



LT Environmental, Inc.

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

October 25, 2019

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

**RE: Closure Request
Severus 31 Fed Com #4H
Remediation Permit Numbers 1RP-5032
Lea County, New Mexico**

Dear Mr. Billings:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request report detailing site assessment and soil sampling activities at the Severus 31 Fed Com #4H (Site), located in Unit M, Section 30, Township 20 South, Range 34 East, in Lea County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacted soil resulting from a release of fresh water with chemical additives at the Site.

The release is included in the Compliance Agreement for Remediation for Historical Releases (Compliance Agreement) between XTO and the New Mexico Oil Conservation Division (NMOCD) effective November 13, 2018. The purpose of the Compliance Agreement is to ensure reportable releases that occurred prior to August 14, 2018, where XTO is responsible for the corrective action, comply with Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC) as amended on August 14, 2018. The release is categorized as a Tier IV site in the Compliance Agreement, meaning the release occurred prior to August 14, 2018, the effective date of 19.15.29 NMAC; however, remediation was ongoing. Based on the laboratory analytical results for soil samples collected at the Site, XTO is submitting this Closure Request, describing site assessment activities that have occurred and requesting no further action for the release event.

RELEASE BACKGROUND

On April 12, 2018, a pop-off vented during completion operations, causing fresh water to release onto the surface of the well pad. Approximately 42 barrels (bbls) of fresh water with less than 6 gallons of chemical additives were released. All released fluid remained on the well pad. A vacuum trailer on location immediately recovered approximately 40 bbls of free-standing fluid. XTO reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 (Form C-141) on April 25, 2018, and was assigned Remediation Permit (RP) Number 1RP-5032 (Attachment 1).



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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 water well data. The nearest permitted water well with depth to water data is United States Geological Survey (USGS) well 323335103370601, located approximately 9,185 feet north of the Site. The water well has a depth to groundwater of 174 feet and a total depth of 676 feet. Ground surface elevation at the water well location is 3,644 feet above mean sea level (AMSL), which is approximately 48 feet lower in elevation than the Site. The closest continuously flowing water or significant watercourse to the Site is an OSE water body located approximately 7,523 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 low-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;
- TPH-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg;
- Total petroleum hydrocarbons (TPH): 2,500 mg/kg; and
- Chloride: 20,000 mg/kg.

SITE ASSESSMENT AND SOIL SAMPLING ACTIVITIES

On July 11, 2019, LTE personnel inspected the Site to evaluate the release extent. Twelve preliminary soil samples (SS01 through SS12) were collected within the approximate release area to assess for potential soil impacts. The soil sample locations, depicted on Figure 2, were selected based on information provided on the initial Form C-141 and visible observations. To eliminate the effects from weathering and natural degradation of contaminants at the ground surface, the soil samples were collected from each sample location from a depth of 0.5 feet bgs.

On October 10, 2019, LTE personnel returned to the site to collect vertical delineation soil samples via hand auger, to confirm the absence of impacted soil in the release area. Soil samples SS01A through SS012A were collected from a depth of 2 feet bgs at the SS01 through SS12



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preliminary soil sample locations. Soil was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for each sample location were logged on lithologic/soil sampling logs, which are included in Attachment 2. The soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was conducted during the Site visits. Photographs are included in Attachment 3.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were shipped at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Midland, Texas, for analysis of BTEX following United States Environmental Protection Agency (USEPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following USEPA Method 8015M/D; and chloride following USEPA Method 300.0.

ANALYTICAL RESULTS

Laboratory analytical results indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in soil samples SS01/SS01A through SS012/SS12A. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

CLOSURE REQUEST

Site assessment and soil sampling activities were conducted to assess for potential soil impacts resulting from the April 12, 2018, fresh water release at the Site. Laboratory analytical results for soil samples SS01/SS01A through SS012/SS12A, collected from depths ranging from 0.5 feet to 2 feet bgs, indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria and no further remediation was required.

Fresh water with limited chemical additives were the only fluids released. The majority of the released fluids were recovered during initial response activities. Based on visual observations, field screening, and laboratory analytical results, no impacted soil was identified as a result of the release. XTO requests no further action for RP Number 1RP-5032. An updated NMOCD Form C-141 is included as Attachment 1.

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.

A handwritten signature in black ink that reads "Aimee Cole".

Aimee Cole
Project Environmental Scientist

A handwritten signature in black ink that reads "Ashley L. Ager".

Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
NMOCD District 1
Bureau of Land Management

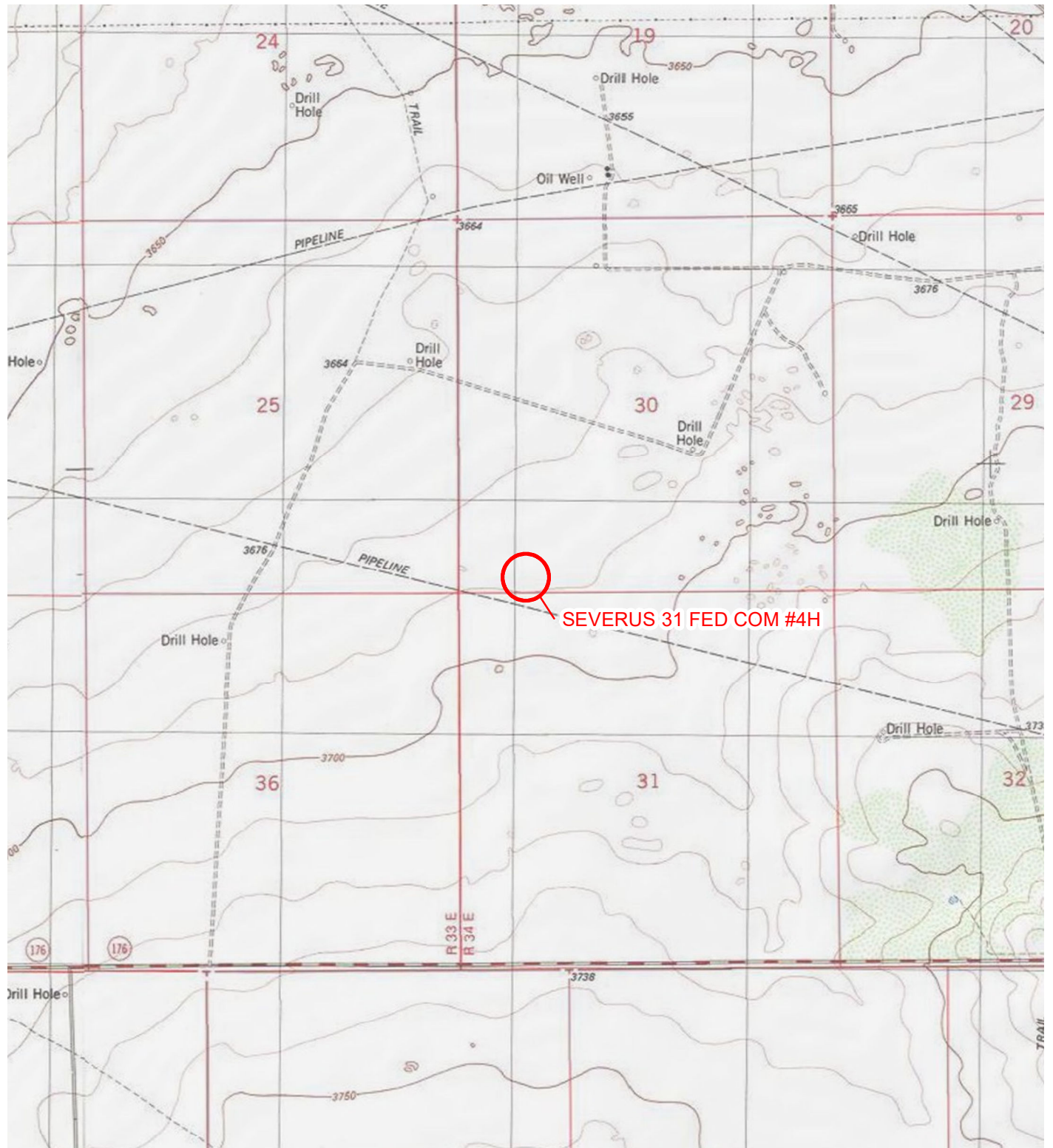
Attachments:

Figure 1 Site Location Map
Figure 2 Soil Sample Locations
Table 1 Soil Analytical Results
Attachment 1 Initial/Final NMOCD Form C-141 (1RP-5032)
Attachment 2 Lithologic/Soil Sample Logs
Attachment 3 Photographic Log
Attachment 4 Laboratory Analytical Reports



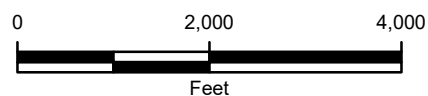
FIGURES



**LEGEND**

○ SITE LOCATION

IMAGE COURTESY OF ESRI/USGS

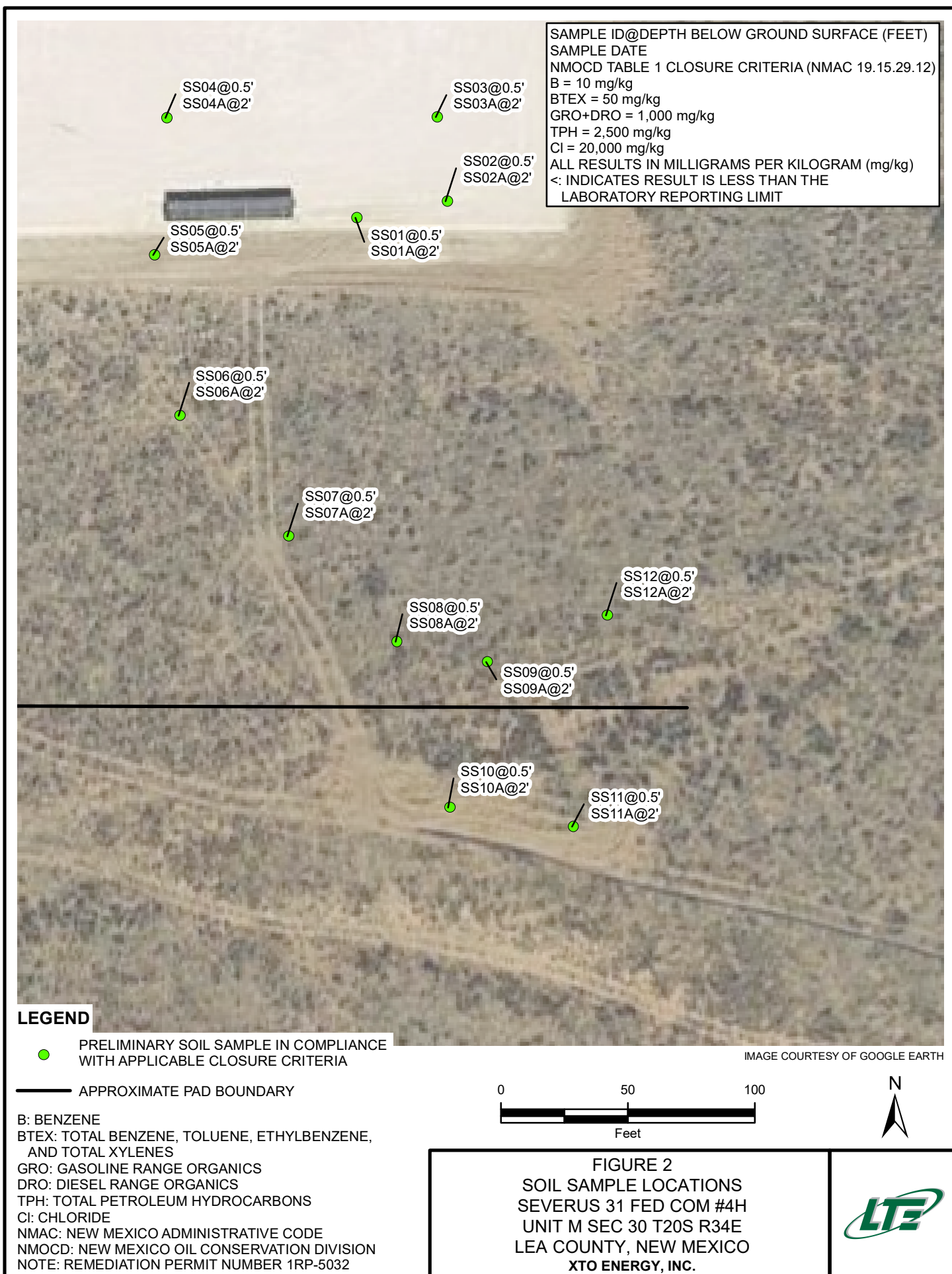


NOTE: REMEDIATION PERMIT
NUMBER 1RP-5032

FIGURE 1
SITE LOCATION MAP
SEVERUS 31 FED COM #4H
UNIT M SEC 30 T20S R34E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.



P:\XTO Energy\GIS\MXD\012918108_SEVERUS 31 FED COM #4H\012918108_FIG01_SL_5032.mxd



TABLES



TABLE 1
SOIL ANALYTICAL RESULTS

SEVERUS 31 FED COM #4H
REMEDIATION PERMIT NUMBER 1RP-5032
LEA 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)
SS01	0.5	07/11/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	25.8	<15.0	25.8	25.8	<5.00
SS01A	2	10/10/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<50.1	<50.1	<50.1	<50.1	<50.1	16.9
SS02	0.5	07/11/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	29.6	<15.0	29.6	29.6	<5.00
SS02A	2	10/10/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.0	<50.0	<50.0	<50.0	<50.0	15.5
SS03	0.5	07/11/2019	<0.00199	<0.00199	0.0273	0.00641	0.0337	<15.0	27.9	<15.0	27.9	27.9	48.8
SS03A	2	10/10/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<49.9	<49.9	<49.9	<49.9	<49.9	13.1
SS04	0.5	07/11/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	22.8	<15.0	22.8	22.8	41.1
SS04A	2	10/10/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<49.8	<49.8	<49.8	<49.8	<49.8	<10.1
SS05	0.5	07/11/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<5.00
SS05A	2	10/10/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<49.8	<49.8	<49.8	<49.8	<49.8	26.6
SS06	0.5	07/11/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	<5.03
SS06A	2	10/10/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<49.9	<49.9	<49.9	<49.9	<49.9	<9.92
SS07	0.5	07/11/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<4.99
SS07A	2	10/10/2019	<0.000994	<0.000994	<0.000994	<0.000994	<0.000994	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0
SS08	0.5	07/11/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	<4.96
SS08A	2	10/10/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.2	<50.2	<50.2	<50.2	<50.2	<10.0
SS09	0.5	07/11/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	<4.95
SS09A	2	10/10/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.1	<50.1	<50.1	<50.1	<50.1	<10.1
SS10	0.5	07/11/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	<5.02
SS10A	2	10/10/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<49.8	89.1	<49.8	89.1	89.1	<10.0
SS11	0.5	07/11/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	<5.00
SS11A	2	10/10/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<50.1	<50.1	<50.1	<50.1	<50.1	11.4
SS12	0.5	07/11/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	<5.03
SS12A	2	10/10/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<49.9	<49.9	<49.9	<49.9	<49.9	<9.98
NMOCDC Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000

Notes:

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

ORO - motor oil range organics

NMAC - New Mexico Administrative Code

NMOCDC - New Mexico Oil Conservation Division

NE - not established

TPH - total petroleum hydrocarbons

Bold - indicates result exceeds the applicable regulatory standard

< - indicates result is below laboratory reporting limits

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

ATTACHMENT 1: INITIAL/FINAL NMOCD FORM C-141 (1RP-5032)

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

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: XTO Energy	Contact: Kyle Littrell
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No: 432-221-7331
Facility Name: Severus 31 Fed Com #4H	Facility Type: Exploration and Production
Surface Owner: Federal	Mineral Owner: Federal
API No: 30-02543418	

LOCATION OF RELEASE

Unit Letter M	Section 30	Township 20S	Range 34E	Feet from the 240	North/South Line South	Feet from the 897	East/West Line West	County Lea
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Latitude 32.537439 Longitude -103.605115 NAD83

NATURE OF RELEASE

Type of Release Fresh water (< 6 gallons chemical added to release volume)	Volume of Release 42 bbl	Volume Recovered 40 bbl
Source of Release Pop-off valve	Date and Hour of Occurrence 4/12/2018, 11:30 AM	Date and Hour of Discovery 4/12/2018 11:30 AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Olivia Yu (NMOCD), Jim Amos and Crystal Weaver (BLM)	
By Whom? Kyle Littrell	Date and Hour: 4/13/2018, 8:30 AM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*
N/A

RECEIVED

By Olivia Yu at 11:37 am, Apr 27, 2018

Describe Cause of Problem and Remedial Action Taken.*

During completion operations, a pop-off vented, releasing fresh water to pad. The fresh water released contained under 6 gallons of chemical additives. Unit was shut down and pop-off was replaced before returning to production.

Describe Area Affected and Cleanup Action Taken.*

All fluid remained on well pad and standing fluid was immediately collected by a vac trailer that was already on location. An environmental contractor will be retained to assist with delineation and remediation efforts.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Bryan Jacob Foust	Approved by Environmental Specialist: 	
Title: Environmental Coordinator	Approval Date: 4/27/2018	Expiration Date:
E-mail Address: Bryan_Foust@xtoenergy.com	Conditions of Approval: see attached directive	Attached ☒
Date: 4/25/2018	Phone: 432-266-2663	

* Attach Additional Sheets If Necessary

1RP-5032

nOY1811741390

pOY1811741732

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	
District RP	1RP-5032
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #: 1RP-5032
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude N 32.537439 Longitude W -103.605115
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Severus 31 Fed Com #4H	Site Type: Production Well Facility
Date Release Discovered: 4/12/2018	API# (if applicable): 30-025-43418

Unit Letter	Section	Township	Range	County
M	30	20S	34E	Lea

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):	Volume Recovered (bbls):
☐ Produced Water	Volume Released (bbls):	Volume Recovered (bbls):
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☒ Other (describe) Fresh water with < 6 gals chemical additives	Volume/Weight Released (provide units) 42 bbls	Volume/Weight Recovered (provide units) 40 bbls

Cause of Release

During completions operations, a pop-off vented, releasing fresh water to the pad. The fresh water released contained under 6 gallons of chemical additives. All fluid remained on the well pad. Standing fluid was immediately recovered by a vac trailer on location.

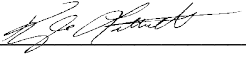
State of New Mexico
Oil Conservation Division

Incident ID	
District RP	1RP-5032
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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 volume 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)? By Kyle Littrell to Olivia Yu (NMOCD) and Crystal Weaver (BLM) on 4/13/2018 at 8:30 am.	

Initial Response

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

☒ The source of the release has been stopped. ☒ The impacted area has been secured to protect human health and the environment. ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. ☒ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: N/A	
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: <u>Kyle Littrell</u>	Title: <u>SH&E Supervisor</u>
Signature: 	Date: <u>10-25-2019</u>
email: <u>Kyle_Littrell@xtoenergy.com</u>	Telephone: <u>432-221-7331</u>
<u>OCD Only</u> Received by: _____ Date: _____	

Incident ID	
District RP	1RP-5032
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<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.

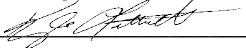
State of New Mexico
Oil Conservation Division

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Incident ID	
District RP	1RP-5032
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 10-25-2019

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

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	1RP-5032
Facility ID	
Application ID	

Closure

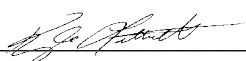
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled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

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

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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 10-25-2019

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

OCD Only

Received by: _____ Date: _____

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

Closure Approved by:  Date: 2/21/2023

Printed Name: Brittany Hall Title: Environmental Specialist

ATTACHMENT 2: LITHOLOGIC / SOIL SAMPLE LOGS



LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Compliance · Engineering · Remediation

Identifier:

SS01A

Date:

16-10-19

Project Name:

Servus #4H

RP Number:

LRP-5032

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: L.A.D.

Method: Auger

Lat/Long:

Field Screening: CHLORIDES, PID.

Hole Diameter:

Total Depth:

21

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Damp	0.4	0.0	No	1	0	2'		Dark Brown, no odor, moist, no clumping, jet plastic, poorly graded silty clayey sand, no organics
					1			
					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: SS02A	Date: 10-10-19					
		Project Name: Serius #4H	RP Number: 1RP-5032					
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: L.A.D.	Method: Auger					
Lat/Long:		Field Screening: CHLORIDES, PID.	Hole Diameter:					
			Total Depth: 2'					
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Damp	0.4	0.1	No	<u>1</u>	0	2'		Light brown, no odor, moist, ^{no} thin plasticity, poorly graded, very sand Silty
					1			
					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: SS03A	Date: 10-10-19					
		Project Name: Sevens #4H	RP Number: 1 RP-5032					
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: L.A.D.	Method: Auger					
Lat/Long:		Field Screening: CHLORIDES, PID.	Hole Diameter:					
			Total Depth: 2'					
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Damp	0.4	00	None	1	0	2'		Dark brown, no odor, moist, medium plasticity, poorly graded, silty sand no organics
					1			
					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: SS04A	Date: 10-10-19					
		Project Name: Sevens #4H	RP Number: 1RP-5032					
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: L.A.D.	Method: Auger					
Lat/Long:		Field Screening: CHLORIDES, PID.	Hole Diameter:					
			Total Depth: 2'					
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Damp	0.4	0.0	No	1	0	2'		Dark brown, no odor, moist, low plasticity, poorly graded, silty sand, no aggregates
					1			
					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: SS05A	Date: 6-10-19					
		Project Name: Savans #4H	RP Number: IIRP-5032					
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: L.A.D.	Method: Auger					
Lat/Long:		Field Screening: CHLORIDES, PID.	Hole Diameter:					
			Total Depth: 2'					
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Dry/ Little damp	0.6	0.0		1	0		SM	Light brown, no odor, moist, low plasticity, poorly graded, silty sand, no organic
					1			
					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: 5506A		Date: 10-10-19		
					Project Name: Sediment #4H		RP Number: 1RP-5032		
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: L.A.D.		Method: Auger		
Lat/Long:			Field Screening: CHLORIDES, PID.			Hole Diameter:		Total Depth: 2'	
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks	
Fairly moist	0.4	0.1	NA	1	0	2'		Dark brown, no odor, moist, low plasticity, poorly graded, silty sand, non organic Slight organics	
					1				
					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: S507A	Date: 10-10-19					
		Project Name: Stevens #4H	RP Number: 1RP-5032					
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: L.A.D.	Method: Auger					
Lat/Long:		Field Screening: CHLORIDES, PID.	Hole Diameter:					
			Total Depth: 21					
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Damp	0.4	0.1	N	1	0	2'		Light brown, no odor, moist, low plasticity, poorly graded, silty sand, no organic
					1			
					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:

SS08A

Date:

10-10-19

Project Name:

Sevens #4H

RP Number:

1RP-5632

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: L.A.D.

Method: Auger

Lat/Long:

Field Screening: CHLORIDES, PID.

Hole Diameter:

Total Depth: 2'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Damp	0.6	0.0	N	1	0	2'		Light brown, no odor, moist, low plasticity, poorly graded, silty sand, no organics
					1			
					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:

SS 09A

Date:

10-10-19

Project Name:

Sevens #4H

RP Number:

1RP-5632

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: L.A.D.

Method:

Auger

Lat/Long:

Field Screening: CHLORIDES, PID.

Hole Diameter:

Total Depth:

2'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Damp	0.6 LAD	00	N	1	0	2'		Light brown, no odor, moist, low plasticity, silty sand, no organics
					1			
					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: 5510A	Date: 10-10-19
		Project Name: Sevens #4H	RP Number: LRP-5032
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: L.A.D.	Method: Auger
Lat/Long:	Field Screening: CHLORIDES, PID.	Hole Diameter:	Total Depth: 2'
Comments:			

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Damp	6.6	0.0	No	1	0	2'		Oddly sticky? ^{Light} brown, no odor moist, lots of clumping, clumps are plastic, dissolved easily in water and clogged filter instantly, clayey sand, no organics
					1			
					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: SS11A	Date: 10-10-19
		Project Name: Sevens #4H	RP Number: 1RP-5032
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: L.A.D.	Method: Auger
Lat/Long:		Field Screening: CHLORIDES, PID.	Hole Diameter:
Comments:		Total Depth: 2'	

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Damp	0.4	0.0	None	1	0	2'		Dark brown, no odor, moist, slight clumpy, medium-low plasticity, silty sand, no organics
					1			
					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:

SS12A

Date:

10-10-19

Project Name:

Sewers #4H

RP Number:

1RP-5032

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: L.A.D.

Method: Auger

Lat/Long:

Field Screening: CHLORIDES, PID.

Hole Diameter:

Total Depth: 2'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Damp	0.4	0.0	N	1	0	2'		Light brown, no odor, moist, no clumps, low plasticity, poorly graded, very silty sand, no organics
					1			
					2			
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

ATTACHMENT 3: PHOTOGRAPHIC LOG





Northwest view of release extent during preliminary soil sampling and site assessment.

Project: 012918108	XTO Energy, Inc. Severus 31 Fed Comm #4H	 Advancing Opportunity
July 11, 2019	Photographic Log	



Northern view of release extent during preliminary soil sampling and site assessment.

Project: 012918108	XTO Energy, Inc. Severus 31 Fed Comm #4H	 Advancing Opportunity
July 11, 2019	Photographic Log	

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS



Analytical Report 631116

for
LT Environmental, Inc.

Project Manager: Dan Moir

Servers 31 Fed Com 4H

1RP-5032

22-AUG-19

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)



22-AUG-19

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **631116**

Servers 31 Fed Com 4H

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) 631116. 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. 631116 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 631116****LT Environmental, Inc., Arvada, CO**

Servers 31 Fed Com 4H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	07-11-19 10:15	6 In	631116-001
SS02	S	07-11-19 10:25	6 In	631116-002
SS03	S	07-11-19 10:35	6 In	631116-003
SS04	S	07-11-19 10:55	6 In	631116-004
SS05	S	07-11-19 11:10	6 In	631116-005
SS06	S	07-11-19 11:20	6 In	631116-006
SS07	S	07-11-19 11:35	6 In	631116-007
SS08	S	07-11-19 11:45	6 In	631116-008
SS09	S	07-11-19 12:00	6 In	631116-009
SS10	S	07-11-19 12:15	6 In	631116-010
SS11	S	07-11-19 12:30	6 In	631116-011
SS12	S	07-11-19 12:45	6 In	631116-012



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Servers 31 Fed Com 4H

Project ID: 1RP-5032

Work Order Number(s): 631116

Report Date: 22-AUG-19

Date Received: 07/17/2019

Sample receipt non conformances and comments:

CORRECTED SAMPLE NAMES 010-012. NEW VERSION GENERATED. JK08/22/19

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3095725 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 631116-007.

Batch: LBA-3095938 BTEX by EPA 8021B

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

Surrogate 4-Bromofluorobenzene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 631116-003.



Certificate of Analysis Summary 631116

LT Environmental, Inc., Arvada, CO

Project Name: Servers 31 Fed Com 4H



Project Id: 1RP-5032

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Jul-17-19 11:30 am

Report Date: 22-AUG-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	631116-001	631116-002	631116-003	631116-004	631116-005	631116-006
	<i>Field Id:</i>	SS01	SS02	SS03	SS04	SS05	SS06
	<i>Depth:</i>	6- In	6- In	6- In	6- In	6- In	6- In
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jul-11-19 10:15	Jul-11-19 10:25	Jul-11-19 10:35	Jul-11-19 10:55	Jul-11-19 11:10	Jul-11-19 11:20
BTEX by EPA 8021B	<i>Extracted:</i>	*** ** *	*** ** *	*** ** *	*** ** *	*** ** *	*** ** *
	<i>Analyzed:</i>	Jul-18-19 23:54	Jul-19-19 11:50	Jul-19-19 12:10	Jul-19-19 12:30	Jul-19-19 01:14	Jul-19-19 12:50
	<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	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	0.0273 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201
m,p-Xylenes		<0.00401 0.00401	<0.00401 0.00401	0.00641 0.00398	<0.00402 0.00402	<0.00399 0.00399	<0.00402 0.00402
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	0.00641 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	0.0337 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	Jul-17-19 16:15	Jul-17-19 16:15	Jul-17-19 16:15	Jul-17-19 16:15	Jul-17-19 16:15	Jul-17-19 16:15
	<i>Analyzed:</i>	Jul-17-19 18:53	Jul-17-19 18:58	Jul-17-19 19:03	Jul-17-19 19:08	Jul-17-19 19:13	Jul-17-19 19:27
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<5.00 5.00	<5.00 5.00	48.8 5.00	41.1 5.05	<5.00 5.00	<5.03 5.03
TPH by SW8015 Mod	<i>Extracted:</i>	Jul-17-19 14:00	Jul-17-19 14:00	Jul-17-19 14:00	Jul-17-19 14:00	Jul-17-19 14:00	Jul-17-19 14:00
	<i>Analyzed:</i>	Jul-17-19 15:06	Jul-17-19 15:31	Jul-17-19 15:56	Jul-17-19 16:46	Jul-17-19 17:12	Jul-17-19 17:37
	<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)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		25.8 15.0	29.6 15.0	27.9 15.0	22.8 15.0	<15.0 15.0	<15.0 15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		25.8 15.0	29.6 15.0	27.9 15.0	22.8 15.0	<15.0 15.0	<15.0 15.0
Total GRO-DRO		25.8 15.0	29.6 15.0	27.9 15.0	22.8 15.0	<15.0 15.0	<15.0 15.0

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

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

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 631116

LT Environmental, Inc., Arvada, CO

Project Name: Servers 31 Fed Com 4H



Project Id: 1RP-5032

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Jul-17-19 11:30 am

Report Date: 22-AUG-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	631116-007	631116-008	631116-009	631116-010	631116-011	631116-012
	<i>Field Id:</i>	SS07	SS08	SS09	SS10	SS11	SS12
	<i>Depth:</i>	6- In	6- In	6- In	6- In	6- In	6- In
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jul-11-19 11:35	Jul-11-19 11:45	Jul-11-19 12:00	Jul-11-19 12:15	Jul-11-19 12:30	Jul-11-19 12:45
BTEX by EPA 8021B	<i>Extracted:</i>	*** ** *	*** ** *	*** ** *	*** ** *	*** ** *	*** ** *
	<i>Analyzed:</i>	Jul-19-19 14:10	Jul-19-19 14:30	Jul-19-19 03:54	Jul-19-19 04:15	Jul-19-19 15:11	Jul-19-19 15:31
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199
m,p-Xylenes		<0.00400 0.00400	<0.00398 0.00398	<0.00403 0.00403	<0.00398 0.00398	<0.00402 0.00402	<0.00398 0.00398
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	Jul-17-19 16:15	Jul-17-19 16:15	Jul-17-19 16:15	Jul-17-19 16:15	Jul-17-19 16:15	Jul-17-19 16:15
	<i>Analyzed:</i>	Jul-17-19 19:32	Jul-17-19 19:47	Jul-17-19 19:51	Jul-17-19 19:56	Jul-17-19 20:01	Jul-17-19 20:06
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<4.99 4.99	<4.96 4.96	<4.95 4.95	<5.02 5.02	<5.00 5.00	<5.03 5.03
TPH by SW8015 Mod	<i>Extracted:</i>	Jul-17-19 14:00	Jul-17-19 14:00	Jul-17-19 14:00	Jul-17-19 14:00	Jul-17-19 14:00	Jul-17-19 14:00
	<i>Analyzed:</i>	Jul-17-19 18:02	Jul-17-19 18:27	Jul-17-19 18:52	Jul-17-19 19:17	Jul-17-19 19:42	Jul-17-19 20:07
	<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)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total GRO-DRO		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0

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

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

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analytical Results 631116

LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS01**
 Lab Sample Id: 631116-001

Matrix: Soil
 Date Collected: 07.11.19 10.15

Date Received: 07.17.19 11.30
 Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3095741

Date Prep: 07.17.19 16.15

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	07.17.19 18.53	U	1

Analytical Method: TPH by SW8015 Mod

Tech: ALG

Analyst: ARM

Seq Number: 3095725

Date Prep: 07.17.19 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.17.19 15.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	25.8	15.0	mg/kg	07.17.19 15.06		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.17.19 15.06	U	1
Total TPH	PHC635	25.8	15.0	mg/kg	07.17.19 15.06		1
Total GRO-DRO	PHC628	25.8	15.0	mg/kg	07.17.19 15.06		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	07.17.19 15.06	
o-Terphenyl	84-15-1	70	%	70-135	07.17.19 15.06	



Certificate of Analytical Results 631116

LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS01**
 Lab Sample Id: 631116-001

Matrix: Soil
 Date Collected: 07.11.19 10.15

Date Received: 07.17.19 11.30
 Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Tech: ALG

Analyst: FOV

Seq Number: 3095938

Date Prep: 07.17.19 10.32

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	07.18.19 23.54	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.18.19 23.54	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.18.19 23.54	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.18.19 23.54	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.18.19 23.54	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.18.19 23.54	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.18.19 23.54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	07.18.19 23.54		
4-Bromofluorobenzene	460-00-4	88	%	70-130	07.18.19 23.54		



Certificate of Analytical Results 631116

LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: SS02
Lab Sample Id: 631116-002

Matrix: Soil
Date Collected: 07.11.19 10.25

Date Received: 07.17.19 11.30
Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3095741

Date Prep: 07.17.19 16.15

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	07.17.19 18.58	U	1

Analytical Method: TPH by SW8015 Mod

Tech: ALG

Analyst: ARM

Seq Number: 3095725

Date Prep: 07.17.19 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.17.19 15.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	29.6	15.0	mg/kg	07.17.19 15.31		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.17.19 15.31	U	1
Total TPH	PHC635	29.6	15.0	mg/kg	07.17.19 15.31		1
Total GRO-DRO	PHC628	29.6	15.0	mg/kg	07.17.19 15.31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	07.17.19 15.31	
o-Terphenyl	84-15-1	87	%	70-135	07.17.19 15.31	



Certificate of Analytical Results 631116



LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: SS02
Lab Sample Id: 631116-002

Matrix: Soil
Date Collected: 07.11.19 10.25

Date Received: 07.17.19 11.30
Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALG

% Moisture:

Analyst: FOV

Date Prep: 07.17.19 10.32

Basis: Wet Weight

Seq Number: 3095938

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.19.19 11.50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.19.19 11.50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.19.19 11.50	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.19.19 11.50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.19.19 11.50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.19.19 11.50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.19.19 11.50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	07.19.19 11.50		
1,4-Difluorobenzene	540-36-3	114	%	70-130	07.19.19 11.50		



Certificate of Analytical Results 631116

LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS03**
 Lab Sample Id: 631116-003

Matrix: Soil
 Date Collected: 07.11.19 10.35

Date Received: 07.17.19 11.30
 Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3095741

Date Prep: 07.17.19 16.15

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	48.8	5.00	mg/kg	07.17.19 19.03		1

Analytical Method: TPH by SW8015 Mod

Tech: ALG

Analyst: ARM

Seq Number: 3095725

Date Prep: 07.17.19 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.17.19 15.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	27.9	15.0	mg/kg	07.17.19 15.56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.17.19 15.56	U	1
Total TPH	PHC635	27.9	15.0	mg/kg	07.17.19 15.56		1
Total GRO-DRO	PHC628	27.9	15.0	mg/kg	07.17.19 15.56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	07.17.19 15.56	
o-Terphenyl	84-15-1	94	%	70-135	07.17.19 15.56	



Certificate of Analytical Results 631116



LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS03**
Lab Sample Id: 631116-003

Matrix: Soil
Date Collected: 07.11.19 10.35

Date Received: 07.17.19 11.30
Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALG

% Moisture:

Analyst: FOV

Date Prep: 07.17.19 10.32

Basis: Wet Weight

Seq Number: 3095938

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.19.19 12.10	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.19.19 12.10	U	1
Ethylbenzene	100-41-4	0.0273	0.00199	mg/kg	07.19.19 12.10		1
m,p-Xylenes	179601-23-1	0.00641	0.00398	mg/kg	07.19.19 12.10		1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.19.19 12.10	U	1
Total Xylenes	1330-20-7	0.00641	0.00199	mg/kg	07.19.19 12.10		1
Total BTEX		0.0337	0.00199	mg/kg	07.19.19 12.10		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	69	%	70-130	07.19.19 12.10	**	
1,4-Difluorobenzene	540-36-3	128	%	70-130	07.19.19 12.10		



Certificate of Analytical Results 631116

LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS04**
 Lab Sample Id: 631116-004

Matrix: Soil
 Date Collected: 07.11.19 10.55

Date Received: 07.17.19 11.30
 Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3095741

Date Prep: 07.17.19 16.15

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	41.1	5.05	mg/kg	07.17.19 19.08		1

Analytical Method: TPH by SW8015 Mod

Tech: ALG

Analyst: ARM

Seq Number: 3095725

Date Prep: 07.17.19 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.17.19 16.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	22.8	15.0	mg/kg	07.17.19 16.46		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.17.19 16.46	U	1
Total TPH	PHC635	22.8	15.0	mg/kg	07.17.19 16.46		1
Total GRO-DRO	PHC628	22.8	15.0	mg/kg	07.17.19 16.46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	07.17.19 16.46	
o-Terphenyl	84-15-1	90	%	70-135	07.17.19 16.46	



Certificate of Analytical Results 631116



LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS04**
Lab Sample Id: 631116-004

Matrix: Soil
Date Collected: 07.11.19 10.55

Date Received: 07.17.19 11.30
Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Tech: ALG

Analyst: FOV

Seq Number: 3095938

Date Prep: 07.17.19 10.32

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.19.19 12.30	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.19.19 12.30	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.19.19 12.30	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.19.19 12.30	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.19.19 12.30	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.19.19 12.30	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.19.19 12.30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	07.19.19 12.30		
1,4-Difluorobenzene	540-36-3	117	%	70-130	07.19.19 12.30		



Certificate of Analytical Results 631116

LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: SS05
Lab Sample Id: 631116-005

Matrix: Soil
Date Collected: 07.11.19 11.10

Date Received: 07.17.19 11.30
Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3095741

Date Prep: 07.17.19 16.15

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	07.17.19 19.13	U	1

Analytical Method: TPH by SW8015 Mod

Tech: ALG

Analyst: ARM

Seq Number: 3095725

Date Prep: 07.17.19 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.17.19 17.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.17.19 17.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.17.19 17.12	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.17.19 17.12	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.17.19 17.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	07.17.19 17.12	
o-Terphenyl	84-15-1	73	%	70-135	07.17.19 17.12	



Certificate of Analytical Results 631116

LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS05**
 Lab Sample Id: 631116-005

Matrix: Soil
 Date Collected: 07.11.19 11.10

Date Received: 07.17.19 11.30
 Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Tech: ALG

Analyst: FOV

Seq Number: 3095938

Date Prep: 07.17.19 10.32

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	07.19.19 01.14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.19.19 01.14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.19.19 01.14	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.19.19 01.14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.19.19 01.14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.19.19 01.14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.19.19 01.14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	07.19.19 01.14		
1,4-Difluorobenzene	540-36-3	108	%	70-130	07.19.19 01.14		



Certificate of Analytical Results 631116

LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS06**
Lab Sample Id: 631116-006

Matrix: Soil
Date Collected: 07.11.19 11.20

Date Received: 07.17.19 11.30
Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3095741

Date Prep: 07.17.19 16.15

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.03	5.03	mg/kg	07.17.19 19.27	U	1

Analytical Method: TPH by SW8015 Mod

Tech: ALG

Analyst: ARM

Seq Number: 3095725

Date Prep: 07.17.19 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.17.19 17.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.17.19 17.37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.17.19 17.37	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.17.19 17.37	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.17.19 17.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	07.17.19 17.37	
o-Terphenyl	84-15-1	88	%	70-135	07.17.19 17.37	



Certificate of Analytical Results 631116

LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS06**
 Lab Sample Id: 631116-006

Matrix: Soil
 Date Collected: 07.11.19 11.20

Date Received: 07.17.19 11.30
 Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Tech: ALG

Analyst: FOV

Seq Number: 3095938

Date Prep: 07.17.19 10.32

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.19.19 12.50	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.19.19 12.50	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.19.19 12.50	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.19.19 12.50	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.19.19 12.50	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.19.19 12.50	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.19.19 12.50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	07.19.19 12.50		
1,4-Difluorobenzene	540-36-3	108	%	70-130	07.19.19 12.50		



Certificate of Analytical Results 631116

LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS07**
 Lab Sample Id: 631116-007

Matrix: Soil
 Date Collected: 07.11.19 11.35

Date Received: 07.17.19 11.30
 Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3095741

Date Prep: 07.17.19 16.15

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	07.17.19 19.32	U	1

Analytical Method: TPH by SW8015 Mod

Tech: ALG

Analyst: ARM

Seq Number: 3095725

Date Prep: 07.17.19 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.17.19 18.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.17.19 18.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.17.19 18.02	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.17.19 18.02	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.17.19 18.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	07.17.19 18.02	
o-Terphenyl	84-15-1	67	%	70-135	07.17.19 18.02	**



Certificate of Analytical Results 631116



LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS07**
Lab Sample Id: 631116-007

Matrix: Soil
Date Collected: 07.11.19 11.35

Date Received: 07.17.19 11.30
Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALG

% Moisture:

Analyst: FOV

Date Prep: 07.17.19 10.32

Basis: Wet Weight

Seq Number: 3095938

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.19.19 14.10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.19.19 14.10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.19.19 14.10	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.19.19 14.10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.19.19 14.10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.19.19 14.10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.19.19 14.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	113	%	70-130	07.19.19 14.10		
4-Bromofluorobenzene	460-00-4	90	%	70-130	07.19.19 14.10		



Certificate of Analytical Results 631116

LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS08**
 Lab Sample Id: 631116-008

Matrix: Soil
 Date Collected: 07.11.19 11.45

Date Received: 07.17.19 11.30
 Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3095741

Date Prep: 07.17.19 16.15

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	07.17.19 19.47	U	1

Analytical Method: TPH by SW8015 Mod

Tech: ALG

Analyst: ARM

Seq Number: 3095725

Date Prep: 07.17.19 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.17.19 18.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.17.19 18.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.17.19 18.27	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.17.19 18.27	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.17.19 18.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	07.17.19 18.27	
o-Terphenyl	84-15-1	81	%	70-135	07.17.19 18.27	



Certificate of Analytical Results 631116



LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS08**
Lab Sample Id: 631116-008

Matrix: Soil
Date Collected: 07.11.19 11.45

Date Received: 07.17.19 11.30
Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALG

% Moisture:

Analyst: FOV

Date Prep: 07.17.19 10.32

Basis: Wet Weight

Seq Number: 3095938

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.19.19 14.30	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.19.19 14.30	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.19.19 14.30	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.19.19 14.30	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.19.19 14.30	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.19.19 14.30	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.19.19 14.30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	115	%	70-130	07.19.19 14.30		
4-Bromofluorobenzene	460-00-4	93	%	70-130	07.19.19 14.30		



Certificate of Analytical Results 631116

LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS09**
 Lab Sample Id: 631116-009

Matrix: Soil
 Date Collected: 07.11.19 12.00

Date Received: 07.17.19 11.30
 Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3095741

Date Prep: 07.17.19 16.15

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	07.17.19 19.51	U	1

Analytical Method: TPH by SW8015 Mod

Tech: ALG

Analyst: ARM

Seq Number: 3095725

Date Prep: 07.17.19 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.17.19 18.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.17.19 18.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.17.19 18.52	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.17.19 18.52	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.17.19 18.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	07.17.19 18.52	
o-Terphenyl	84-15-1	79	%	70-135	07.17.19 18.52	



Certificate of Analytical Results 631116



LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS09**
Lab Sample Id: 631116-009

Matrix: Soil
Date Collected: 07.11.19 12.00

Date Received: 07.17.19 11.30
Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Tech: ALG

Analyst: FOV

Seq Number: 3095938

Date Prep: 07.17.19 10.32

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.19.19 03.54	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.19.19 03.54	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.19.19 03.54	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	07.19.19 03.54	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.19.19 03.54	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.19.19 03.54	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.19.19 03.54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	07.19.19 03.54		
1,4-Difluorobenzene	540-36-3	98	%	70-130	07.19.19 03.54		



Certificate of Analytical Results 631116

LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS10**
 Lab Sample Id: 631116-010

Matrix: Soil
 Date Collected: 07.11.19 12.15

Date Received: 07.17.19 11.30
 Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3095741

Date Prep: 07.17.19 16.15

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.02	5.02	mg/kg	07.17.19 19.56	U	1

Analytical Method: TPH by SW8015 Mod

Tech: ALG

Analyst: ARM

Seq Number: 3095725

Date Prep: 07.17.19 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.17.19 19.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.17.19 19.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.17.19 19.17	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.17.19 19.17	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.17.19 19.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	07.17.19 19.17	
o-Terphenyl	84-15-1	74	%	70-135	07.17.19 19.17	



Certificate of Analytical Results 631116



LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS10**
Lab Sample Id: 631116-010

Matrix: Soil
Date Collected: 07.11.19 12.15

Date Received: 07.17.19 11.30
Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALG

% Moisture:

Analyst: FOV

Date Prep: 07.17.19 10.32

Basis: Wet Weight

Seq Number: 3095938

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.19.19 04.15	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.19.19 04.15	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.19.19 04.15	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.19.19 04.15	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.19.19 04.15	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.19.19 04.15	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.19.19 04.15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	122	%	70-130	07.19.19 04.15		
1,4-Difluorobenzene	540-36-3	105	%	70-130	07.19.19 04.15		



Certificate of Analytical Results 631116

LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS11**
 Lab Sample Id: 631116-011

Matrix: Soil
 Date Collected: 07.11.19 12.30

Date Received: 07.17.19 11.30
 Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3095741

Date Prep: 07.17.19 16.15

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	07.17.19 20.01	U	1

Analytical Method: TPH by SW8015 Mod

Tech: ALG

Analyst: ARM

Seq Number: 3095725

Date Prep: 07.17.19 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.17.19 19.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.17.19 19.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.17.19 19.42	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.17.19 19.42	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.17.19 19.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	07.17.19 19.42	
o-Terphenyl	84-15-1	88	%	70-135	07.17.19 19.42	



Certificate of Analytical Results 631116

LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS11**
 Lab Sample Id: 631116-011

Matrix: Soil
 Date Collected: 07.11.19 12.30

Date Received: 07.17.19 11.30
 Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALG

% Moisture:

Analyst: FOV

Date Prep: 07.17.19 10.32

Basis: Wet Weight

Seq Number: 3095938

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.19.19 15.11	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.19.19 15.11	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.19.19 15.11	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.19.19 15.11	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.19.19 15.11	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.19.19 15.11	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.19.19 15.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	07.19.19 15.11		
1,4-Difluorobenzene	540-36-3	108	%	70-130	07.19.19 15.11		



Certificate of Analytical Results 631116

LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: SS12
Lab Sample Id: 631116-012

Matrix: Soil
Date Collected: 07.11.19 12.45

Date Received: 07.17.19 11.30
Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3095741

Date Prep: 07.17.19 16.15

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.03	5.03	mg/kg	07.17.19 20.06	U	1

Analytical Method: TPH by SW8015 Mod

Tech: ALG

Analyst: ARM

Seq Number: 3095725

Date Prep: 07.17.19 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.17.19 20.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.17.19 20.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.17.19 20.07	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.17.19 20.07	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.17.19 20.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	07.17.19 20.07	
o-Terphenyl	84-15-1	72	%	70-135	07.17.19 20.07	



Certificate of Analytical Results 631116

LT Environmental, Inc., Arvada, CO

Servers 31 Fed Com 4H

Sample Id: **SS12**
 Lab Sample Id: 631116-012

Matrix: Soil
 Date Collected: 07.11.19 12.45

Date Received: 07.17.19 11.30
 Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Tech: ALG

Analyst: FOV

Seq Number: 3095938

Date Prep: 07.17.19 10.32

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	07.19.19 15.31	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.19.19 15.31	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.19.19 15.31	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.19.19 15.31	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.19.19 15.31	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.19.19 15.31	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.19.19 15.31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	07.19.19 15.31		
1,4-Difluorobenzene	540-36-3	112	%	70-130	07.19.19 15.31		



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.

Servers 31 Fed Com 4H

Analytical Method: Chloride by EPA 300

Seq Number: 3095741

MB Sample Id: 7682248-1-BLK

Matrix: Solid

LCS Sample Id: 7682248-1-BKS

Prep Method: E300P

Date Prep: 07.17.19

LCSD Sample Id: 7682248-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	242	97	241	96	90-110	0	20	mg/kg	07.17.19 17:55	

Analytical Method: Chloride by EPA 300

Seq Number: 3095741

Parent Sample Id: 631114-025

Matrix: Soil

MS Sample Id: 631114-025 S

Prep Method: E300P

Date Prep: 07.17.19

MSD Sample Id: 631114-025 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.865	252	248	98	248	98	90-110	0	20	mg/kg	07.17.19 18:10	

Analytical Method: Chloride by EPA 300

Seq Number: 3095741

Parent Sample Id: 631116-005

Matrix: Soil

MS Sample Id: 631116-005 S

Prep Method: E300P

Date Prep: 07.17.19

MSD Sample Id: 631116-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	247	99	247	99	90-110	0	20	mg/kg	07.17.19 19:17	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3095725

MB Sample Id: 7682237-1-BLK

Matrix: Solid

LCS Sample Id: 7682237-1-BKS

Prep Method: TX1005P

Date Prep: 07.17.19

LCSD Sample Id: 7682237-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	896	90	1010	101	70-135	12	20	mg/kg	07.17.19 10:37	
Diesel Range Organics (DRO)	<8.13	1000	917	92	1030	103	70-135	12	20	mg/kg	07.17.19 10:37	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	83		80		91		70-135	%	07.17.19 10:37
o-Terphenyl	83		78		83		70-135	%	07.17.19 10:37

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.

Servers 31 Fed Com 4H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3095725

Parent Sample Id: 630737-001

Matrix: Soil

MS Sample Id: 630737-001 S

Prep Method: TX1005P

Date Prep: 07.17.19

MSD Sample Id: 630737-001 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)	8.64	997	900	89	952	95	70-135	6	20	mg/kg	07.17.19 11:50	
Diesel Range Organics (DRO)	35.4	997	890	86	979	95	70-135	10	20	mg/kg	07.17.19 11:50	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	79		85		70-135	%	07.17.19 11:50
o-Terphenyl	70		78		70-135	%	07.17.19 11:50

Analytical Method: BTEX by EPA 8021B

Seq Number: 3095938

MB Sample Id: 7682225-1-BLK

Matrix: Solid

LCS Sample Id: 7682225-1-BKS

Prep Method: SW5030B

Date Prep: 07.17.19

LCSD Sample Id: 7682225-1-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	0.120	120	0.116	116	70-130	3	35	mg/kg	07.18.19 21:02	
Toluene	<0.000456	0.100	0.0975	98	0.0982	98	70-130	1	35	mg/kg	07.18.19 21:02	
Ethylbenzene	<0.00200	0.100	0.0897	90	0.0920	92	70-130	3	35	mg/kg	07.18.19 21:02	
m,p-Xylenes	<0.00101	0.200	0.179	90	0.184	92	70-130	3	35	mg/kg	07.18.19 21:02	
o-Xylene	<0.00200	0.100	0.0882	88	0.0901	90	70-130	2	35	mg/kg	07.18.19 21:02	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		115		112		70-130	%	07.18.19 21:02
4-Bromofluorobenzene	82		83		87		70-130	%	07.18.19 21:02

Analytical Method: BTEX by EPA 8021B

Seq Number: 3095938

Parent Sample Id: 630895-001

Matrix: Soil

MS Sample Id: 630895-001 S

Prep Method: SW5030B

Date Prep: 07.17.19

MSD Sample Id: 630895-001 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	0.0774	77	0.0846	85	70-130	9	35	mg/kg	07.19.19 10:00	
Toluene	<0.000457	0.100	0.0555	56	0.0563	57	70-130	1	35	mg/kg	07.19.19 10:00	X
Ethylbenzene	<0.00201	0.100	0.0420	42	0.0413	42	70-130	2	35	mg/kg	07.19.19 10:00	X
m,p-Xylenes	<0.00102	0.201	0.0838	42	0.0787	40	70-130	6	35	mg/kg	07.19.19 10:00	X
o-Xylene	<0.00201	0.100	0.0419	42	0.0422	43	70-130	1	35	mg/kg	07.19.19 10:00	X

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	116		119		70-130	%	07.19.19 10:00
4-Bromofluorobenzene	87		85		70-130	%	07.19.19 10:00

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: 1031114

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Corsabad, NM (432) 704-5440
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 589-6701

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Page 1 of 2

Project Manager:	Don Moir	Bill to: (if different)	Kyle Chell
Company Name:	LT Environmental, Inc.	Company Name:	KTO
Address:	3300 North A Street	Address:	3104 E. Green Street
City, State ZIP:	Midland TX 79705	City, State ZIP:	Corsabad NM 88220
Phone:	432.236.3849	Email:	Sl@xenco.com

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

Project Name:	Sevens 31 Fed Com YH	Turn Around	☐
Project Number:	IRP - 5032	Rush:	24 hrs
Project Location:		Due Date:	
Sample Name:	Spencer Co	Quote #:	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	05°C			Thermometer ID:		
Received Intact:	Yes	No				
Cooler Custody Seals:	Yes	No		Correction Factor:		
Sample Custody Seals:	Yes	No		Total Containers:		

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes	Sample Comments
SS01		S	7-11-19	10:15	6"	1	TPH (EPA 8012)		
SS02		S	7-11-19	10:25	6"	1	BTEX (EPA 8021)		
SS03		S	7-11-19	10:35	6"	1	Chloride (EPA 300)		
SS04		S	7-11-19	10:55	6"	1			
SS05		S	7-11-19	11:10	6"	1			
SS06		S	7-11-19	11:20	6"	1			
SS07		S	7-11-19	11:35	6"	1			
SS08		S	7-11-19	11:45	6"	1			
SS09		S	7-11-19	12:00	6"	1			
SS10		S	7-11-19	12:15	6"	1			

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		07-15-19 16:30			07-15-19 14:00
					1130 7/17/19

Revised Date 02/26/19 Rev: 2019.1



Chain of Custody

Work Order No:

631116

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

Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Crashtad, NM (432) 704-5440
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 589-6701

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Page 2 of 2

Project Manager:	Don Mair	Bill to: (if different)	Kyle Little
Company Name:	LT Environmental, Inc	Company Name:	170
Address:	3300 North A Street	Address:	3104 E. Green Street
City, State ZIP:	Midland TX 79705	City, State ZIP:	Carlsbad NM 88220
Phone:	432.236.3849	Email:	slb@ltenv.com

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

Project Name:	Severs 31 Fed Com 4H	Turn Around	☐
Project Number:	PRP-5032	Rush: 24 hours	☐
Project Location:		Due Date:	
Sample's Name:	Sever to	Quote #:	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	0.5			Thermometer:	10	
Received Intact:	Yes	No				
Cooler Custody Seals:	Yes	No		Correction Factor:		
Sample Custody Seals:	Yes	No		Total Containers:		

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes	Sample Comments
SL1		S	7-11-19	1230	6"	1	TPH (EPA 8012)	MeOH: Me	
SL2		S	7-11-19	1245	6"	1	BTEX (EPA 8021)	None: NO	
						1	Chloride (EPA 300)	HNO3: HN	
								H2SO4: H2	
								HCL: HL	
								NaOH: Na	
								Zn Acetate+ NaOH: Zn	
								TAT starts the day received by the lab, if received by 4:00pm	

Total 200.7 / 6010 200.8 / 6020:

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

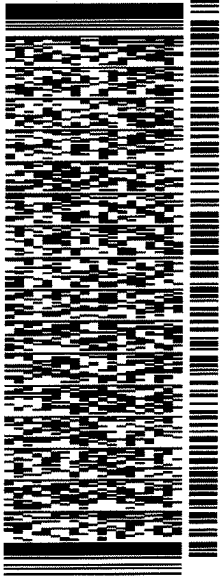
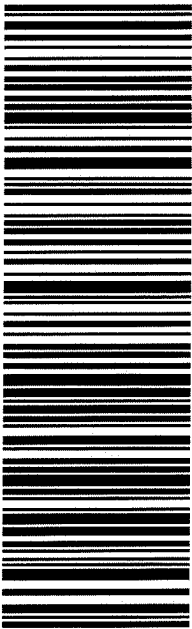
8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		07-15-19 16:38			7/16/19 14:00
					7/17/19
					1130

Revised Date 02/28/19 Rev. 2019.1

ORIGIN:CAOA (281) 240-4200 SAMPLE CUSTODY XENCO LABORATORIES NM 1089 N CANAL ST CARLSBAD, NM 88220 UNITED STATES US	SHIP DATE: 16 JUL 19 ACTWGT: 56.00 LB CAD: 114488676/NM/ET4100 DIMS: 13x9x9 IN BILL SENDER
TO SAMPLE RECEIVING	
3600 S COUNTY ROAD 1276 MIDLAND TX 79706 REF: (432) 704-5440 INV: PO: DEPT:	
 	
TRK# 7757 5590 9428 0201	WED - 17 JUL HOLD PRIORITY OVERNIGHT HLD 41 MAFA TX-US LBB 79706
	

567J2/A6F9/05A2

After printing this label:

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3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 07/17/2019 11:30:00 AM

Work Order #: 631116

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist**Comments**

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Brianna Teel

Date: 07/17/2019

Checklist reviewed by:

Kelsey Brooks

Date: 07/18/2019

Analytical Report 639787

for
LT Environmental, Inc.

Project Manager: Dan Moir

Severus 31 Fed Com #4H

012918108

22-OCT-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 (2017-142), North Carolina (681)

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-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)



22-OCT-19

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **639787**

Severus 31 Fed Com #4H

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) 639787. 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. 639787 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 639787****LT Environmental, Inc., Arvada, CO**

Severus 31 Fed Com #4H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01A	S	10-10-19 15:55	2 ft	639787-001
SS02A	S	10-10-19 15:35	2 ft	639787-002
SS03A	S	10-10-19 15:00	2 ft	639787-003
SS04A	S	10-10-19 14:39	2 ft	639787-004
SS05A	S	10-10-19 14:00	2 ft	639787-005
SS06A	S	10-10-19 11:00	2 ft	639787-006
SS07A	S	10-10-19 11:35	2 ft	639787-007
SS08A	S	10-10-19 11:54	2 ft	639787-008
SS09A	S	10-10-19 12:15	2 ft	639787-009
SS10A	S	10-10-19 12:44	2 ft	639787-010
SS11A	S	10-10-19 13:08	2 ft	639787-011
SS12A	S	10-10-19 13:33	2 ft	639787-012

**CASE NARRATIVE****Client Name: LT Environmental, Inc.****Project Name: Severus 31 Fed Com #4H**Project ID: 012918108
Work Order Number(s): 639787Report Date: 22-OCT-19
Date Received: 10/11/2019**Sample receipt non conformances and comments:**

Per clients email, corrected all samples names by adding an A at the end. NEW VERSION GENERATED.
JK 10/22/19

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3104254 Chloride by EPA 300

Lab Sample ID 639787-008 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 639787-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012.

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

Batch: LBA-3104433 BTEX by EPA 8021B

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



Certificate of Analysis Summary 639787

LT Environmental, Inc., Arvada, CO

Project Name: Severus 31 Fed Com #4H

Project Id: 012918108

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Oct-11-19 12:35 pm

Report Date: 22-OCT-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	639787-001	639787-002	639787-003	639787-004	639787-005	639787-006
	<i>Field Id:</i>	SS01A	SS02A	SS03A	SS04A	SS05A	SS06A
	<i>Depth:</i>	2- ft	2- ft	2- ft	2- ft	2- ft	2- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Oct-10-19 15:55	Oct-10-19 15:35	Oct-10-19 15:00	Oct-10-19 14:39	Oct-10-19 14:00	Oct-10-19 11:00
BTEX by EPA 8021B	<i>Extracted:</i>	Oct-14-19 16:10	Oct-14-19 16:10	Oct-14-19 16:10	Oct-14-19 16:10	Oct-14-19 16:10	Oct-14-19 16:10
	<i>Analyzed:</i>	Oct-14-19 22:03	Oct-14-19 22:23	Oct-14-19 22:42	Oct-14-19 23:01	Oct-14-19 23:20	Oct-14-19 23:39
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00101 0.00101	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00101 0.00101
Toluene		<0.00101 0.00101	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00101 0.00101
Ethylbenzene		<0.00101 0.00101	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00101 0.00101
m,p-Xylenes		<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201
o-Xylene		<0.00101 0.00101	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00101 0.00101
Total Xylenes		<0.00101 0.00101	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00101 0.00101
Total BTEX		<0.00101 0.00101	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00101 0.00101
Chloride by EPA 300	<i>Extracted:</i>	Oct-14-19 12:00	Oct-14-19 12:00	Oct-14-19 12:00	Oct-14-19 12:00	Oct-14-19 12:00	Oct-14-19 12:00
	<i>Analyzed:</i>	Oct-14-19 15:24	Oct-14-19 15:32	Oct-14-19 15:55	Oct-14-19 16:02	Oct-14-19 16:10	Oct-14-19 16:18
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		16.9 10.1	15.5 10.0	13.1 10.1	<10.1 10.1	26.6 9.98	<9.92 9.92
TPH by SW8015 Mod	<i>Extracted:</i>	Oct-14-19 11:00	Oct-14-19 11:00	Oct-14-19 11:00	Oct-14-19 11:00	Oct-14-19 11:00	Oct-14-19 11:00
	<i>Analyzed:</i>	Oct-14-19 23:29	Oct-14-19 23:49	Oct-15-19 00:09	Oct-15-19 00:29	Oct-15-19 00:49	Oct-15-19 01:28
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.8 49.8	<49.9 49.9
Diesel Range Organics (DRO)		<50.1 50.1	<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.8 49.8	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.8 49.8	<49.9 49.9
Total GRO-DRO		<50.1 50.1	<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.8 49.8	<49.9 49.9
Total TPH		<50.1 50.1	<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.8 49.8	<49.9 49.9

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Version: 1.9%

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 639787

LT Environmental, Inc., Arvada, CO

Project Name: Severus 31 Fed Com #4H

Project Id: 012918108

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Oct-11-19 12:35 pm

Report Date: 22-OCT-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	639787-007	639787-008	639787-009	639787-010	639787-011	639787-012
	<i>Field Id:</i>	SS07A	SS08A	SS09A	SS10A	SS11A	SS12A
	<i>Depth:</i>	2- ft	2- ft	2- ft	2- ft	2- ft	2- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Oct-10-19 11:35	Oct-10-19 11:54	Oct-10-19 12:15	Oct-10-19 12:44	Oct-10-19 13:08	Oct-10-19 13:33
BTEX by EPA 8021B	<i>Extracted:</i>	Oct-14-19 16:10	Oct-14-19 16:10	Oct-14-19 16:10	Oct-14-19 16:10	Oct-14-19 16:10	Oct-14-19 16:10
	<i>Analyzed:</i>	Oct-14-19 23:58	Oct-15-19 00:17	Oct-15-19 01:46	Oct-15-19 02:05	Oct-15-19 02:24	Oct-15-19 02:43
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.000994 0.000994	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00101 0.00101
Toluene		<0.000994 0.000994	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00101 0.00101
Ethylbenzene		<0.000994 0.000994	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00101 0.00101
m,p-Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202
o-Xylene		<0.000994 0.000994	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00101 0.00101
Total Xylenes		<0.000994 0.000994	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00101 0.00101
Total BTEX		<0.000994 0.000994	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	<0.00101 0.00101	<0.00101 0.00101
Chloride by EPA 300	<i>Extracted:</i>	Oct-14-19 12:00	Oct-14-19 12:00	Oct-14-19 12:00	Oct-14-19 12:00	Oct-14-19 12:00	Oct-14-19 12:00
	<i>Analyzed:</i>	Oct-14-19 16:25	Oct-14-19 16:33	Oct-14-19 16:56	Oct-14-19 17:03	Oct-14-19 17:11	Oct-14-19 17:34
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<10.0 10.0	<10.0 10.0	<10.1 10.1	<10.0 10.0	11.4 9.94	<9.98 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	Oct-14-19 11:00	Oct-15-19 15:30	Oct-15-19 15:30	Oct-15-19 15:30	Oct-15-19 15:30	Oct-15-19 15:30
	<i>Analyzed:</i>	Oct-15-19 01:48	Oct-15-19 20:02	Oct-15-19 21:02	Oct-16-19 10:31	Oct-15-19 21:42	Oct-15-19 22:01
	<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	<50.2 50.2	<50.1 50.1	<49.8 49.8	<50.1 50.1	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0	<50.2 50.2	<50.1 50.1	89.1 49.8	<50.1 50.1	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.2 50.2	<50.1 50.1	<49.8 49.8	<50.1 50.1	<49.9 49.9
Total GRO-DRO		<50.0 50.0	<50.2 50.2	<50.1 50.1	89.1 49.8	<50.1 50.1	<49.9 49.9
Total TPH		<50.0 50.0	<50.2 50.2	<50.1 50.1	89.1 49.8	<50.1 50.1	<49.9 49.9

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Version: 1.9%

Jessica Kramer
Project Assistant



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS01A**
Lab Sample Id: 639787-001

Matrix: Soil
Date Collected: 10.10.19 15.55

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3104254

Date Prep: 10.14.19 12.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.9	10.1	mg/kg	10.14.19 15.24		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3104378

Date Prep: 10.14.19 11.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.14.19 23.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	10.14.19 23.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	10.14.19 23.29	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	10.14.19 23.29	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	10.14.19 23.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	10.14.19 23.29	
o-Terphenyl	84-15-1	92	%	70-135	10.14.19 23.29	



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS01A**
Lab Sample Id: 639787-001

Matrix: Soil
Date Collected: 10.10.19 15.55

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 10.14.19 16.10

Basis: Wet Weight

Seq Number: 3104433

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	10.14.19 22.03	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	10.14.19 22.03	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	10.14.19 22.03	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	10.14.19 22.03	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	10.14.19 22.03	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	10.14.19 22.03	U	1
Total BTEX		<0.00101	0.00101	mg/kg	10.14.19 22.03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	10.14.19 22.03		
4-Bromofluorobenzene	460-00-4	120	%	70-130	10.14.19 22.03		



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS02A**
Lab Sample Id: 639787-002

Matrix: Soil
Date Collected: 10.10.19 15.35

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3104254

Date Prep: 10.14.19 12.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15.5	10.0	mg/kg	10.14.19 15.32		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3104378

Date Prep: 10.14.19 11.00

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	10.14.19 23.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.14.19 23.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.14.19 23.49	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.14.19 23.49	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.14.19 23.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	10.14.19 23.49	
o-Terphenyl	84-15-1	100	%	70-135	10.14.19 23.49	



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS02A**
Lab Sample Id: 639787-002

Matrix: Soil
Date Collected: 10.10.19 15.35

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 10.14.19 16.10

Basis: Wet Weight

Seq Number: 3104433

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.14.19 22.23	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.14.19 22.23	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.14.19 22.23	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	10.14.19 22.23	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.14.19 22.23	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.14.19 22.23	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.14.19 22.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	124	%	70-130	10.14.19 22.23		
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.14.19 22.23		



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS03A**
Lab Sample Id: 639787-003

Matrix: Soil
Date Collected: 10.10.19 15.00

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3104254

Date Prep: 10.14.19 12.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.1	10.1	mg/kg	10.14.19 15.55		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3104378

Date Prep: 10.14.19 11.00

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	10.15.19 00.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.15.19 00.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.15.19 00.09	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.15.19 00.09	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.15.19 00.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	10.15.19 00.09	
o-Terphenyl	84-15-1	86	%	70-135	10.15.19 00.09	



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS03A**
Lab Sample Id: 639787-003

Matrix: Soil
Date Collected: 10.10.19 15.00

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 10.14.19 16.10

Basis: Wet Weight

Seq Number: 3104433

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.14.19 22.42	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.14.19 22.42	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.14.19 22.42	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	10.14.19 22.42	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.14.19 22.42	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.14.19 22.42	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.14.19 22.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	70-130	10.14.19 22.42		
4-Bromofluorobenzene	460-00-4	125	%	70-130	10.14.19 22.42		



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS04A**
Lab Sample Id: 639787-004

Matrix: Soil
Date Collected: 10.10.19 14.39

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3104254

Date Prep: 10.14.19 12.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	10.14.19 16.02	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3104378

Date Prep: 10.14.19 11.00

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	10.15.19 00.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.15.19 00.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.15.19 00.29	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.15.19 00.29	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.15.19 00.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	10.15.19 00.29	
o-Terphenyl	84-15-1	83	%	70-135	10.15.19 00.29	



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS04A**
Lab Sample Id: 639787-004

Matrix: Soil
Date Collected: 10.10.19 14.39

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 10.14.19 16.10

Basis: Wet Weight

Seq Number: 3104433

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	10.14.19 23.01	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	10.14.19 23.01	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	10.14.19 23.01	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	10.14.19 23.01	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	10.14.19 23.01	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	10.14.19 23.01	U	1
Total BTEX		<0.00101	0.00101	mg/kg	10.14.19 23.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	124	%	70-130	10.14.19 23.01		
1,4-Difluorobenzene	540-36-3	107	%	70-130	10.14.19 23.01		



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS05A**
Lab Sample Id: 639787-005

Matrix: Soil
Date Collected: 10.10.19 14.00

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3104254

Date Prep: 10.14.19 12.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	26.6	9.98	mg/kg	10.14.19 16.10		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3104378

Date Prep: 10.14.19 11.00

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	10.15.19 00.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.15.19 00.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.15.19 00.49	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.15.19 00.49	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.15.19 00.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	10.15.19 00.49	
o-Terphenyl	84-15-1	96	%	70-135	10.15.19 00.49	



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS05A**
Lab Sample Id: 639787-005

Matrix: Soil
Date Collected: 10.10.19 14.00

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 10.14.19 16.10

Basis: Wet Weight

Seq Number: 3104433

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	10.14.19 23.20	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	10.14.19 23.20	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	10.14.19 23.20	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	10.14.19 23.20	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	10.14.19 23.20	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	10.14.19 23.20	U	1
Total BTEX		<0.00101	0.00101	mg/kg	10.14.19 23.20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.14.19 23.20		
4-Bromofluorobenzene	460-00-4	126	%	70-130	10.14.19 23.20		



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS06A**
Lab Sample Id: 639787-006

Matrix: Soil
Date Collected: 10.10.19 11.00

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3104254

Date Prep: 10.14.19 12.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.92	9.92	mg/kg	10.14.19 16.18	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3104378

Date Prep: 10.14.19 11.00

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	10.15.19 01.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.15.19 01.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.15.19 01.28	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.15.19 01.28	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.15.19 01.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	10.15.19 01.28	
o-Terphenyl	84-15-1	96	%	70-135	10.15.19 01.28	



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS06A**
Lab Sample Id: 639787-006

Matrix: Soil
Date Collected: 10.10.19 11.00

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 10.14.19 16.10

Basis: Wet Weight

Seq Number: 3104433

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	10.14.19 23.39	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	10.14.19 23.39	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	10.14.19 23.39	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	10.14.19 23.39	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	10.14.19 23.39	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	10.14.19 23.39	U	1
Total BTEX		<0.00101	0.00101	mg/kg	10.14.19 23.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	10.14.19 23.39		
4-Bromofluorobenzene	460-00-4	125	%	70-130	10.14.19 23.39		



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS07A**
Lab Sample Id: 639787-007

Matrix: Soil
Date Collected: 10.10.19 11.35

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3104254

Date Prep: 10.14.19 12.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	10.14.19 16.25	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3104378

Date Prep: 10.14.19 11.00

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	10.15.19 01.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.15.19 01.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.15.19 01.48	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.15.19 01.48	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.15.19 01.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	10.15.19 01.48	
o-Terphenyl	84-15-1	86	%	70-135	10.15.19 01.48	



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS07A**
Lab Sample Id: 639787-007

Matrix: Soil
Date Collected: 10.10.19 11.35

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 10.14.19 16.10

Basis: Wet Weight

Seq Number: 3104433

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	10.14.19 23.58	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	10.14.19 23.58	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	10.14.19 23.58	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	10.14.19 23.58	U	1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	10.14.19 23.58	U	1
Total Xylenes	1330-20-7	<0.000994	0.000994	mg/kg	10.14.19 23.58	U	1
Total BTEX		<0.000994	0.000994	mg/kg	10.14.19 23.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	10.14.19 23.58		
4-Bromofluorobenzene	460-00-4	124	%	70-130	10.14.19 23.58		



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS08A**
Lab Sample Id: 639787-008

Matrix: Soil
Date Collected: 10.10.19 11.54

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3104254

Date Prep: 10.14.19 12.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	10.14.19 16.33	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3104456

Date Prep: 10.15.19 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	10.15.19 20.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.15.19 20.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.15.19 20.02	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.15.19 20.02	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.15.19 20.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	10.15.19 20.02	
o-Terphenyl	84-15-1	85	%	70-135	10.15.19 20.02	



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS08A**
Lab Sample Id: 639787-008

Matrix: Soil
Date Collected: 10.10.19 11.54

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3104433

Prep Method: SW5030B

% Moisture:

Date Prep: 10.14.19 16.10

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.15.19 00.17	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.15.19 00.17	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.15.19 00.17	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.15.19 00.17	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.15.19 00.17	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.15.19 00.17	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.15.19 00.17	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	122	%	70-130	10.15.19 00.17		
1,4-Difluorobenzene	540-36-3	102	%	70-130	10.15.19 00.17		



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS09A**
Lab Sample Id: 639787-009

Matrix: Soil
Date Collected: 10.10.19 12.15

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3104254

Date Prep: 10.14.19 12.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	10.14.19 16.56	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3104456

Date Prep: 10.15.19 15.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.15.19 21.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	10.15.19 21.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	10.15.19 21.02	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	10.15.19 21.02	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	10.15.19 21.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	10.15.19 21.02	
o-Terphenyl	84-15-1	87	%	70-135	10.15.19 21.02	



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS09A**
Lab Sample Id: 639787-009

Matrix: Soil
Date Collected: 10.10.19 12.15

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 10.14.19 16.10

Basis: Wet Weight

Seq Number: 3104433

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.15.19 01.46	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.15.19 01.46	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.15.19 01.46	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	10.15.19 01.46	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.15.19 01.46	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.15.19 01.46	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.15.19 01.46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	118	%	70-130	10.15.19 01.46		
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.15.19 01.46		



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS10A**
Lab Sample Id: 639787-010

Matrix: Soil
Date Collected: 10.10.19 12.44

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3104254

Date Prep: 10.14.19 12.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	10.14.19 17.03	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3104456

Date Prep: 10.15.19 15.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.16.19 10.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	89.1	49.8	mg/kg	10.16.19 10.31		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.16.19 10.31	U	1
Total GRO-DRO	PHC628	89.1	49.8	mg/kg	10.16.19 10.31		1
Total TPH	PHC635	89.1	49.8	mg/kg	10.16.19 10.31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	10.16.19 10.31	
o-Terphenyl	84-15-1	99	%	70-135	10.16.19 10.31	



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS10A**
Lab Sample Id: 639787-010

Matrix: Soil
Date Collected: 10.10.19 12.44

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 10.14.19 16.10

Basis: Wet Weight

Seq Number: 3104433

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	10.15.19 02.05	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	10.15.19 02.05	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	10.15.19 02.05	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	10.15.19 02.05	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	10.15.19 02.05	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	10.15.19 02.05	U	1
Total BTEX		<0.00101	0.00101	mg/kg	10.15.19 02.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	70-130	10.15.19 02.05		
1,4-Difluorobenzene	540-36-3	95	%	70-130	10.15.19 02.05		



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS11A**
Lab Sample Id: 639787-011

Matrix: Soil
Date Collected: 10.10.19 13.08

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3104254

Date Prep: 10.14.19 12.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.4	9.94	mg/kg	10.14.19 17.11		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3104456

Date Prep: 10.15.19 15.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.15.19 21.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	10.15.19 21.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	10.15.19 21.42	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	10.15.19 21.42	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	10.15.19 21.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	10.15.19 21.42	
o-Terphenyl	84-15-1	88	%	70-135	10.15.19 21.42	



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS11A**
Lab Sample Id: 639787-011

Matrix: Soil
Date Collected: 10.10.19 13.08

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 10.14.19 16.10

Basis: Wet Weight

Seq Number: 3104433

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	10.15.19 02.24	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	10.15.19 02.24	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	10.15.19 02.24	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	10.15.19 02.24	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	10.15.19 02.24	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	10.15.19 02.24	U	1
Total BTEX		<0.00101	0.00101	mg/kg	10.15.19 02.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	10.15.19 02.24		
4-Bromofluorobenzene	460-00-4	126	%	70-130	10.15.19 02.24		



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS12A**
Lab Sample Id: 639787-012

Matrix: Soil
Date Collected: 10.10.19 13.33

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3104254

Date Prep: 10.14.19 12.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	10.14.19 17.34	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3104456

Date Prep: 10.15.19 15.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.15.19 22.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.15.19 22.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.15.19 22.01	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.15.19 22.01	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.15.19 22.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	10.15.19 22.01	
o-Terphenyl	84-15-1	87	%	70-135	10.15.19 22.01	



Certificate of Analytical Results 639787

LT Environmental, Inc., Arvada, CO

Severus 31 Fed Com #4H

Sample Id: **SS12A**
Lab Sample Id: 639787-012

Matrix: Soil
Date Collected: 10.10.19 13.33

Date Received: 10.11.19 12.35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 10.14.19 16.10

Basis: Wet Weight

Seq Number: 3104433

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	10.15.19 02.43	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	10.15.19 02.43	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	10.15.19 02.43	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	10.15.19 02.43	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	10.15.19 02.43	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	10.15.19 02.43	U	1
Total BTEX		<0.00101	0.00101	mg/kg	10.15.19 02.43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.15.19 02.43		
4-Bromofluorobenzene	460-00-4	123	%	70-130	10.15.19 02.43		



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

PQL Practical Quantitation Limit **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.

Severus 31 Fed Com #4H

Analytical Method: Chloride by EPA 300

Seq Number: 3104254

MB Sample Id: 7688096-1-BLK

Matrix: Solid

LCS Sample Id: 7688096-1-BKS

Prep Method: E300P

Date Prep: 10.14.19

LCSD Sample Id: 7688096-1-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	300	299	100	302	101	90-110	1	20	mg/kg	10.14.19 14:32	

Analytical Method: Chloride by EPA 300

Seq Number: 3104254

Parent Sample Id: 639781-001

Matrix: Soil

MS Sample Id: 639781-001 S

Prep Method: E300P

Date Prep: 10.14.19

MSD Sample Id: 639781-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	12.0	198	242	116	265	128	90-110	9	20	mg/kg	10.14.19 14:54	X

Analytical Method: Chloride by EPA 300

Seq Number: 3104254

Parent Sample Id: 639787-008

Matrix: Soil

MS Sample Id: 639787-008 S

Prep Method: E300P

Date Prep: 10.14.19

MSD Sample Id: 639787-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5.51	199	239	117	242	119	90-110	1	20	mg/kg	10.14.19 16:41	X

Analytical Method: TPH by SW8015 Mod

Seq Number: 3104378

MB Sample Id: 7688111-1-BLK

Matrix: Solid

LCS Sample Id: 7688111-1-BKS

Prep Method: SW8015P

Date Prep: 10.14.19

LCSD Sample Id: 7688111-1-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	818	82	829	83	70-135	1	35	mg/kg	10.14.19 20:50	
Diesel Range Organics (DRO)	<50.0	1000	739	74	760	76	70-135	3	35	mg/kg	10.14.19 20:50	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	82		104		96		70-135	%	10.14.19 20:50
o-Terphenyl	85		93		94		70-135	%	10.14.19 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.

Severus 31 Fed Com #4H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3104456

MB Sample Id: 7688185-1-BLK

Matrix: Solid

LCS Sample Id: 7688185-1-BKS

Prep Method: SW8015P

Date Prep: 10.15.19

LCSD Sample Id: 7688185-1-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	1020	102	1040	104	70-135	2	35	mg/kg	10.15.19 19:02	
Diesel Range Organics (DRO)	<50.0	1000	862	86	874	87	70-135	1	35	mg/kg	10.15.19 19:02	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		112		128		70-135	%	10.15.19 19:02
o-Terphenyl	112		98		99		70-135	%	10.15.19 19:02

Analytical Method: TPH by SW8015 Mod

Seq Number: 3104378

Matrix: Solid

MB Sample Id: 7688111-1-BLK

Prep Method: SW8015P

Date Prep: 10.14.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.14.19 20:30	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3104456

Matrix: Solid

MB Sample Id: 7688185-1-BLK

Prep Method: SW8015P

Date Prep: 10.15.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.15.19 18:41	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3104378

Matrix: Soil

Parent Sample Id: 639765-001

MS Sample Id: 639765-001 S

Prep Method: SW8015P

Date Prep: 10.14.19

MSD Sample Id: 639765-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	990	99	978	98	70-135	1	35	mg/kg	10.14.19 21:50	
Diesel Range Organics (DRO)	<50.1	1000	854	85	822	83	70-135	4	35	mg/kg	10.14.19 21:50	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		110		70-135	%	10.14.19 21:50
o-Terphenyl	100		96		70-135	%	10.14.19 21:50

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.

Severus 31 Fed Com #4H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3104456

Parent Sample Id: 639787-008

Matrix: Soil

MS Sample Id: 639787-008 S

Prep Method: SW8015P

Date Prep: 10.15.19

MSD Sample Id: 639787-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	971	97	952	95	70-135	2	35	mg/kg	10.15.19 20:22	
Diesel Range Organics (DRO)	<50.1	1000	947	95	804	80	70-135	16	35	mg/kg	10.15.19 20:22	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		108		70-135	%	10.15.19 20:22
o-Terphenyl	122		96		70-135	%	10.15.19 20:22

Analytical Method: BTEX by EPA 8021B

Seq Number: 3104433

MB Sample Id: 7688180-1-BLK

Matrix: Solid

LCS Sample Id: 7688180-1-BKS

Prep Method: SW5030B

Date Prep: 10.14.19

LCSD Sample Id: 7688180-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.0972	97	0.0934	93	70-130	4	35	mg/kg	10.14.19 19:43	
Toluene	<0.00100	0.100	0.0942	94	0.0933	93	70-130	1	35	mg/kg	10.14.19 19:43	
Ethylbenzene	<0.00100	0.100	0.0940	94	0.0941	94	71-129	0	35	mg/kg	10.14.19 19:43	
m,p-Xylenes	<0.00200	0.200	0.199	100	0.199	100	70-135	0	35	mg/kg	10.14.19 19:43	
o-Xylene	<0.00100	0.100	0.0965	97	0.0968	97	71-133	0	35	mg/kg	10.14.19 19:43	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		103		100		70-130	%	10.14.19 19:43
4-Bromofluorobenzene	98		104		108		70-130	%	10.14.19 19:43

Analytical Method: BTEX by EPA 8021B

Seq Number: 3104433

Parent Sample Id: 639785-001

Matrix: Soil

MS Sample Id: 639785-001 S

Prep Method: SW5030B

Date Prep: 10.14.19

MSD Sample Id: 639785-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.0971	97	0.0863	86	70-130	12	35	mg/kg	10.14.19 20:21	
Toluene	<0.00100	0.100	0.0942	94	0.0835	84	70-130	12	35	mg/kg	10.14.19 20:21	
Ethylbenzene	<0.00100	0.100	0.0940	94	0.0820	82	71-129	14	35	mg/kg	10.14.19 20:21	
m,p-Xylenes	<0.00200	0.200	0.199	100	0.173	87	70-135	14	35	mg/kg	10.14.19 20:21	
o-Xylene	<0.00100	0.100	0.0996	100	0.0864	86	71-133	14	35	mg/kg	10.14.19 20:21	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		107		70-130	%	10.14.19 20:21
4-Bromofluorobenzene	120		119		70-130	%	10.14.19 20:21

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

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

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

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



Chain of Custody

Work Order No: 1039782

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

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Page 1 of 2

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littlell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	idelval@ltenv.com

Program: ☐ UT/PT ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund
State of Project:
Reporting Level: ☐ I ☐ II ☐ III ☐ ST/UST ☐ PRP ☐ Level IV ☐
Deliverables: ☐ EDD ☐ ADAPT ☐ Other:

Project Name:	Severs 31 Fed Com #11	Turn Around																									
Project Number:	012918108	Routine	☒																								
P.O. Number:		Rush:																									
Sampler's Name:	Benjamin Beitt	Due Date:																									
<table border="1"> <tr> <td>Temperature (°C):</td> <td>12</td> <td>Temp Blank:</td> <td>Yes ☒ No ☐</td> <td>Wet Ice:</td> <td>Yes ☒ No ☐</td> </tr> <tr> <td>Received Intact:</td> <td>Yes ☒ No ☐</td> <td>Thermometer ID</td> <td colspan="3">T-NM-007</td> </tr> <tr> <td>Cooler Custody Seals:</td> <td>Yes ☒ No ☐</td> <td>Correction Factor:</td> <td colspan="3">-0.2</td> </tr> <tr> <td>Sample Custody Seals:</td> <td>Yes ☒ No ☐</td> <td>Total Containers:</td> <td colspan="3">12</td> </tr> </table>				Temperature (°C):	12	Temp Blank:	Yes ☒ No ☐	Wet Ice:	Yes ☒ No ☐	Received Intact:	Yes ☒ No ☐	Thermometer ID	T-NM-007			Cooler Custody Seals:	Yes ☒ No ☐	Correction Factor:	-0.2			Sample Custody Seals:	Yes ☒ No ☐	Total Containers:	12		
Temperature (°C):	12	Temp Blank:	Yes ☒ No ☐	Wet Ice:	Yes ☒ No ☐																						
Received Intact:	Yes ☒ No ☐	Thermometer ID	T-NM-007																								
Cooler Custody Seals:	Yes ☒ No ☐	Correction Factor:	-0.2																								
Sample Custody Seals:	Yes ☒ No ☐	Total Containers:	12																								
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST										Work Order Notes								
S501	S	10/10/14	1555	2'	1	X	X	X											TAT starts the day received by the lab, if received by 4:30pm Sample Comments								
S502			1535			X	X	X																			
S503			1540			X	X	X																			
S504			1439			X	X	X																			
S505			1406			X	X	X																			
S506			1100			X	X	X																			
S507			1135			X	X	X																			
S508			1154			X	X	X																			
S509			1215			X	X	X																			
S510			1244			X	X	X																			

Total 200.7 / 6010 200.8 / 6020:
 Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Ben Beitt</i>	<i>Don Byers</i>	10/11/2015	<i>Don Byers</i>	<i>Don Byers</i>	10-11-12-35



Chain of Custody

Work Order No: 639787

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

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Page 2 of 2

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littlell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	lidelval@ltenv.com

ANALYSIS REQUEST

Work Order Notes

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

Project Name:	Screens 31 Fed Com #44H	Turn Around	
Project Number:	012919408	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Benjamin Beitt Lurs Del Val	Due Date:	

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	1.2	Thermometer ID					
Received Intact:	Yes	No					
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 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)							
SS11	S	10/10/14	1308	2'	1	1	1							
SS12	↓	↓	1333	↓	↓	↓	↓							

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SIO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1. <i>no Hall</i>	<i>Anna Bayes</i>	10/14/14 1215	2. <i>Anna Bayes</i>	<i>Wes. 10-11 12:35</i>	
3.			4.		
5.			6.		



Client: LT Environmental, Inc.

Date/ Time Received: 10/11/2019 12:35:00 PM

Work Order #: 639787

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?	Yes
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 10/11/2019

Checklist reviewed by:

Jessica Kramer

Date: 10/13/2019

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 188819

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 188819
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	2/21/2023