19

LCSD Sample Id: 7691385-1-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	266	106	272	109	90-110	2	20	mg/kg	11.27.19 18:34	

Analytical Method: Chloride by EPA 300

Seq Number: 3109022

MB Sample Id: 7691386-1-BLK

Matrix: Solid

LCS Sample Id: 7691386-1-BKS

Prep Method: E300P

Date Prep: 11.30.19

LCSD Sample Id: 7691386-1-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	268	107	262	105	90-110	2	20	mg/kg	11.30.19 17:32	

Analytical Method: Chloride by EPA 300

Seq Number: 3109018

Parent Sample Id: 644612-001

Matrix: Soil

MS Sample Id: 644612-001 S

Prep Method: E300P

Date Prep: 11.27.19

MSD Sample Id: 644612-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	682	201	877	97	871	94	90-110	1	20	mg/kg	11.27.19 18:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3109018

Parent Sample Id: 644618-002

Matrix: Soil

MS Sample Id: 644618-002 S

Prep Method: E300P

Date Prep: 11.27.19

MSD Sample Id: 644618-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1860	198	2040	91	2060	100	90-110	1	20	mg/kg	11.27.19 20:17	

Analytical Method: Chloride by EPA 300

Seq Number: 3109022

Parent Sample Id: 644618-012

Matrix: Soil

MS Sample Id: 644618-012 S

Prep Method: E300P

Date Prep: 11.30.19

MSD Sample Id: 644618-012 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	202	237	90	228	86	90-110	4	20	mg/kg	11.30.19 18:05	X

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

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

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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109022

Parent Sample Id: 644623-004

Matrix: Soil

MS Sample Id: 644623-004 S

Prep Method: E300P

Date Prep: 11.30.19

MSD Sample Id: 644623-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2270	2010	4430	107	4440	109	90-110	0	20	mg/kg	11.30.19 19:24	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109048

MB Sample Id: 7691371-1-BLK

Matrix: Solid

LCS Sample Id: 7691371-1-BKS

Prep Method: SW8015P

Date Prep: 11.27.19

LCSD Sample Id: 7691371-1-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	980	98	918	92	70-135	7	35	mg/kg	11.27.19 19:43	
Diesel Range Organics (DRO)	<50.0	1000	1140	114	1120	112	70-135	2	35	mg/kg	11.27.19 19:43	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		129		128		70-135	%	11.27.19 19:43
o-Terphenyl	111		134		130		70-135	%	11.27.19 19:43

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109059

MB Sample Id: 7691372-1-BLK

Matrix: Solid

LCS Sample Id: 7691372-1-BKS

Prep Method: SW8015P

Date Prep: 11.27.19

LCSD Sample Id: 7691372-1-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	927	93	963	96	70-135	4	35	mg/kg	11.28.19 00:01	
Diesel Range Organics (DRO)	<50.0	1000	1140	114	1110	111	70-135	3	35	mg/kg	11.28.19 00:01	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		123		133		70-135	%	11.28.19 00:01
o-Terphenyl	126		132		130		70-135	%	11.28.19 00:01

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109048

Matrix: Solid

MB Sample Id: 7691371-1-BLK

Prep Method: SW8015P

Date Prep: 11.27.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.27.19 19:23	

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

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

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109059

Matrix: Solid

Prep Method: SW8015P

Date Prep: 11.27.19

MB Sample Id: 7691372-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.28.19 00:01	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109048

Matrix: Soil

Prep Method: SW8015P

Date Prep: 11.27.19

Parent Sample Id: 644613-002

MS Sample Id: 644613-002 S

MSD Sample Id: 644613-002 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	924	92	1010	101	70-135	9	35	mg/kg	11.27.19 20:03	
Diesel Range Organics (DRO)	<50.1	1000	1120	112	1180	118	70-135	5	35	mg/kg	11.27.19 20:03	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		133		70-135	%	11.27.19 20:03
o-Terphenyl	126		129		70-135	%	11.27.19 20:03

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109059

Matrix: Soil

Prep Method: SW8015P

Date Prep: 11.27.19

Parent Sample Id: 644618-014

MS Sample Id: 644618-014 S

MSD Sample Id: 644618-014 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	1080	108	945	95	70-135	13	35	mg/kg	11.28.19 00:40	
Diesel Range Organics (DRO)	<50.0	999	1310	131	1190	119	70-135	10	35	mg/kg	11.28.19 00:40	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	135		137	**	70-135	%	11.28.19 00:40
o-Terphenyl	130		133		70-135	%	11.28.19 00:40

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.

Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109035

MB Sample Id: 7691379-1-BLK

Matrix: Solid

LCS Sample Id: 7691379-1-BKS

Prep Method: SW5030B

Date Prep: 11.27.19

LCSD Sample Id: 7691379-1-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	0.0773	77	0.0848	85	70-130	9	35	mg/kg	11.28.19 07:33	
Toluene	<0.00200	0.100	0.0791	79	0.0879	88	70-130	11	35	mg/kg	11.28.19 07:33	
Ethylbenzene	<0.00200	0.100	0.0771	77	0.0860	86	71-129	11	35	mg/kg	11.28.19 07:33	
m,p-Xylenes	<0.00400	0.200	0.165	83	0.184	92	70-135	11	35	mg/kg	11.28.19 07:33	
o-Xylene	<0.00200	0.100	0.0861	86	0.0963	96	71-133	11	35	mg/kg	11.28.19 07:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		101		70-130	%	11.28.19 07:33
4-Bromofluorobenzene	104		107		109		70-130	%	11.28.19 07:33

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109038

MB Sample Id: 7691380-1-BLK

Matrix: Solid

LCS Sample Id: 7691380-1-BKS

Prep Method: SW5030B

Date Prep: 11.27.19

LCSD Sample Id: 7691380-1-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	0.0773	77	0.0848	85	70-130	9	35	mg/kg	11.28.19 07:33	
Toluene	<0.00200	0.100	0.0791	79	0.0879	88	70-130	11	35	mg/kg	11.28.19 07:33	
Ethylbenzene	<0.00200	0.100	0.0771	77	0.0860	86	71-129	11	35	mg/kg	11.28.19 07:33	
m,p-Xylenes	<0.00400	0.200	0.165	83	0.184	92	70-135	11	35	mg/kg	11.28.19 07:33	
o-Xylene	<0.00200	0.100	0.0861	86	0.0963	96	71-133	11	35	mg/kg	11.28.19 07:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		101		70-130	%	11.28.19 07:33
4-Bromofluorobenzene	104		107		109		70-130	%	11.28.19 07:33

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109035

Parent Sample Id: 644613-001

Matrix: Soil

MS Sample Id: 644613-001 S

Prep Method: SW5030B

Date Prep: 11.27.19

MSD Sample Id: 644613-001 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	0.0346	35	0.0190	19	70-130	58	35	mg/kg	11.28.19 08:11	XF
Toluene	<0.00200	0.100	0.0412	41	0.0241	24	70-130	52	35	mg/kg	11.28.19 08:11	XF
Ethylbenzene	<0.00200	0.100	0.0418	42	0.0245	25	71-129	52	35	mg/kg	11.28.19 08:11	XF
m,p-Xylenes	<0.00401	0.200	0.0896	45	0.0520	26	70-135	53	35	mg/kg	11.28.19 08:11	XF
o-Xylene	<0.00200	0.100	0.0514	51	0.0315	32	71-133	48	35	mg/kg	11.28.19 08:11	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		93		70-130	%	11.28.19 08:11
4-Bromofluorobenzene	117		116		70-130	%	11.28.19 08:11

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.

Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109038

Parent Sample Id: 644618-013

Matrix: Soil

MS Sample Id: 644618-013 S

Prep Method: SW5030B

Date Prep: 11.27.19

MSD Sample Id: 644618-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0225	23	0.0619	61	70-130	93	35	mg/kg	11.28.19 18:05	XF
Toluene	<0.00200	0.100	0.0265	27	0.0628	62	70-130	81	35	mg/kg	11.28.19 18:05	XF
Ethylbenzene	<0.00200	0.100	0.0268	27	0.0600	59	71-129	76	35	mg/kg	11.28.19 18:05	XF
m,p-Xylenes	<0.00401	0.200	0.0587	29	0.125	62	70-135	72	35	mg/kg	11.28.19 18:05	XF
o-Xylene	<0.00200	0.100	0.0352	35	0.0691	68	71-133	65	35	mg/kg	11.28.19 18:05	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		100		70-130	%	11.28.19 18:05
4-Bromofluorobenzene	116		113		70-130	%	11.28.19 18:05

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

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

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

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



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 Midland, TX (432) 704-5449 El Paso, TX (915) 855-0443 Lubbock, TX (806) 794-1396
 Hobbs, NM (505) 392-7550 Phoenix, AZ (480) 355-0800 Atlanta, GA (770) 449-8800 Tampa, FL (813) 432-7009

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Page 1 of 2

Chain of Custody

Work Order No:

1644218

Project Manager:	Dan Moe	Bill To (if different):	Kyle Littel
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO-Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432 704 5178	Email:	dan@moe.com mcafee@liveriv.scot

Program: US/PEST	☐ PRP	☐ Brownfields	☐ RC	☐ Superfund
State of Project:				
Reporting Level II	☐ Level III	☐ BSLUST	☐ MRP	☐ Level IV
Deliverables: EDO	☐	ADAPT	☐	Other:

Project Name:	Res Prod CDP	Turn Around	
Project Number:	012719237	Routine	☐
P.O. Number:		Rush	3 days
Sampler's Name:	Robert McAlister	Date:	

11:09 PM

SAMPLE RECEIPT										ANALYSIS REQUEST										Work Order Notes	
Temperature (°C):		0.4		Temp Blank:		☒ Yes ☐ No		Wet Ice:		☒ Yes ☐ No		Thermometer ID						TAT starts the day received by the lab. & received by 4:30pm			
Returned Inlet:		Yes ☒ No ☐		Yes ☒ No ☐																	
Cooler Custody Seals:		Yes ☒ No ☐		Yes ☒ No ☐		Correction Factor:		Total Containers:		18		Sample Comments									
Sample Custody Seals:		Yes ☒ No ☐		Yes ☒ No ☐		T-NU-001		18													
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Number of Containers															
FS75		S	11/18/19	1315	0.5'	1	TPH (EPA 8018)	X	X	X	Composite										
FS77				1320		X	BTEX (EPA 8-8021)	X	X	X											
FS78				1325		X	Chloride (EPA 300.0)	X	X	X											
FS79				1330		X		X	X	X											
FS80				1340		X		X	X	X											
FS81			11/25/19	1300		X		X	X	X											
FS82				1310		X		X	X	X											
FS83				1315		X		X	X	X											
FS84				1320		X		X	X	X											
FS85				1325		X		X	X	X											

Total 200.7 / 6010 200.8 / 6020: BRORA 13PPM Texan 11 A 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: TCPLP / SPLP 6010: BRORA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 / Hg

Note: Signature at this document and indeliblement 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 held 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 \$5.00 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	11/27/19 9:30	<i>[Signature]</i>	<i>[Signature]</i>	11/27/19 7:00



Chain of Custody

Work Order No: 10910150

Project Manager:		Dan Molar	BA to: (if different)	Kyle Little
Company Name:		LT Environmental, Inc., Permian office	Company Name:	XTO-Energy
Address:		3300 North A Street	Address:	
City, State Zip:		Midland, TX 79705	City, State Zip:	Carlsbad, NM
Phone:		432.704.5176	Email:	daniel@ltenv.com mchase@ltenv.com

Work Order Comments	
Program: UST/ST ☐ PHP ☐ brownfields ☐ EC ☐ Superfund ☐ State of Project: Reporting Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐ Deliverables EDD ☐ ADAPT ☐ Other ☐	

[illegible]

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (B)	BTEX	Chloro	Sample Comments
F386	1	11/21/11	13:50	0.5'	1	X	X	X	Composite
F387			13:55			X	X	X	
F388			14:10			X	X	X	
F389			14:20			X	X	X	
F390			14:10			X	X	X	
F391			14:20			X	X	X	
F392			14:30			X	X	X	
F394			14:40			X	X	X	

Total	200.7 / 6010	200.8 / 6020

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

88RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Pb Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
TCLP/SPLP 6010 88RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
1631/245.1/7470/7471 Hg

1631 / 245.1 / 7470 / 7471 Hg

Notice: Signature of this document and subdevelopment of samples constitutes a valid purchase order from Grant company to Zanco. It affirms and subordinates. It assigns extended terms and conditions of service. Zanco will be liable only for the cost of samples and shall not assume any responsibility for any losses or damages incurred by the client. If such losses are due to circumstances beyond the control of Zanco, Zanco will not be held liable for such losses. A charge of \$5 per each sample submitted to Zanco, 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
		11/27/19 9:00			11/27/19 9:50

Document Date printed: Nov. 29/19



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/27/2019 09:50:00 AM

Work Order #: 644618

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist

Comments

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 11/27/2019

Checklist reviewed by:

Jessica Kramer

Date: 11/27/2019

Analytical Report 644623

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CTB

012919277

02-DEC-19

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)



02-DEC-19

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

Reference: XENCO Report No(s): **644623**
Ross Draw CTB
Project Address:

Dan Moir:

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) 644623. 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. 644623 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 Assistant

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

Certified and approved by numerous States and Agencies.

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

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**Sample Cross Reference 644623****LT Environmental, Inc., Arvada, CO**

Ross Draw CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS66	S	11-23-19 11:00	0.5 ft	644623-001
FS67	S	11-23-19 11:01	0.5 ft	644623-002
FS68	S	11-23-19 11:05	0.5 ft	644623-003
FS69	S	11-23-19 11:06	0.5 ft	644623-004
FS70	S	11-23-19 11:10	0.5 ft	644623-005
FS71	S	11-23-19 11:12	0.5 ft	644623-006
FS72	S	11-23-19 11:13	0.5 ft	644623-007



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CTB

Project ID: 012919277
Work Order Number(s): 644623

Report Date: 02-DEC-19
Date Received: 11/27/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109041 BTEX by EPA 8021B

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

Batch: LBA-3109059 TPH by SW8015 Mod

Surrogate 1-Chlorooctane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 644618-014 SD.

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 644623-002.

Certificate of Analysis Summary 644623



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CTB

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Nov-27-19 09:50 am

Report Date: 02-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644623-001	644623-002	644623-003	644623-004	644623-005	644623-006
	<i>Field Id:</i>	FS66	FS67	FS68	FS69	FS70	FS71
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-23-19 11:00	Nov-23-19 11:01	Nov-23-19 11:05	Nov-23-19 11:06	Nov-23-19 11:10	Nov-23-19 11:12
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-01-19 11:11	Dec-01-19 11:11	Dec-01-19 11:11	Dec-01-19 11:11	Dec-01-19 11:11	Dec-01-19 11:11
	<i>Analyzed:</i>	Dec-01-19 18:58	Dec-01-19 19:17	Dec-01-19 19:36	Dec-01-19 19:55	Dec-01-19 20:14	Dec-01-19 20:33
	<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	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00399 0.00399	<0.00401 0.00401	<0.00402 0.00402	<0.00403 0.00403	<0.00402 0.00402	<0.00399 0.00399
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Nov-30-19 17:11	Nov-30-19 17:11	Nov-30-19 17:11	Nov-30-19 17:11	Nov-30-19 17:11	Nov-30-19 17:11
	<i>Analyzed:</i>	Nov-30-19 19:01	Nov-30-19 19:07	Nov-30-19 19:12	Nov-30-19 19:18	Nov-30-19 19:35	Nov-30-19 19:51
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		2070 99.4	1890 101	2740 101	2270 101	4210 99.8	4670 99.4
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-27-19 17:00	Nov-27-19 17:00	Nov-27-19 17:00	Nov-27-19 17:00	Nov-27-19 17:00	Nov-27-19 17:00
	<i>Analyzed:</i>	Nov-28-19 01:39	Nov-28-19 01:39	Nov-28-19 01:59	Nov-28-19 01:59	Nov-28-19 02:19	Nov-28-19 02:39
	<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)		<49.8 49.8	<50.1 50.1	<50.0 50.0	<50.2 50.2	<50.2 50.2	<49.9 49.9
Diesel Range Organics (DRO)		<49.8 49.8	<50.1 50.1	<50.0 50.0	<50.2 50.2	<50.2 50.2	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.1 50.1	<50.0 50.0	<50.2 50.2	<50.2 50.2	<49.9 49.9
Total GRO-DRO		<49.8 49.8	<50.1 50.1	<50.0 50.0	<50.2 50.2	<50.2 50.2	<49.9 49.9
Total TPH		<49.8 49.8	<50.1 50.1	<50.0 50.0	<50.2 50.2	<50.2 50.2	<49.9 49.9

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 Assistant



Certificate of Analysis Summary 644623

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CTB

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Nov-27-19 09:50 am

Report Date: 02-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	644623-007					
	Field Id:	FS72					
	Depth:	0.5- ft					
	Matrix:	SOIL					
	Sampled:	Nov-23-19 11:13					
BTEX by EPA 8021B	Extracted:	Dec-01-19 11:11					
	Analyzed:	Dec-01-19 20:52					
	Units/RL:	mg/kg RL					
Benzene		<0.00199 0.00199					
Toluene		<0.00199 0.00199					
Ethylbenzene		<0.00199 0.00199					
m,p-Xylenes		<0.00398 0.00398					
o-Xylene		<0.00199 0.00199					
Total Xylenes		<0.00199 0.00199					
Total BTEX		<0.00199 0.00199					
Chloride by EPA 300	Extracted:	Nov-30-19 17:11					
	Analyzed:	Nov-30-19 19:57					
	Units/RL:	mg/kg RL					
Chloride		4490 101					
TPH by SW8015 Mod	Extracted:	Nov-27-19 17:00					
	Analyzed:	Nov-28-19 02:39					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8					
Diesel Range Organics (DRO)		<49.8 49.8					
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8					
Total GRO-DRO		<49.8 49.8					
Total TPH		<49.8 49.8					

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 Assistant



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS66** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644623-001 Date Collected: 11.23.19 11.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2070	99.4	mg/kg	11.30.19 19.01		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.28.19 01.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.28.19 01.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.28.19 01.39	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.28.19 01.39	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.28.19 01.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	134	%	70-135	11.28.19 01.39	
o-Terphenyl	84-15-1	130	%	70-135	11.28.19 01.39	



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS66**
 Lab Sample Id: 644623-001

Matrix: Soil
 Date Collected: 11.23.19 11.00

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.01.19 11.11

Basis: Wet Weight

Seq Number: 3109041

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.01.19 18.58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.01.19 18.58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.01.19 18.58	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.01.19 18.58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.01.19 18.58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.01.19 18.58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.01.19 18.58	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		113	%	70-130	12.01.19 18.58	
1,4-Difluorobenzene	540-36-3		101	%	70-130	12.01.19 18.58	



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS67** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644623-002 Date Collected: 11.23.19 11.01 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1890	101	mg/kg	11.30.19 19.07		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.28.19 01.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.28.19 01.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.28.19 01.39	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.28.19 01.39	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.28.19 01.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	132	%	70-135	11.28.19 01.39	
o-Terphenyl	84-15-1	139	%	70-135	11.28.19 01.39	**



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS67**
 Lab Sample Id: 644623-002

Matrix: Soil
 Date Collected: 11.23.19 11.01

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.01.19 11.11

Basis: Wet Weight

Seq Number: 3109041

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.01.19 19.17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.01.19 19.17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.01.19 19.17	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.01.19 19.17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.01.19 19.17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.01.19 19.17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.01.19 19.17	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	123	%	70-130	12.01.19 19.17		
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.01.19 19.17		



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS68** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644623-003 Date Collected: 11.23.19 11.05 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2740	101	mg/kg	11.30.19 19.12		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.28.19 01.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.28.19 01.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.28.19 01.59	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.28.19 01.59	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.28.19 01.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	11.28.19 01.59	
o-Terphenyl	84-15-1	129	%	70-135	11.28.19 01.59	



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS68**
Lab Sample Id: 644623-003

Matrix: Soil
Date Collected: 11.23.19 11.05

Date Received: 11.27.19 09.50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.01.19 11.11

Basis: Wet Weight

Seq Number: 3109041

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.01.19 19.36	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.01.19 19.36	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.01.19 19.36	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.01.19 19.36	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.01.19 19.36	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.01.19 19.36	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.01.19 19.36	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		101	%	70-130	12.01.19 19.36	
4-Bromofluorobenzene	460-00-4		118	%	70-130	12.01.19 19.36	



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS69** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644623-004 Date Collected: 11.23.19 11.06 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2270	101	mg/kg	11.30.19 19.18		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.28.19 01.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.28.19 01.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.28.19 01.59	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.28.19 01.59	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.28.19 01.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	11.28.19 01.59	
o-Terphenyl	84-15-1	119	%	70-135	11.28.19 01.59	



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS69**
Lab Sample Id: 644623-004

Matrix: Soil
Date Collected: 11.23.19 11.06

Date Received: 11.27.19 09.50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.01.19 11.11

Basis: Wet Weight

Seq Number: 3109041

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.01.19 19.55	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.01.19 19.55	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.01.19 19.55	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.01.19 19.55	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.01.19 19.55	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.01.19 19.55	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.01.19 19.55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	122	%	70-130	12.01.19 19.55		
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.01.19 19.55		



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS70** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644623-005 Date Collected: 11.23.19 11.10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4210	99.8	mg/kg	11.30.19 19.35		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.28.19 02.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.28.19 02.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.28.19 02.19	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.28.19 02.19	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.28.19 02.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	11.28.19 02.19	
o-Terphenyl	84-15-1	128	%	70-135	11.28.19 02.19	



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS70**
Lab Sample Id: 644623-005

Matrix: Soil
Date Collected: 11.23.19 11.10

Date Received: 11.27.19 09.50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.01.19 11.11

Basis: Wet Weight

Seq Number: 3109041

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.01.19 20.14	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.01.19 20.14	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.01.19 20.14	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.01.19 20.14	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.01.19 20.14	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.01.19 20.14	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.01.19 20.14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.01.19 20.14		
4-Bromofluorobenzene	460-00-4	124	%	70-130	12.01.19 20.14		



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS71** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644623-006 Date Collected: 11.23.19 11.12 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4670	99.4	mg/kg	11.30.19 19.51		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.28.19 02.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.28.19 02.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.28.19 02.39	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.28.19 02.39	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.28.19 02.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	11.28.19 02.39	
o-Terphenyl	84-15-1	125	%	70-135	11.28.19 02.39	



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS71**
Lab Sample Id: 644623-006

Matrix: Soil
Date Collected: 11.23.19 11.12

Date Received: 11.27.19 09.50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.01.19 11.11

Basis: Wet Weight

Seq Number: 3109041

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.01.19 20.33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.01.19 20.33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.01.19 20.33	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.01.19 20.33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.01.19 20.33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.01.19 20.33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.01.19 20.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.01.19 20.33		
4-Bromofluorobenzene	460-00-4	120	%	70-130	12.01.19 20.33		



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS72** Matrix: **Soil** Date Received: 11.27.19 09.50
 Lab Sample Id: 644623-007 Date Collected: 11.23.19 11.13 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 11.30.19 17.11 Basis: **Wet Weight**
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4490	101	mg/kg	11.30.19 19.57		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 11.27.19 17.00 Basis: **Wet Weight**
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.28.19 02.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.28.19 02.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.28.19 02.39	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.28.19 02.39	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.28.19 02.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	11.28.19 02.39	
o-Terphenyl	84-15-1	122	%	70-135	11.28.19 02.39	



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS72**
 Lab Sample Id: 644623-007

Matrix: Soil
 Date Collected: 11.23.19 11.13

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.01.19 11.11

Basis: Wet Weight

Seq Number: 3109041

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.01.19 20.52	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.01.19 20.52	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.01.19 20.52	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.01.19 20.52	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.01.19 20.52	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.01.19 20.52	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.01.19 20.52	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		119	%	70-130	12.01.19 20.52	
1,4-Difluorobenzene	540-36-3		101	%	70-130	12.01.19 20.52	



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.

Ross Draw CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3109022

MB Sample Id: 7691386-1-BLK

Matrix: Solid

LCS Sample Id: 7691386-1-BKS

Prep Method: E300P

Date Prep: 11.30.19

LCSD Sample Id: 7691386-1-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	268	107	262	105	90-110	2	20	mg/kg	11.30.19 17:32	

Analytical Method: Chloride by EPA 300

Seq Number: 3109022

Parent Sample Id: 644618-012

Matrix: Soil

MS Sample Id: 644618-012 S

Prep Method: E300P

Date Prep: 11.30.19

MSD Sample Id: 644618-012 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	202	237	90	228	86	90-110	4	20	mg/kg	11.30.19 18:05	X

Analytical Method: Chloride by EPA 300

Seq Number: 3109022

Parent Sample Id: 644623-004

Matrix: Soil

MS Sample Id: 644623-004 S

Prep Method: E300P

Date Prep: 11.30.19

MSD Sample Id: 644623-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2270	2010	4430	107	4440	109	90-110	0	20	mg/kg	11.30.19 19:24	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109059

MB Sample Id: 7691372-1-BLK

Matrix: Solid

LCS Sample Id: 7691372-1-BKS

Prep Method: SW8015P

Date Prep: 11.27.19

LCSD Sample Id: 7691372-1-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	927	93	963	96	70-135	4	35	mg/kg	11.28.19 00:01	
Diesel Range Organics (DRO)	<50.0	1000	1140	114	1110	111	70-135	3	35	mg/kg	11.28.19 00:01	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	121		123		133		70-135	%	11.28.19 00:01			
o-Terphenyl	126		132		130		70-135	%	11.28.19 00:01			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109059

Matrix: Solid

MB Sample Id: 7691372-1-BLK

Prep Method: SW8015P

Date Prep: 11.27.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.28.19 00:01	

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.

Ross Draw CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109059

Parent Sample Id: 644618-014

Matrix: Soil

MS Sample Id: 644618-014 S

Prep Method: SW8015P

Date Prep: 11.27.19

MSD Sample Id: 644618-014 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	1080	108	945	95	70-135	13	35	mg/kg	11.28.19 00:40	
Diesel Range Organics (DRO)	<50.0	999	1310	131	1190	119	70-135	10	35	mg/kg	11.28.19 00:40	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	135		137	**	70-135	%	11.28.19 00:40
o-Terphenyl	130		133		70-135	%	11.28.19 00:40

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109041

MB Sample Id: 7691381-1-BLK

Matrix: Solid

LCS Sample Id: 7691381-1-BKS

Prep Method: SW5030B

Date Prep: 12.01.19

LCSD Sample Id: 7691381-1-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	0.0912	91	0.0895	90	70-130	2	35	mg/kg	12.01.19 17:15	
Toluene	<0.00200	0.100	0.0939	94	0.0918	92	70-130	2	35	mg/kg	12.01.19 17:15	
Ethylbenzene	<0.00200	0.100	0.0939	94	0.0915	92	71-129	3	35	mg/kg	12.01.19 17:15	
m,p-Xylenes	<0.00400	0.200	0.200	100	0.194	97	70-135	3	35	mg/kg	12.01.19 17:15	
o-Xylene	<0.00200	0.100	0.101	101	0.0983	98	71-133	3	35	mg/kg	12.01.19 17:15	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		102		101		70-130	%	12.01.19 17:15
4-Bromofluorobenzene	106		116		114		70-130	%	12.01.19 17:15

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109041

Parent Sample Id: 644623-001

Matrix: Soil

MS Sample Id: 644623-001 S

Prep Method: SW5030B

Date Prep: 12.01.19

MSD Sample Id: 644623-001 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	0.0992	0.0869	88	0.0827	83	70-130	5	35	mg/kg	12.01.19 17:54	
Toluene	<0.00198	0.0992	0.0875	88	0.0835	84	70-130	5	35	mg/kg	12.01.19 17:54	
Ethylbenzene	<0.00198	0.0992	0.0853	86	0.0814	82	71-129	5	35	mg/kg	12.01.19 17:54	
m,p-Xylenes	<0.00397	0.198	0.180	91	0.173	87	70-135	4	35	mg/kg	12.01.19 17:54	
o-Xylene	<0.00198	0.0992	0.0916	92	0.0881	89	71-133	4	35	mg/kg	12.01.19 17:54	

Surrogate

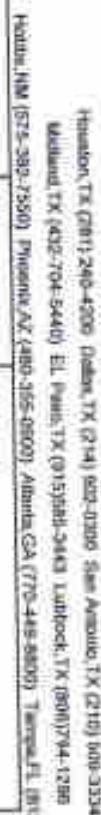
	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		104		70-130	%	12.01.19 17:54
4-Bromofluorobenzene	119		122		70-130	%	12.01.19 17:54

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:

104141023

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Page 10

Work Order Comments

Program: USTEST ☐ PRP ☐ growfield ☐ RC ☐ important ☐

State of Project:

Reporting Level II ☐ Level III ☐ STAUST ☐ PRP ☐ Level IV ☐

Deliverables: EDO ☐ ADAPT ☐ Other: _____

ANALYSIS REQUEST

Work Order Notes

Project Name:	Koss Law CBT		Turn Around
Project Number:	012919277		Routine ☐
P.O. Number:	RM ~~012919277~~		Push: 24 hr
Sampler's Name:	Robert McAllee		Due Date:

SAMPLE RECEIPT		Temp Range	(Yes) ☒ (No) ☐	Wet Ice	(Yes) ☒ (No) ☐
Temperature (°C):	Cool			Thermometer ID:	
Received In/Out:	(Yes) ☒ (No) ☐			Construction Factor:	+ - 0.04 - 0.2
Cooler Custody Sample:	(Yes) ☒ (No) ☐	N/A		Total Containers:	3
Sample Quality Status:	Yes	N/A			

[illegible]

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (%)	BTEX	Chloride	Sample Comments
FS66	S	11/25/19	1105	0.5'	1	X	X	X	
FS67			1101			X	X	X	
FS68			1105			X	X	X	
FS69			1106			X	X	X	
FS70			1110			X	X	X	
FS71			1112			X	X	X	
FS72			1115			X	X	X	

Total	200.7 / 6010	200.8 / 6020

1631 / 245.1 / 7470 / 74

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

[illegible]

1631 / 245.1 / 7470 / 7471 : Hg

The signatary of this document and relinquishment of charges constitutes a valid purchase order from client company to General, its affiliates and subcontractors. It assigns standard terms and conditions to all parties involved. The client hereby agrees to indemnify and hold General harmless for any claims or expenses incurred by the client if such losses are due to circumstances beyond the control of General.

Relinquished by: (Signature)

Received by (Signature) _____

District 11th

Reinquisition by (original)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466

14714

Edith May

[Signature]

1/27/19 9:20

6/1/2020

1000



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/27/2019 09:50:00 AM

Work Order #: 644623

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist

Comments

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 11/27/2019

Checklist reviewed by:

Jessica Kramer

Date: 11/27/2019

Analytical Report 644775

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

03-DEC-19

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)



03-DEC-19

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **644775**

Ross Draw CDP

Project Address:

Dan Moir:

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) 644775. 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. 644775 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 Assistant

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

Certified and approved by numerous States and Agencies.

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

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

**Sample Cross Reference 644775****LT Environmental, Inc., Arvada, CO**

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01A	S	12-02-19 08:40	1 ft	644775-001
FS02A	S	12-02-19 08:45	1 ft	644775-002
FS03A	S	12-02-19 09:15	1 ft	644775-003
FS04A	S	12-02-19 09:20	1 ft	644775-004
FS15A	S	12-02-19 09:30	1 ft	644775-005
FS16A	S	12-02-19 09:35	1 ft	644775-006
FS17A	S	12-02-19 09:40	1 ft	644775-007



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 644775

Report Date: 03-DEC-19
Date Received: 12/02/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109146 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 644679-001 S, 644775-001.

Batch: LBA-3109160 BTEX by EPA 8021B

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



Certificate of Analysis Summary 644775

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Dec-02-19 02:05 pm

Report Date: 03-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644775-001	644775-002	644775-003	644775-004	644775-005	644775-006
	<i>Field Id:</i>	FS01A	FS02A	FS03A	FS04A	FS15A	FS16A
	<i>Depth:</i>	1- ft	1- ft	1- ft	1- ft	1- ft	1- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-02-19 08:40	Dec-02-19 08:45	Dec-02-19 09:15	Dec-02-19 09:20	Dec-02-19 09:30	Dec-02-19 09:35
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-02-19 16:00	Dec-02-19 16:00	Dec-02-19 16:00	Dec-02-19 16:00	Dec-02-19 16:00	Dec-02-19 16:00
	<i>Analyzed:</i>	Dec-03-19 02:55	Dec-03-19 03:14	Dec-03-19 03:33	Dec-03-19 03:52	Dec-03-19 04:11	Dec-03-19 04:31
	<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	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198
Toluene		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198
Ethylbenzene		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198
m,p-Xylenes		<0.00395 0.00395	<0.00395 0.00395	<0.00399 0.00399	<0.00397 0.00397	<0.00395 0.00395	<0.00397 0.00397
o-Xylene		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198
Total Xylenes		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198
Total BTEX		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	Dec-02-19 16:00	Dec-02-19 16:00	Dec-02-19 16:00	Dec-02-19 16:00	Dec-02-19 16:00	Dec-02-19 16:00
	<i>Analyzed:</i>	Dec-02-19 19:49	Dec-02-19 19:55	Dec-02-19 20:02	Dec-02-19 20:09	Dec-02-19 20:16	Dec-02-19 20:23
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		39.2 9.98	434 9.92	110 9.90	86.3 10.0	537 D 49.4	560 D 49.9
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-02-19 17:00	Dec-02-19 17:00	Dec-02-19 17:00	Dec-02-19 17:00	Dec-02-19 17:00	Dec-02-19 17:00
	<i>Analyzed:</i>	Dec-02-19 22:11	Dec-02-19 22:11	Dec-02-19 22:31	Dec-02-19 22:31	Dec-02-19 22:51	Dec-02-19 22:51
	<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	<50.0 50.0	<50.2 50.2	<49.9 49.9	<49.8 49.8
Diesel Range Organics (DRO)		<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.2 50.2	<49.9 49.9	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.2 50.2	<49.9 49.9	<49.8 49.8
Total GRO-DRO		<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.2 50.2	<49.9 49.9	<49.8 49.8
Total TPH		<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.2 50.2	<49.9 49.9	<49.8 49.8

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 Assistant



Certificate of Analysis Summary 644775

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Dec-02-19 02:05 pm

Report Date: 03-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	644775-007					
	Field Id:	FS17A					
	Depth:	1- ft					
	Matrix:	SOIL					
	Sampled:	Dec-02-19 09:40					
BTEX by EPA 8021B	Extracted:	Dec-02-19 16:00					
	Analyzed:	Dec-03-19 04:50					
	Units/RL:	mg/kg RL					
Benzene		<0.00199 0.00199					
Toluene		<0.00199 0.00199					
Ethylbenzene		<0.00199 0.00199					
m,p-Xylenes		<0.00398 0.00398					
o-Xylene		<0.00199 0.00199					
Total Xylenes		<0.00199 0.00199					
Total BTEX		<0.00199 0.00199					
Chloride by EPA 300	Extracted:	Dec-02-19 16:00					
	Analyzed:	Dec-02-19 20:30					
	Units/RL:	mg/kg RL					
Chloride		247 9.92					
TPH by SW8015 Mod	Extracted:	Dec-02-19 17:00					
	Analyzed:	Dec-02-19 23:10					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.3 50.3					
Diesel Range Organics (DRO)		<50.3 50.3					
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3					
Total GRO-DRO		<50.3 50.3					
Total TPH		<50.3 50.3					

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

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Jessica Kramer
Project Assistant



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS01A**
Lab Sample Id: 644775-001

Matrix: Soil
Date Collected: 12.02.19 08.40

Date Received: 12.02.19 14.05
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3109171

Date Prep: 12.02.19 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	39.2	9.98	mg/kg	12.02.19 19.49		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3109146

Date Prep: 12.02.19 17.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.02.19 22.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.02.19 22.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.02.19 22.11	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.02.19 22.11	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.02.19 22.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	131	%	70-135	12.02.19 22.11	
o-Terphenyl	84-15-1	136	%	70-135	12.02.19 22.11	**



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS01A**
 Lab Sample Id: 644775-001

Matrix: Soil
 Date Collected: 12.02.19 08.40

Date Received: 12.02.19 14.05
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.02.19 16.00

Basis: Wet Weight

Seq Number: 3109160

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.03.19 02.55	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.03.19 02.55	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.03.19 02.55	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	12.03.19 02.55	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.03.19 02.55	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.03.19 02.55	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.03.19 02.55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	12.03.19 02.55		
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.03.19 02.55		



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS02A** Matrix: Soil Date Received: 12.02.19 14.05
 Lab Sample Id: 644775-002 Date Collected: 12.02.19 08.45 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.02.19 16.00 Basis: Wet Weight
 Seq Number: 3109171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	434	9.92	mg/kg	12.02.19 19.55		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.02.19 17.00 Basis: Wet Weight
 Seq Number: 3109146

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.02.19 22.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.02.19 22.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.02.19 22.11	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.02.19 22.11	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.02.19 22.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.02.19 22.11	
o-Terphenyl	84-15-1	111	%	70-135	12.02.19 22.11	



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS02A**
 Lab Sample Id: 644775-002

Matrix: Soil
 Date Collected: 12.02.19 08.45

Date Received: 12.02.19 14.05
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.02.19 16.00

Basis: Wet Weight

Seq Number: 3109160

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.03.19 03.14	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.03.19 03.14	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.03.19 03.14	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	12.03.19 03.14	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.03.19 03.14	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.03.19 03.14	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.03.19 03.14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	118	%	70-130	12.03.19 03.14		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.03.19 03.14		



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS03A** Matrix: Soil Date Received: 12.02.19 14.05
 Lab Sample Id: 644775-003 Date Collected: 12.02.19 09.15 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.02.19 16.00 Basis: Wet Weight
 Seq Number: 3109171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	110	9.90	mg/kg	12.02.19 20.02		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.02.19 17.00 Basis: Wet Weight
 Seq Number: 3109146

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.02.19 22.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.02.19 22.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.02.19 22.31	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.02.19 22.31	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.02.19 22.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	12.02.19 22.31	
o-Terphenyl	84-15-1	114	%	70-135	12.02.19 22.31	



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS03A**
 Lab Sample Id: 644775-003

Matrix: Soil
 Date Collected: 12.02.19 09.15

Date Received: 12.02.19 14.05
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.02.19 16.00

Basis: Wet Weight

Seq Number: 3109160

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.03.19 03.33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.03.19 03.33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.03.19 03.33	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.03.19 03.33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.03.19 03.33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.03.19 03.33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.03.19 03.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.03.19 03.33		
4-Bromofluorobenzene	460-00-4	117	%	70-130	12.03.19 03.33		



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS04A**
Lab Sample Id: 644775-004

Matrix: Soil
Date Collected: 12.02.19 09.20

Date Received: 12.02.19 14.05
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3109171

Date Prep: 12.02.19 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	86.3	10.0	mg/kg	12.02.19 20.09		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3109146

Date Prep: 12.02.19 17.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.02.19 22.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.02.19 22.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.02.19 22.31	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.02.19 22.31	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.02.19 22.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	12.02.19 22.31	
o-Terphenyl	84-15-1	109	%	70-135	12.02.19 22.31	



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS04A**
 Lab Sample Id: 644775-004

Matrix: Soil
 Date Collected: 12.02.19 09.20

Date Received: 12.02.19 14.05
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.02.19 16.00

Basis: Wet Weight

Seq Number: 3109160

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.03.19 03.52	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.03.19 03.52	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.03.19 03.52	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.03.19 03.52	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.03.19 03.52	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.03.19 03.52	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.03.19 03.52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.03.19 03.52		
4-Bromofluorobenzene	460-00-4	123	%	70-130	12.03.19 03.52		



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS15A**
 Lab Sample Id: 644775-005

Matrix: Soil
 Date Collected: 12.02.19 09.30

Date Received: 12.02.19 14.05
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3109171

Date Prep: 12.02.19 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	537	49.4	mg/kg	12.03.19 11.24	D	5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3109146

Date Prep: 12.02.19 17.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.02.19 22.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.02.19 22.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.02.19 22.51	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.02.19 22.51	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.02.19 22.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	12.02.19 22.51	
o-Terphenyl	84-15-1	117	%	70-135	12.02.19 22.51	



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS15A**
 Lab Sample Id: 644775-005

Matrix: Soil
 Date Collected: 12.02.19 09.30

Date Received: 12.02.19 14.05
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.02.19 16.00

Basis: Wet Weight

Seq Number: 3109160

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.03.19 04.11	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.03.19 04.11	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.03.19 04.11	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	12.03.19 04.11	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.03.19 04.11	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.03.19 04.11	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.03.19 04.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	12.03.19 04.11		
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.03.19 04.11		



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS16A**
Lab Sample Id: 644775-006

Matrix: Soil
Date Collected: 12.02.19 09.35

Date Received: 12.02.19 14.05
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3109171

Date Prep: 12.02.19 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	560	49.9	mg/kg	12.03.19 11.30	D	5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3109146

Date Prep: 12.02.19 17.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.02.19 22.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.02.19 22.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.02.19 22.51	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.02.19 22.51	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.02.19 22.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	12.02.19 22.51	
o-Terphenyl	84-15-1	109	%	70-135	12.02.19 22.51	



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS16A**
 Lab Sample Id: 644775-006

Matrix: Soil
 Date Collected: 12.02.19 09.35

Date Received: 12.02.19 14.05
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3109160

Prep Method: SW5030B

% Moisture:

Date Prep: 12.02.19 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	12.03.19 04.31	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.03.19 04.31	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.03.19 04.31	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.03.19 04.31	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.03.19 04.31	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.03.19 04.31	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.03.19 04.31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	123	%	70-130	12.03.19 04.31		
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.03.19 04.31		



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS17A** Matrix: Soil Date Received: 12.02.19 14.05
 Lab Sample Id: 644775-007 Date Collected: 12.02.19 09.40 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.02.19 16.00 Basis: Wet Weight
 Seq Number: 3109171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	247	9.92	mg/kg	12.02.19 20.30		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.02.19 17.00 Basis: Wet Weight
 Seq Number: 3109146

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.02.19 23.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.02.19 23.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.02.19 23.10	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.02.19 23.10	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.02.19 23.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.02.19 23.10	
o-Terphenyl	84-15-1	115	%	70-135	12.02.19 23.10	



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS17A**
 Lab Sample Id: 644775-007

Matrix: Soil
 Date Collected: 12.02.19 09.40

Date Received: 12.02.19 14.05
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.02.19 16.00

Basis: Wet Weight

Seq Number: 3109160

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.03.19 04.50	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.03.19 04.50	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.03.19 04.50	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.03.19 04.50	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.03.19 04.50	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.03.19 04.50	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.03.19 04.50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.03.19 04.50		
4-Bromofluorobenzene	460-00-4	123	%	70-130	12.03.19 04.50		



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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109171

MB Sample Id: 7691461-1-BLK

Matrix: Solid

LCS Sample Id: 7691461-1-BKS

Prep Method: E300P

Date Prep: 12.02.19

LCSD Sample Id: 7691461-1-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	264	106	90-110	1	20	mg/kg	12.02.19 15:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3109171

Parent Sample Id: 644679-001

Matrix: Soil

MS Sample Id: 644679-001 S

Prep Method: E300P

Date Prep: 12.02.19

MSD Sample Id: 644679-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.1	201	220	109	219	108	90-110	0	20	mg/kg	12.02.19 15:58	

Analytical Method: Chloride by EPA 300

Seq Number: 3109171

Parent Sample Id: 644772-001

Matrix: Soil

MS Sample Id: 644772-001 S

Prep Method: E300P

Date Prep: 12.02.19

MSD Sample Id: 644772-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1440	247	14600	5328	14600	5243	90-110	0	20	mg/kg	12.03.19 11:05	X

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109146

MB Sample Id: 7691483-1-BLK

Matrix: Solid

LCS Sample Id: 7691483-1-BKS

Prep Method: SW8015P

Date Prep: 12.02.19

LCSD Sample Id: 7691483-1-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	879	88	976	98	70-135	10	35	mg/kg	12.02.19 19:14	
Diesel Range Organics (DRO)	<50.0	1000	1070	107	1140	114	70-135	6	35	mg/kg	12.02.19 19:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		120		132		70-135	%	12.02.19 19:14
o-Terphenyl	120		122		131		70-135	%	12.02.19 19:14

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109146

Matrix: Solid

MB Sample Id: 7691483-1-BLK

Prep Method: SW8015P

Date Prep: 12.02.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.02.19 19:14	

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109146

Parent Sample Id: 644679-001

Matrix: Soil

MS Sample Id: 644679-001 S

Prep Method: SW8015P

Date Prep: 12.02.19

MSD Sample Id: 644679-001 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	983	98	898	89	70-135	9	35	mg/kg	12.03.19 09:09	
Diesel Range Organics (DRO)	<50.0	1000	1250	125	1100	109	70-135	13	35	mg/kg	12.03.19 09:09	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	135		119		70-135	%	12.03.19 09:09
o-Terphenyl	136	**	125		70-135	%	12.03.19 09:09

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109160

MB Sample Id: 7691464-1-BLK

Matrix: Solid

LCS Sample Id: 7691464-1-BKS

Prep Method: SW5030B

Date Prep: 12.02.19

LCSD Sample Id: 7691464-1-BSO

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0856	86	0.0885	89	70-130	3	35	mg/kg	12.02.19 21:17	
Toluene	<0.00200	0.100	0.0854	85	0.0908	91	70-130	6	35	mg/kg	12.02.19 21:17	
Ethylbenzene	<0.00200	0.100	0.0839	84	0.0901	90	71-129	7	35	mg/kg	12.02.19 21:17	
m,p-Xylenes	<0.00400	0.200	0.177	89	0.191	96	70-135	8	35	mg/kg	12.02.19 21:17	
o-Xylene	<0.00200	0.100	0.0900	90	0.0977	98	71-133	8	35	mg/kg	12.02.19 21:17	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		102		101		70-130	%	12.02.19 21:17
4-Bromofluorobenzene	108		114		114		70-130	%	12.02.19 21:17

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109160

Parent Sample Id: 644679-001

Matrix: Soil

MS Sample Id: 644679-001 S

Prep Method: SW5030B

Date Prep: 12.02.19

MSD Sample Id: 644679-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0836	83	0.0744	74	70-130	12	35	mg/kg	12.02.19 22:59	
Toluene	<0.00202	0.101	0.0847	84	0.0780	78	70-130	8	35	mg/kg	12.02.19 22:59	
Ethylbenzene	<0.00202	0.101	0.0843	83	0.0776	78	71-129	8	35	mg/kg	12.02.19 22:59	
m,p-Xylenes	<0.000760	0.202	0.178	88	0.165	82	70-135	8	35	mg/kg	12.02.19 22:59	
o-Xylene	<0.00202	0.101	0.0897	89	0.0853	85	71-133	5	35	mg/kg	12.02.19 22:59	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		98		70-130	%	12.02.19 22:59
4-Bromofluorobenzene	111		119		70-130	%	12.02.19 22:59

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

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

1044775

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Page 10

Work Order Comments	
Program: USTRUST	☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:	
Reporting Level II	☐ Level III ☐ USTRUST ☐ BRP ☐ Level IV ☐
Derivative: EEO	☐ ADAPT ☐ Other: _____

[illegible]

TAT starts the day received by the	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EP)	BTEX (EP)	Chloride	Sample Comments
F501A	S	12/12/19	0840	1'	1	X	X	X	Composite
F502A			0845			X	X	X	
F503A			0915			X	X	X	
F504A			0920			X	X	X	
F515A			0930			X	X	X	
F516A			0935			X	X	X	Composite
F517A			0940			X	X	X	

[illegible]

TCLP / SPLP 6010 HRCRA Sh As Ba Be Bi Br C Cd Cr Co Cu Pb Mn Ni No

1631 / 245.1 / 7470 / 7471 - HG

service agreement or data documentation commitment of samples contributes a valid purchase order from client category to Sermo, its affiliates and subcontractors. It assigns standard terms and conditions to Sermo. Sermo 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 Sermo. A minimum charge of \$15.00 will be applied to each project and a charge of \$5 for each sample submitted to Sermo, but not analyzed. These terms will be entered into by the client. If the client does not agree to these terms, the client must notify Sermo within 10 business days of the date of the client's agreement to these terms. If the client does not notify Sermo within 10 business days of the date of the client's agreement to these terms, the client is deemed to have agreed to these terms. These terms will be entered into by the client. If the client does not agree to these terms, the client must notify Sermo within 10 business days of the date of the client's agreement to these terms. If the client does not notify Sermo within 10 business days of the date of the client's agreement to these terms, the client is deemed to have agreed to these terms.

Reinquired by (Signature)	Received by (Signature)	Date/Time	Reinquired by (Signature)	Received by (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	12/02/19 14:05			



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

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

Work Order #: 644775

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 12/02/2019

Checklist reviewed by:

Jessica Kramer

Date: 12/03/2019

Analytical Report 644991

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

05-DEC-19

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)



05-DEC-19

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

Reference: XENCO Report No(s): **644991**
Ross Draw CDP
Project Address:

Dan Moir:

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) 644991. 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. 644991 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 Assistant

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

Certified and approved by numerous States and Agencies.

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

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

**Sample Cross Reference 644991****LT Environmental, Inc., Arvada, CO**

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS41A	S	12-03-19 12:15	1 ft	644991-001
FS42A	S	12-03-19 12:10	1 ft	644991-002
FS107	S	12-03-19 16:40	0.5 ft	644991-003
FS50A	S	12-03-19 15:30	1 ft	644991-004



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 644991

Report Date: 05-DEC-19
Date Received: 12/04/2019

Sample receipt non conformance and comments:

None

Sample receipt non conformance and comments per sample:

None

Analytical non conformance and comments:

Batch: LBA-3109452 BTEX by EPA 8021B

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

Batch: LBA-3109453 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 644991-002.



Certificate of Analysis Summary 644991

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Dec-04-19 08:45 am

Report Date: 05-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644991-001	644991-002	644991-003	644991-004		
	<i>Field Id:</i>	FS41A	FS42A	FS107	FS50A		
	<i>Depth:</i>	1- ft	1- ft	0.5- ft	1- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Dec-03-19 12:15	Dec-03-19 12:10	Dec-03-19 16:40	Dec-03-19 15:30		
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-04-19 10:00	Dec-04-19 10:00	Dec-04-19 10:00	Dec-04-19 10:00		
	<i>Analyzed:</i>	Dec-04-19 17:49	Dec-04-19 18:08	Dec-04-19 18:27	Dec-04-19 18:47		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200		
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200		
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200		
m,p-Xylenes		<0.00398 0.00398	<0.00401 0.00401	<0.00401 0.00401	<0.00399 0.00399		
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200		
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200		
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200		
Chloride by EPA 300	<i>Extracted:</i>	Dec-04-19 13:00	Dec-04-19 13:00	Dec-04-19 13:00	Dec-04-19 13:00		
	<i>Analyzed:</i>	Dec-04-19 18:47	Dec-04-19 18:53	Dec-04-19 18:59	Dec-04-19 19:06		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		2290 99.2	570 100	381 100	294 100		
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-04-19 13:30	Dec-04-19 13:30	Dec-04-19 13:30	Dec-04-19 13:30		
	<i>Analyzed:</i>	Dec-04-19 18:55	Dec-04-19 19:15	Dec-04-19 19:15	Dec-04-19 19:34		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<50.3 50.3	<50.1 50.1	<50.0 50.0		
Diesel Range Organics (DRO)		<49.8 49.8	<50.3 50.3	<50.1 50.1	<50.0 50.0		
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.3 50.3	<50.1 50.1	<50.0 50.0		
Total GRO-DRO		<49.8 49.8	<50.3 50.3	<50.1 50.1	<50.0 50.0		
Total TPH		<49.8 49.8	<50.3 50.3	<50.1 50.1	<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.

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

Version: 1.9%

Jessica Kramer
Project Assistant



Certificate of Analytical Results 644991

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS41A** Matrix: Soil Date Received: 12.04.19 08.45
 Lab Sample Id: 644991-001 Date Collected: 12.03.19 12.15 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.04.19 13.00 Basis: Wet Weight
 Seq Number: 3109466

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2290	99.2	mg/kg	12.04.19 18.47		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.04.19 13.30 Basis: Wet Weight
 Seq Number: 3109453

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.04.19 18.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.04.19 18.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.04.19 18.55	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.04.19 18.55	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.04.19 18.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	12.04.19 18.55	
o-Terphenyl	84-15-1	114	%	70-135	12.04.19 18.55	



Certificate of Analytical Results 644991

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS41A**
 Lab Sample Id: 644991-001

Matrix: Soil
 Date Collected: 12.03.19 12.15

Date Received: 12.04.19 08.45
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.04.19 10.00

Basis: Wet Weight

Seq Number: 3109452

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.04.19 17.49	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.04.19 17.49	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.04.19 17.49	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.04.19 17.49	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.04.19 17.49	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.04.19 17.49	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.04.19 17.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.04.19 17.49		
4-Bromofluorobenzene	460-00-4	123	%	70-130	12.04.19 17.49		



Certificate of Analytical Results 644991

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS42A**
Lab Sample Id: 644991-002

Matrix: Soil
Date Collected: 12.03.19 12.10

Date Received: 12.04.19 08.45
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3109466

Date Prep: 12.04.19 13.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	570	100	mg/kg	12.04.19 18.53		10

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3109453

Date Prep: 12.04.19 13.30

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	12.04.19 19.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.04.19 19.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.04.19 19.15	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.04.19 19.15	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.04.19 19.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	128	%	70-135	12.04.19 19.15	
o-Terphenyl	84-15-1	136	%	70-135	12.04.19 19.15	**



Certificate of Analytical Results 644991

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS42A**
 Lab Sample Id: 644991-002

Matrix: Soil
 Date Collected: 12.03.19 12.10

Date Received: 12.04.19 08.45
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.04.19 10.00

Basis: Wet Weight

Seq Number: 3109452

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.04.19 18.08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.04.19 18.08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.04.19 18.08	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.04.19 18.08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.04.19 18.08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.04.19 18.08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.04.19 18.08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	70-130	12.04.19 18.08		
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.04.19 18.08		



Certificate of Analytical Results 644991

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS107** Matrix: Soil Date Received: 12.04.19 08.45
 Lab Sample Id: 644991-003 Date Collected: 12.03.19 16.40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.04.19 13.00 Basis: Wet Weight
 Seq Number: 3109466

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	381	100	mg/kg	12.04.19 18.59		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.04.19 13.30 Basis: Wet Weight
 Seq Number: 3109453

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.04.19 19.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.04.19 19.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.04.19 19.15	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.04.19 19.15	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.04.19 19.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.04.19 19.15	
o-Terphenyl	84-15-1	115	%	70-135	12.04.19 19.15	



Certificate of Analytical Results 644991

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS107**
 Lab Sample Id: 644991-003

Matrix: Soil
 Date Collected: 12.03.19 16.40

Date Received: 12.04.19 08.45
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.04.19 10.00

Basis: Wet Weight

Seq Number: 3109452

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.04.19 18.27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.04.19 18.27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.04.19 18.27	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.04.19 18.27	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.04.19 18.27	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.04.19 18.27	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.04.19 18.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	124	%	70-130	12.04.19 18.27		
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.04.19 18.27		



Certificate of Analytical Results 644991

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS50A**
Lab Sample Id: 644991-004

Matrix: Soil
Date Collected: 12.03.19 15.30

Date Received: 12.04.19 08.45
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3109466

Date Prep: 12.04.19 13.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	294	100	mg/kg	12.04.19 19.06		10

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3109453

Date Prep: 12.04.19 13.30

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	12.04.19 19.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.04.19 19.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.04.19 19.34	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.04.19 19.34	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.04.19 19.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	12.04.19 19.34	
o-Terphenyl	84-15-1	123	%	70-135	12.04.19 19.34	



Certificate of Analytical Results 644991

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS50A**
 Lab Sample Id: 644991-004

Matrix: Soil
 Date Collected: 12.03.19 15.30

Date Received: 12.04.19 08.45
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.04.19 10.00

Basis: Wet Weight

Seq Number: 3109452

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.04.19 18.47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.04.19 18.47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.04.19 18.47	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.04.19 18.47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.04.19 18.47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.04.19 18.47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.04.19 18.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.04.19 18.47		
4-Bromofluorobenzene	460-00-4	119	%	70-130	12.04.19 18.47		



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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109466

MB Sample Id: 7691688-1-BLK

Matrix: Solid

LCS Sample Id: 7691688-1-BKS

Prep Method: E300P

Date Prep: 12.04.19

LCSD Sample Id: 7691688-1-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	266	106	90-110	2	20	mg/kg	12.04.19 15:56	

Analytical Method: Chloride by EPA 300

Seq Number: 3109466

Parent Sample Id: 644979-001

Matrix: Soil

MS Sample Id: 644979-001 S

Prep Method: E300P

Date Prep: 12.04.19

MSD Sample Id: 644979-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10.5	202	219	103	217	103	90-110	1	20	mg/kg	12.04.19 16:34	

Analytical Method: Chloride by EPA 300

Seq Number: 3109466

Parent Sample Id: 644985-005

Matrix: Soil

MS Sample Id: 644985-005 S

Prep Method: E300P

Date Prep: 12.04.19

MSD Sample Id: 644985-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	942	198	1140	100	1160	109	90-110	2	20	mg/kg	12.04.19 17:57	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109453

MB Sample Id: 7691711-1-BLK

Matrix: Solid

LCS Sample Id: 7691711-1-BKS

Prep Method: SW8015P

Date Prep: 12.04.19

LCSD Sample Id: 7691711-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	914	91	940	94	70-135	3	35	mg/kg	12.04.19 15:37	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1140	114	70-135	9	35	mg/kg	12.04.19 15:37	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		124		130		70-135	%	12.04.19 15:37
o-Terphenyl	108		123		128		70-135	%	12.04.19 15:37

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109453

Matrix: Solid

MB Sample Id: 7691711-1-BLK

Prep Method: SW8015P

Date Prep: 12.04.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.04.19 15:17	

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109453

Parent Sample Id: 644983-001

Matrix: Soil

MS Sample Id: 644983-001 S

Prep Method: SW8015P

Date Prep: 12.04.19

MSD Sample Id: 644983-001 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	902	90	916	91	70-135	2	35	mg/kg	12.04.19 15:57	
Diesel Range Organics (DRO)	62.4	1000	1090	103	1080	101	70-135	1	35	mg/kg	12.04.19 15:57	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		126		70-135	%	12.04.19 15:57
o-Terphenyl	132		126		70-135	%	12.04.19 15:57

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109452

MB Sample Id: 7691694-1-BLK

Matrix: Solid

LCS Sample Id: 7691694-1-BKS

Prep Method: SW5030B

Date Prep: 12.04.19

LCSD Sample Id: 7691694-1-BSO

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0892	89	0.0958	96	70-130	7	35	mg/kg	12.04.19 10:39	
Toluene	<0.00200	0.100	0.0913	91	0.0974	97	70-130	6	35	mg/kg	12.04.19 10:39	
Ethylbenzene	<0.00200	0.100	0.0913	91	0.0970	97	71-129	6	35	mg/kg	12.04.19 10:39	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.205	103	70-135	6	35	mg/kg	12.04.19 10:39	
o-Xylene	<0.00200	0.100	0.0970	97	0.103	103	71-133	6	35	mg/kg	12.04.19 10:39	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		102		102		70-130	%	12.04.19 10:39
4-Bromofluorobenzene	109		115		115		70-130	%	12.04.19 10:39

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109452

Parent Sample Id: 644979-001

Matrix: Soil

MS Sample Id: 644979-001 S

Prep Method: SW5030B

Date Prep: 12.04.19

MSD Sample Id: 644979-001 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	0.0903	90	0.0737	74	70-130	20	35	mg/kg	12.04.19 11:18	
Toluene	<0.00200	0.100	0.0910	91	0.0740	74	70-130	21	35	mg/kg	12.04.19 11:18	
Ethylbenzene	<0.00200	0.100	0.0904	90	0.0720	72	71-129	23	35	mg/kg	12.04.19 11:18	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.154	77	70-135	22	35	mg/kg	12.04.19 11:18	
o-Xylene	<0.00200	0.100	0.0963	96	0.0760	76	71-133	24	35	mg/kg	12.04.19 11:18	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		105		70-130	%	12.04.19 11:18
4-Bromofluorobenzene	119		118		70-130	%	12.04.19 11:18

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: 1044991

1 of 1

Houston, TX (281) 240-4200 Dallas, TX (214) 900-0000 San Antonio, TX (210) 500-5534
 Midland, TX (432) 704-5440 El Paso, TX (915) 555-5443 Lubbock, TX (806) 796-1296
 Fort Worth, TX (817) 322-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 426-2003

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Page 1 of 1

Project Manager:	Dan Mair	Bill to: if different	Kyle L. Hines
Company Name:	L.T. Environmental, Inc., Fermian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Cathead, NM
Phone:	432.704.5178	Email:	dmair@xenco.com mair@xencolab.com

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

Project Name:	Rose Drive CDP	Turn Around	
Project Number:	012919277	Routine	☐
P.O. Number:		Rush:	24hr
Sampler's Name:	Robert McMea	Due Date:	

Temperature (°C):	17.2	Temp Blank:	☒ Yes ☐ No	Well ID:	☒ Yes ☐ No
Received intact:	☒ Yes ☐ No	Thermometer ID:	T-3AL-003		
Cooler Custody Tank:	☒ Yes ☐ No	Correction Factor:	-0.2		
Sample Custody Seal:	☒ Yes ☐ No	Total Containers:	4		

Sample Identification:	Matrix:	Date Sampled:	Time Sampled:	Depth:

F-341A	S	12/03/19	12:05	1'
F-342A			12:10	1'
F-343A			12:40	0.5'
F-350A			1:30	1'

Number of Containers				
TPH (EPA 8010)				
BTEX (EPA 8-8021)				
Chloride (EPA 800.0)				

Total 200.7 / 6010	200.8 / 6020:

Circle Method(s) and Met(s) to be analyzed:	ILRCRA 13PPM Texas 11 A Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag Ti U

Relinquished by (Signature):	Received by (Signature):

Date/Time:	12-11-2019

Relinquished by (Signature):	Received by (Signature):

ANALYSIS REQUEST	Work Order Notes
TAT starts the day returned by the lab, it received by 4:30pm Sample Comments: composite	

Analytical Report 644999

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

05-DEC-19

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)



05-DEC-19

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **644999**

Ross Draw CDP

Project Address:

Dan Moir:

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) 644999. 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. 644999 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 Assistant

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

Certified and approved by numerous States and Agencies.

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

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

**Sample Cross Reference 644999****LT Environmental, Inc., Arvada, CO**

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS48A	S	12-02-19 12:20	1 ft	644999-001
FS49A	S	12-02-19 12:30	1 ft	644999-002
FS51A	S	12-02-19 12:45	1 ft	644999-003
FS52A	S	12-02-19 12:50	1 ft	644999-004



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 644999

Report Date: 05-DEC-19
Date Received: 12/04/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109457 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 644999-002 SD.

Batch: LBA-3109459 BTEX by EPA 8021B

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

Certificate of Analysis Summary 644999



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Dec-04-19 08:45 am

Report Date: 05-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644999-001	644999-002	644999-003	644999-004		
	<i>Field Id:</i>	FS48A	FS49A	FS51A	FS52A		
	<i>Depth:</i>	1- ft	1- ft	1- ft	1- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Dec-02-19 12:20	Dec-02-19 12:30	Dec-02-19 12:45	Dec-02-19 12:50		
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-04-19 16:32	Dec-04-19 16:32	Dec-04-19 16:32	Dec-04-19 16:32		
	<i>Analyzed:</i>	Dec-04-19 22:49	Dec-04-19 23:08	Dec-04-19 23:27	Dec-04-19 23:46		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202		
Toluene		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202		
Ethylbenzene		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202		
m,p-Xylenes		<0.00401 0.00401	<0.00403 0.00403	<0.00403 0.00403	<0.00403 0.00403		
o-Xylene		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202		
Total Xylenes		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202		
Total BTEX		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202		
Chloride by EPA 300	<i>Extracted:</i>	Dec-04-19 16:00	Dec-04-19 16:00	Dec-04-19 16:00	Dec-04-19 16:00		
	<i>Analyzed:</i>	Dec-04-19 20:08	Dec-04-19 20:14	Dec-04-19 20:21	Dec-04-19 20:27		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		157 9.92	80.0 9.88	117 9.98	111 9.88		
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-04-19 13:30	Dec-04-19 15:00	Dec-04-19 15:00	Dec-04-19 15:00		
	<i>Analyzed:</i>	Dec-04-19 19:54	Dec-04-19 20:53	Dec-04-19 21:13	Dec-04-19 21:32		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.1 50.1	<50.0 50.0	<49.8 49.8		
Diesel Range Organics (DRO)		<50.2 50.2	<50.1 50.1	<50.0 50.0	<49.8 49.8		
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<50.0 50.0	<49.8 49.8		
Total GRO-DRO		<50.2 50.2	<50.1 50.1	<50.0 50.0	<49.8 49.8		
Total TPH		<50.2 50.2	<50.1 50.1	<50.0 50.0	<49.8 49.8		

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 Assistant



Certificate of Analytical Results 644999

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS48A** Matrix: Soil Date Received: 12.04.19 08.45
 Lab Sample Id: 644999-001 Date Collected: 12.02.19 12.20 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.04.19 16.00 Basis: Wet Weight
 Seq Number: 3109469

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	157	9.92	mg/kg	12.04.19 20.08		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.04.19 13.30 Basis: Wet Weight
 Seq Number: 3109453

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.04.19 19.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.04.19 19.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.04.19 19.54	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.04.19 19.54	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.04.19 19.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.04.19 19.54	
o-Terphenyl	84-15-1	118	%	70-135	12.04.19 19.54	



Certificate of Analytical Results 644999

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS48A**
 Lab Sample Id: 644999-001

Matrix: Soil
 Date Collected: 12.02.19 12.20

Date Received: 12.04.19 08.45
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.04.19 16.32

Basis: Wet Weight

Seq Number: 3109459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.04.19 22.49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.04.19 22.49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.04.19 22.49	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.04.19 22.49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.04.19 22.49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.04.19 22.49	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.04.19 22.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.04.19 22.49		
4-Bromofluorobenzene	460-00-4	113	%	70-130	12.04.19 22.49		



Certificate of Analytical Results 644999

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS49A** Matrix: Soil Date Received: 12.04.19 08.45
 Lab Sample Id: 644999-002 Date Collected: 12.02.19 12.30 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.04.19 16.00 Basis: Wet Weight
 Seq Number: 3109469

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	80.0	9.88	mg/kg	12.04.19 20.14		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.04.19 15.00 Basis: Wet Weight
 Seq Number: 3109457

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.04.19 20.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.04.19 20.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.04.19 20.53	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.04.19 20.53	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.04.19 20.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.04.19 20.53	
o-Terphenyl	84-15-1	111	%	70-135	12.04.19 20.53	



Certificate of Analytical Results 644999

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS49A**
 Lab Sample Id: 644999-002

Matrix: Soil
 Date Collected: 12.02.19 12.30

Date Received: 12.04.19 08.45
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.04.19 16.32

Basis: Wet Weight

Seq Number: 3109459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.04.19 23.08	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.04.19 23.08	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.04.19 23.08	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.04.19 23.08	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.04.19 23.08	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.04.19 23.08	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.04.19 23.08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.04.19 23.08		
4-Bromofluorobenzene	460-00-4	122	%	70-130	12.04.19 23.08		



Certificate of Analytical Results 644999

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS51A** Matrix: Soil Date Received: 12.04.19 08.45
 Lab Sample Id: 644999-003 Date Collected: 12.02.19 12.45 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.04.19 16.00 Basis: Wet Weight
 Seq Number: 3109469

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	117	9.98	mg/kg	12.04.19 20.21		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.04.19 15.00 Basis: Wet Weight
 Seq Number: 3109457

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.04.19 21.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.04.19 21.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.04.19 21.13	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.04.19 21.13	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.04.19 21.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	12.04.19 21.13	
o-Terphenyl	84-15-1	118	%	70-135	12.04.19 21.13	



Certificate of Analytical Results 644999

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS51A**
 Lab Sample Id: 644999-003

Matrix: Soil
 Date Collected: 12.02.19 12.45

Date Received: 12.04.19 08.45
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.04.19 16.32

Basis: Wet Weight

Seq Number: 3109459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.04.19 23.27	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.04.19 23.27	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.04.19 23.27	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.04.19 23.27	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.04.19 23.27	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.04.19 23.27	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.04.19 23.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	70-130	12.04.19 23.27		
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.04.19 23.27		



Certificate of Analytical Results 644999

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS52A** Matrix: Soil Date Received: 12.04.19 08.45
 Lab Sample Id: 644999-004 Date Collected: 12.02.19 12.50 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.04.19 16.00 Basis: Wet Weight
 Seq Number: 3109469

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	111	9.88	mg/kg	12.04.19 20.27		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.04.19 15.00 Basis: Wet Weight
 Seq Number: 3109457

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.04.19 21.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.04.19 21.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.04.19 21.32	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.04.19 21.32	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.04.19 21.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	12.04.19 21.32	
o-Terphenyl	84-15-1	115	%	70-135	12.04.19 21.32	



Certificate of Analytical Results 644999

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS52A**
 Lab Sample Id: 644999-004

Matrix: Soil
 Date Collected: 12.02.19 12.50

Date Received: 12.04.19 08.45
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.04.19 16.32

Basis: Wet Weight

Seq Number: 3109459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.04.19 23.46	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.04.19 23.46	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.04.19 23.46	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.04.19 23.46	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.04.19 23.46	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.04.19 23.46	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.04.19 23.46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	12.04.19 23.46		
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.04.19 23.46		



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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109469

MB Sample Id: 7691689-1-BLK

Matrix: Solid

LCS Sample Id: 7691689-1-BKS

Prep Method: E300P

Date Prep: 12.04.19

LCSD Sample Id: 7691689-1-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	264	106	90-110	1	20	mg/kg	12.04.19 19:31	

Analytical Method: Chloride by EPA 300

Seq Number: 3109469

Parent Sample Id: 644992-001

Matrix: Soil

MS Sample Id: 644992-001 S

Prep Method: E300P

Date Prep: 12.04.19

MSD Sample Id: 644992-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	587	200	790	102	772	93	90-110	2	20	mg/kg	12.04.19 19:49	

Analytical Method: Chloride by EPA 300

Seq Number: 3109469

Parent Sample Id: 645005-001

Matrix: Soil

MS Sample Id: 645005-001 S

Prep Method: E300P

Date Prep: 12.04.19

MSD Sample Id: 645005-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3.18	200	211	104	209	104	90-110	1	20	mg/kg	12.04.19 21:17	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109453

MB Sample Id: 7691711-1-BLK

Matrix: Solid

LCS Sample Id: 7691711-1-BKS

Prep Method: SW8015P

Date Prep: 12.04.19

LCSD Sample Id: 7691711-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	914	91	940	94	70-135	3	35	mg/kg	12.04.19 15:37	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1140	114	70-135	9	35	mg/kg	12.04.19 15:37	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		124		130		70-135	%	12.04.19 15:37
o-Terphenyl	108		123		128		70-135	%	12.04.19 15:37

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109457

MB Sample Id: 7691713-1-BLK

Matrix: Solid

LCS Sample Id: 7691713-1-BKS

Prep Method: SW8015P

Date Prep: 12.04.19

LCSD Sample Id: 7691713-1-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	941	94	903	90	70-135	4	35	mg/kg	12.04.19 20:33	
Diesel Range Organics (DRO)	<50.0	1000	1100	110	1090	109	70-135	1	35	mg/kg	12.04.19 20:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		127		123		70-135	%	12.04.19 20:33
o-Terphenyl	117		127		131		70-135	%	12.04.19 20:33

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109453

Matrix: Solid

MB Sample Id: 7691711-1-BLK

Prep Method: SW8015P

Date Prep: 12.04.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.04.19 15:17	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109457

Matrix: Solid

MB Sample Id: 7691713-1-BLK

Prep Method: SW8015P

Date Prep: 12.04.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.04.19 20:14	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109453

Matrix: Soil

Parent Sample Id: 644983-001

MS Sample Id: 644983-001 S

Prep Method: SW8015P

Date Prep: 12.04.19

MSD Sample Id: 644983-001 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	902	90	916	91	70-135	2	35	mg/kg	12.04.19 15:57	
Diesel Range Organics (DRO)	62.4	1000	1090	103	1080	101	70-135	1	35	mg/kg	12.04.19 15:57	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		126		70-135	%	12.04.19 15:57
o-Terphenyl	132		126		70-135	%	12.04.19 15:57

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109457

Parent Sample Id: 644999-002

Matrix: Soil

MS Sample Id: 644999-002 S

Prep Method: SW8015P

Date Prep: 12.04.19

MSD Sample Id: 644999-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	890	88	1010	101	70-135	13	35	mg/kg	12.04.19 20:53	
Diesel Range Organics (DRO)	<50.3	1010	1080	107	1140	114	70-135	5	35	mg/kg	12.04.19 20:53	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		130		70-135	%	12.04.19 20:53
o-Terphenyl	134		137	**	70-135	%	12.04.19 20:53

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109459

MB Sample Id: 7691696-1-BLK

Matrix: Solid

LCS Sample Id: 7691696-1-BKS

Prep Method: SW5030B

Date Prep: 12.04.19

LCSD Sample Id: 7691696-1-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	0.0906	91	0.0926	93	70-130	2	35	mg/kg	12.04.19 21:07	
Toluene	<0.00200	0.100	0.0925	93	0.0955	96	70-130	3	35	mg/kg	12.04.19 21:07	
Ethylbenzene	<0.00200	0.100	0.0917	92	0.0949	95	71-129	3	35	mg/kg	12.04.19 21:07	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.202	101	70-135	4	35	mg/kg	12.04.19 21:07	
o-Xylene	<0.00200	0.100	0.0988	99	0.102	102	71-133	3	35	mg/kg	12.04.19 21:07	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		102		102		70-130	%	12.04.19 21:07
4-Bromofluorobenzene	108		114		115		70-130	%	12.04.19 21:07

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109459

Parent Sample Id: 644999-001

Matrix: Soil

MS Sample Id: 644999-001 S

Prep Method: SW5030B

Date Prep: 12.04.19

MSD Sample Id: 644999-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0815	82	0.0818	81	70-130	0	35	mg/kg	12.04.19 21:45	
Toluene	<0.00201	0.100	0.0830	83	0.0830	82	70-130	0	35	mg/kg	12.04.19 21:45	
Ethylbenzene	<0.00201	0.100	0.0817	82	0.0812	80	71-129	1	35	mg/kg	12.04.19 21:45	
m,p-Xylenes	<0.00402	0.201	0.173	86	0.171	85	70-135	1	35	mg/kg	12.04.19 21:45	
o-Xylene	<0.00201	0.100	0.0875	88	0.0871	86	71-133	0	35	mg/kg	12.04.19 21:45	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		103		70-130	%	12.04.19 21:45
4-Bromofluorobenzene	120		118		70-130	%	12.04.19 21:45

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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: 04-1999

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0200 San Antonio, TX (210) 508-3334
 Midland, TX (432) 704-6440 El Paso, TX (915) 855-3443 Lubbock, TX (806) 764-1200
 Hobbs, NM (505) 392-7500 Phoenix, AZ (480) 355-0000 Atlanta, GA (770) 449-6800 Tampa, FL (813) 820-2000

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Page 1 of 1

Project Manager:	Don Moir	Bill to: (if address)	Kyle Littel
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432 704 5178	Email:	donmoir@xenco.com kylelittel@xenco.com

Work Order Comments	
Program: UST/POST	☐ PMP ☐ Brownfields ☐ RC ☐ Superfund ☐
Status of Project:	
Reporting Level: I	☐ Level III ☐ UST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD	☐ ADAPT ☐ Other:

Project Name:	Ross Draw CDP	Turn Around:	
Project Number:	0124/1227	Routine:	☐
P.O. Number:		Rush:	24hr
Sampler's Name:	Robert McAlise	Due Date:	

SAMPLE RECEIPT		Temp Blank:	☒ Yes ☐ No	Wet Ice:	☒ Yes ☐ No
Temperature (°C):	1-2	Thermometer ID:	T-MM-007		
Received Inlet:	☒ Yes ☐ No	Correction Factor:	-0.2		
Cooler Custody Seal:	Yes ☒ No ☐ N/A	Total Containers:	4		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8-3021)	Chloride (EPA 300.0)	ANALYSIS REQUEST	Work Order Notes
F342A	S	12/6/99	12:20	1'	1	X	X	X		
F349A			12:50			X	X	X		
F351A			12:55			X	X	X		
F352A			12:50			X	X	X		

Total 200.7 / 6010 200.8 / 6020: BRCRA 13PPM Texas 11 A Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SnO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Material(s) to be analyzed: TCLP / SPLP 6010: BRCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
 1631 / 245.1 / 7470 / 7471 Hg

Use: Signature of this document and indistinguishable at sample 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 staff (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 \$4 for each sample submitted to Xenco, but not analyzed. These terms will be attached unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		12-4-2000			12/19/00

Analytical Report 645358

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919297

09-DEC-19

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)



09-DEC-19

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

Reference: XENCO Report No(s): **645358**
Ross Draw CDP
Project Address:

Dan Moir:

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) 645358. 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. 645358 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 Assistant

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

Certified and approved by numerous States and Agencies.

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

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



Sample Cross Reference 645358

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS41 B	S	12-05-19 15:40	1.5 ft	645358-001



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919297
Work Order Number(s): 645358

Report Date: 09-DEC-19
Date Received: 12/06/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109696 BTEX by EPA 8021B

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



Certificate of Analysis Summary 645358

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919297

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Dec-06-19 08:30 am

Report Date: 09-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	645358-001					
	Field Id:	FS41 B					
	Depth:	1.5- ft					
	Matrix:	SOIL					
	Sampled:	Dec-05-19 15:40					
BTEX by EPA 8021B	Extracted:	Dec-06-19 11:00					
	Analyzed:	Dec-06-19 14:46					
	Units/RL:	mg/kg RL					
Benzene		<0.00201 0.00201					
Toluene		<0.00201 0.00201					
Ethylbenzene		<0.00201 0.00201					
m,p-Xylenes		<0.00402 0.00402					
o-Xylene		<0.00201 0.00201					
Total Xylenes		<0.00201 0.00201					
Total BTEX		<0.00201 0.00201					
Chloride by EPA 300	Extracted:	Dec-06-19 11:00					
	Analyzed:	Dec-06-19 14:43					
	Units/RL:	mg/kg RL					
Chloride		298 9.96					
TPH by SW8015 Mod	Extracted:	Dec-06-19 13:00					
	Analyzed:	Dec-06-19 17:26					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.3 50.3					
Diesel Range Organics (DRO)		<50.3 50.3					
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3					
Total GRO-DRO		<50.3 50.3					
Total TPH		<50.3 50.3					

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

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

Jessica Kramer
Project Assistant



Certificate of Analytical Results 645358

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS41 B** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645358-001 Date Collected: 12.05.19 15.40 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 11.00 Basis: Wet Weight
 Seq Number: 3109699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	298	9.96	mg/kg	12.06.19 14.43		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.06.19 17.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.06.19 17.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.06.19 17.26	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.06.19 17.26	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.06.19 17.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	12.06.19 17.26	
o-Terphenyl	84-15-1	96	%	70-135	12.06.19 17.26	



Certificate of Analytical Results 645358

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS41 B**
 Lab Sample Id: 645358-001

Matrix: Soil
 Date Collected: 12.05.19 15.40

Date Received: 12.06.19 08.30
 Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.06.19 14.46	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.06.19 14.46	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.06.19 14.46	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.06.19 14.46	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.06.19 14.46	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.06.19 14.46	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.06.19 14.46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	70-130	12.06.19 14.46		
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.06.19 14.46		



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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109699

MB Sample Id: 7691886-1-BLK

Matrix: Solid

LCS Sample Id: 7691886-1-BKS

Prep Method: E300P

Date Prep: 12.06.19

LCSD Sample Id: 7691886-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	263	105	265	106	90-110	1	20	mg/kg	12.06.19 12:36	

Analytical Method: Chloride by EPA 300

Seq Number: 3109699

Parent Sample Id: 645361-001

Matrix: Soil

MS Sample Id: 645361-001 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645361-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11.6	201	185	86	184	86	90-110	1	20	mg/kg	12.06.19 12:48	X

Analytical Method: Chloride by EPA 300

Seq Number: 3109699

Parent Sample Id: 645363-011

Matrix: Soil

MS Sample Id: 645363-011 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645363-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.98	250	291	116	293	118	90-110	1	20	mg/kg	12.06.19 14:09	X

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109762

MB Sample Id: 7691873-1-BLK

Matrix: Solid

LCS Sample Id: 7691873-1-BKS

Prep Method: SW8015P

Date Prep: 12.06.19

LCSD Sample Id: 7691873-1-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	882	88	835	84	70-135	5	35	mg/kg	12.06.19 16:06	
Diesel Range Organics (DRO)	<50.0	1000	1060	106	1030	103	70-135	3	35	mg/kg	12.06.19 16:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		134		132		70-135	%	12.06.19 16:06
o-Terphenyl	134		124		128		70-135	%	12.06.19 16:06

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109762

Matrix: Solid

MB Sample Id: 7691873-1-BLK

Prep Method: SW8015P

Date Prep: 12.06.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.06.19 15:46	

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109762

Parent Sample Id: 645345-001

Matrix: Soil

MS Sample Id: 645345-001 S

Prep Method: SW8015P

Date Prep: 12.06.19

MSD Sample Id: 645345-001 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)	<49.9	998	834	84	1040	104	70-135	22	35	mg/kg	12.06.19 16:26	
Diesel Range Organics (DRO)	<49.9	998	1020	102	1240	124	70-135	19	35	mg/kg	12.06.19 16:26	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		130		70-135	%	12.06.19 16:26
o-Terphenyl	107		122		70-135	%	12.06.19 16:26

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109696

MB Sample Id: 7691892-1-BLK

Matrix: Solid

LCS Sample Id: 7691892-1-BKS

Prep Method: SW5030B

Date Prep: 12.06.19

LCSD Sample Id: 7691892-1-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	0.0980	98	0.0912	91	70-130	7	35	mg/kg	12.06.19 11:29	
Toluene	<0.00200	0.100	0.0989	99	0.0940	94	70-130	5	35	mg/kg	12.06.19 11:29	
Ethylbenzene	<0.00200	0.100	0.0984	98	0.0939	94	71-129	5	35	mg/kg	12.06.19 11:29	
m,p-Xylenes	<0.00400	0.200	0.207	104	0.199	100	70-135	4	35	mg/kg	12.06.19 11:29	
o-Xylene	<0.00200	0.100	0.104	104	0.0997	100	71-133	4	35	mg/kg	12.06.19 11:29	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		103		101		70-130	%	12.06.19 11:29
4-Bromofluorobenzene	105		114		117		70-130	%	12.06.19 11:29

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109696

Parent Sample Id: 645345-001

Matrix: Soil

MS Sample Id: 645345-001 S

Prep Method: SW5030B

Date Prep: 12.06.19

MSD Sample Id: 645345-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.104	104	0.0986	99	70-130	5	35	mg/kg	12.06.19 12:07	
Toluene	<0.00201	0.100	0.106	106	0.0994	100	70-130	6	35	mg/kg	12.06.19 12:07	
Ethylbenzene	<0.00201	0.100	0.104	104	0.0978	98	71-129	6	35	mg/kg	12.06.19 12:07	
m,p-Xylenes	<0.00402	0.201	0.221	110	0.206	104	70-135	7	35	mg/kg	12.06.19 12:07	
o-Xylene	<0.00201	0.100	0.112	112	0.104	104	71-133	7	35	mg/kg	12.06.19 12:07	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		103		70-130	%	12.06.19 12:07
4-Bromofluorobenzene	120		117		70-130	%	12.06.19 12:07

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: W-95326

Page 1 of 1

Project Manager:		Edin Mohr	Bill to (if different)		Kyle Litrol
Company Name:		LT Environmental, Inc., Permian office	Company Name:		XTO-Energy
Address:		3300 North A Street	Address:		
City, State Zip:		Midland, TX 79705	City, State Zip:		Carlsbad, NM
Phone:		432.704.5178	Email:		dmohr@ltenv.com kyl@xtoenergy.com

Work Order Comments					
Program: USTRUST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐					
State of Project:					
Reporting Level is ☐ Level II ☐ RST/LET ☐ PRP ☐ Level IV ☐					
Deliverables: EOD ☐ ADAPT ☐ Other:					

Project Name:		P.O. # 111111		Turn Around	
Project Number:		012345678		Routine ☐	
P.O. Number:				Rush: ☒	
Sampler's Name:		Robert McAlvin		Due Date:	

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C)	2.5						
Received Initial:	EB	No			Thermometer ID	T-1111-001	
Cooler Custody Seals:	Yes	No	N/A		Correction Factor:	-0.2	
Sample Custody Seals:	Yes	No	N/A		Total Contaminant:		

ANALYSIS REQUEST									
Number of Containers									
EPA 8015:									
EPA 8021:									
EPA 8030:									
EPA 8040:									
EPA 8050:									
EPA 8060:									
EPA 8070:									
EPA 8080:									
EPA 8090:									
EPA 8100:									
EPA 8110:									
EPA 8120:									
EPA 8130:									
EPA 8140:									
EPA 8150:									
EPA 8160:									
EPA 8170:									
EPA 8180:									
EPA 8190:									
EPA 8200:									
EPA 8210:									
EPA 8220:									
EPA 8230:									
EPA 8240:									
EPA 8250:									
EPA 8260:									
EPA 8270:									
EPA 8280:									
EPA 8290:									
EPA 8300:									
EPA 8310:									
EPA 8320:									
EPA 8330:									
EPA 8340:									
EPA 8350:									
EPA 8360:									
EPA 8370:									
EPA 8380:									
EPA 8390:									
EPA 8400:									
EPA 8410:									
EPA 8420:									
EPA 8430:									
EPA 8440:									
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EPA 8460:									
EPA 8470:									
EPA 8480:									
EPA 8490:									
EPA 8500:									
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EPA 8530:									
EPA 8540:									
EPA 8550:									
EPA 8560:									
EPA 8570:									
EPA 8580:									
EPA 8590:									
EPA 8600:									
EPA 8610:									
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EPA 8630:									
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EPA 8670:									
EPA 8680:									
EPA 8690:									
EPA 8700:									
EPA 8710:									
EPA 8720:									
EPA 8730:									
EPA 8740:									
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EPA 8780:									
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EPA 9230:									
EPA 9240:									
EPA 9250:									
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EPA 9270:									
EPA 9280:									
EPA 9290:									
EPA 9300:									
EPA 9310:									
EPA 9320:									
EPA 9330:									
EPA 9340:									
EPA 9350:									
EPA 9360:									
EPA 9370:									
EPA 9380:									
EPA 9390:									
EPA 9400:									
EPA 9410:									
EPA 9420:									
EPA 9430:									
EPA 9440:									
EPA 9450:									
EPA 9460:									
EPA 9470:									

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (E)	BTEX (C)	Chloride	Sample Comments
FS41B	S	11/20/17	1540	1.5'	1	X	X	X	Compad.

Total	200.7	6010	200.8	6020
Circle Method(s) and Metal(s) to be analyzed	6RCRA 13PPII Taxes 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: 6RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U			
	1631/245.1/7470/7471 Hg			

offer. Signatory of this document and establishment of sampling immediately a valid purchase order from client company is Kovero, its affiliates and subsidiaries. It assigns standard terms and conditions hereto. Kovero will be liable only for the cost of samples and shall not assume any responsibility for any losses or damages described by the client. If such losses are due to circumstances beyond the control of Kovero, a minimum charge of \$75.00 will be applied to each project and a charge of \$3 for each sample submitted for analysis. These terms will be different unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i> 12/6/19		<i>[Signature]</i>	<i>[Signature]</i>	12/6/19 08:30

Analytical Report 645363

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

09-DEC-19

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)



09-DEC-19

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

Reference: XENCO Report No(s): **645363**
Ross Draw CDP
Project Address:

Dan Moir:

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) 645363. 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. 645363 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 Assistant

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

Certified and approved by numerous States and Agencies.

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

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



Sample Cross Reference 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	12-04-19 11:35	1 ft	645363-001
BH01A	S	12-04-19 11:40	2 ft	645363-002
BH02	S	12-04-19 11:45	1 ft	645363-003
BH02A	S	12-04-19 11:35	2 ft	645363-004
BH03	S	12-04-19 11:48	1 ft	645363-005
BH03A	S	12-04-19 11:50	2 ft	645363-006
BH04	S	12-04-19 12:55	1 ft	645363-007
BH04A	S	12-04-19 12:00	2 ft	645363-008
BH05	S	12-04-19 12:05	1 ft	645363-009
BH05A	S	12-04-19 12:10	2 ft	645363-010
BH06	S	12-04-19 12:15	1 ft	645363-011
BH06A	S	12-04-19 12:30	2 ft	645363-012
BH07	S	12-04-19 12:35	1 ft	645363-013
BH07A	S	12-04-19 12:40	2 ft	645363-014
BH08	S	12-04-19 12:45	1 ft	645363-015
BH08A	S	12-04-19 12:50	2 ft	645363-016
BH09	S	12-04-19 12:55	1 ft	645363-017
BH09A	S	12-04-19 13:00	2 ft	645363-018
BH10	S	12-04-19 13:05	1 ft	645363-019
BH10A	S	12-04-19 13:10	2 ft	645363-020

**CASE NARRATIVE****Client Name: LT Environmental, Inc.****Project Name: Ross Draw CDP**Project ID: 012919277
Work Order Number(s): 645363Report Date: 09-DEC-19
Date Received: 12/06/2019**Sample receipt non conformances and comments:**

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109695 BTEX by EPA 8021B

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

Batch: LBA-3109699 Chloride by EPA 300

Lab Sample ID 645363-011 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 645363-007, -008, -009, -010, -011, -012, -013, -014, -015.

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

Batch: LBA-3109720 Chloride by EPA 300

Lab Sample ID 645363-020 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 645363-001, -002, -003, -004, -005, -006, -016, -017, -018, -019, -020.

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



Certificate of Analysis Summary 645363

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Dec-06-19 08:30 am

Report Date: 09-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	645363-001	645363-002	645363-003	645363-004	645363-005	645363-006
	<i>Field Id:</i>	BH01	BH01A	BH02	BH02A	BH03	BH03A
	<i>Depth:</i>	1- ft	2- ft	1- ft	2- ft	1- ft	2- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-04-19 11:35	Dec-04-19 11:40	Dec-04-19 11:45	Dec-04-19 11:35	Dec-04-19 11:48	Dec-04-19 11:50
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00
	<i>Analyzed:</i>	Dec-06-19 13:31	Dec-06-19 13:48	Dec-06-19 14:05	Dec-06-19 14:23	Dec-06-19 14:40	Dec-06-19 14:58
	<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	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
m,p-Xylenes		<0.00404 0.00404	<0.00403 0.00403	<0.00398 0.00398	<0.00399 0.00399	<0.00395 0.00395	<0.00401 0.00401
o-Xylene		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13
	<i>Analyzed:</i>	Dec-06-19 15:59	Dec-06-19 16:16	Dec-06-19 16:22	Dec-06-19 16:28	Dec-06-19 16:34	Dec-06-19 16:51
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		36.5 10.0	<10.0 10.0	296 10.0	181 9.98	<9.94 9.94	16.1 9.92
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-06-19 13:00	Dec-06-19 13:00	Dec-06-19 13:00	Dec-06-19 13:00	Dec-06-19 13:00	Dec-06-19 13:00
	<i>Analyzed:</i>	Dec-06-19 18:05	Dec-06-19 18:25	Dec-06-19 18:45	Dec-06-19 18:45	Dec-06-19 19:06	Dec-06-19 19:06
	<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	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.2 50.2
Diesel Range Organics (DRO)		<50.2 50.2	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.2 50.2
Total GRO-DRO		<50.2 50.2	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.2 50.2
Total TPH		<50.2 50.2	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	<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 Assistant



Certificate of Analysis Summary 645363

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Dec-06-19 08:30 am

Report Date: 09-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	645363-007	645363-008	645363-009	645363-010	645363-011	645363-012
	<i>Field Id:</i>	BH04	BH04A	BH05	BH05A	BH06	BH06A
	<i>Depth:</i>	1- ft	2- ft	1- ft	2- ft	1- ft	2- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-04-19 12:55	Dec-04-19 12:00	Dec-04-19 12:05	Dec-04-19 12:10	Dec-04-19 12:15	Dec-04-19 12:30
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00
	<i>Analyzed:</i>	Dec-06-19 15:15	Dec-06-19 15:32	Dec-06-19 15:50	Dec-06-19 13:13	Dec-06-19 16:59	Dec-06-19 17:16
	<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	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198
Toluene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198
Ethylbenzene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198
m,p-Xylenes		<0.00403 0.00403	<0.00404 0.00404	<0.00401 0.00401	<0.00399 0.00399	<0.00398 0.00398	<0.00396 0.00396
o-Xylene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198
Total Xylenes		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198
Total BTEX		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00
	<i>Analyzed:</i>	Dec-06-19 13:40	Dec-06-19 13:45	Dec-06-19 13:51	Dec-06-19 13:57	Dec-06-19 14:03	Dec-06-19 14:20
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		330 9.98	484 9.88	<9.92 9.92	<9.90 9.90	<9.94 9.94	322 9.86
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-06-19 13:00	Dec-06-19 13:00	Dec-06-19 13:00	Dec-06-19 13:00	Dec-06-19 13:00	Dec-06-19 15:30
	<i>Analyzed:</i>	Dec-06-19 19:26	Dec-06-19 19:26	Dec-06-19 19:46	Dec-06-19 19:46	Dec-06-19 20:06	Dec-06-19 20:47
	<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	<49.8 49.8	<49.9 49.9	<50.1 50.1	<50.3 50.3	<49.8 49.8
Diesel Range Organics (DRO)		<49.8 49.8	<49.8 49.8	<49.9 49.9	<50.1 50.1	<50.3 50.3	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<49.8 49.8	<49.9 49.9	<50.1 50.1	<50.3 50.3	<49.8 49.8
Total GRO-DRO		<49.8 49.8	<49.8 49.8	<49.9 49.9	<50.1 50.1	<50.3 50.3	<49.8 49.8
Total TPH		<49.8 49.8	<49.8 49.8	<49.9 49.9	<50.1 50.1	<50.3 50.3	<49.8 49.8

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 Assistant

Certificate of Analysis Summary 645363



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Dec-06-19 08:30 am

Report Date: 09-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	645363-013	645363-014	645363-015	645363-016	645363-017	645363-018
	<i>Field Id:</i>	BH07	BH07A	BH08	BH08A	BH09	BH09A
	<i>Depth:</i>	1- ft	2- ft	1- ft	2- ft	1- ft	2- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-04-19 12:35	Dec-04-19 12:40	Dec-04-19 12:45	Dec-04-19 12:50	Dec-04-19 12:55	Dec-04-19 13:00
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00
	<i>Analyzed:</i>	Dec-06-19 17:34	Dec-06-19 17:51	Dec-06-19 18:09	Dec-06-19 18:26	Dec-06-19 18:43	Dec-06-19 19:01
	<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	<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201
Toluene		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201
Ethylbenzene		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201
m,p-Xylenes		<0.00403 0.00403	<0.00403 0.00403	<0.00398 0.00398	<0.00404 0.00404	<0.00403 0.00403	<0.00402 0.00402
o-Xylene		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201
Total Xylenes		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201
Total BTEX		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13
	<i>Analyzed:</i>	Dec-06-19 14:26	Dec-06-19 15:12	Dec-06-19 15:24	Dec-06-19 16:57	Dec-06-19 17:03	Dec-06-19 17:08
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		476 9.98	311 10.0	33.9 10.0	77.9 9.90	<9.98 9.98	215 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30
	<i>Analyzed:</i>	Dec-06-19 21:26	Dec-06-19 21:26	Dec-06-19 21:47	Dec-06-19 21:47	Dec-06-19 22:07	Dec-06-19 22:07
	<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	<50.2 50.2	<50.2 50.2	<49.9 49.9
Diesel Range Organics (DRO)		<50.2 50.2	<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.2 50.2	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.2 50.2	<49.9 49.9
Total GRO-DRO		<50.2 50.2	<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.2 50.2	<49.9 49.9
Total TPH		<50.2 50.2	<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.2 50.2	<49.9 49.9

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

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 645363

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Dec-06-19 08:30 am

Report Date: 09-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	645363-019	645363-020				
	Field Id:	BH10	BH10A				
	Depth:	1- ft	2- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	Dec-04-19 13:05	Dec-04-19 13:10				
BTEX by EPA 8021B	Extracted:	Dec-06-19 11:00	Dec-06-19 11:00				
	Analyzed:	Dec-06-19 19:18	Dec-06-19 19:36				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00198 0.00198	<0.00201 0.00201				
Toluene		<0.00198 0.00198	<0.00201 0.00201				
Ethylbenzene		<0.00198 0.00198	<0.00201 0.00201				
m,p-Xylenes		<0.00397 0.00397	<0.00402 0.00402				
o-Xylene		<0.00198 0.00198	<0.00201 0.00201				
Total Xylenes		<0.00198 0.00198	<0.00201 0.00201				
Total BTEX		<0.00198 0.00198	<0.00201 0.00201				
Chloride by EPA 300	Extracted:	Dec-06-19 14:13	Dec-06-19 14:13				
	Analyzed:	Dec-06-19 17:14	Dec-06-19 17:20				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		589 9.92	270 9.88				
TPH by SW8015 Mod	Extracted:	Dec-06-19 15:30	Dec-06-19 15:30				
	Analyzed:	Dec-06-19 22:27	Dec-06-19 22:27				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.3 50.3				
Diesel Range Organics (DRO)		<50.2 50.2	<50.3 50.3				
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.3 50.3				
Total GRO-DRO		<50.2 50.2	<50.3 50.3				
Total TPH		<50.2 50.2	<50.3 50.3				

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

Jessica Kramer
Project Assistant



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH01** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-001 Date Collected: 12.04.19 11.35 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	36.5	10.0	mg/kg	12.06.19 15.59		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.06.19 18.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.06.19 18.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.06.19 18.05	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.06.19 18.05	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.06.19 18.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	12.06.19 18.05	
o-Terphenyl	84-15-1	98	%	70-135	12.06.19 18.05	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH01**
 Lab Sample Id: 645363-001

Matrix: Soil
 Date Collected: 12.04.19 11.35

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 13.31	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 13.31	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 13.31	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.06.19 13.31	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 13.31	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 13.31	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 13.31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.06.19 13.31		
4-Bromofluorobenzene	460-00-4	113	%	70-130	12.06.19 13.31		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH01A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-002 Date Collected: 12.04.19 11.40 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	12.06.19 16.16	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.06.19 18.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.06.19 18.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.06.19 18.25	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.06.19 18.25	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.06.19 18.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	12.06.19 18.25	
o-Terphenyl	84-15-1	100	%	70-135	12.06.19 18.25	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH01A**
 Lab Sample Id: 645363-002

Matrix: Soil
 Date Collected: 12.04.19 11.40

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 13.48	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 13.48	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 13.48	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.06.19 13.48	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 13.48	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 13.48	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 13.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.06.19 13.48		
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.06.19 13.48		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH02** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-003 Date Collected: 12.04.19 11.45 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	296	10.0	mg/kg	12.06.19 16.22		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.06.19 18.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.06.19 18.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.06.19 18.45	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.06.19 18.45	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.06.19 18.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	12.06.19 18.45	
o-Terphenyl	84-15-1	95	%	70-135	12.06.19 18.45	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH02**
 Lab Sample Id: 645363-003

Matrix: Soil
 Date Collected: 12.04.19 11.45

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.06.19 14.05	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.06.19 14.05	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.06.19 14.05	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.06.19 14.05	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.06.19 14.05	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.06.19 14.05	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.06.19 14.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.06.19 14.05		
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.06.19 14.05		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH02A**
Lab Sample Id: 645363-004

Matrix: Soil
Date Collected: 12.04.19 11.35

Date Received: 12.06.19 08.30
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3109720

Date Prep: 12.06.19 14.13

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	181	9.98	mg/kg	12.06.19 16.28		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3109762

Date Prep: 12.06.19 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.06.19 18.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.06.19 18.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.06.19 18.45	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.06.19 18.45	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.06.19 18.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	12.06.19 18.45	
o-Terphenyl	84-15-1	97	%	70-135	12.06.19 18.45	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH02A**
 Lab Sample Id: 645363-004

Matrix: Soil
 Date Collected: 12.04.19 11.35

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.06.19 14.23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.06.19 14.23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.06.19 14.23	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.06.19 14.23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.06.19 14.23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.06.19 14.23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.06.19 14.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.06.19 14.23		
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.06.19 14.23		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH03** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-005 Date Collected: 12.04.19 11.48 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.94	9.94	mg/kg	12.06.19 16.34	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.06.19 19.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.06.19 19.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.06.19 19.06	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.06.19 19.06	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.06.19 19.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	12.06.19 19.06	
o-Terphenyl	84-15-1	96	%	70-135	12.06.19 19.06	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH03**
 Lab Sample Id: 645363-005

Matrix: Soil
 Date Collected: 12.04.19 11.48

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.06.19 14.40	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.06.19 14.40	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.06.19 14.40	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	12.06.19 14.40	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.06.19 14.40	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.06.19 14.40	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.06.19 14.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	12.06.19 14.40		
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.06.19 14.40		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH03A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-006 Date Collected: 12.04.19 11.50 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.1	9.92	mg/kg	12.06.19 16.51		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.06.19 19.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.06.19 19.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.06.19 19.06	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.06.19 19.06	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.06.19 19.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	12.06.19 19.06	
o-Terphenyl	84-15-1	96	%	70-135	12.06.19 19.06	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH03A**
 Lab Sample Id: 645363-006

Matrix: Soil
 Date Collected: 12.04.19 11.50

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.06.19 14.58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.06.19 14.58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.06.19 14.58	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.06.19 14.58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.06.19 14.58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.06.19 14.58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.06.19 14.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.06.19 14.58		
4-Bromofluorobenzene	460-00-4	108	%	70-130	12.06.19 14.58		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH04** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-007 Date Collected: 12.04.19 12.55 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 11.00 Basis: Wet Weight
 Seq Number: 3109699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	330	9.98	mg/kg	12.06.19 13.40		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.06.19 19.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.06.19 19.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.06.19 19.26	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.06.19 19.26	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.06.19 19.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	12.06.19 19.26	
o-Terphenyl	84-15-1	97	%	70-135	12.06.19 19.26	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH04**
 Lab Sample Id: 645363-007

Matrix: Soil
 Date Collected: 12.04.19 12.55

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 15.15	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 15.15	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 15.15	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.06.19 15.15	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 15.15	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 15.15	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 15.15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	12.06.19 15.15		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.06.19 15.15		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH04A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-008 Date Collected: 12.04.19 12.00 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 11.00 Basis: Wet Weight
 Seq Number: 3109699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	484	9.88	mg/kg	12.06.19 13.45		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.06.19 19.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.06.19 19.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.06.19 19.26	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.06.19 19.26	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.06.19 19.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	12.06.19 19.26	
o-Terphenyl	84-15-1	100	%	70-135	12.06.19 19.26	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH04A**
 Lab Sample Id: 645363-008

Matrix: Soil
 Date Collected: 12.04.19 12.00

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 15.32	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 15.32	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 15.32	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.06.19 15.32	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 15.32	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 15.32	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 15.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	88	%	70-130	12.06.19 15.32		
1,4-Difluorobenzene	540-36-3	88	%	70-130	12.06.19 15.32		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH05** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-009 Date Collected: 12.04.19 12.05 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 11.00 Basis: Wet Weight
 Seq Number: 3109699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.92	9.92	mg/kg	12.06.19 13.51	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.06.19 19.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.06.19 19.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.06.19 19.46	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.06.19 19.46	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.06.19 19.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	12.06.19 19.46	
o-Terphenyl	84-15-1	97	%	70-135	12.06.19 19.46	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH05**
 Lab Sample Id: 645363-009

Matrix: Soil
 Date Collected: 12.04.19 12.05

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.06.19 15.50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.06.19 15.50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.06.19 15.50	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.06.19 15.50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.06.19 15.50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.06.19 15.50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.06.19 15.50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.06.19 15.50		
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.06.19 15.50		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH05A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-010 Date Collected: 12.04.19 12.10 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 11.00 Basis: Wet Weight
 Seq Number: 3109699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.90	9.90	mg/kg	12.06.19 13.57	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.06.19 19.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.06.19 19.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.06.19 19.46	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.06.19 19.46	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.06.19 19.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	12.06.19 19.46	
o-Terphenyl	84-15-1	97	%	70-135	12.06.19 19.46	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH05A**
 Lab Sample Id: 645363-010

Matrix: Soil
 Date Collected: 12.04.19 12.10

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.06.19 13.13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.06.19 13.13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.06.19 13.13	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.06.19 13.13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.06.19 13.13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.06.19 13.13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.06.19 13.13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	12.06.19 13.13		
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.06.19 13.13		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH06** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-011 Date Collected: 12.04.19 12.15 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 11.00 Basis: Wet Weight
 Seq Number: 3109699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.94	9.94	mg/kg	12.06.19 14.03	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.06.19 20.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.06.19 20.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.06.19 20.06	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.06.19 20.06	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.06.19 20.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	12.06.19 20.06	
o-Terphenyl	84-15-1	98	%	70-135	12.06.19 20.06	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH06**
 Lab Sample Id: 645363-011

Matrix: Soil
 Date Collected: 12.04.19 12.15

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.06.19 16.59	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.06.19 16.59	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.06.19 16.59	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.06.19 16.59	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.06.19 16.59	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.06.19 16.59	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.06.19 16.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	114	%	70-130	12.06.19 16.59		
1,4-Difluorobenzene	540-36-3	93	%	70-130	12.06.19 16.59		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH06A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-012 Date Collected: 12.04.19 12.30 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 11.00 Basis: Wet Weight
 Seq Number: 3109699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	322	9.86	mg/kg	12.06.19 14.20		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.06.19 20.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.06.19 20.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.06.19 20.47	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.06.19 20.47	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.06.19 20.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	12.06.19 20.47	
o-Terphenyl	84-15-1	97	%	70-135	12.06.19 20.47	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH06A**
 Lab Sample Id: 645363-012

Matrix: Soil
 Date Collected: 12.04.19 12.30

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.06.19 17.16	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.06.19 17.16	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.06.19 17.16	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	12.06.19 17.16	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.06.19 17.16	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.06.19 17.16	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.06.19 17.16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.06.19 17.16		
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.06.19 17.16		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH07** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-013 Date Collected: 12.04.19 12.35 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 11.00 Basis: Wet Weight
 Seq Number: 3109699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	476	9.98	mg/kg	12.06.19 14.26		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.06.19 21.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.06.19 21.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.06.19 21.26	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.06.19 21.26	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.06.19 21.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.06.19 21.26	
o-Terphenyl	84-15-1	102	%	70-135	12.06.19 21.26	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH07**
 Lab Sample Id: 645363-013

Matrix: Soil
 Date Collected: 12.04.19 12.35

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 17.34	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 17.34	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 17.34	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.06.19 17.34	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 17.34	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 17.34	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 17.34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.06.19 17.34		
4-Bromofluorobenzene	460-00-4	98	%	70-130	12.06.19 17.34		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH07A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-014 Date Collected: 12.04.19 12.40 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 11.00 Basis: Wet Weight
 Seq Number: 3109699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	311	10.0	mg/kg	12.06.19 15.12		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.06.19 21.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.06.19 21.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.06.19 21.26	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.06.19 21.26	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.06.19 21.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	12.06.19 21.26	
o-Terphenyl	84-15-1	99	%	70-135	12.06.19 21.26	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH07A**
 Lab Sample Id: 645363-014

Matrix: Soil
 Date Collected: 12.04.19 12.40

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 17.51	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 17.51	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 17.51	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.06.19 17.51	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 17.51	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 17.51	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 17.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.06.19 17.51		
4-Bromofluorobenzene	460-00-4	104	%	70-130	12.06.19 17.51		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH08** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-015 Date Collected: 12.04.19 12.45 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 11.00 Basis: Wet Weight
 Seq Number: 3109699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	33.9	10.0	mg/kg	12.06.19 15.24		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.06.19 21.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.06.19 21.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.06.19 21.47	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.06.19 21.47	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.06.19 21.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	12.06.19 21.47	
o-Terphenyl	84-15-1	101	%	70-135	12.06.19 21.47	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH08**
 Lab Sample Id: 645363-015

Matrix: Soil
 Date Collected: 12.04.19 12.45

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.06.19 18.09	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.06.19 18.09	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.06.19 18.09	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.06.19 18.09	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.06.19 18.09	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.06.19 18.09	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.06.19 18.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.06.19 18.09		
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.06.19 18.09		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH08A**
Lab Sample Id: 645363-016

Matrix: Soil
Date Collected: 12.04.19 12.50

Date Received: 12.06.19 08.30
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3109720

Date Prep: 12.06.19 14.13

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	77.9	9.90	mg/kg	12.06.19 16.57		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3109769

Date Prep: 12.06.19 15.30

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	12.06.19 21.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.06.19 21.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.06.19 21.47	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.06.19 21.47	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.06.19 21.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	12.06.19 21.47	
o-Terphenyl	84-15-1	98	%	70-135	12.06.19 21.47	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH08A**
 Lab Sample Id: 645363-016

Matrix: Soil
 Date Collected: 12.04.19 12.50

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 18.26	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 18.26	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 18.26	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.06.19 18.26	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 18.26	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 18.26	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 18.26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.06.19 18.26		
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.06.19 18.26		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH09** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-017 Date Collected: 12.04.19 12.55 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	12.06.19 17.03	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.06.19 22.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.06.19 22.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.06.19 22.07	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.06.19 22.07	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.06.19 22.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	12.06.19 22.07	
o-Terphenyl	84-15-1	114	%	70-135	12.06.19 22.07	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH09**
 Lab Sample Id: 645363-017

Matrix: Soil
 Date Collected: 12.04.19 12.55

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 18.43	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 18.43	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 18.43	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.06.19 18.43	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 18.43	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 18.43	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 18.43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.06.19 18.43		
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.06.19 18.43		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH09A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-018 Date Collected: 12.04.19 13.00 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	215	9.98	mg/kg	12.06.19 17.08		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.06.19 22.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.06.19 22.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.06.19 22.07	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.06.19 22.07	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.06.19 22.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	12.06.19 22.07	
o-Terphenyl	84-15-1	121	%	70-135	12.06.19 22.07	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH09A**
 Lab Sample Id: 645363-018

Matrix: Soil
 Date Collected: 12.04.19 13.00

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.06.19 19.01	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.06.19 19.01	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.06.19 19.01	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.06.19 19.01	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.06.19 19.01	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.06.19 19.01	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.06.19 19.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.06.19 19.01		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.06.19 19.01		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH10** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-019 Date Collected: 12.04.19 13.05 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	589	9.92	mg/kg	12.06.19 17.14		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.06.19 22.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.06.19 22.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.06.19 22.27	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.06.19 22.27	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.06.19 22.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	12.06.19 22.27	
o-Terphenyl	84-15-1	113	%	70-135	12.06.19 22.27	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH10**
 Lab Sample Id: 645363-019

Matrix: Soil
 Date Collected: 12.04.19 13.05

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.06.19 19.18	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.06.19 19.18	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.06.19 19.18	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.06.19 19.18	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.06.19 19.18	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.06.19 19.18	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.06.19 19.18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	12.06.19 19.18		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.06.19 19.18		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH10A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-020 Date Collected: 12.04.19 13.10 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	270	9.88	mg/kg	12.06.19 17.20		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.06.19 22.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.06.19 22.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.06.19 22.27	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.06.19 22.27	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.06.19 22.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	12.06.19 22.27	
o-Terphenyl	84-15-1	98	%	70-135	12.06.19 22.27	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH10A**
 Lab Sample Id: 645363-020

Matrix: Soil
 Date Collected: 12.04.19 13.10

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.06.19 19.36	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.06.19 19.36	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.06.19 19.36	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.06.19 19.36	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.06.19 19.36	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.06.19 19.36	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.06.19 19.36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.06.19 19.36		
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.06.19 19.36		



Flagging Criteria

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

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

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109699

MB Sample Id: 7691886-1-BLK

Matrix: Solid

LCS Sample Id: 7691886-1-BKS

Prep Method: E300P

Date Prep: 12.06.19

LCSD Sample Id: 7691886-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	263	105	265	106	90-110	1	20	mg/kg	12.06.19 12:36	

Analytical Method: Chloride by EPA 300

Seq Number: 3109720

MB Sample Id: 7691887-1-BLK

Matrix: Solid

LCS Sample Id: 7691887-1-BKS

Prep Method: E300P

Date Prep: 12.06.19

LCSD Sample Id: 7691887-1-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	274	110	266	106	90-110	3	20	mg/kg	12.06.19 15:47	

Analytical Method: Chloride by EPA 300

Seq Number: 3109699

Parent Sample Id: 645361-001

Matrix: Soil

MS Sample Id: 645361-001 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645361-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11.6	201	185	86	184	86	90-110	1	20	mg/kg	12.06.19 12:48	X

Analytical Method: Chloride by EPA 300

Seq Number: 3109699

Parent Sample Id: 645363-011

Matrix: Soil

MS Sample Id: 645363-011 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645363-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.98	250	291	116	293	118	90-110	1	20	mg/kg	12.06.19 14:09	X

Analytical Method: Chloride by EPA 300

Seq Number: 3109720

Parent Sample Id: 645363-001

Matrix: Soil

MS Sample Id: 645363-001 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645363-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	36.5	504	469	86	470	86	90-110	0	20	mg/kg	12.06.19 16:05	X

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

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

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

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109720

Parent Sample Id: 645363-020

Matrix: Soil

MS Sample Id: 645363-020 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645363-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	270	197	481	107	483	108	90-110	0	20	mg/kg	12.06.19 17:27	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109762

MB Sample Id: 7691873-1-BLK

Matrix: Solid

LCS Sample Id: 7691873-1-BKS

Prep Method: SW8015P

Date Prep: 12.06.19

LCSD Sample Id: 7691873-1-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	882	88	835	84	70-135	5	35	mg/kg	12.06.19 16:06	
Diesel Range Organics (DRO)	<50.0	1000	1060	106	1030	103	70-135	3	35	mg/kg	12.06.19 16:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		134		132		70-135	%	12.06.19 16:06
o-Terphenyl	134		124		128		70-135	%	12.06.19 16:06

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109769

MB Sample Id: 7691876-1-BLK

Matrix: Solid

LCS Sample Id: 7691876-1-BKS

Prep Method: SW8015P

Date Prep: 12.06.19

LCSD Sample Id: 7691876-1-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	839	84	915	92	70-135	9	35	mg/kg	12.06.19 20:27	
Diesel Range Organics (DRO)	22.4	1000	1030	103	1100	110	70-135	7	35	mg/kg	12.06.19 20:27	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	134		131		133		70-135	%	12.06.19 20:27
o-Terphenyl	131		122		128		70-135	%	12.06.19 20:27

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109762

Matrix: Solid

MB Sample Id: 7691873-1-BLK

Prep Method: SW8015P

Date Prep: 12.06.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.06.19 15:46	

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109769

Matrix: Solid

Prep Method: SW8015P

Date Prep: 12.06.19

MB Sample Id: 7691876-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.06.19 20:47	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109762

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.06.19

Parent Sample Id: 645345-001

MS Sample Id: 645345-001 S

MSD Sample Id: 645345-001 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)	<49.9	998	834	84	1040	104	70-135	22	35	mg/kg	12.06.19 16:26	
Diesel Range Organics (DRO)	<49.9	998	1020	102	1240	124	70-135	19	35	mg/kg	12.06.19 16:26	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		130		70-135	%	12.06.19 16:26
o-Terphenyl	107		122		70-135	%	12.06.19 16:26

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109769

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.06.19

Parent Sample Id: 645363-012

MS Sample Id: 645363-012 S

MSD Sample Id: 645363-012 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	1070	107	848	85	70-135	23	35	mg/kg	12.06.19 21:06	
Diesel Range Organics (DRO)	17.2	1000	1240	122	1040	102	70-135	18	35	mg/kg	12.06.19 21:06	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	133		109		70-135	%	12.06.19 21:06
o-Terphenyl	119		109		70-135	%	12.06.19 21:06

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

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

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.

Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109695

MB Sample Id: 7691891-1-BLK

Matrix: Solid

LCS Sample Id: 7691891-1-BKS

Prep Method: SW5030B

Date Prep: 12.06.19

LCSD Sample Id: 7691891-1-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	0.0976	98	0.102	102	70-130	4	35	mg/kg	12.06.19 11:30	
Toluene	<0.00200	0.100	0.0964	96	0.102	102	70-130	6	35	mg/kg	12.06.19 11:30	
Ethylbenzene	<0.00200	0.100	0.0943	94	0.0996	100	71-129	5	35	mg/kg	12.06.19 11:30	
m,p-Xylenes	<0.00400	0.200	0.195	98	0.207	104	70-135	6	35	mg/kg	12.06.19 11:30	
o-Xylene	<0.00200	0.100	0.0941	94	0.101	101	71-133	7	35	mg/kg	12.06.19 11:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		100		101		70-130	%	12.06.19 11:30
4-Bromofluorobenzene	93		94		99		70-130	%	12.06.19 11:30

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109695

Parent Sample Id: 645363-010

Matrix: Soil

MS Sample Id: 645363-010 S

Prep Method: SW5030B

Date Prep: 12.06.19

MSD Sample Id: 645363-010 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	0.0886	88	70-130	19	35	mg/kg	12.06.19 12:04	
Toluene	<0.00202	0.101	0.107	106	0.0892	88	70-130	18	35	mg/kg	12.06.19 12:04	
Ethylbenzene	<0.00202	0.101	0.105	104	0.0876	87	71-129	18	35	mg/kg	12.06.19 12:04	
m,p-Xylenes	<0.00403	0.202	0.218	108	0.183	91	70-135	17	35	mg/kg	12.06.19 12:04	
o-Xylene	<0.00202	0.101	0.106	105	0.0894	89	71-133	17	35	mg/kg	12.06.19 12:04	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		99		70-130	%	12.06.19 12:04
4-Bromofluorobenzene	103		98		70-130	%	12.06.19 12:04

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

Work Order No:

Let's Quiz

Houston, TX (281) 240-4100 Corbo, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Mullins, TX (409) 706-5440 El Paso, TX (915) 835-3441 Lubbock, TX (806) 794-1200

Hickdon, MA (575-392-7550) Phoenix, AZ (480-354-0200) Atlanta, GA (770-449-8800) Tampa, FL (813-820-2200)

WASSER-UND ENERGIE-RECHNUNG

Page 1 of 1

Project Manager:	Dean Moore	Bill to: (if different)	Kyle Littel
Company Name:	L.T. Environmental, Inc., Permitting office	Company Name:	KTO-Energy
Address:	3300 North A Street	Address:	
City, State ZIP	Midland, TX 79705	City, State ZIP	Carlsbad, NM
Phone:	432.704.5178	Email:	dmoores@ltoenergy.com, kyle.littel@ktoenergy.com

Work Order Comments	
Program: US1/PST	☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
Status of Project:	
Reporting Level II	☐ Level III ☐ ST/UST ☐ BFP ☐ Level IV ☐
Deliverables: EDO	☐ ADAFT ☐ Other: ☐

Project Name: <u>Russ Drive CDP</u>		Turn Around		ANALYSIS REQUEST												Work Order Notes							
Project Number: <u>015019227</u>		Routine ☐																TAT starts the day received by the lab. If received by 4:30pm.					
P.O. Number:		Rush: <u>24hr</u>																					
Sampler's Name: <u>Robert McAlister</u>		Due Date:																					
SAMPLE RECEIPT				Temp Blank: <u>Yes</u> ☒ No ☐		Wet Ion: <u>Yes</u> ☒ No ☐																	
Temperature (°C): <u>2.5</u>		Thermometer ID: <u>T-244-007</u>																					
Received Inlet: <u>No</u>		Correction Factor: <u>-0.2</u>																					
Colder Custody Seals: <u>Yes</u> ☒ No ☐		Total Containers: <u>20</u>																					
Sample Custody Seals: <u>Yes</u> ☒ No ☐																							
Sample Identification				Matrix		Date Sampled		Time Sampled		Depth		Number of Containers										Sample Comments <u>Composite of 20</u>	
<u>BH01</u>				S		<u>7/20/07</u>		<u>1155</u>		<u>1'</u>		1											
<u>BH01A</u>								<u>1150</u>		<u>2'</u>		X											
<u>BH02</u>								<u>1145</u>		<u>1'</u>		X											
<u>BH02A</u>								<u>1148</u>		<u>2'</u>		X											
<u>BH03</u>								<u>1150</u>		<u>1'</u>		X											
<u>BH03A</u>								<u>1155</u>		<u>2'</u>		X											
<u>BH04</u>								<u>1200</u>		<u>1'</u>		X											
<u>BH04A</u>								<u>1205</u>		<u>2'</u>		X											
<u>BH05</u>								<u>1210</u>		<u>1'</u>		X											
<u>BH05A</u>								<u>1215</u>		<u>2'</u>		X											

Total	200.7 / 6010	200.8 / 6020:	
8RCRA	13PPM	Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mn Mo Ni K Se Ag SiO2 Ha 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	1631/246.1/7470/7471 Hg

Notice: Signature of this document must be accompanied by a valid purchase order from client company to Zimco. Its signatures and subscriptions. It assigns abundant time and resources to service. Agents 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 its control. A minimum charge of \$15 per well will be applied to each project and a charge of \$5 per each sample submission to Zimco, that not covered. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		12/6/19 06:30			



Chain of Custody

Work Order No: 145342

Houston, TX (281) 240-4200 Dallas, TX (972) 902-0200 San Antonio, TX (210) 508-3334
 Milledale, TX (409) 704-5440 El Paso, TX (915) 555-3445 Lubbock, TX (806) 754-1296

Haltom, NM (505) 392-7500 Phoenix, AZ (480) 355-0500 Atlanta, GA (770) 445-8800 Tampa, FL (813) 430-2000

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Page 2 of 2

Project Manager:	Don Malar	Bill to: (if address)	Kyle Little
Company Name:	L.T. Environmental, Inc., Permian office	Company Name:	XTO-Energy
Address:	3300 North A Street	Address:	
City, State Zip:	Milledale, TX 79705	City, State Zip:	Carlsbad, NM
Phone:	432-704-5178	Email:	donm@xenco.com

Program:	UST/ST	Prep	Brownfield	RC	Superfund
State of Project:					
Reporting Level II	☐	Level III	☐	ST/AST	☐
Reporting Level I	☐	Level IV	☐	Prep	☐
Deliverables:	EDD	☐	ADAPT	☐	Other:

Project Name:	Rest Drive CDP	Turn Around	
Project Number:	012919272	Routing	☐
P.O. Number:		Push	2/1/16
Sampler's Name:	Robert McAlister	Date Date:	

Temperature (°C)		Temp Blank	Yes	No	Well Use	Yes	No
Received Intact	Yes	No	Yes	No	Correction Factor		
Cooler Custody Seals	Yes	No	N/A		Total Containers:		
Sample Custody Seals	Yes	No	N/A				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EP	BTEX (E	Chloride	Sample Comments															
BH02	S	12/01/19	12:30	1'	1	X	X	X	None															
BH05A			12:55	2'		X	X	X																
BH07			12:40	1'		X	X	X																
BH07A			12:45	2'		X	X	X																
BH08			12:50	1'		X	X	X																
BH05A			12:55	2'		X	X	X																
BH09			13:00	1'		X	X	X																
BH09A			13:05	2'		X	X	X																
BH10			13:10	1'		X	X	X																
BH10A			13:15	2'		X	X	X																

Total 200.7 / 6010 200.8 / 6020:

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

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

1631 / 245.1 / 7470 / 7471 / 115

The Duplication of this document and redistribution of samples constitutes a valid purchase order from client company to Xenco. No analysis and submittals. It assigns liability, terms and conditions. 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 \$8 for each sample submitted to Xenco, and analyzed. These terms will be reduced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		12/6/19 08:30			



Chain of Custody

Work Order No:

Ans 5/3

Houston, TX (281) 240-4720 Dallas, TX (214) 902-0000 San Antonio, TX (210) 529-2244
Midland, TX (432) 704-6460 El Paso, TX (915) 655-3443 Lubbock, TX (806) 754-1200

Robb, RM (575-297-7586) Phoenix AZ (480-555-0910) Atlanta, GA (770-445-5899) Tampa, FL (813-629-2009)

WILEY-JONHSON, CO. LTD.

Page 1 of 1

Project Manager:	Dan Mair	Bill to: (if different)	Kyle Lathrel
Company Name:	LT Environmental, Inc., Permian office	Company Name:	ATO-Energy
Address:	3500 North A Street	Address:	
City, State ZIP:	Mulford TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432.704.5178	Email:	dmair@lathrel.com klatlathrel@atoenergy.com

Work Order Comments			
Program: UST/IST	☐ PRP	☐ Brownfields	☐ RC ☐ Important ☐
State of Project:			
Reporting Level II	☐ Level III	☐ STRUST	☐ PRP ☐ Level IV ☐
Delivery: EDO	☐	Adapt	☐ Other

Project Name:	<i>Rot's Draw CDF</i>	Turn Around	
Project Number:	<i>0127192234</i>	Routine ☐	
P.O. Number:		Rush: <i>24hr</i>	
Sampler's Name:	<i>Robert McAlister</i>	Due Date:	
SAMPLE RECEIPT			
Temperature (°C):	<i>2.5</i>	Temp Blank:	☒ Yes ☐ No
Received intact:	☒ Yes ☐ No	Thermometer ID:	<i>T-444-007</i>
Cooler/Quench Status:	☒ Yes ☐ No	Correction Factor:	<i>-0.2</i>
Sample Caddy Seals:	☒ Yes ☐ No	Total Containers:	<i>30</i>
Number of Containers			
EPA 8015)			
EPA 8021)			
EPA 8022)			
EPA 8023)			
EPA 8024)			
EPA 8025)			
EPA 8026)			
EPA 8027)			
EPA 8028)			
EPA 8029)			
EPA 8030)			
EPA 8031)			
EPA 8032)			
EPA 8033)			
EPA 8034)			
EPA 8035)			
EPA 8036)			
EPA 8037)			
EPA 8038)			
EPA 8039)			
EPA 8040)			
EPA 8041)			
EPA 8042)			
EPA 8043)			
EPA 8044)			
EPA 8045)			
EPA 8046)			
EPA 8047)			
EPA 8048)			
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EPA 8063)			
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EPA 8167)			
EPA 8168)			
EPA 8169)			
EPA 8170)			
EPA 8171)			
EPA 8172)			
EPA 8173)			
EPA 8174)			
EPA 8175)			
EPA 8176)			
EPA 817			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (B)	BTEX (C)	Chloride	Sample Comments
BH01	S	12/20/99	1155	1'	1	X	X	X	Bottle is dirty
BH01A			1140	2'		X	X	X	
BH02			1145	1'		X	X	X	
BH02A			1146	2'		X	X	X	
BH03			1150	1'		X	X	X	
BH03A			1155	2'		X	X	X	
BH04			1159	1'		X	X	X	
BH04A			1205	2'		X	X	X	
BH05			1210	1'		X	X	X	
BH05A			1215	2'		X	X	X	

Total 200.7 / 5010		200.8 / 0020:	
6RCRA	13PPM	Teams	11
Al	Si	As	Ba
Be	B	Cd	Cs
Cr	Co	Cu	Fe
Pb	Mg	Mn	Mo
Ni	K	Sr	Ag
SnO ₂	Nb	Sr	TI
Sn	U	V	Zn
Circle Method(s) and Metal(s) to be analyzed			
TCLP / SPLP	5010:	6RCRA:	Sb
As	Ba	Be	Cd
Cr	Co	Cu	Pb
Mn	Mo	Ni	Sr
Ag	TI	U	
1631 / 246.1 / 7470 / 7471 : Hg			

service. Ketches 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 its control. A minimum charge of \$75.00 will be applied to each finished and a charge of \$15.00 for each sample submitted to Ketches, but not analyzed. These terms will be attached to all orders and shall be binding on the client.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>add name</i>	<i>[Signature]</i>	12/2/19 08:30			



Chain of Custody

Work Order No: 1445343

Houston, TX (281) 240-4200 Dallas, TX (214) 900-0300 San Antonio, TX (210) 508-3304
 Midland, TX (432-704-6440) El Paso, TX (915) 285-3443 Lubbock, TX (806) 794-1298
 Fort Worth, TX (817) 392-7350 Phoenix, AZ (480) 355-0000 Atlanta, GA (770) 445-8800 Tampa, FL (813) 820-2000

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Page 2 of 2

Project Manager:	Dan Moir	Cell No. (if different):	Kyle Little
Company Name:	LT Environmental, Inc., Perrin office	Company Name:	XTO-Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Caldwell, NM
Phone:	432.704.5176	Email:	dmair@xenco.com kmlittle@xenco.com

Project Name:	Ross Drive CDP	Turn Around:	
Project Number:	012419279	Routine:	☐
P.O. Number:		Result:	24hr
Sampler's Name:	Robert McVee	Due Date:	

Temperature (°C):		Temp Blank:	Yes	No	Well Use:	Yes	No
Received Inlet:	Yes	No	Correction Factor:				
Cooler Custody Seal:	Yes	No	Sample Custody Seal:	Yes	No	Total Containers:	
Sample Custody Seal:	Yes	No					

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8018)	BTEX (EPA 8-8021)	Chloride (EPA 800.0)	ANALYSIS REQUEST	Work Order Notes
BH0C	S	12/01/17	13:30	1'	1	X	X	X		
BH0GA			12:35	2'		X	X	X		
BH0Z			12:40	1'		X	X	X		
BH0ZA			12:45	2'		X	X	X		
BH0S			12:50	1'		X	X	X		
BH0SA			12:55	2'		X	X	X		
BH0Y			13:00	1'		X	X	X		
BH0YA			13:05	2'		X	X	X		
BH0D			13:10	1'		X	X	X		
BH0CA			13:15	2'		X	X	X		

Total 200.7 / 6010 200.8 / 6020:

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

GRCA 13PIM 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: GRCA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
 1031 / 245.1 / 7470 / 7471: Hg

See 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 endorsed unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Robert McVee</i>	<i>[Signature]</i>	12/6/19 08:35			

Analytical Report 645369

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

09-DEC-19

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)



09-DEC-19

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

Reference: XENCO Report No(s): **645369**
Ross Draw CDP
Project Address:

Dan Moir:

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) 645369. 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. 645369 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 Assistant

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

Certified and approved by numerous States and Agencies.

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

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

**Sample Cross Reference 645369****LT Environmental, Inc., Arvada, CO**

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH11	S	12-05-19 12:10	1 ft	645369-001
BH11A	S	12-05-19 12:15	2 ft	645369-002
BH12	S	12-05-19 12:25	1 ft	645369-003
BH12A	S	12-05-19 12:30	2 ft	645369-004
BH13	S	12-05-19 12:35	1 ft	645369-005
BH13A	S	12-05-19 12:41	2 ft	645369-006
BH14	S	12-05-19 12:45	1 ft	645369-007
BH14A	S	12-05-19 12:51	2 ft	645369-008
BH15	S	12-05-19 13:10	1 ft	645369-009
BH15A	S	12-05-19 13:15	2 ft	645369-010
BH16	S	12-05-19 13:20	1 ft	645369-011
BH16A	S	12-05-19 13:25	2 ft	645369-012



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 645369

Report Date: 09-DEC-19
Date Received: 12/06/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109696 BTEX by EPA 8021B

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

Batch: LBA-3109697 BTEX by EPA 8021B

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

Batch: LBA-3109769 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 645369-003.

Certificate of Analysis Summary 645369



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Dec-06-19 08:30 am

Report Date: 09-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	645369-001	645369-002	645369-003	645369-004	645369-005	645369-006
	<i>Field Id:</i>	BH11	BH11A	BH12	BH12A	BH13	BH13A
	<i>Depth:</i>	1- ft	2- ft	1- ft	2- ft	1- ft	2- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-05-19 12:10	Dec-05-19 12:15	Dec-05-19 12:25	Dec-05-19 12:30	Dec-05-19 12:35	Dec-05-19 12:41
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00
	<i>Analyzed:</i>	Dec-06-19 17:44	Dec-06-19 18:03	Dec-06-19 18:23	Dec-06-19 18:42	Dec-06-19 19:01	Dec-06-19 19:20
	<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	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00403 0.00403	<0.00401 0.00401	<0.00399 0.00399	<0.00397 0.00397	<0.00399 0.00399	<0.00399 0.00399
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13
	<i>Analyzed:</i>	Dec-06-19 17:39	Dec-06-19 17:45	Dec-06-19 18:04	Dec-06-19 18:10	Dec-06-19 18:16	Dec-06-19 18:22
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		48.6 10.1	182 10.0	21.3 10.0	48.9 10.1	70.6 9.98	45.2 9.94
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30
	<i>Analyzed:</i>	Dec-06-19 22:47	Dec-06-19 23:07	Dec-06-19 23:07	Dec-06-19 23:27	Dec-06-19 23:27	Dec-06-19 23:47
	<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)		<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.2 50.2	<50.3 50.3
Diesel Range Organics (DRO)		<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.2 50.2	<50.3 50.3
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.2 50.2	<50.3 50.3
Total GRO-DRO		<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.2 50.2	<50.3 50.3
Total TPH		<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.2 50.2	<50.3 50.3

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

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 645369



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Dec-06-19 08:30 am

Report Date: 09-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	645369-007	645369-008	645369-009	645369-010	645369-011	645369-012
	<i>Field Id:</i>	BH14	BH14A	BH15	BH15A	BH16	BH16A
	<i>Depth:</i>	1- ft	2- ft	1- ft	2- ft	1- ft	2- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-05-19 12:45	Dec-05-19 12:51	Dec-05-19 13:10	Dec-05-19 13:15	Dec-05-19 13:20	Dec-05-19 13:25
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 15:07	Dec-06-19 15:07	Dec-06-19 15:07	Dec-06-19 15:07
	<i>Analyzed:</i>	Dec-06-19 19:39	Dec-06-19 19:58	Dec-06-19 23:23	Dec-06-19 23:42	Dec-07-19 00:01	Dec-06-19 23:04
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
m,p-Xylenes		<0.00398 0.00398	<0.00401 0.00401	<0.00404 0.00404	<0.00402 0.00402	<0.00401 0.00401	<0.00403 0.00403
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 21:22	Dec-06-19 21:22	Dec-06-19 21:22
	<i>Analyzed:</i>	Dec-06-19 18:28	Dec-06-19 18:35	Dec-06-19 18:41	*** ** *	*** ** *	*** ** *
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		68.3 10.0	116 9.98	24.9 9.92	<10.0 10.0	77.8 10.0	<10.1 10.1
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:50
	<i>Analyzed:</i>	Dec-06-19 23:47	Dec-07-19 00:07	Dec-07-19 00:07	Dec-07-19 00:27	Dec-07-19 00:27	Dec-07-19 02:07
	<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	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.0 50.0
Diesel Range Organics (DRO)		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.0 50.0
Total GRO-DRO		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.0 50.0
Total TPH		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.0 50.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
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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 Assistant



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH11** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-001 Date Collected: 12.05.19 12.10 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	48.6	10.1	mg/kg	12.06.19 17.39		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.06.19 22.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.06.19 22.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.06.19 22.47	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.06.19 22.47	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.06.19 22.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-135	12.06.19 22.47	
o-Terphenyl	84-15-1	77	%	70-135	12.06.19 22.47	



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH11**
 Lab Sample Id: 645369-001

Matrix: Soil
 Date Collected: 12.05.19 12.10

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 17.44	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 17.44	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 17.44	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.06.19 17.44	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 17.44	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 17.44	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 17.44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	12.06.19 17.44		
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.06.19 17.44		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH11A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-002 Date Collected: 12.05.19 12.15 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	182	10.0	mg/kg	12.06.19 17.45		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.06.19 23.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.06.19 23.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.06.19 23.07	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.06.19 23.07	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.06.19 23.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	12.06.19 23.07	
o-Terphenyl	84-15-1	118	%	70-135	12.06.19 23.07	



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH11A**
 Lab Sample Id: 645369-002

Matrix: Soil
 Date Collected: 12.05.19 12.15

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.06.19 18.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.06.19 18.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.06.19 18.03	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.06.19 18.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.06.19 18.03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.06.19 18.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.06.19 18.03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.06.19 18.03		
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.06.19 18.03		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH12** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-003 Date Collected: 12.05.19 12.25 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.3	10.0	mg/kg	12.06.19 18.04		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.06.19 23.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.06.19 23.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.06.19 23.07	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.06.19 23.07	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.06.19 23.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	128	%	70-135	12.06.19 23.07	
o-Terphenyl	84-15-1	140	%	70-135	12.06.19 23.07	**



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH12**
 Lab Sample Id: 645369-003

Matrix: Soil
 Date Collected: 12.05.19 12.25

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.06.19 18.23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.06.19 18.23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.06.19 18.23	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.06.19 18.23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.06.19 18.23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.06.19 18.23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.06.19 18.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.06.19 18.23		
4-Bromofluorobenzene	460-00-4	115	%	70-130	12.06.19 18.23		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH12A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-004 Date Collected: 12.05.19 12.30 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	48.9	10.1	mg/kg	12.06.19 18.10		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.06.19 23.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.06.19 23.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.06.19 23.27	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.06.19 23.27	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.06.19 23.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	12.06.19 23.27	
o-Terphenyl	84-15-1	96	%	70-135	12.06.19 23.27	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH12A**
 Lab Sample Id: 645369-004

Matrix: Soil
 Date Collected: 12.05.19 12.30

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.06.19 18.42	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.06.19 18.42	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.06.19 18.42	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.06.19 18.42	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.06.19 18.42	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.06.19 18.42	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.06.19 18.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.06.19 18.42		
4-Bromofluorobenzene	460-00-4	118	%	70-130	12.06.19 18.42		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH13** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-005 Date Collected: 12.05.19 12.35 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	70.6	9.98	mg/kg	12.06.19 18.16		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.06.19 23.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.06.19 23.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.06.19 23.27	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.06.19 23.27	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.06.19 23.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	12.06.19 23.27	
o-Terphenyl	84-15-1	117	%	70-135	12.06.19 23.27	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH13**
 Lab Sample Id: 645369-005

Matrix: Soil
 Date Collected: 12.05.19 12.35

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.06.19 19.01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.06.19 19.01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.06.19 19.01	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.06.19 19.01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.06.19 19.01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.06.19 19.01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.06.19 19.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	12.06.19 19.01		
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.06.19 19.01		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH13A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-006 Date Collected: 12.05.19 12.41 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	45.2	9.94	mg/kg	12.06.19 18.22		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.06.19 23.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.06.19 23.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.06.19 23.47	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.06.19 23.47	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.06.19 23.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	12.06.19 23.47	
o-Terphenyl	84-15-1	120	%	70-135	12.06.19 23.47	



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH13A**
 Lab Sample Id: 645369-006

Matrix: Soil
 Date Collected: 12.05.19 12.41

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.06.19 19.20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.06.19 19.20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.06.19 19.20	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.06.19 19.20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.06.19 19.20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.06.19 19.20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.06.19 19.20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	89	%	70-130	12.06.19 19.20		
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.06.19 19.20		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH14** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-007 Date Collected: 12.05.19 12.45 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	68.3	10.0	mg/kg	12.06.19 18.28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.06.19 23.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.06.19 23.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.06.19 23.47	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.06.19 23.47	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.06.19 23.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-135	12.06.19 23.47	
o-Terphenyl	84-15-1	82	%	70-135	12.06.19 23.47	



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH14**
 Lab Sample Id: 645369-007

Matrix: Soil
 Date Collected: 12.05.19 12.45

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.06.19 19.39	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.06.19 19.39	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.06.19 19.39	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.06.19 19.39	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.06.19 19.39	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.06.19 19.39	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.06.19 19.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	12.06.19 19.39		
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.06.19 19.39		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH14A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-008 Date Collected: 12.05.19 12.51 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	116	9.98	mg/kg	12.06.19 18.35		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.07.19 00.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.07.19 00.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.07.19 00.07	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.07.19 00.07	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.07.19 00.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	133	%	70-135	12.07.19 00.07	
o-Terphenyl	84-15-1	130	%	70-135	12.07.19 00.07	



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH14A**
 Lab Sample Id: 645369-008

Matrix: Soil
 Date Collected: 12.05.19 12.51

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.06.19 19.58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.06.19 19.58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.06.19 19.58	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.06.19 19.58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.06.19 19.58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.06.19 19.58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.06.19 19.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.06.19 19.58		
4-Bromofluorobenzene	460-00-4	111	%	70-130	12.06.19 19.58		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH15** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-009 Date Collected: 12.05.19 13.10 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	24.9	9.92	mg/kg	12.06.19 18.41		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.07.19 00.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.07.19 00.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.07.19 00.07	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.07.19 00.07	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.07.19 00.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.07.19 00.07	
o-Terphenyl	84-15-1	111	%	70-135	12.07.19 00.07	



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH15**
 Lab Sample Id: 645369-009

Matrix: Soil
 Date Collected: 12.05.19 13.10

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 15.07

Basis: Wet Weight

Seq Number: 3109697

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 23.23	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 23.23	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 23.23	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.06.19 23.23	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 23.23	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 23.23	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 23.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.06.19 23.23		
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.06.19 23.23		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH15A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-010 Date Collected: 12.05.19 13.15 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 21.22 Basis: Wet Weight
 Seq Number: 3109721

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	12.06.19 19.18	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.07.19 00.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.07.19 00.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.07.19 00.27	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.07.19 00.27	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.07.19 00.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	12.07.19 00.27	
o-Terphenyl	84-15-1	109	%	70-135	12.07.19 00.27	



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH15A**
 Lab Sample Id: 645369-010

Matrix: Soil
 Date Collected: 12.05.19 13.15

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 15.07

Basis: Wet Weight

Seq Number: 3109697

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.06.19 23.42	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.06.19 23.42	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.06.19 23.42	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.06.19 23.42	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.06.19 23.42	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.06.19 23.42	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.06.19 23.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	95	%	70-130	12.06.19 23.42		
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.06.19 23.42		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH16** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-011 Date Collected: 12.05.19 13.20 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 21.22 Basis: Wet Weight
 Seq Number: 3109721

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	77.8	10.0	mg/kg	12.06.19 19.38		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.07.19 00.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.07.19 00.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.07.19 00.27	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.07.19 00.27	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.07.19 00.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	12.07.19 00.27	
o-Terphenyl	84-15-1	91	%	70-135	12.07.19 00.27	



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH16**
 Lab Sample Id: 645369-011

Matrix: Soil
 Date Collected: 12.05.19 13.20

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 15.07

Basis: Wet Weight

Seq Number: 3109697

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.07.19 00.01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.07.19 00.01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.07.19 00.01	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.07.19 00.01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.07.19 00.01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.07.19 00.01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.07.19 00.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.07.19 00.01		
1,4-Difluorobenzene	540-36-3	95	%	70-130	12.07.19 00.01		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH16A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-012 Date Collected: 12.05.19 13.25 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 21.22 Basis: Wet Weight
 Seq Number: 3109721

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	12.06.19 19.44	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.50 Basis: Wet Weight
 Seq Number: 3109776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.07.19 02.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.07.19 02.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.07.19 02.07	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.07.19 02.07	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.07.19 02.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	12.07.19 02.07	
o-Terphenyl	84-15-1	117	%	70-135	12.07.19 02.07	



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH16A**
 Lab Sample Id: 645369-012

Matrix: Soil
 Date Collected: 12.05.19 13.25

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 15.07

Basis: Wet Weight

Seq Number: 3109697

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 23.04	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 23.04	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 23.04	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.06.19 23.04	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 23.04	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 23.04	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 23.04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	112	%	70-130	12.06.19 23.04		
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.06.19 23.04		



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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109720

MB Sample Id: 7691887-1-BLK

Matrix: Solid

LCS Sample Id: 7691887-1-BKS

Prep Method: E300P

Date Prep: 12.06.19

LCSD Sample Id: 7691887-1-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	274	110	266	106	90-110	3	20	mg/kg	12.06.19 15:47	

Analytical Method: Chloride by EPA 300

Seq Number: 3109721

MB Sample Id: 7691888-1-BLK

Matrix: Solid

LCS Sample Id: 7691888-1-BKS

Prep Method: E300P

Date Prep: 12.06.19

LCSD Sample Id: 7691888-1-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	12.06.19 19:06	

Analytical Method: Chloride by EPA 300

Seq Number: 3109720

Parent Sample Id: 645363-001

Matrix: Soil

MS Sample Id: 645363-001 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645363-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	36.5	504	469	86	470	86	90-110	0	20	mg/kg	12.06.19 16:05	X

Analytical Method: Chloride by EPA 300

Seq Number: 3109720

Parent Sample Id: 645363-020

Matrix: Soil

MS Sample Id: 645363-020 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645363-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	270	197	481	107	483	108	90-110	0	20	mg/kg	12.06.19 17:27	

Analytical Method: Chloride by EPA 300

Seq Number: 3109721

Parent Sample Id: 645369-010

Matrix: Soil

MS Sample Id: 645369-010 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645369-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.73	200	217	105	217	106	90-110	0	20	mg/kg	12.06.19 19:25	

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

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

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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109721

Parent Sample Id: 645421-007

Matrix: Soil

MS Sample Id: 645421-007 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645421-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	126	198	307	91	301	88	90-110	2	20	mg/kg	12.06.19 21:55	X

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109769

MB Sample Id: 7691876-1-BLK

Matrix: Solid

LCS Sample Id: 7691876-1-BKS

Prep Method: SW8015P

Date Prep: 12.06.19

LCSD Sample Id: 7691876-1-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	839	84	915	92	70-135	9	35	mg/kg	12.06.19 20:27	
Diesel Range Organics (DRO)	22.4	1000	1030	103	1100	110	70-135	7	35	mg/kg	12.06.19 20:27	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	134		131		133		70-135	%	12.06.19 20:27
o-Terphenyl	131		122		128		70-135	%	12.06.19 20:27

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109776

MB Sample Id: 7691883-1-BLK

Matrix: Solid

LCS Sample Id: 7691883-1-BKS

Prep Method: SW8015P

Date Prep: 12.06.19

LCSD Sample Id: 7691883-1-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	913	91	879	88	70-135	4	35	mg/kg	12.07.19 01:07	
Diesel Range Organics (DRO)	<50.0	1000	1110	111	1120	112	70-135	1	35	mg/kg	12.07.19 01:07	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		123		108		70-135	%	12.07.19 01:07
o-Terphenyl	135		123		135		70-135	%	12.07.19 01:07

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109769

Matrix: Solid

MB Sample Id: 7691876-1-BLK

Prep Method: SW8015P

Date Prep: 12.06.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.06.19 20:47	

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109776

Matrix: Solid

Prep Method: SW8015P

Date Prep: 12.06.19

MB Sample Id: 7691883-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.07.19 00:47	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109769

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.06.19

Parent Sample Id: 645363-012

MS Sample Id: 645363-012 S

MSD Sample Id: 645363-012 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	1070	107	848	85	70-135	23	35	mg/kg	12.06.19 21:06	
Diesel Range Organics (DRO)	17.2	1000	1240	122	1040	102	70-135	18	35	mg/kg	12.06.19 21:06	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	133		109		70-135	%	12.06.19 21:06
o-Terphenyl	119		109		70-135	%	12.06.19 21:06

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109776

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.06.19

Parent Sample Id: 645361-004

MS Sample Id: 645361-004 S

MSD Sample Id: 645361-004 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	961	95	1000	101	70-135	4	35	mg/kg	12.07.19 01:27	
Diesel Range Organics (DRO)	<50.3	1010	1180	117	1170	118	70-135	1	35	mg/kg	12.07.19 01:27	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		131		70-135	%	12.07.19 01:27
o-Terphenyl	123		120		70-135	%	12.07.19 01:27

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.

Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109696

MB Sample Id: 7691892-1-BLK

Matrix: Solid

LCS Sample Id: 7691892-1-BKS

Prep Method: SW5030B

Date Prep: 12.06.19

LCSD Sample Id: 7691892-1-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	0.0980	98	0.0912	91	70-130	7	35	mg/kg	12.06.19 11:29	
Toluene	<0.00200	0.100	0.0989	99	0.0940	94	70-130	5	35	mg/kg	12.06.19 11:29	
Ethylbenzene	<0.00200	0.100	0.0984	98	0.0939	94	71-129	5	35	mg/kg	12.06.19 11:29	
m,p-Xylenes	<0.00400	0.200	0.207	104	0.199	100	70-135	4	35	mg/kg	12.06.19 11:29	
o-Xylene	<0.00200	0.100	0.104	104	0.0997	100	71-133	4	35	mg/kg	12.06.19 11:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		103		101		70-130	%	12.06.19 11:29
4-Bromofluorobenzene	105		114		117		70-130	%	12.06.19 11:29

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109697

MB Sample Id: 7691893-1-BLK

Matrix: Solid

LCS Sample Id: 7691893-1-BKS

Prep Method: SW5030B

Date Prep: 12.06.19

LCSD Sample Id: 7691893-1-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	0.0886	89	0.0980	98	70-130	10	35	mg/kg	12.06.19 21:21	
Toluene	<0.00200	0.100	0.0899	90	0.0993	99	70-130	10	35	mg/kg	12.06.19 21:21	
Ethylbenzene	<0.00200	0.100	0.0886	89	0.0977	98	71-129	10	35	mg/kg	12.06.19 21:21	
m,p-Xylenes	<0.00400	0.200	0.188	94	0.207	104	70-135	10	35	mg/kg	12.06.19 21:21	
o-Xylene	<0.00200	0.100	0.0965	97	0.106	106	71-133	9	35	mg/kg	12.06.19 21:21	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		101		103		70-130	%	12.06.19 21:21
4-Bromofluorobenzene	108		118		116		70-130	%	12.06.19 21:21

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109696

Parent Sample Id: 645345-001

Matrix: Soil

MS Sample Id: 645345-001 S

Prep Method: SW5030B

Date Prep: 12.06.19

MSD Sample Id: 645345-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.104	104	0.0986	99	70-130	5	35	mg/kg	12.06.19 12:07	
Toluene	<0.00201	0.100	0.106	106	0.0994	100	70-130	6	35	mg/kg	12.06.19 12:07	
Ethylbenzene	<0.00201	0.100	0.104	104	0.0978	98	71-129	6	35	mg/kg	12.06.19 12:07	
m,p-Xylenes	<0.00402	0.201	0.221	110	0.206	104	70-135	7	35	mg/kg	12.06.19 12:07	
o-Xylene	<0.00201	0.100	0.112	112	0.104	104	71-133	7	35	mg/kg	12.06.19 12:07	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		103		70-130	%	12.06.19 12:07
4-Bromofluorobenzene	120		117		70-130	%	12.06.19 12:07

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.

Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109697

Parent Sample Id: 645369-012

Matrix: Soil

MS Sample Id: 645369-012 S

Prep Method: SW5030B

Date Prep: 12.06.19

MSD Sample Id: 645369-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0774	77	0.0929	92	70-130	18	35	mg/kg	12.06.19 22:00	
Toluene	<0.00201	0.101	0.0781	77	0.0939	93	70-130	18	35	mg/kg	12.06.19 22:00	
Ethylbenzene	<0.00201	0.101	0.0771	76	0.0919	91	71-129	18	35	mg/kg	12.06.19 22:00	
m,p-Xylenes	<0.00402	0.201	0.162	81	0.193	96	70-135	17	35	mg/kg	12.06.19 22:00	
o-Xylene	<0.00201	0.101	0.0837	83	0.0987	98	71-133	16	35	mg/kg	12.06.19 22:00	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		105		70-130	%	12.06.19 22:00
4-Bromofluorobenzene	119		120		70-130	%	12.06.19 22:00

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

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

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: 1045367

Houston, TX (281) 340-4200 Dallas, TX (214) 902-0000 San Antonio, TX (210) 509-3333
Midland, TX (432) 794-5440 El Paso, TX (915) 875-5440 Lubbock, TX (806) 784-1200
Harris, TX (281) 300-7550 Phoenix, AZ (602) 335-0000 Atlanta, GA (770) 445-8800 Tampa, FL (813) 889-3333

Page 1 of 1

Project Manager:	Earl Moore	Est. No. (if different)	Kyle Littel
Company Name:	LT Environmental, Inc., Permian office	Company Name	XTO-Energy
Address:	3500 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carmichael, NM
Phone:	432.704.5178	Email:	amero@ltx.com; mrc@ltx.com

Work Order Comments	
Program: UST/PST	☐ PPP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:	
Reporting Level I	☐ Level III ☐ SURVEY ☐ REP ☐ Level IV ☐
Deviation: EDO	☐ ADAPT ☐ Other:

SAMPLE RECEIPT	Temp Blank:	(Yes) No	Well too:	(Yes) No
Temperature ($^{\circ}$ C):	9.5	Thermometer ID)		
Received intact:	(Yes) No			
Collector Custody Seals:	Yes (No) N/A	Correction Factor -0.7		
Sample Custody Seals:	Yes (No) N/A	Total Containers: 18		
ANALYSIS REQUEST				
Project Name:	Kest-Down CDP	Turn Around:		
Project Number:	OZ319124	Routine:	☐	
P.O. Number:		Push:	246	
Sampler's Name:	Robert McAfee	Due Date:		
Number of Containers				
EPA 801B:				
(EPA O=8021)				
(EPA 300.0)				
TAP starts ten day recovery by the info, if received by a JGpm				
Work Order Notes				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (ppm)	RTEX (%)	Chloride
BWH	S	12/06/97	1210	1'	1	X	Y	Y
BWHA			1215	2'	X	X	Y	Y
BWI			1225	1'	X	Y	X	
BWEA			1230	2'	X	Y	X	
BWS			1235	1'	X	Y	X	
BWSA			1241	2'	X	X	X	
BWN			1245	1'	X	Y	X	
BWNA			1251	2'	X	Y	X	
BWS			1310	1'	X	X	X	
BWSA			1315	2'	X	X	X	

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

Total 200.7 / 6010 200.8 / 6020: CIRCLE <i>Method(s) and Material(s) to be analyzed</i> BRCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ce Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn TCLP / SPLP 6010: BRCRA 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
<i>[Signature]</i>	<i>[Signature]</i>	12/6/19 08:30			



Chain of Custody

Work Order No: 445 2609

Houston, TX (281) 240-4300 Dallas, TX (214) 802-0200 San Antonio, TX (210) 505-3334
 Midland, TX (432) 704-5440 El Paso, TX (915) 665-3443 Lubbock, TX (806) 764-1298

Midland, TX (432) 704-5440 El Paso, TX (915) 665-3443 Lubbock, TX (806) 764-1298
 Houston, TX (281) 240-4300 Dallas, TX (214) 802-0200 San Antonio, TX (210) 505-3334

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Page 2 of 2

Project Manager:	Dan Mor	Est. to: (if different)	Kyle Lohr
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO-Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Clarksburg, NM
Phone:	432.704.5178	Email:	dmo@xtoenergy.com jlohre@xtoenergy.com

Project Name:	Res Prod CDF	Turn Around	
Project Number:	012419272	Routine ☐	
P.O. Number:		Rush ☐	
Sampler's Name:	Robert McAlister	Due Date:	

Temperature (°C):		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Received Initial:	Yes	No	500	11	11	11	11
Cooler Custody Seals:	Yes	No	N/A	Correction Factor:			
Sample Custody Seals:	Yes	No	N/A	Total Containers:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8016)	BTEX (EPA 8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST	Work Order Notes
B11C	S	12/1/19	13:30	1'	1	X	X	X		
B11A	S	12/1/19	13:35	2'	1	X	X	X		

Total 200.7 / 6010 200.8 / 6020:

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

BRCCRA 13P/PM Texas 11 N Sb As Ba Be B Cd Cs Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag S/G2 Na Sr Ti Sn U V Zn
 TELP / SPLP 6010 BRCCRA 5b As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
 1631 / 246.1 / 7470 / 7471 Hg

Note: 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 attached unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	12/1/19 08:30			



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12/06/2019 08:30:00 AM

Work Order #: 645369

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)?	2.5
#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: 12/06/2019

Checklist reviewed by:

Jessica Kramer

Date: 12/06/2019



10-DEC-19

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **645522**

Ross Draw CDP-PIT Sample

Project Address:

Dan Moir:

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) 645522. 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. 645522 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 Assistant

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

Certified and approved by numerous States and Agencies.

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

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



Sample Cross Reference 645522

LT Environmental, Inc., Arvada, CO

Ross Draw CDP-PIT Sample

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	12-06-19 16:00	0.5 ft	645522-001



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *Ross Draw CDP-PIT Sample*

Project ID: 012919277
Work Order Number(s): 645522

Report Date: 10-DEC-19
Date Received: 12/09/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 645522

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP-PIT Sample

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Dec-09-19 08:50 am

Report Date: 10-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	645522-001					
	Field Id:	SS01					
	Depth:	0.5- ft					
	Matrix:	SOIL					
	Sampled:	Dec-06-19 16:00					
Chloride by EPA 300	Extracted:	Dec-09-19 16:10					
	Analyzed:	Dec-09-19 18:11					
	Units/RL:	mg/kg RL					
Chloride		<9.98 9.98					

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 Assistant

**Certificate of Analytical Results 645522****LT Environmental, Inc., Arvada, CO****Ross Draw CDP-PIT Sample**

Sample Id: SS01	Matrix: Soil	Date Received: 12.09.19 08.50
Lab Sample Id: 645522-001	Date Collected: 12.06.19 16.00	Sample Depth: 0.5 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 12.09.19 16.10	Basis: Wet Weight
Seq Number: 3109906		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	12.09.19 18.11	U	1



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.
Ross Draw CDP-PIT Sample

Analytical Method: Chloride by EPA 300

Seq Number: 3109906

MB Sample Id: 7692026-1-BLK

Matrix: Solid

LCS Sample Id: 7692026-1-BKS

Prep Method: E300P

Date Prep: 12.09.19

LCSD Sample Id: 7692026-1-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	263	105	90-110	1	20	mg/kg	12.09.19 18:00	

Analytical Method: Chloride by EPA 300

Seq Number: 3109906

Parent Sample Id: 645522-001

Matrix: Soil

MS Sample Id: 645522-001 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645522-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.14	199	210	102	209	102	90-110	0	20	mg/kg	12.09.19 18:17	

Analytical Method: Chloride by EPA 300

Seq Number: 3109906

Parent Sample Id: 645537-003

Matrix: Soil

MS Sample Id: 645537-003 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645537-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	110	199	327	109	328	110	90-110	0	20	mg/kg	12.09.19 19:38	

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: 645522

Houston, TX (281) 240-4200 Dallas, TX (214) 350-0000 San Antonio, TX (210) 305-3304
 Midland, TX (432) 704-5440 El Paso, TX (957) 555-3443 Lubbock, TX (806) 794-1230
 Dallas, TX (972) 385-7559 Phoenix, AZ (480) 555-0000 Atlanta, GA (770) 448-8800 Tampa, FL (813) 820-2000

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Cell (if different):	Kyle Little
Company Name:	L.T. Environmental, Inc., Portland office	Company Name:	XTC Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432.704.5178	Email:	danmoir@ltenv.com mcafee@ltenv.com

Work Order Comments	
Program: UST/PSI	☐ FRP ☐ Groundwater ☐ RC ☐ Superfund ☐
State of Project:	
Reporting Level II	☐ Level III ☐ RST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD	☐ ADAPT ☐ Other:

Project Name:	Ross Drive CDF - PIT Sample	Turn Around	
Project Number:	012919277	Routine	☐
P.O. Number:		Rush:	24 hr
Sample Name:	Robert McAfee	Due Date:	

SAMPLE RECEIPT		Temp Blank:	☒ Yes ☐ No	Well Log:	☒ Yes ☐ No
Temperature (°C):	3.5	Thermometer ID:	TN007		
Revised Inlet:	☒ Yes ☐ No	Corrosion Factor:	~0.2		
Coater Custody Seal:	Yes ☒ No ☐ N/A	Total Containers:	1		
Sample Custody Seal:	Yes ☒ No ☐ N/A				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	STEX (EPA 8-8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST																Work Order Notes	
SS01	S	12/4/19	1600	0.5'	1			X																		
																										TAT starts the day received by the lab. If received by 4:30pm
																										Sample Comments

Total 200.7 / 6010 200.8 / 6020: BRCRA 13P/M Toxus 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K S Se Ag SiO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Material(s) to be analyzed: TCLP / SPLP 6010 BRCRA 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
		12/4/19 08:50			

(a) Signature of this document and relinquishment of sample 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 analysis and other and assumes any responsibility for any losses or damages incurred by the client if such losses are due to circumstances beyond the control of Xenco. A withdrawal 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.					

Analytical Report 645524

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

10-DEC-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

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

Xenco-Dallas (EPA Lab Code: TX01468):

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

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

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

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

Xenco-Carlsbad (LELAP): Louisiana (05092)

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

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

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



10-DEC-19

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

Reference: XENCO Report No(s): **645524**
Ross Draw CDP
Project Address:

Dan Moir:

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) 645524. 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. 645524 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 Assistant

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

Certified and approved by numerous States and Agencies.

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

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

**Sample Cross Reference 645524****LT Environmental, Inc., Arvada, CO**

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH17	S	12-06-19 14:04	1 ft	645524-001
BH17A	S	12-06-19 14:35	2 ft	645524-002



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 645524

Report Date: 10-DEC-19
Date Received: 12/09/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109891 BTEX by EPA 8021B

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



Certificate of Analysis Summary 645524

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Dec-09-19 08:50 am

Report Date: 10-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	645524-001	645524-002				
	Field Id:	BH17	BH17A				
	Depth:	1- ft	2- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	Dec-06-19 14:04	Dec-06-19 14:35				
BTEX by EPA 8021B	Extracted:	Dec-09-19 08:50	Dec-09-19 08:50				
	Analyzed:	Dec-09-19 17:04	Dec-09-19 17:23				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00198 0.00198	<0.00198 0.00198				
Toluene		<0.00198 0.00198	<0.00198 0.00198				
Ethylbenzene		<0.00198 0.00198	<0.00198 0.00198				
m,p-Xylenes		<0.00397 0.00397	<0.00395 0.00395				
o-Xylene		<0.00198 0.00198	<0.00198 0.00198				
Total Xylenes		<0.00198 0.00198	<0.00198 0.00198				
Total BTEX		<0.00198 0.00198	<0.00198 0.00198				
Chloride by EPA 300	Extracted:	Dec-09-19 16:10	Dec-09-19 16:10				
	Analyzed:	Dec-09-19 18:28	Dec-09-19 18:34				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		346 10.0	169 10.0				
TPH by SW8015 Mod	Extracted:	Dec-09-19 15:30	Dec-09-19 15:30				
	Analyzed:	Dec-09-19 21:10	Dec-09-19 21:30				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<50.3 50.3	<49.9 49.9				
Diesel Range Organics (DRO)		<50.3 50.3	<49.9 49.9				
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3	<49.9 49.9				
Total GRO-DRO		<50.3 50.3	<49.9 49.9				
Total TPH		<50.3 50.3	<49.9 49.9				

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 Assistant



Certificate of Analytical Results 645524

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH17** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645524-001 Date Collected: 12.06.19 14.04 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 16.10 Basis: Wet Weight
 Seq Number: 3109906

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	346	10.0	mg/kg	12.09.19 18.28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 15.30 Basis: Wet Weight
 Seq Number: 3109933

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.09.19 21.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.09.19 21.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.09.19 21.10	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.09.19 21.10	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.09.19 21.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.09.19 21.10	
o-Terphenyl	84-15-1	115	%	70-135	12.09.19 21.10	



Certificate of Analytical Results 645524

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH17**
 Lab Sample Id: 645524-001

Matrix: Soil
 Date Collected: 12.06.19 14.04

Date Received: 12.09.19 08.50
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 08.50

Basis: Wet Weight

Seq Number: 3109891

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.09.19 17.04	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.09.19 17.04	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.09.19 17.04	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.09.19 17.04	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.09.19 17.04	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.09.19 17.04	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.09.19 17.04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	12.09.19 17.04		
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.09.19 17.04		



Certificate of Analytical Results 645524

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH17A** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645524-002 Date Collected: 12.06.19 14.35 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 16.10 Basis: Wet Weight
 Seq Number: 3109906

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	169	10.0	mg/kg	12.09.19 18.34		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 15.30 Basis: Wet Weight
 Seq Number: 3109933

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.09.19 21.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.09.19 21.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.09.19 21.30	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.09.19 21.30	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.09.19 21.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.09.19 21.30	
o-Terphenyl	84-15-1	104	%	70-135	12.09.19 21.30	



Certificate of Analytical Results 645524

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH17A**
 Lab Sample Id: 645524-002

Matrix: Soil
 Date Collected: 12.06.19 14.35

Date Received: 12.09.19 08.50
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 08.50

Basis: Wet Weight

Seq Number: 3109891

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.09.19 17.23	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.09.19 17.23	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.09.19 17.23	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	12.09.19 17.23	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.09.19 17.23	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.09.19 17.23	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.09.19 17.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	12.09.19 17.23		
1,4-Difluorobenzene	540-36-3	92	%	70-130	12.09.19 17.23		



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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109906

MB Sample Id: 7692026-1-BLK

Matrix: Solid

LCS Sample Id: 7692026-1-BKS

Prep Method: E300P

Date Prep: 12.09.19

LCSD Sample Id: 7692026-1-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	263	105	90-110	1	20	mg/kg	12.09.19 18:00	

Analytical Method: Chloride by EPA 300

Seq Number: 3109906

Parent Sample Id: 645522-001

Matrix: Soil

MS Sample Id: 645522-001 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645522-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.14	199	210	102	209	102	90-110	0	20	mg/kg	12.09.19 18:17	

Analytical Method: Chloride by EPA 300

Seq Number: 3109906

Parent Sample Id: 645537-003

Matrix: Soil

MS Sample Id: 645537-003 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645537-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	110	199	327	109	328	110	90-110	0	20	mg/kg	12.09.19 19:38	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109933

MB Sample Id: 7692045-1-BLK

Matrix: Solid

LCS Sample Id: 7692045-1-BKS

Prep Method: SW8015P

Date Prep: 12.09.19

LCSD Sample Id: 7692045-1-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	996	100	999	100	70-135	0	35	mg/kg	12.09.19 19:49	
Diesel Range Organics (DRO)	<11.5	1000	1110	111	1050	105	70-135	6	35	mg/kg	12.09.19 19:49	

Surrogate

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		121		119		70-135	%	12.09.19 19:49
o-Terphenyl	108		124		112		70-135	%	12.09.19 19:49

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109933

Matrix: Solid

MB Sample Id: 7692045-1-BLK

Prep Method: SW8015P

Date Prep: 12.09.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.09.19 19:49	

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109933

Parent Sample Id: 645527-020

Matrix: Soil

MS Sample Id: 645527-020 S

Prep Method: SW8015P

Date Prep: 12.09.19

MSD Sample Id: 645527-020 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	985	99	957	96	70-135	3	35	mg/kg	12.09.19 20:29	
Diesel Range Organics (DRO)	<11.5	1000	1020	102	1060	106	70-135	4	35	mg/kg	12.09.19 20:29	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		116		70-135	%	12.09.19 20:29
o-Terphenyl	115		118		70-135	%	12.09.19 20:29

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109891

MB Sample Id: 7692016-1-BLK

Matrix: Solid

LCS Sample Id: 7692016-1-BKS

Prep Method: SW5030B

Date Prep: 12.09.19

LCSD Sample Id: 7692016-1-BSO

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.102	102	0.0914	91	70-130	11	35	mg/kg	12.09.19 10:47	
Toluene	<0.00200	0.100	0.104	104	0.0922	92	70-130	12	35	mg/kg	12.09.19 10:47	
Ethylbenzene	<0.00200	0.100	0.104	104	0.0913	91	71-129	13	35	mg/kg	12.09.19 10:47	
m,p-Xylenes	<0.00400	0.200	0.220	110	0.194	97	70-135	13	35	mg/kg	12.09.19 10:47	
o-Xylene	<0.00200	0.100	0.111	111	0.0975	98	71-133	13	35	mg/kg	12.09.19 10:47	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		103		101		70-130	%	12.09.19 10:47
4-Bromofluorobenzene	107		116		115		70-130	%	12.09.19 10:47

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109891

Parent Sample Id: 645473-001

Matrix: Soil

MS Sample Id: 645473-001 S

Prep Method: SW5030B

Date Prep: 12.09.19

MSD Sample Id: 645473-001 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	0.0936	94	0.0775	78	70-130	19	35	mg/kg	12.09.19 11:25	
Toluene	<0.00200	0.100	0.0987	99	0.0768	77	70-130	25	35	mg/kg	12.09.19 11:25	
Ethylbenzene	<0.00200	0.100	0.0988	99	0.0740	74	71-129	29	35	mg/kg	12.09.19 11:25	
m,p-Xylenes	<0.00400	0.200	0.206	103	0.151	76	70-135	31	35	mg/kg	12.09.19 11:25	
o-Xylene	<0.00200	0.100	0.106	106	0.0784	79	71-133	30	35	mg/kg	12.09.19 11:25	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		102		70-130	%	12.09.19 11:25
4-Bromofluorobenzene	121		118		70-130	%	12.09.19 11:25

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

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

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

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



Chain of Custody

Work Order No. _____

645524

Houston, TX (281) 240-4700 Dallas, TX (214) 802-0390 San Antonio, TX (210) 509-3334
 Austin, TX (512) 343-7777 Fort Worth, TX (817) 342-1111
 McAllen, TX (361) 704-5440 El Paso, TX (915) 246-3443 Lubbock, TX (806) 799-3333

Hickory Hill (575-362-1550) CHURCH AT (404-355-0000) Atlanta GA (770-443-0000) Tamarac FL (904-670-3000)

www.xenonco.com

Page 1 of 1

Project Manager:	Don Mohr	Est. to: if estimate	Kyle Littlel
Company Name:	L.T. Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432.704.5178	Email:	donm@ltenv.com

Work Order Comments

Program: USYPTST ☐ PNP ☐ Brownfields ☐ JIC ☐ Superfund ☐

State of Project:

Reporting Level II ☐ Level III ☐ GTR/USPT ☐ SRP ☐ Level IV ☐

Deliverables: EDD ☐ ADAPT ☐ Other:

Project Name:	Ross Dam CDP	Turn Around
Project Number:	012819227	Routine ☐
P.O. Number:		Rush: 24hrs
Sampler's Name:	Robert McAlfee	Date Date:
		ANALYSIS REQUEST
		Work Order Notes

SAMPLE RECEIPT		Temp Blank:		Yes	No	Wet Ice:	Yes	No
Temperature ("C):		3.5		Thermometer ID:				
Received Inhibit:		Yes		No				
Cooler Custody Seals:		Yes		No		Correction Factor:		
Sample Custody Seals:		Yes		No		Total Containers:		
						3		

of Containers

A 9015)

PA 5-9021)

(EPA 300.0)

Y&F wants the day received by the lab. if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EP)	BTEX (E)	Chloride	Sample Comments
BH17	S	12/6/19	1404	1'	1	X	X	X	direct
BH17A	S	12/10/19	1435	2'	1	X	X	X	direct

Total 200.7 / 6010	200.8 / 6020

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

DRCHRA 13PM Texas 11 Al 3D As Ba Be Bi B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Si Ti Sn U V Zn
 TCLP/SPLP 6010 DRCHRA Sb Au Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se As Ti U
 1631 / 245 4 / 7470 / 74

1631 / 245.1 / 7470 / 7471 Hg

After: Significance of this document and relinquishment of samples: none/this is a valid purchase order from client company to Xerox, its affiliates and subcontractors. It assigns standard terms and conditions to Xerox. Xerox will be liable only for the cost of samples and shall not assume any responsibility for any losses or damages incurred by the client if such losses are due to circumstances beyond the control of Xerox. A minimum charge of \$75.00 will be applied to each project and a charge of \$4 for each sample submitted to Xerox, that not analyzed. These items will be subtracted unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	12/9/19 08:50			

Analytical Report 645526

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

10-DEC-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

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

Xenco-Dallas (EPA Lab Code: TX01468):

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

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

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

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

Xenco-Carlsbad (LELAP): Louisiana (05092)

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

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

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



10-DEC-19

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

Reference: XENCO Report No(s): **645526**
Ross Draw CDP
Project Address:

Dan Moir:

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) 645526. 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. 645526 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 Assistant

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

Certified and approved by numerous States and Agencies.

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

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

**Sample Cross Reference 645526****LT Environmental, Inc., Arvada, CO**

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH07	S	12-06-19 10:05	1.5 ft	645526-001
PH07A	S	12-06-19 10:10	2 ft	645526-002
PH07B	S	12-06-19 10:20	3 ft	645526-003
PH07C	S	12-06-19 10:30	4 ft	645526-004



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 645526

Report Date: 10-DEC-19
Date Received: 12/09/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 645526

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Dec-09-19 08:50 am

Report Date: 10-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	645526-001	645526-002	645526-003	645526-004		
	<i>Field Id:</i>	PH07	PH07A	PH07B	PH07C		
	<i>Depth:</i>	1.5- ft	2- ft	3- ft	4- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Dec-06-19 10:05	Dec-06-19 10:10	Dec-06-19 10:20	Dec-06-19 10:30		
Chloride by EPA 300	<i>Extracted:</i>	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03		
	<i>Analyzed:</i>	Dec-09-19 17:19	Dec-09-19 17:25	Dec-09-19 17:31	Dec-09-19 17:37		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		50.4 9.98	403 9.96	554 9.92	544 9.98		

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 Assistant

**Certificate of Analytical Results 645526****LT Environmental, Inc., Arvada, CO****Ross Draw CDP**

Sample Id: **PH07**
Lab Sample Id: 645526-001

Matrix: Soil
Date Collected: 12.06.19 10.05

Date Received: 12.09.19 08.50
Sample Depth: 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 10.03

Basis: Wet Weight

Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	50.4	9.98	mg/kg	12.09.19 17.19		1

**Certificate of Analytical Results 645526****LT Environmental, Inc., Arvada, CO****Ross Draw CDP**

Sample Id: **PH07A** Matrix: Soil Date Received: 12.09.19 08.50
Lab Sample Id: 645526-002 Date Collected: 12.06.19 10.10 Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	403	9.96	mg/kg	12.09.19 17.25		1



Certificate of Analytical Results 645526

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **PH07B** Matrix: Soil Date Received: 12.09.19 08.50
Lab Sample Id: 645526-003 Date Collected: 12.06.19 10.20 Sample Depth: 3 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	554	9.92	mg/kg	12.09.19 17.31		1



Certificate of Analytical Results 645526

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **PH07C**
Lab Sample Id: 645526-004

Matrix: Soil
Date Collected: 12.06.19 10.30

Date Received: 12.09.19 08.50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3109899

Date Prep: 12.09.19 10.03

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	544	9.98	mg/kg	12.09.19 17.37		1



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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109899

MB Sample Id: 7692025-1-BLK

Matrix: Solid

LCS Sample Id: 7692025-1-BKS

Prep Method: E300P

Date Prep: 12.09.19

LCSD Sample Id: 7692025-1-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	273	109	90-110	4	20	mg/kg	12.09.19 14:20	

Analytical Method: Chloride by EPA 300

Seq Number: 3109899

Parent Sample Id: 645527-008

Matrix: Soil

MS Sample Id: 645527-008 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645527-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	755	198	964	106	972	109	90-110	1	20	mg/kg	12.09.19 14:37	

Analytical Method: Chloride by EPA 300

Seq Number: 3109899

Parent Sample Id: 645527-020

Matrix: Soil

MS Sample Id: 645527-020 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645527-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	555	198	762	105	773	108	90-110	1	20	mg/kg	12.09.19 15:58	

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

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

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



Houston, TX (281) 240-4200 Dallas, TX (214) 909-0280 San Antonio, TX (214) 509-3334
Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Tulsa, OK (918) 382-7350 Phoenix, AZ (480) 355-0000 Atlanta, GA (770) 448-8800 Tampa, FL (813) 620-2000

Chain of Custody

Work Order No:

445524 445520

Project Manager:	Don Mole	Ref to: (if attached)	Kyle Littel
Company Name:	LI Environmental, Inc., Parish office	Company Name:	XTO-Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432 704 5178	Email:	dmole@liveny.com mclittel@liveny.com

Program: UST/ST	☐ P&P	☐ Brownfields	☐ RC	☐ Superfund
State of Project:				
Reporting Level II:	☐ Level III	☐ DIST/UST	☐ B&P	☐ Level IV
Deliverables: ETO	☐	ADAPT	☐	Other:

Project Name:	Rest Draw COP	Turn Around	
Project Number:	012919273	Route: ☐	
P.O. Number:		Route: 29%	
Sample's Name:	Robert McAfee	Due Date:	
SAMPLE RECEIPT			
Temperature (°C):	3.5	Temp Blank:	Yes: No: Wet Ice: Yes: No:
Received Initial:	Yes: No:	Thermometer ID:	
Cooler Canister Beads:	Yes: No: N/A	Correction Factor:	
Sample Custody Seal:	Yes: No: N/A	Total Containers:	4
Sample Identification			
Matrix:	Matrix	Date Sampled:	Time Sampled:
PH07	S	12/15/19	1005
PH07A			1010
PH07B			1020
PH07C			1026
Number of Containers			
TPH (EPA 8015)			
BTEX (EPA 9-8021)			
Chloride (EPA 300.0)			
ANALYSIS REQUEST			
Work Order Notes			
TAT starts the day received by the lab. It received by a 10pm			
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 SnO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Method(s) to be analyzed TCLP / SPLP 6010 8RCRA Sb As Ba Be B Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 246.1 / 7470 / 7471 Hg

Notes: Signatures of this document and certification of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subsidiaries. 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, will not be charged. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Robert McAfee	[Signature]	12/19/19 08:50			

Analytical Report 645527

**for
LT Environmental, Inc.**

Project Manager: Dan Moir

Ross Draw CDP

012919277

10-DEC-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

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

Xenco-Dallas (EPA Lab Code: TX01468):

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

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

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

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

Xenco-Carlsbad (LELAP): Louisiana (05092)

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

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

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



10-DEC-19

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **645527**

Ross Draw CDP

Project Address:

Dan Moir:

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) 645527. 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. 645527 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 Assistant

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

Certified and approved by numerous States and Agencies.

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

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



Sample Cross Reference 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS73	S	12-06-19 12:10	1.25 ft	645527-001
FS74	S	12-06-19 11:20	1.25 ft	645527-002
FS75	S	12-06-19 11:25	1.25 ft	645527-003
FS76	S	12-06-19 12:15	1.25 ft	645527-004
FS77	S	12-06-19 12:20	1.25 ft	645527-005
FS78	S	12-06-19 11:30	1.25 ft	645527-006
FS79	S	12-06-19 12:25	1.25 ft	645527-007
FS80	S	12-06-19 11:45	1.25 ft	645527-008
FS81	S	12-06-19 12:35	1.25 ft	645527-009
FS103	S	12-05-19 10:15	0.75 ft	645527-010
FS104	S	12-05-19 10:45	0.75 ft	645527-011
FS105	S	12-05-19 11:05	0.75 ft	645527-012
FS106	S	12-05-19 11:15	0.75 ft	645527-013
FS109	S	12-05-19 12:15	0.75 ft	645527-016
FS110	S	12-05-19 12:25	0.75 ft	645527-017
FS111	S	12-05-19 12:30	0.75 ft	645527-018
FS112	S	12-05-19 15:00	0.75 ft	645527-019
FS113	S	12-05-19 15:05	0.75 ft	645527-020
FS114	S	12-06-19 12:40	0.75 ft	645527-021
FS115	S	12-06-19 12:45	0.75 ft	645527-022
FS116	S	12-06-19 13:30	0.75 ft	645527-023
FS117	S	12-06-19 13:40	0.75 ft	645527-024
FS118	S	12-06-19 13:26	0.5 ft	645527-025
FS119	S	12-06-19 13:45	0.70.55 ft	645527-026
FS107	S	12-05-19 11:20	0.75 ft	Not Analyzed
FS108	S	12-05-19 12:20	0.75 ft	Not Analyzed



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 645527

Report Date: 10-DEC-19
Date Received: 12/09/2019

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109888 BTEX by EPA 8021B

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

Batch: LBA-3109895 BTEX by EPA 8021B

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



Certificate of Analysis Summary 645527

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Dec-09-19 08:50 am

Report Date: 10-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	645527-001	645527-002	645527-003	645527-004	645527-005	645527-006
	<i>Field Id:</i>	FS73	FS74	FS75	FS76	FS77	FS78
	<i>Depth:</i>	1.25- ft	1.25- ft	1.25- ft	1.25- ft	1.25- ft	1.25- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-06-19 12:10	Dec-06-19 11:20	Dec-06-19 11:25	Dec-06-19 12:15	Dec-06-19 12:20	Dec-06-19 11:30
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00
	<i>Analyzed:</i>	Dec-09-19 15:03	Dec-09-19 15:21	Dec-09-19 15:38	Dec-09-19 15:55	Dec-09-19 16:13	Dec-09-19 16:30
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00197 0.00197	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00197 0.00197	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00197 0.00197	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00394 0.00394	<0.00398 0.00398	<0.00399 0.00399	<0.00399 0.00399	<0.00400 0.00400	<0.00398 0.00398
o-Xylene		<0.00197 0.00197	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00197 0.00197	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00197 0.00197	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	Dec-09-19 09:36	Dec-09-19 09:36	Dec-09-19 09:36	Dec-09-19 09:36	Dec-09-19 09:36	Dec-09-19 09:36
	<i>Analyzed:</i>	Dec-09-19 13:21	Dec-09-19 13:28	Dec-09-19 13:33	Dec-09-19 13:39	Dec-09-19 13:45	Dec-09-19 13:51
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1930 9.82	999 9.88	732 9.98	1050 10.0	870 10.0	733 10.1
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00
	<i>Analyzed:</i>	Dec-09-19 15:08	Dec-09-19 15:29	Dec-09-19 15:50	Dec-09-19 15:50	Dec-09-19 16:11	Dec-09-19 16:11
	<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	<50.2 50.2	<50.2 50.2	<49.8 49.8	<50.2 50.2
Diesel Range Organics (DRO)		<49.8 49.8	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.8 49.8	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.8 49.8	<50.2 50.2
Total GRO-DRO		<49.8 49.8	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.8 49.8	<50.2 50.2
Total TPH		<49.8 49.8	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.8 49.8	<50.2 50.2

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 645527

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Dec-09-19 08:50 am

Report Date: 10-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	645527-007	645527-008	645527-009	645527-010	645527-011	645527-012
	<i>Field Id:</i>	FS79	FS80	FS81	FS103	FS104	FS105
	<i>Depth:</i>	1.25- ft	1.25- ft	1.25- ft	0.75- ft	0.75- ft	0.75- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-06-19 12:25	Dec-06-19 11:45	Dec-06-19 12:35	Dec-05-19 10:15	Dec-05-19 10:45	Dec-05-19 11:05
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00
	<i>Analyzed:</i>	Dec-09-19 16:48	Dec-09-19 17:05	Dec-09-19 17:22	Dec-09-19 17:40	Dec-09-19 18:49	Dec-09-19 19:06
	<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	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201
Toluene		<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201
Ethylbenzene		<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201
m,p-Xylenes		<0.00404 0.00404	<0.00398 0.00398	<0.00404 0.00404	<0.00398 0.00398	<0.00398 0.00398	<0.00402 0.00402
o-Xylene		<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201
Total Xylenes		<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201
Total BTEX		<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	Dec-09-19 09:36	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03
	<i>Analyzed:</i>	Dec-09-19 13:56	Dec-09-19 14:31	Dec-09-19 14:48	Dec-09-19 14:54	Dec-09-19 15:00	Dec-09-19 15:06
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1010 10.0	755 9.88	943 9.92	679 9.94	1310 9.98	963 9.96
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00
	<i>Analyzed:</i>	Dec-09-19 16:31	Dec-09-19 16:31	Dec-09-19 17:27	Dec-09-19 17:27	Dec-09-19 17:47	Dec-09-19 18:07
	<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	<49.9 49.9	<50.2 50.2	<50.0 50.0	<49.8 49.8	<50.2 50.2
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<50.2 50.2	<50.0 50.0	<49.8 49.8	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<50.2 50.2	<50.0 50.0	<49.8 49.8	<50.2 50.2
Total GRO-DRO		<50.0 50.0	<49.9 49.9	<50.2 50.2	<50.0 50.0	<49.8 49.8	<50.2 50.2
Total TPH		<50.0 50.0	<49.9 49.9	<50.2 50.2	<50.0 50.0	<49.8 49.8	<50.2 50.2

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 645527

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Dec-09-19 08:50 am

Report Date: 10-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	645527-013	645527-016	645527-017	645527-018	645527-019	645527-020
	<i>Field Id:</i>	FS106	FS109	FS110	FS111	FS112	FS113
	<i>Depth:</i>	0.75- ft	0.75- ft	0.75- ft	0.75- ft	0.75- ft	0.75- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-05-19 11:15	Dec-05-19 12:15	Dec-05-19 12:25	Dec-05-19 12:30	Dec-05-19 15:00	Dec-05-19 15:05
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00
	<i>Analyzed:</i>	Dec-09-19 19:24	Dec-09-19 19:41	Dec-09-19 19:59	Dec-09-19 20:16	Dec-09-19 20:33	Dec-09-19 20:51
	<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	<0.00200 0.00200	<0.00199 0.00199	<0.00197 0.00197	<0.00197 0.00197	<0.00198 0.00198
Toluene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00197 0.00197	<0.00197 0.00197	<0.00198 0.00198
Ethylbenzene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00197 0.00197	<0.00197 0.00197	<0.00198 0.00198
m,p-Xylenes		<0.00397 0.00397	<0.00399 0.00399	<0.00398 0.00398	<0.00394 0.00394	<0.00394 0.00394	<0.00397 0.00397
o-Xylene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00197 0.00197	<0.00197 0.00197	<0.00198 0.00198
Total Xylenes		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00197 0.00197	<0.00197 0.00197	<0.00198 0.00198
Total BTEX		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00197 0.00197	<0.00197 0.00197	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03
	<i>Analyzed:</i>	Dec-09-19 15:23	Dec-09-19 15:29	Dec-09-19 15:35	Dec-09-19 15:40	Dec-09-19 15:46	Dec-09-19 15:52
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1290 9.88	1290 9.98	709 9.92	666 9.82	698 9.88	555 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 15:30
	<i>Analyzed:</i>	Dec-09-19 18:07	Dec-09-19 18:27	Dec-09-19 18:27	Dec-09-19 18:48	Dec-09-19 18:48	Dec-09-19 20:09
	<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	<50.0 50.0	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.2 50.2
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.2 50.2
Total GRO-DRO		<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.2 50.2
Total TPH		<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.2 50.2

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Jessica Kramer
Project Assistant

Certificate of Analysis Summary 645527



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Dec-09-19 08:50 am

Report Date: 10-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	645527-021	645527-022	645527-023	645527-024	645527-025	645527-026
	<i>Field Id:</i>	FS114	FS115	FS116	FS117	FS118	FS119
	<i>Depth:</i>	0.75- ft	0.75- ft	0.75- ft	0.75- ft	0.5- ft	0.70.55- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-06-19 12:40	Dec-06-19 12:45	Dec-06-19 13:30	Dec-06-19 13:40	Dec-06-19 13:26	Dec-06-19 13:45
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00
	<i>Analyzed:</i>	Dec-09-19 21:08	Dec-09-19 21:26	Dec-09-19 22:23	Dec-09-19 22:42	Dec-09-19 23:01	Dec-09-19 23:21
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00401 0.00401	<0.00398 0.00398	<0.00400 0.00400	<0.00397 0.00397	<0.00401 0.00401	<0.00398 0.00398
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03
	<i>Analyzed:</i>	Dec-09-19 16:45	Dec-09-19 16:50	Dec-09-19 16:56	Dec-09-19 17:02	Dec-09-19 17:08	Dec-09-19 17:13
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		907 10.0	1960 9.98	1450 10.1	2300 9.92	22.0 9.90	21.1 9.90
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 15:30	Dec-09-19 15:30	Dec-09-19 15:30
	<i>Analyzed:</i>	Dec-09-19 19:08	Dec-09-19 19:08	Dec-09-19 19:29	Dec-09-19 20:50	Dec-09-19 20:50	Dec-09-19 21:10
	<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	<50.3 50.3	<50.2 50.2	<50.0 50.0	<50.2 50.2
Diesel Range Organics (DRO)		<50.2 50.2	<50.1 50.1	<50.3 50.3	<50.2 50.2	<50.0 50.0	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<50.3 50.3	<50.2 50.2	<50.0 50.0	<50.2 50.2
Total GRO-DRO		<50.2 50.2	<50.1 50.1	<50.3 50.3	<50.2 50.2	<50.0 50.0	<50.2 50.2
Total TPH		<50.2 50.2	<50.1 50.1	<50.3 50.3	<50.2 50.2	<50.0 50.0	<50.2 50.2

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Jessica Kramer
Project Assistant



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS73** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-001 Date Collected: 12.06.19 12.10 Sample Depth: 1.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 09.36 Basis: Wet Weight
 Seq Number: 3109798

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1930	9.82	mg/kg	12.09.19 13.21		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.09.19 15.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.09.19 15.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.09.19 15.08	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.09.19 15.08	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.09.19 15.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.09.19 15.08	
o-Terphenyl	84-15-1	99	%	70-135	12.09.19 15.08	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS73**
 Lab Sample Id: 645527-001

Matrix: Soil
 Date Collected: 12.06.19 12.10

Date Received: 12.09.19 08.50
 Sample Depth: 1.25 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00197	0.00197	mg/kg	12.09.19 15.03	U	1
Toluene	108-88-3	<0.00197	0.00197	mg/kg	12.09.19 15.03	U	1
Ethylbenzene	100-41-4	<0.00197	0.00197	mg/kg	12.09.19 15.03	U	1
m,p-Xylenes	179601-23-1	<0.00394	0.00394	mg/kg	12.09.19 15.03	U	1
o-Xylene	95-47-6	<0.00197	0.00197	mg/kg	12.09.19 15.03	U	1
Total Xylenes	1330-20-7	<0.00197	0.00197	mg/kg	12.09.19 15.03	U	1
Total BTEX		<0.00197	0.00197	mg/kg	12.09.19 15.03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.09.19 15.03		
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.09.19 15.03		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS74** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-002 Date Collected: 12.06.19 11.20 Sample Depth: 1.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 09.36 Basis: Wet Weight
 Seq Number: 3109798

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	999	9.88	mg/kg	12.09.19 13.28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 15.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 15.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 15.29	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 15.29	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 15.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.09.19 15.29	
o-Terphenyl	84-15-1	105	%	70-135	12.09.19 15.29	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS74**
 Lab Sample Id: 645527-002

Matrix: Soil
 Date Collected: 12.06.19 11.20

Date Received: 12.09.19 08.50
 Sample Depth: 1.25 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.09.19 15.21	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.09.19 15.21	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.09.19 15.21	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.09.19 15.21	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.09.19 15.21	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.09.19 15.21	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.09.19 15.21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	12.09.19 15.21		
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.09.19 15.21		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS75** Matrix: **Soil** Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-003 Date Collected: 12.06.19 11.25 Sample Depth: 1.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 12.09.19 09.36 Basis: **Wet Weight**
 Seq Number: 3109798

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	732	9.98	mg/kg	12.09.19 13.33		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 12.09.19 14.00 Basis: **Wet Weight**
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 15.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 15.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 15.50	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 15.50	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 15.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	12.09.19 15.50	
o-Terphenyl	84-15-1	102	%	70-135	12.09.19 15.50	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS75**
 Lab Sample Id: 645527-003

Matrix: Soil
 Date Collected: 12.06.19 11.25

Date Received: 12.09.19 08.50
 Sample Depth: 1.25 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.09.19 15.38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.09.19 15.38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.09.19 15.38	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.09.19 15.38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.09.19 15.38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.09.19 15.38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.09.19 15.38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	12.09.19 15.38		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.09.19 15.38		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS76** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-004 Date Collected: 12.06.19 12.15 Sample Depth: 1.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 09.36 Basis: Wet Weight
 Seq Number: 3109798

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1050	10.0	mg/kg	12.09.19 13.39		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 15.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 15.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 15.50	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 15.50	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 15.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	12.09.19 15.50	
o-Terphenyl	84-15-1	103	%	70-135	12.09.19 15.50	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS76**
 Lab Sample Id: 645527-004

Matrix: Soil
 Date Collected: 12.06.19 12.15

Date Received: 12.09.19 08.50
 Sample Depth: 1.25 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.09.19 15.55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.09.19 15.55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.09.19 15.55	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.09.19 15.55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.09.19 15.55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.09.19 15.55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.09.19 15.55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	12.09.19 15.55		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.09.19 15.55		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS77** Matrix: **Soil** Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-005 Date Collected: 12.06.19 12.20 Sample Depth: 1.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 12.09.19 09.36 Basis: **Wet Weight**
 Seq Number: 3109798

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	870	10.0	mg/kg	12.09.19 13.45		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 12.09.19 14.00 Basis: **Wet Weight**
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.09.19 16.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.09.19 16.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.09.19 16.11	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.09.19 16.11	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.09.19 16.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	12.09.19 16.11	
o-Terphenyl	84-15-1	100	%	70-135	12.09.19 16.11	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS77**
 Lab Sample Id: 645527-005

Matrix: Soil
 Date Collected: 12.06.19 12.20

Date Received: 12.09.19 08.50
 Sample Depth: 1.25 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.09.19 16.13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.09.19 16.13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.09.19 16.13	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.09.19 16.13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.09.19 16.13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.09.19 16.13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.09.19 16.13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	12.09.19 16.13		
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.09.19 16.13		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS78** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-006 Date Collected: 12.06.19 11.30 Sample Depth: 1.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 09.36 Basis: Wet Weight
 Seq Number: 3109798

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	733	10.1	mg/kg	12.09.19 13.51		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 16.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 16.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 16.11	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 16.11	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 16.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	12.09.19 16.11	
o-Terphenyl	84-15-1	104	%	70-135	12.09.19 16.11	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS78**
 Lab Sample Id: 645527-006

Matrix: Soil
 Date Collected: 12.06.19 11.30

Date Received: 12.09.19 08.50
 Sample Depth: 1.25 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.09.19 16.30	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.09.19 16.30	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.09.19 16.30	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.09.19 16.30	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.09.19 16.30	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.09.19 16.30	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.09.19 16.30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.09.19 16.30		
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.09.19 16.30		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS79** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-007 Date Collected: 12.06.19 12.25 Sample Depth: 1.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 09.36 Basis: Wet Weight
 Seq Number: 3109798

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1010	10.0	mg/kg	12.09.19 13.56		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.09.19 16.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.09.19 16.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.09.19 16.31	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.09.19 16.31	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.09.19 16.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	12.09.19 16.31	
o-Terphenyl	84-15-1	114	%	70-135	12.09.19 16.31	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS79**
 Lab Sample Id: 645527-007

Matrix: Soil
 Date Collected: 12.06.19 12.25

Date Received: 12.09.19 08.50
 Sample Depth: 1.25 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.09.19 16.48	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.09.19 16.48	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.09.19 16.48	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.09.19 16.48	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.09.19 16.48	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.09.19 16.48	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.09.19 16.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.09.19 16.48		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.09.19 16.48		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS80** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-008 Date Collected: 12.06.19 11.45 Sample Depth: 1.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	755	9.88	mg/kg	12.09.19 14.31		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.09.19 16.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.09.19 16.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.09.19 16.31	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.09.19 16.31	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.09.19 16.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.09.19 16.31	
o-Terphenyl	84-15-1	106	%	70-135	12.09.19 16.31	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS80**
 Lab Sample Id: 645527-008

Matrix: Soil
 Date Collected: 12.06.19 11.45

Date Received: 12.09.19 08.50
 Sample Depth: 1.25 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.09.19 17.05	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.09.19 17.05	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.09.19 17.05	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.09.19 17.05	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.09.19 17.05	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.09.19 17.05	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.09.19 17.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.09.19 17.05		
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.09.19 17.05		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS81** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-009 Date Collected: 12.06.19 12.35 Sample Depth: 1.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	943	9.92	mg/kg	12.09.19 14.48		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 17.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 17.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 17.27	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 17.27	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 17.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	12.09.19 17.27	
o-Terphenyl	84-15-1	102	%	70-135	12.09.19 17.27	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS81**
 Lab Sample Id: 645527-009

Matrix: Soil
 Date Collected: 12.06.19 12.35

Date Received: 12.09.19 08.50
 Sample Depth: 1.25 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.09.19 17.22	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.09.19 17.22	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.09.19 17.22	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.09.19 17.22	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.09.19 17.22	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.09.19 17.22	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.09.19 17.22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.09.19 17.22		
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.09.19 17.22		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS103** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-010 Date Collected: 12.05.19 10.15 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	679	9.94	mg/kg	12.09.19 14.54		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.09.19 17.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.09.19 17.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.09.19 17.27	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.09.19 17.27	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.09.19 17.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	12.09.19 17.27	
o-Terphenyl	84-15-1	104	%	70-135	12.09.19 17.27	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS103**
 Lab Sample Id: 645527-010

Matrix: Soil
 Date Collected: 12.05.19 10.15

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.09.19 17.40	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.09.19 17.40	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.09.19 17.40	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.09.19 17.40	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.09.19 17.40	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.09.19 17.40	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.09.19 17.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.09.19 17.40		
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.09.19 17.40		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS104** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-011 Date Collected: 12.05.19 10.45 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1310	9.98	mg/kg	12.09.19 15.00		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.09.19 17.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.09.19 17.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.09.19 17.47	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.09.19 17.47	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.09.19 17.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	12.09.19 17.47	
o-Terphenyl	84-15-1	104	%	70-135	12.09.19 17.47	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS104**
 Lab Sample Id: 645527-011

Matrix: Soil
 Date Collected: 12.05.19 10.45

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.09.19 18.49	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.09.19 18.49	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.09.19 18.49	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.09.19 18.49	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.09.19 18.49	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.09.19 18.49	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.09.19 18.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	70-130	12.09.19 18.49		
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.09.19 18.49		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS105** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-012 Date Collected: 12.05.19 11.05 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	963	9.96	mg/kg	12.09.19 15.06		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 18.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 18.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 18.07	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 18.07	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 18.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	12.09.19 18.07	
o-Terphenyl	84-15-1	99	%	70-135	12.09.19 18.07	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS105**
 Lab Sample Id: 645527-012

Matrix: Soil
 Date Collected: 12.05.19 11.05

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.09.19 19.06	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.09.19 19.06	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.09.19 19.06	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.09.19 19.06	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.09.19 19.06	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.09.19 19.06	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.09.19 19.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	93	%	70-130	12.09.19 19.06		
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.09.19 19.06		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS106** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-013 Date Collected: 12.05.19 11.15 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1290	9.88	mg/kg	12.09.19 15.23		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.09.19 18.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.09.19 18.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.09.19 18.07	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.09.19 18.07	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.09.19 18.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	12.09.19 18.07	
o-Terphenyl	84-15-1	103	%	70-135	12.09.19 18.07	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS106**
 Lab Sample Id: 645527-013

Matrix: Soil
 Date Collected: 12.05.19 11.15

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.09.19 19.24	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.09.19 19.24	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.09.19 19.24	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.09.19 19.24	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.09.19 19.24	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.09.19 19.24	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.09.19 19.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.09.19 19.24		
4-Bromofluorobenzene	460-00-4	103	%	70-130	12.09.19 19.24		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS109** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-016 Date Collected: 12.05.19 12.15 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1290	9.98	mg/kg	12.09.19 15.29		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.09.19 18.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.09.19 18.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.09.19 18.27	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.09.19 18.27	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.09.19 18.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	12.09.19 18.27	
o-Terphenyl	84-15-1	99	%	70-135	12.09.19 18.27	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS109**
 Lab Sample Id: 645527-016

Matrix: Soil
 Date Collected: 12.05.19 12.15

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.09.19 19.41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.09.19 19.41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.09.19 19.41	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.09.19 19.41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.09.19 19.41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.09.19 19.41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.09.19 19.41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.09.19 19.41		
4-Bromofluorobenzene	460-00-4	103	%	70-130	12.09.19 19.41		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS110** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-017 Date Collected: 12.05.19 12.25 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	709	9.92	mg/kg	12.09.19 15.35		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 18.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 18.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 18.27	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 18.27	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 18.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	12.09.19 18.27	
o-Terphenyl	84-15-1	105	%	70-135	12.09.19 18.27	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS110**
 Lab Sample Id: 645527-017

Matrix: Soil
 Date Collected: 12.05.19 12.25

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3109888

Date Prep: 12.09.19 12.00

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	12.09.19 19.59	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.09.19 19.59	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.09.19 19.59	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.09.19 19.59	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.09.19 19.59	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.09.19 19.59	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.09.19 19.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	12.09.19 19.59		
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.09.19 19.59		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS111** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-018 Date Collected: 12.05.19 12.30 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	666	9.82	mg/kg	12.09.19 15.40		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 18.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 18.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 18.48	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 18.48	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 18.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	12.09.19 18.48	
o-Terphenyl	84-15-1	102	%	70-135	12.09.19 18.48	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS111**
 Lab Sample Id: 645527-018

Matrix: Soil
 Date Collected: 12.05.19 12.30

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00197	0.00197	mg/kg	12.09.19 20.16	U	1
Toluene	108-88-3	<0.00197	0.00197	mg/kg	12.09.19 20.16	U	1
Ethylbenzene	100-41-4	<0.00197	0.00197	mg/kg	12.09.19 20.16	U	1
m,p-Xylenes	179601-23-1	<0.00394	0.00394	mg/kg	12.09.19 20.16	U	1
o-Xylene	95-47-6	<0.00197	0.00197	mg/kg	12.09.19 20.16	U	1
Total Xylenes	1330-20-7	<0.00197	0.00197	mg/kg	12.09.19 20.16	U	1
Total BTEX		<0.00197	0.00197	mg/kg	12.09.19 20.16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.09.19 20.16		
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.09.19 20.16		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS112** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-019 Date Collected: 12.05.19 15.00 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	698	9.88	mg/kg	12.09.19 15.46		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.09.19 18.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.09.19 18.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.09.19 18.48	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.09.19 18.48	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.09.19 18.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.09.19 18.48	
o-Terphenyl	84-15-1	107	%	70-135	12.09.19 18.48	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS112**
 Lab Sample Id: 645527-019

Matrix: Soil
 Date Collected: 12.05.19 15.00

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00197	0.00197	mg/kg	12.09.19 20.33	U	1
Toluene	108-88-3	<0.00197	0.00197	mg/kg	12.09.19 20.33	U	1
Ethylbenzene	100-41-4	<0.00197	0.00197	mg/kg	12.09.19 20.33	U	1
m,p-Xylenes	179601-23-1	<0.00394	0.00394	mg/kg	12.09.19 20.33	U	1
o-Xylene	95-47-6	<0.00197	0.00197	mg/kg	12.09.19 20.33	U	1
Total Xylenes	1330-20-7	<0.00197	0.00197	mg/kg	12.09.19 20.33	U	1
Total BTEX		<0.00197	0.00197	mg/kg	12.09.19 20.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.09.19 20.33		
4-Bromofluorobenzene	460-00-4	104	%	70-130	12.09.19 20.33		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS113** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-020 Date Collected: 12.05.19 15.05 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	555	9.98	mg/kg	12.09.19 15.52		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 15.30 Basis: Wet Weight
 Seq Number: 3109933

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 20.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 20.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 20.09	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 20.09	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 20.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.09.19 20.09	
o-Terphenyl	84-15-1	115	%	70-135	12.09.19 20.09	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS113**
 Lab Sample Id: 645527-020

Matrix: Soil
 Date Collected: 12.05.19 15.05

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.09.19 20.51	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.09.19 20.51	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.09.19 20.51	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.09.19 20.51	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.09.19 20.51	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.09.19 20.51	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.09.19 20.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	12.09.19 20.51		
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.09.19 20.51		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS114** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-021 Date Collected: 12.06.19 12.40 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	907	10.0	mg/kg	12.09.19 16.45		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 19.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 19.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 19.08	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 19.08	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 19.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	12.09.19 19.08	
o-Terphenyl	84-15-1	110	%	70-135	12.09.19 19.08	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS114**
 Lab Sample Id: 645527-021

Matrix: Soil
 Date Collected: 12.06.19 12.40

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.09.19 21.08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.09.19 21.08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.09.19 21.08	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.09.19 21.08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.09.19 21.08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.09.19 21.08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.09.19 21.08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.09.19 21.08		
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.09.19 21.08		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS115** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-022 Date Collected: 12.06.19 12.45 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1960	9.98	mg/kg	12.09.19 16.50		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.09.19 19.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.09.19 19.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.09.19 19.08	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.09.19 19.08	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.09.19 19.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	127	%	70-135	12.09.19 19.08	
o-Terphenyl	84-15-1	134	%	70-135	12.09.19 19.08	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS115**
 Lab Sample Id: 645527-022

Matrix: Soil
 Date Collected: 12.06.19 12.45

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.09.19 21.26	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.09.19 21.26	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.09.19 21.26	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.09.19 21.26	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.09.19 21.26	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.09.19 21.26	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.09.19 21.26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.09.19 21.26		
4-Bromofluorobenzene	460-00-4	106	%	70-130	12.09.19 21.26		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS116** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-023 Date Collected: 12.06.19 13.30 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1450	10.1	mg/kg	12.09.19 16.56		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.09.19 19.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.09.19 19.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.09.19 19.29	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.09.19 19.29	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.09.19 19.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	127	%	70-135	12.09.19 19.29	
o-Terphenyl	84-15-1	129	%	70-135	12.09.19 19.29	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS116**
 Lab Sample Id: 645527-023

Matrix: Soil
 Date Collected: 12.06.19 13.30

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 14.00

Basis: Wet Weight

Seq Number: 3109895

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.09.19 22.23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.09.19 22.23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.09.19 22.23	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.09.19 22.23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.09.19 22.23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.09.19 22.23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.09.19 22.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.09.19 22.23		
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.09.19 22.23		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS117** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-024 Date Collected: 12.06.19 13.40 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2300	9.92	mg/kg	12.09.19 17.02		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 15.30 Basis: Wet Weight
 Seq Number: 3109933

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 20.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 20.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 20.50	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 20.50	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 20.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.09.19 20.50	
o-Terphenyl	84-15-1	105	%	70-135	12.09.19 20.50	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS117**
 Lab Sample Id: 645527-024

Matrix: Soil
 Date Collected: 12.06.19 13.40

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 14.00

Basis: Wet Weight

Seq Number: 3109895

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.09.19 22.42	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.09.19 22.42	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.09.19 22.42	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.09.19 22.42	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.09.19 22.42	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.09.19 22.42	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.09.19 22.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	12.09.19 22.42		
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.09.19 22.42		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS118** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-025 Date Collected: 12.06.19 13.26 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22.0	9.90	mg/kg	12.09.19 17.08		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 15.30 Basis: Wet Weight
 Seq Number: 3109933

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.09.19 20.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.09.19 20.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.09.19 20.50	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.09.19 20.50	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.09.19 20.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	12.09.19 20.50	
o-Terphenyl	84-15-1	107	%	70-135	12.09.19 20.50	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS118**
 Lab Sample Id: 645527-025

Matrix: Soil
 Date Collected: 12.06.19 13.26

Date Received: 12.09.19 08.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3109895

Date Prep: 12.09.19 14.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.09.19 23.01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.09.19 23.01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.09.19 23.01	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.09.19 23.01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.09.19 23.01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.09.19 23.01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.09.19 23.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	12.09.19 23.01		
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.09.19 23.01		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS119** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-026 Date Collected: 12.06.19 13.45 Sample Depth: 0.70.55 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.1	9.90	mg/kg	12.09.19 17.13		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 15.30 Basis: Wet Weight
 Seq Number: 3109933

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 21.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 21.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 21.10	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 21.10	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 21.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	12.09.19 21.10	
o-Terphenyl	84-15-1	105	%	70-135	12.09.19 21.10	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS119**
 Lab Sample Id: 645527-026

Matrix: Soil
 Date Collected: 12.06.19 13.45

Date Received: 12.09.19 08.50
 Sample Depth: 0.70.55 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 14.00

Basis: Wet Weight

Seq Number: 3109895

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.09.19 23.21	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.09.19 23.21	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.09.19 23.21	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.09.19 23.21	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.09.19 23.21	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.09.19 23.21	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.09.19 23.21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.09.19 23.21		
4-Bromofluorobenzene	460-00-4	114	%	70-130	12.09.19 23.21		



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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109798

MB Sample Id: 7691946-1-BLK

Matrix: Solid

LCS Sample Id: 7691946-1-BKS

Prep Method: E300P

Date Prep: 12.09.19

LCSD Sample Id: 7691946-1-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	259	104	90-110	1	20	mg/kg	12.09.19 09:57	

Analytical Method: Chloride by EPA 300

Seq Number: 3109899

MB Sample Id: 7692025-1-BLK

Matrix: Solid

LCS Sample Id: 7692025-1-BKS

Prep Method: E300P

Date Prep: 12.09.19

LCSD Sample Id: 7692025-1-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	273	109	90-110	4	20	mg/kg	12.09.19 14:20	

Analytical Method: Chloride by EPA 300

Seq Number: 3109798

Parent Sample Id: 645353-001

Matrix: Soil

MS Sample Id: 645353-001 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645353-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	39.0	200	248	105	236	99	90-110	5	20	mg/kg	12.09.19 10:14	

Analytical Method: Chloride by EPA 300

Seq Number: 3109798

Parent Sample Id: 645473-010

Matrix: Soil

MS Sample Id: 645473-010 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645473-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	109	200	324	108	320	107	90-110	1	20	mg/kg	12.09.19 11:35	

Analytical Method: Chloride by EPA 300

Seq Number: 3109899

Parent Sample Id: 645527-008

Matrix: Soil

MS Sample Id: 645527-008 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645527-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	755	198	964	106	972	109	90-110	1	20	mg/kg	12.09.19 14:37	

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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109899

Parent Sample Id: 645527-020

Matrix: Soil

MS Sample Id: 645527-020 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645527-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	555	198	762	105	773	108	90-110	1	20	mg/kg	12.09.19 15:58	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109930

MB Sample Id: 7692013-1-BLK

Matrix: Solid

LCS Sample Id: 7692013-1-BKS

Prep Method: SW8015P

Date Prep: 12.09.19

LCSD Sample Id: 7692013-1-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	997	100	939	94	70-135	6	35	mg/kg	12.09.19 14:48	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	1020	102	70-135	3	35	mg/kg	12.09.19 14:48	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		119		112		70-135	%	12.09.19 14:48
o-Terphenyl	110		113		114		70-135	%	12.09.19 14:48

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109933

MB Sample Id: 7692045-1-BLK

Matrix: Solid

LCS Sample Id: 7692045-1-BKS

Prep Method: SW8015P

Date Prep: 12.09.19

LCSD Sample Id: 7692045-1-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	996	100	999	100	70-135	0	35	mg/kg	12.09.19 19:49	
Diesel Range Organics (DRO)	<11.5	1000	1110	111	1050	105	70-135	6	35	mg/kg	12.09.19 19:49	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		121		119		70-135	%	12.09.19 19:49
o-Terphenyl	108		124		112		70-135	%	12.09.19 19:49

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109930

Matrix: Solid

MB Sample Id: 7692013-1-BLK

Prep Method: SW8015P

Date Prep: 12.09.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.09.19 14:27	

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109933

Matrix: Solid

Prep Method: SW8015P

Date Prep: 12.09.19

MB Sample Id: 7692045-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.09.19 19:49	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109930

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.09.19

Parent Sample Id: 645527-001

MS Sample Id: 645527-001 S

MSD Sample Id: 645527-001 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)	<50.3	1010	1020	101	978	97	70-135	4	35	mg/kg	12.09.19 15:08	
Diesel Range Organics (DRO)	<50.3	1010	1120	111	999	99	70-135	11	35	mg/kg	12.09.19 15:08	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		116		70-135	%	12.09.19 15:08
o-Terphenyl	129		108		70-135	%	12.09.19 15:08

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109933

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.09.19

Parent Sample Id: 645527-020

MS Sample Id: 645527-020 S

MSD Sample Id: 645527-020 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	985	99	957	96	70-135	3	35	mg/kg	12.09.19 20:29	
Diesel Range Organics (DRO)	<11.5	1000	1020	102	1060	106	70-135	4	35	mg/kg	12.09.19 20:29	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		116		70-135	%	12.09.19 20:29
o-Terphenyl	115		118		70-135	%	12.09.19 20:29

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.

Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109888

MB Sample Id: 7692015-1-BLK

Matrix: Solid

LCS Sample Id: 7692015-1-BKS

Prep Method: SW5030B

Date Prep: 12.09.19

LCSD Sample Id: 7692015-1-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	0.0950	95	70-130	12	35	mg/kg	12.09.19 13:19	
Toluene	<0.00200	0.100	0.106	106	0.0929	93	70-130	13	35	mg/kg	12.09.19 13:19	
Ethylbenzene	<0.00200	0.100	0.104	104	0.0905	91	71-129	14	35	mg/kg	12.09.19 13:19	
m,p-Xylenes	<0.00400	0.200	0.214	107	0.187	94	70-135	13	35	mg/kg	12.09.19 13:19	
o-Xylene	<0.00200	0.100	0.105	105	0.0922	92	71-133	13	35	mg/kg	12.09.19 13:19	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		102		101		70-130	%	12.09.19 13:19
4-Bromofluorobenzene	95		99		98		70-130	%	12.09.19 13:19

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109895

MB Sample Id: 7692023-1-BLK

Matrix: Solid

LCS Sample Id: 7692023-1-BKS

Prep Method: SW5030B

Date Prep: 12.09.19

LCSD Sample Id: 7692023-1-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	0.0877	88	0.0960	96	70-130	9	35	mg/kg	12.09.19 20:41	
Toluene	<0.00200	0.100	0.0898	90	0.0982	98	70-130	9	35	mg/kg	12.09.19 20:41	
Ethylbenzene	<0.00200	0.100	0.0889	89	0.0971	97	71-129	9	35	mg/kg	12.09.19 20:41	
m,p-Xylenes	<0.00400	0.200	0.189	95	0.206	103	70-135	9	35	mg/kg	12.09.19 20:41	
o-Xylene	<0.00200	0.100	0.0963	96	0.105	105	71-133	9	35	mg/kg	12.09.19 20:41	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		102		103		70-130	%	12.09.19 20:41
4-Bromofluorobenzene	109		120		118		70-130	%	12.09.19 20:41

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109888

Parent Sample Id: 645527-001

Matrix: Soil

MS Sample Id: 645527-001 S

Prep Method: SW5030B

Date Prep: 12.09.19

MSD Sample Id: 645527-001 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	0.0996	0.0925	93	0.0971	97	70-130	5	35	mg/kg	12.09.19 13:54	
Toluene	<0.00199	0.0996	0.0907	91	0.0956	96	70-130	5	35	mg/kg	12.09.19 13:54	
Ethylbenzene	<0.00199	0.0996	0.0873	88	0.0932	93	71-129	7	35	mg/kg	12.09.19 13:54	
m,p-Xylenes	<0.00398	0.199	0.181	91	0.193	96	70-135	6	35	mg/kg	12.09.19 13:54	
o-Xylene	<0.00199	0.0996	0.0888	89	0.0954	95	71-133	7	35	mg/kg	12.09.19 13:54	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		100		70-130	%	12.09.19 13:54
4-Bromofluorobenzene	98		99		70-130	%	12.09.19 13:54

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.

Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109895

Parent Sample Id: 645527-023

Matrix: Soil

MS Sample Id: 645527-023 S

Prep Method: SW5030B

Date Prep: 12.09.19

MSD Sample Id: 645527-023 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	0.101	102	0.0951	94	70-130	6	35	mg/kg	12.09.19 21:19	
Toluene	<0.00199	0.0994	0.102	103	0.0967	96	70-130	5	35	mg/kg	12.09.19 21:19	
Ethylbenzene	<0.00199	0.0994	0.0998	100	0.0947	94	71-129	5	35	mg/kg	12.09.19 21:19	
m,p-Xylenes	<0.00398	0.199	0.210	106	0.200	99	70-135	5	35	mg/kg	12.09.19 21:19	
o-Xylene	<0.00199	0.0994	0.108	109	0.103	102	71-133	5	35	mg/kg	12.09.19 21:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		103		70-130	%	12.09.19 21:19
4-Bromofluorobenzene	119		122		70-130	%	12.09.19 21:19

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

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

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: 645527

Houston, TX (call) 280-4200 Dallas, TX (214) 902-0000 San Antonio, TX (214) 508-3334
Midland, TX (432-794-5440) El Paso, TX (910) 545-3443 Lubbock, TX (806) 794-1200
Haltom Hill (817-353-7550) Phoenix, AZ (480-353-8000) Austin, CA (770-449-4000) Tampa, FL (813-439-2800)

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Project Manager:	Dan Moore	Full box (if opened)	Kyle Lillard
Company Name:	LT Environmental, Inc., Puritan office	Company Name:	XCO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Cathedral, NM
Phone:	432-704-5178	Email:	danmoore@xenco.com kylelillard@xenco.com
Project Name:	Revs Raw CCR	Turn Around	
Project Number:	012119111	Routing:	☐
P.O. Number:		Reck:	24/1
Sampler's Name:	Robert McAlfee	Draw Date:	

SAMPLE RECEIPT				ANALYSIS REQUEST				Work Order Notes	
Temperature (°C):	Temp Blank:	Yes/No	Wet Log:	Yes/No					
Received Initial:	Yes/No		Thermometer ID:						
Cooler Custody Seal:	Yes/No		Correction Factor:						
Sample Custody Seal:	Yes/No		Total Containers:						
Sample Identification:	Matrix:	Date Sampled:	Time Sampled:	Depth:	Number of Containers:	TPH (EPA 8015)	BTEX (EPA 8-0021)	Chloride (EPA 800.0)	
F375	S	12/6/19	1310	1.25'	1	X	X	X	
F374			1120			X	X	X	
F375			1125			X	X	X	
F376			1215			X	X	X	
F377			1220			X	X	X	
F378			1130			X	X	X	
F379			1225			X	X	X	
F380			1115			X	X	X	
F381			1235			X	X	X	
F3103		12/6/19	1015	0.75'		X	X	X	

Total 200.7 / 6010 200.8 / 6020: BRCPA 134PM Texas 11 Al Sb As Ba Be B Cd Cs 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: TGLP / SPLP 6010 BRCPA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
Signature of this document and acknowledgment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subsidiaries. It assigns standard terms and conditions
service. Xenco will be held 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 \$70.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, and not analyzed. Times limits will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Robb Hagg		12/9/19 08:50			



Chain of Custody

Work Order No: 645527

Houston, TX (281) 240-4200 Dallas, TX (214) 302-0200 San Antonio, TX (210) 508-3334
 Method, TX (409) 704-0440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Houston, TX (281) 240-4200 Phoenix, AZ (480) 305-0000 Atlanta, GA (770) 418-8003 Tampa, FL (813) 420-3000

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Project Manager:	Dan Moore	Bill to: (if different)	Kyle Laird
Company Name:	L.T. Environmental, Inc., Perriman office	Company Name:	XTO-Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432.704.5178	Email:	danmoore@xencolab.com kyla@xencolab.com

Program: UST/ST	☐ PRP	☐ Brownfields	☐ RC	☐ Superfund
State of Project:				
Reporting Level: I	☐ Level III	☐ ST/UST	☐ RC	☐ Level IV
Deliverable: EDO	☐	ADAPT	☐	Other:

Project Name:	Ross Drive CDP	Turn Around	
Project Number:	012919277	Route:	☐ 246
P.O. Number:		Date:	
Sample's Name:	Robert McAlister	Date:	

SAMPLE RECEIPT		ANALYSIS REQUEST				Work Order Notes	
Temperature (°C):		Temp Blank:	Yes	No	Wet Loc:	Yes	No
Refracted Index:		Yes	No	Refractive Index:			
Cooler Custody Seal:	Yes	No	N/A	Condition Factor:			
Sample Custody Seal:	Yes	No	N/A	Total Containers:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8-0021)	Chloride (EPA 300.0)										
FS184	5	12/16/19	1045	75'	1	X	X	X										
FS105			1105			X	X	X										
FS106			1115			X	X	X										
FS107			1120			X	X	X										
FS108			1220			X	X	X										
FS109			1215			X	X	X										
FS110			1245			X	X	X										
FS111			1250			X	X	X										
FS112			1500			X	X	X										
FS113			1605			X	X	X										

Total 200.7 / 6010 200.6 / 6020: BRCRA 13P/PM Texas 11 A 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: BRCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 246.1 / 7470 / 7471 / Hg

Note: Signature of this division and representative of samples collected from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions. 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 per each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	12/19/19 08:50			



Chain of Custody

Work Order No: 645523

Houston, TX (281) 240-4200 Dallas, TX (214) 502-0000 San Antonio, TX (210) 505-3334
 Midland, TX (432-704-0440) El Paso, TX (915) 555-3443 Lubbock, TX (806) 794-1230
 Houston, TX (281) 240-4200 Phoenix, AZ (480) 505-0000 Atlanta, GA (770) 445-0000 Tampa, FL (813) 620-2000

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Page 3 of 3

Project Manager:	Dan Moir	Cell for address:	Kyle Little
Company Name:	LT Environmental, Inc. - Parent office	Company Name:	XTO-Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Corpus Christi, TX
Phone:	432.704.5178	Email:	dmair@xencolab.com
Project Name:	Rock Draw CDP	Turn Around:	
Project Number:	012919277	Routing:	☐
P.O. Number:		Revised:	2/4/17
Sampler's Name:	Robert McAfee	Date Date:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wait Ice:	Yes	No
	Received intact:	Yes	No	Correction Factor:		
	Cooler Custody Seal:	Yes	No	Total Containers:		
	Sample Custody Seal:	Yes	No			
Temperature (°C):	30.0	PP-2	Identifier ID:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EPA 8016)	BTEX (EPA 8-8021)	Chloride (EPA 300.0)	Sample Comments									
FS114	S	12/1/17	1200	0.75'	1	X	X	X	Composite									
FS115			1245			X	X	X										
FS116			1330			X	X	X										
FS117			1340			X	X	X										
FS118			1346			X	X	X										
FS119			1345	0.5'		X	X	X										

Total 200.7 / 6010 200.8 / 6020: BRCRA 13FRM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SnZr Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed: TCLP / SPLP 6010: BRCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 2405.1 / 7470 / 7471 : Hg

Note: Signatures of this document and relinquishment of sample 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 analysis 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 release charge of \$75.00 will be applied to each project and a charge of \$5.00 for each sample submitted to Xenco, not for analysis. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	2/9/19 08:50			

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12.09.2019 08.50.00 AM

Work Order #: 645527

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)?	3.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	No
#4 *Custody Seals intact on shipping container/ cooler?	No
#5 Custody Seals intact on sample bottles?	No
#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)?	Yes
#18 Water VOC samples have zero headspace?	N/A

Samples 14 and 15 were not present, client was informed.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Martha Castro

Date: 12.09.2019

Checklist reviewed by:



Elizabeth McClellan

Date: 12.09.2019

Analytical Report 645825

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

12-DEC-19

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)



12-DEC-19

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **645825**

Ross Draw CDP

Project Address:

Dan Moir:

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) 645825. 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. 645825 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 Assistant

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

Certified and approved by numerous States and Agencies.

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

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



Sample Cross Reference 645825

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS108	S	12-09-19 12:30	0.75 ft	645825-001



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 645825

Report Date: 12-DEC-19
Date Received: 12/10/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3110075 BTEX by EPA 8021B

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



Certificate of Analysis Summary 645825

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Tue Dec-10-19 04:25 pm

Report Date: 12-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	645825-001					
	Field Id:	FS108					
	Depth:	0.75- ft					
	Matrix:	SOIL					
	Sampled:	Dec-09-19 12:30					
BTEX by EPA 8021B	Extracted:	Dec-10-19 19:43					
	Analyzed:	Dec-11-19 04:02					
	Units/RL:	mg/kg RL					
Benzene		<0.00189 0.00189					
Toluene		<0.00189 0.00189					
Ethylbenzene		<0.00189 0.00189					
m,p-Xylenes		<0.00377 0.00377					
o-Xylene		<0.00189 0.00189					
Total Xylenes		<0.00189 0.00189					
Total BTEX		<0.00189 0.00189					
Chloride by EPA 300	Extracted:	Dec-11-19 13:54					
	Analyzed:	Dec-11-19 15:33					
	Units/RL:	mg/kg RL					
Chloride		886 98.8					
TPH by SW8015 Mod	Extracted:	Dec-10-19 17:00					
	Analyzed:	Dec-11-19 08:06					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1					
Diesel Range Organics (DRO)		<50.1 50.1					
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1					
Total GRO-DRO		<50.1 50.1					
Total TPH		<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.

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

Jessica Kramer
Project Assistant



Certificate of Analytical Results 645825

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS108** Matrix: Soil Date Received: 12.10.19 16.25
 Lab Sample Id: 645825-001 Date Collected: 12.09.19 12.30 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.11.19 13.54 Basis: Wet Weight
 Seq Number: 3110184

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	886	98.8	mg/kg	12.11.19 15.33		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.10.19 17.00 Basis: Wet Weight
 Seq Number: 3110188

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.11.19 08.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.11.19 08.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.11.19 08.06	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.11.19 08.06	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.11.19 08.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-135	12.11.19 08.06	
o-Terphenyl	84-15-1	76	%	70-135	12.11.19 08.06	



Certificate of Analytical Results 645825

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS108**
 Lab Sample Id: 645825-001

Matrix: Soil
 Date Collected: 12.09.19 12.30

Date Received: 12.10.19 16.25
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.10.19 19.43

Basis: Wet Weight

Seq Number: 3110075

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00189	0.00189	mg/kg	12.11.19 04.02	U	1
Toluene	108-88-3	<0.00189	0.00189	mg/kg	12.11.19 04.02	U	1
Ethylbenzene	100-41-4	<0.00189	0.00189	mg/kg	12.11.19 04.02	U	1
m,p-Xylenes	179601-23-1	<0.00377	0.00377	mg/kg	12.11.19 04.02	U	1
o-Xylene	95-47-6	<0.00189	0.00189	mg/kg	12.11.19 04.02	U	1
Total Xylenes	1330-20-7	<0.00189	0.00189	mg/kg	12.11.19 04.02	U	1
Total BTEX		<0.00189	0.00189	mg/kg	12.11.19 04.02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.11.19 04.02		
4-Bromofluorobenzene	460-00-4	117	%	70-130	12.11.19 04.02		



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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3110184

MB Sample Id: 7692208-1-BLK

Matrix: Solid

LCS Sample Id: 7692208-1-BKS

Prep Method: E300P

Date Prep: 12.11.19

LCSD Sample Id: 7692208-1-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	262	105	90-110	1	20	mg/kg	12.11.19 12:39	

Analytical Method: Chloride by EPA 300

Seq Number: 3110184

Parent Sample Id: 645890-001

Matrix: Soil

MS Sample Id: 645890-001 S

Prep Method: E300P

Date Prep: 12.11.19

MSD Sample Id: 645890-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	9000	200	9160	80	9170	85	90-110	0	20	mg/kg	12.11.19 15:44	X

Analytical Method: TPH by SW8015 Mod

Seq Number: 3110188

MB Sample Id: 7692151-1-BLK

Matrix: Solid

LCS Sample Id: 7692151-1-BKS

Prep Method: SW8015P

Date Prep: 12.10.19

LCSD Sample Id: 7692151-1-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	910	91	70-135	10	35	mg/kg	12.11.19 07:46	
Diesel Range Organics (DRO)	<50.0	1000	895	90	866	87	70-135	3	35	mg/kg	12.11.19 07:46	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date	Flag		
1-Chlorooctane	79		102		95		70-135	%	12.11.19 07:46			
o-Terphenyl	82		94		94		70-135	%	12.11.19 07:46			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3110188

Matrix: Solid

MB Sample Id: 7692151-1-BLK

Prep Method: SW8015P

Date Prep: 12.10.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.11.19 15:38	

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3110188

Parent Sample Id: 645825-001

Matrix: Soil

MS Sample Id: 645825-001 S

Prep Method: SW8015P

Date Prep: 12.10.19

MSD Sample Id: 645825-001 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)	<49.9	997	906	91	862	86	70-135	5	35	mg/kg	12.11.19 08:06	
Diesel Range Organics (DRO)	<49.9	997	839	84	755	76	70-135	11	35	mg/kg	12.11.19 08:06	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		90		70-135	%	12.11.19 08:06
o-Terphenyl	96		85		70-135	%	12.11.19 08:06

Analytical Method: BTEX by EPA 8021B

Seq Number: 3110075

MB Sample Id: 7692122-1-BLK

Matrix: Solid

LCS Sample Id: 7692122-1-BKS

Prep Method: SW5030B

Date Prep: 12.10.19

LCSD Sample Id: 7692122-1-BSO

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0900	90	0.0860	86	70-130	5	35	mg/kg	12.10.19 23:09	
Toluene	<0.00200	0.100	0.0903	90	0.0806	81	70-130	11	35	mg/kg	12.10.19 23:09	
Ethylbenzene	<0.00200	0.100	0.0882	88	0.0716	72	71-129	21	35	mg/kg	12.10.19 23:09	
m,p-Xylenes	<0.00400	0.200	0.186	93	0.144	72	70-135	25	35	mg/kg	12.10.19 23:09	
o-Xylene	<0.00200	0.100	0.0945	95	0.0763	76	71-133	21	35	mg/kg	12.10.19 23:09	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		103		103		70-130	%	12.10.19 23:09
4-Bromofluorobenzene	109		115		117		70-130	%	12.10.19 23:09

Analytical Method: BTEX by EPA 8021B

Seq Number: 3110075

Parent Sample Id: 645698-010

Matrix: Soil

MS Sample Id: 645698-010 S

Prep Method: SW5030B

Date Prep: 12.10.19

MSD Sample Id: 645698-010 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	0.0788	79	0.0808	81	70-130	3	35	mg/kg	12.10.19 23:47	
Toluene	<0.00200	0.100	0.0773	77	0.0745	75	70-130	4	35	mg/kg	12.10.19 23:47	
Ethylbenzene	<0.00200	0.100	0.0714	71	0.0763	77	71-129	7	35	mg/kg	12.10.19 23:47	
m,p-Xylenes	<0.00401	0.200	0.150	75	0.150	75	70-135	0	35	mg/kg	12.10.19 23:47	
o-Xylene	<0.00200	0.100	0.0769	77	0.0765	77	71-133	1	35	mg/kg	12.10.19 23:47	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		102		70-130	%	12.10.19 23:47
4-Bromofluorobenzene	120		115		70-130	%	12.10.19 23:47

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: 645825

Houston, TX (281) 240-4200 Dallas, TX (214) 502-0000 San Antonio, TX (210) 505-3334
Midland, TX (432) 704-5440 El Paso, TX (915) 594-3443 Lubbock, TX (806) 794-5780

Hialeah, FL (352) 392-7350 Phoenix, AZ (480) 355-0000 Atlanta, GA (770) 448-8000 Tampa, FL (813) 420-3000

www.xenco.com Page 1 of 1

Project Manager:	Dan Mole	Bill to: (if different)	Kyle Litton
Company Name:	LT Environmental, Inc., Partnership	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State Zip:	Midland, TX 79705	City, State Zip:	Orlando, FL
Phone:	432.704.5178	Email:	danmole@ltenv.com kylelitton@xto.com
Project Name:	Res Dev CDP	Turn Around	
Project Number:	012219277	Routine	☐
P.O. Number:		Blank	241
Sample Name:	Robert McAfee	Due Date:	

SAMPLE RECEIPT		Temp Blank	Yes ☐ No ☒	Wet Loc	Yes ☐ No ☒
Temperature (°C):	2.0	Thermometer ID	TMM007		
Receival Initial:	Yes ☒ No ☐	Correction Factor	-0.2		
Order Custody Seal:	Yes ☒ No ☐	Total Containers:	1		
Sample Custody Seal:	Yes ☒ No ☐				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8-8021)	Chloride (EPA 800.0)	Work Order Notes
F3105	S	12/6/19	1530	0.75'	1				

Total 200.7 / 6010 200.B / 6020: BRCRA 138PM Texas 11 Al Sb As Ba Be Cd Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SIO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Model(s) to be analyzed: TCLP / SPLP 6010 BRCRA 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
		12/10/19 16:35			



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12/10/2019 04:25:00 PM

Work Order #: 645825

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: 12/10/2019

Checklist reviewed by:

Jessica Kramer

Date: 12/11/2019

Analytical Report 650280

**for
LT Environmental, Inc.**

Project Manager: Dan Moir

Ross Draw CDP

27-JAN-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)



27-JAN-20

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **650280**

Ross Draw CDP

Project Address:

Dan Moir:

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) 650280. 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. 650280 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 Assistant

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

Certified and approved by numerous States and Agencies.

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

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

**Sample Cross Reference 650280****LT Environmental, Inc., Arvada, CO**

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BG01	S	01-21-20 14:30	0.5 ft	650280-001
BG02	S	01-21-20 14:40	0.5 ft	650280-002



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *Ross Draw CDP*

Project ID:

Work Order Number(s): 650280

Report Date: 27-JAN-20

Date Received: 01/24/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 650280

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id:

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Jan-24-20 04:11 pm

Report Date: 27-JAN-20

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	650280-001	650280-002				
	Field Id:	BG01	BG02				
	Depth:	0.5- ft	0.5- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	Jan-21-20 14:30	Jan-21-20 14:40				
Chloride by EPA 300	Extracted:	Jan-24-20 19:07	Jan-24-20 19:07				
	Analyzed:	Jan-25-20 15:51	Jan-25-20 15:57				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		2020 19.9	1810 20.1				

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

Jessica Kramer
Project Assistant



Certificate of Analytical Results 650280

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: BG01	Matrix: Soil	Date Received: 01.24.20 16.11
Lab Sample Id: 650280-001	Date Collected: 01.21.20 14.30	Sample Depth: 0.5 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 01.24.20 19.07	Basis: Wet Weight
Seq Number: 3114417		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2020	19.9	mg/kg	01.25.20 15.51		2



Certificate of Analytical Results 650280

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BG02** Matrix: Soil Date Received: 01.24.20 16.11
Lab Sample Id: 650280-002 Date Collected: 01.21.20 14.40 Sample Depth: 0.5 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 01.24.20 19.07 Basis: Wet Weight
Seq Number: 3114417

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1810	20.1	mg/kg	01.25.20 15.57		2



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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3114417

MB Sample Id: 7695174-1-BLK

Matrix: Solid

LCS Sample Id: 7695174-1-BKS

Prep Method: E300P

Date Prep: 01.24.20

LCSD Sample Id: 7695174-1-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	245	98	247	99	90-110	1	20	mg/kg	01.25.20 14:50	

Analytical Method: Chloride by EPA 300

Seq Number: 3114417

Parent Sample Id: 650265-001

Matrix: Soil

MS Sample Id: 650265-001 S

Prep Method: E300P

Date Prep: 01.24.20

MSD Sample Id: 650265-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	608	402	978	92	938	82	90-110	4	20	mg/kg	01.25.20 15:07	X

Analytical Method: Chloride by EPA 300

Seq Number: 3114417

Parent Sample Id: 650285-004

Matrix: Soil

MS Sample Id: 650285-004 S

Prep Method: E300P

Date Prep: 01.24.20

MSD Sample Id: 650285-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	326	198	524	100	519	97	90-110	1	20	mg/kg	01.25.20 16:25	

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

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

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

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

Work Order No.:

450 250

10 of 10

Work Order Comments

Program: USTRUST ☐ PRP ☐ Provenfields ☐ NC ☐ Superfund ☐

State of Project:

Reporting Level II ☐ Level III ☐ USTRUST ☐ PRP ☐ Level IV ☐

Disturbance: EDO ☐ ADAPT ☐ Other: _____

SAMPLE RECEIPT		Temp Blank:		Well loc:	
		Yes	No	Yes	No
Temperature (°C)	10				
Received intact	Yes				
Cooler Caddy Serial	Yes				
Sample Caddy Serial	Yes				
		Thermometer ID			
		T-NM-004			
		Correction Factor			
		-0.2			
		Total Containers			
		2			

Number of Containers

A 8016)

PA 0=882H)

(EPA 900.0)

TAT starts the day received by the lab. If received less than 7 days.

[illegible]

09 PM

D4/C1	S	1/21/20	M30	0.5"	1	X
Bq02	5	1/21/20	1440	0.5"	1	X

[Handwritten signature]

c. Segments of this document will not be submitted at separate conferences under both their primary and secondary names. Names will be added only for the first of samples and shall not assume any responsibility for any biases or exposures incurred by the donor if such biases are due to circumstances beyond the control of the transfusion service. A transfusion service of \$75.00 will be applied to each sample and a charge of \$5 for each sample submitted to Sonex, but not over \$100. These terms will be without other previously stipulated.

Receivd by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
	11/12/20 14:11			

Keywords: *gender inequality, gender discrimination, gender inequality, gender discrimination, gender inequality, gender discrimination*

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 01.24.2020 04.11.00 PM

Work Order #: 650280

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)?	1.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

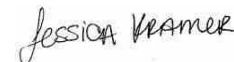
Checklist completed by:



Elizabeth McClellan

Date: 01.24.2020

Checklist reviewed by:



Jessica Kramer

Date: 01.27.2020