

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	NRM2006936118
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	XTO Energy	OGRID	5380
Contact Name	Kyle Littrell	Contact Telephone	432-221-7331
Contact email	Kyle_Littrell@xtoenergy.com	Incident #	(assigned by OCD)
Contact mailing address	522 W. Mermod, Carlsbad, NM 88220		

Location of Release Source

Latitude 32.539184 Longitude -103.598180
 (NAD 83 in decimal degrees to 5 decimal places)

Site Name	Severus Tank Battery	Site Type	Tank Battery
Date Release Discovered	02/24/2020	API#	(if applicable)

Unit Letter	Section	Township	Range	County
O	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) 80.6	Volume Recovered (bbls) 80
☐ 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)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:

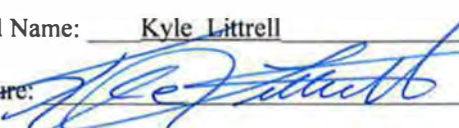
The water dump malfunctioned allowing fluid to the skim tank which overflowed into lined containment and onto well pad. Vacuum truck was dispatched and recovered 80 bbl from containment. 0.6 bbl was not recoverable from the pad and will be remediated. A third party contractor will be obtained to complete remediation activities.

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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? An unauthorized release of a volume of 25 or more barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Immediate notice was given by Amy Ruth, to Mike Bratcher, Rob Hamlet, Victoria Venegas, Jim Griswold, EMNRD, blm_nm_cfo_spill@blm.gov , Crisha Morgan on Tuesday February 25, 2020 via email.	

Initial Response

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

☒ The source of the release has been stopped.	
☒ The impacted area has been secured to protect human health and the environment.	
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
☒ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <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>3/6/20</u>
email: <u>Kyle.Littrell@xtoenergy.com</u>	Telephone: _____
OCD Only	
Received by: <u>Ramona Marcus</u>	Date: <u>03/09/2020</u>

NRM2006936118

Location:	Severus Tank Battery	
Spill Date:	2/24/2020	
Area 1		
Approximate Area =	449.10	cu. ft.
VOLUME RECOVERED		
Total Crude Oil =	80.00	bbls
Total Produced Water =	0.00	bbls
Area 2		
Approximate Area =	1342.00	sq. ft.
Average Saturation (or depth) of spill =	1.00	inches
Average Porosity Factor =		
	0.03	
Oil cut =		
	100.00	
VOLUME OF LEAK		
Total Crude Oil =	0.60	bbls
Total Produced Water =	0.00	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	80.60	bbls
Total Produced Water =	0.00	bbls
TOTAL VOLUME RECOVERED		
Total Crude Oil =	80.00	bbls
Total Produced Water =	0.00	bbls

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Site Assessment/Characterization

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

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

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

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

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

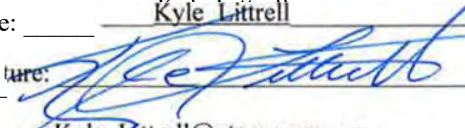
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods,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

State of New Mexico
Oil Conservation Division

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

Printed Name: Kyle Littrell Title: SH&E Supervisor
Signature:  Date: 05/24/20
email: Kyle.Littrell@xtoenergy.com Telephone: _____

OCD Only

Received by: _____ Date: _____

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Remediation Plan

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

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

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

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

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

Printed Name: Kyle LittrellTitle: SH&E SupervisorSignature: Date: 05/24/20email: Kyle.Littrell@xtoenergy.com

Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Signature: _____



LT Environmental, Inc.

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

May 24, 2020

District 1
New Mexico Oil Conservation Division
1625 North French Drive
Hobbs, New Mexico 88240

**RE: Deferral Request
Severus Tank Battery
Incident Number NRM2006936118
Lea County, New Mexico**

To Whom It May Concern:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Deferral Request detailing site assessment, excavation, and soil sampling activities at the Severus Tank Battery (Site) located in Unit O, 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 address impacts to soil following a release of crude oil at the Site. Based on the results of the soil sampling events, XTO is submitting this Deferral Request and requesting no further action (NFA) for Incident Number NRM2006936118 until the Site is reconstructed, and/or the well pad is abandoned.

RELEASE BACKGROUND

On February 24, 2020, a water dump malfunction resulted in the release of 80.6 barrels (bbls) of crude oil into a lined containment and surrounding caliche pad. A vacuum truck was immediately dispatched to the Site to recover freestanding fluids, of which approximately 80 bbls of crude oil were recovered. The net volume of crude oil released was approximately 0.6 bbls. XTO notified the New Mexico Oil Conservation Division (NMOCD) of the release immediately via email on February 25, 2020. XTO followed the electronic notification to NMOCD by submitting a Release Notification and Corrective Action Form C-141 (Form C-141) on March 6, 2020 and was assigned Incident Number NRM2006936118.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The nearest permitted groundwater well with depth to groundwater data is the United States Geological Survey (USGS) well number 323335103370601, located approximately 1.9 miles northwest of the Site. The groundwater well



has a depth to groundwater of 173 feet bgs and a total depth of 676 feet bgs. Ground surface elevation at the water well location is 3,644 feet above mean sea level (amsl), which is approximately 440 feet higher in elevation than the Site. There are three other USGS wells and two NMOSE wells within a 2.8-mile radius that indicate regional depth to groundwater is greater than 100 feet bgs. New Mexico Office of the State Engineer (NMOSE) well CP-01389, located approximate 2.5 miles east of the Site, was most recently sampled in January 2015 and has a reported depth to groundwater of 1,005 feet bgs. All wells utilized for regional depth to groundwater determination are depicted on Figure 1.

The closest continuously flowing water or significant watercourse to the Site is an unnamed dry wash located 1,762 feet southwest 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 not underlain by unstable geology (low potential karst designation area). The Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

SITE ASSESSMENT ACTIVITIES

On March 26, 2020, LTE personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. LTE personnel collected two preliminary soil samples (SS01 and SS02) from within the release extent at a depth of approximately 0.5 feet bgs to assess the lateral extent of impacted soil. Soil from the preliminary soil samples was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was conducted during excavation activities. Photographs are included in Attachment 1.



The preliminary 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 transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, TPH-oil range organics (ORO) following EPA Method 8015M/D, and chloride following EPA Method 300.0.

The laboratory analytical results indicated benzene, BTEX, TPH-GRO and TPH-DRO, and TPH concentrations were exceeding the Closure Criteria in preliminary assessment soil samples SS01 and SS02. Chloride concentrations in soil samples SS01 and SS02 were compliant with the Closure Criteria. Based on field screening results and laboratory analytical results, soil delineation and excavation appeared warranted for the Site. Soil analytical results are depicted on Figure 2 and summarized in Table 1. The laboratory analytical reports are provided in Attachment 2.

EXCAVATION AND DELINEATION SOIL SAMPLING ACTIVITIES

The following is a summary of the excavation and delineation activities conducted at the Site.

Excavation Activities

On April 1, 2020, LTE oversaw excavation of impacted soil as indicated by visual observations, field screening results, and preliminary soil sample results. Excavation activities were performed using a track-mounted backhoe and transport vehicles in the vicinity of soil samples SS01 and SS02. Due to the presence of the lined containment and associated production equipment and flow lines, excavation occurred in accessible areas following XTO's safety policy on restricting work being performed within 2 feet of active equipment. The excavations were located directly north of the lined tank battery.

Following removal of impacted soil from the excavations to the maximum extent practicable (MEP), LTE collected 5-point composite soil samples on a 200-square foot frequency from sidewalls and floors of the excavations. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. A total of three excavations were completed, separated by nearby active production equipment and electrical lines. The western excavation measured approximately 90 square feet in extent and an estimated 10 cubic yards of impacted soil were removed. Composite floor sample FS01 was collected at approximately 3 feet bgs and sidewall samples SW03 and SW04 were collected at depths ranging from the ground surface to approximately 3 feet bgs. The southernmost excavation measures approximately 15 square feet in extent, and an estimated 0.8 cubic yards of impacted soil were removed. One composite sample, FS03, incorporating the floor and sidewalls of the excavation was collected at a depth of 1.5 feet bgs. The eastern excavation measured approximately 140 square feet and an estimated



10 cubic yards of impacted soil were removed. Composite floor soil sample FS02 was collected at approximately 2 feet bgs and sidewall samples SW01 and SW02 were collected at depths ranging from ground surface to approximately 2 feet bgs. The excavation soil samples were collected, handled, and analyzed as described above. The excavation extent and locations of final excavation confirmation samples are presented on Figure 4 and summarized in Table 1.

The laboratory analytical results reported TPH-GRO and TPH-DRO and/or TPH at concentrations exceeding the Closure Criteria in floor sample FS03 and sidewall soil samples SW02, located along the northern side of an east-to-west electrical line, and soil sample SW03, located adjacent to the lined containment. The remaining confirmation soil samples were compliant with the Closure Criteria for benzene, BTEX, TPH-GRO, TPH-DRO, TPH, and chloride concentrations. Based the analytical results from confirmation samples FS03, SW02, and SW03 and the inability to advance the excavations further due to the presence of active production equipment and electric lines, soil delineation appeared to be warranted for the release extent.

The three excavation extents totaled approximately 245 square feet. A total volume of approximately 21 cubic yards of impacted soil were removed to the MEP during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility located in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing.

Delineation Activities

LTE personnel collected eight boreholes from April 2 through April 6, 2020 in coordination with excavation activities to delineate remaining impacted soil immediately beneath active production equipment. Boreholes BH01 through BH08 were advanced to the north of the tank battery to a maximum depth of approximately 3 feet bgs. BH02 was advanced to 4 feet bgs. Two discrete soil samples were collected from each borehole utilizing a hand auger at depths between approximately 0.5 feet and 4 feet bgs. Due to the presence of active production equipment and following XTO policy on restricting work being performed within 2 feet of active equipment, BH04 through BH07 were used to laterally delineate impacted soil represented by sidewall samples SW02 and SW03 and floor sample FS03, which could not be remediated without significant deconstruction or compromising safety. Field screening results and observations for each pothole were logged on lithologic/soil sampling logs, which are included in Attachment 3. The discrete delineation soil samples were collected, handled, and analyzed as described above at Xenco in Carlsbad, New Mexico.

All delineation soil samples from borehole samples BH01/BH01A, BH02/BH02A, BH03A and BH04/BH04A through BH08/BH08A were compliant with the Closure Criteria for benzene, BTEX, TPH-GRO and TPH-DRO, TPH, and chloride. Delineation soil sample BH03 collected at approximately 0.5 feet bgs contained soil with concentrations of BTEX, TPH-GRO and TPH-DRO,



and TPH exceeding the Closure Criteria; however, impacted soil in the vicinity of borehole BH03 was removed in the excavation that reached 1.5 feet bgs.

Residual impacted soil adjacent to the active production equipment is delineated laterally by delineation soil samples BH05 and BH06 and the northern excavation to the north, BH04 to the west, BH07 and BH08 to the east, and the containment to the south. Residual impacted soil adjacent to the active production equipment is delineated vertically to 3 feet bgs by delineation soil samples BH01 and BH03, and 4 feet bgs by delineation soil sample BH02. The laboratory analytical results for 16 delineation soil samples indicated benzene, BTEX, TPH-GRO and TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria.

An estimated 49 cubic yards of impacted soil remains in the top 2 feet immediately adjacent to the tank battery containment and active production equipment assuming a maximum depth of 3.5 feet bgs.

BACKFILL ACTIVITIES

On March 24, 2020, after reviewing laboratory analytical results to confirm impacted soil had been removed to the MEP, the excavation was backfilled with non-wasting containing backfill material. Photographic documentation was conducted during backfill activities and a photographic log is included in Attachment 1.

DEFERRAL REQUEST

Impacts to soil from the crude oil release appeared to accumulate to the immediate north of the lined containment area at concentrations exceeding the Closure Criteria. As a result, impacted soil was remediated via excavation to the MEP. The active production equipment and pipelines associated with the containment limited complete removal of impacted soil north of the tank battery and surrounding active production equipment. Approximately 21 cubic yards of impacted soil were excavated from the Site. Although hydro-excavation was conducted to remove impacted soil to the MEP near confirmation samples FS03, SW02, and SW03, impacted soil to the immediate north of the lined containment was left in place for compliance with the XTO safety policy regarding soil-disturbing activities within 2 feet of active production equipment.

Residual impacted soil adjacent to the active production equipment is delineated laterally by delineation soil samples, the excavations, and the containment. The laboratory analytical results for 16 delineation soil samples indicated benzene, BTEX, TPH-GRO and TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria.

An estimated 49 cubic yards of impacted soil remains immediately adjacent to the tank battery containment and active production equipment assuming a maximum depth of 3.5 feet bgs. Due to the presence of active production equipment, attempts at excavation, hand shoveling, and hydro excavation in this area were limited. LTE and XTO do not believe deferment will result in



District 1
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an imminent risk to human health, the environment, or groundwater. XTO requests deferral of final remediation for Incident Number NRM2006936118.

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

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink that reads "Elizabeth Naka".

Elizabeth Naka
Staff Environmental Scientist

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

Ashley L. Ager
Senior Geologist

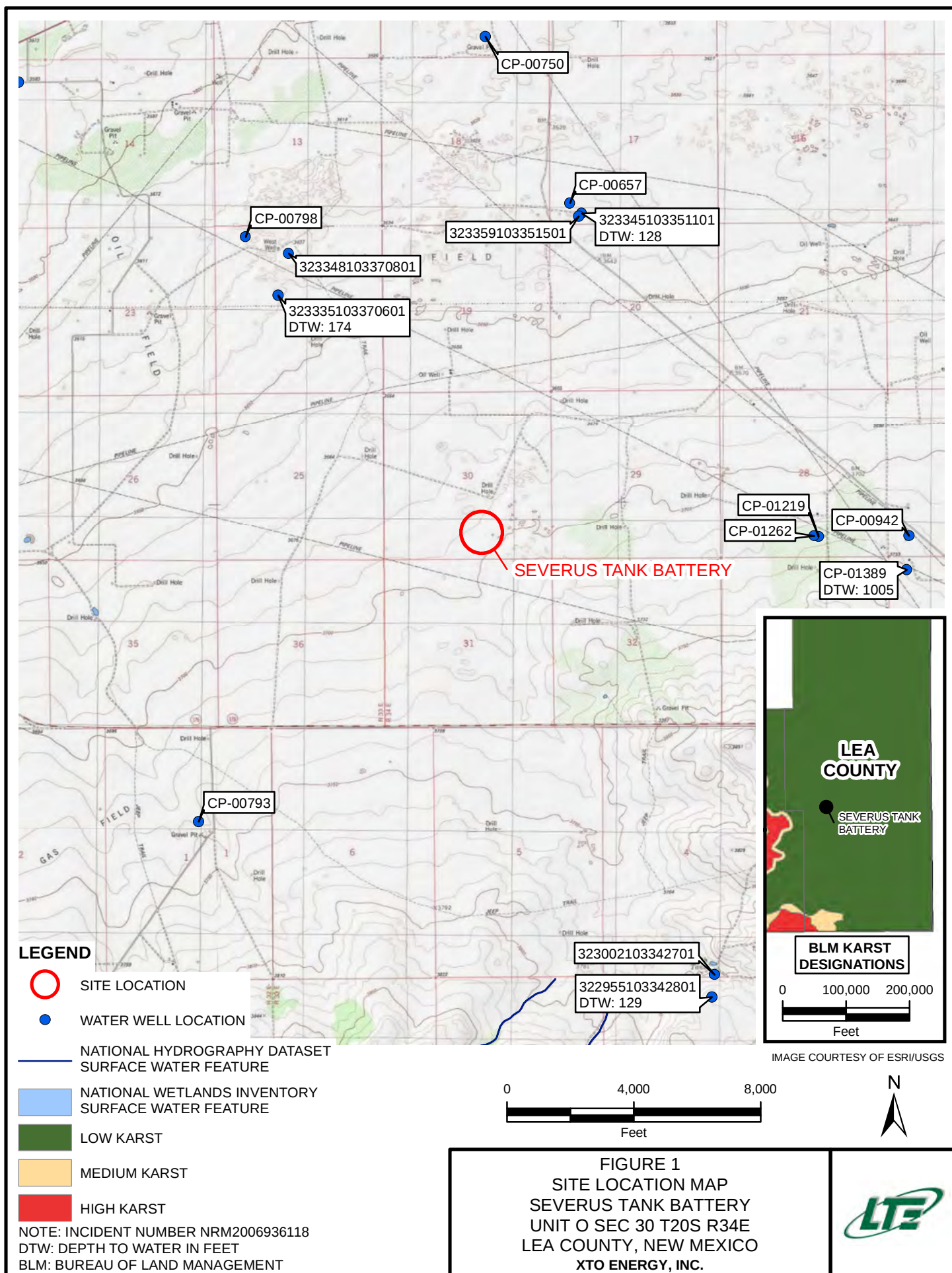
cc: Kyle Littrell, XTO
United States Bureau of Land Management
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD

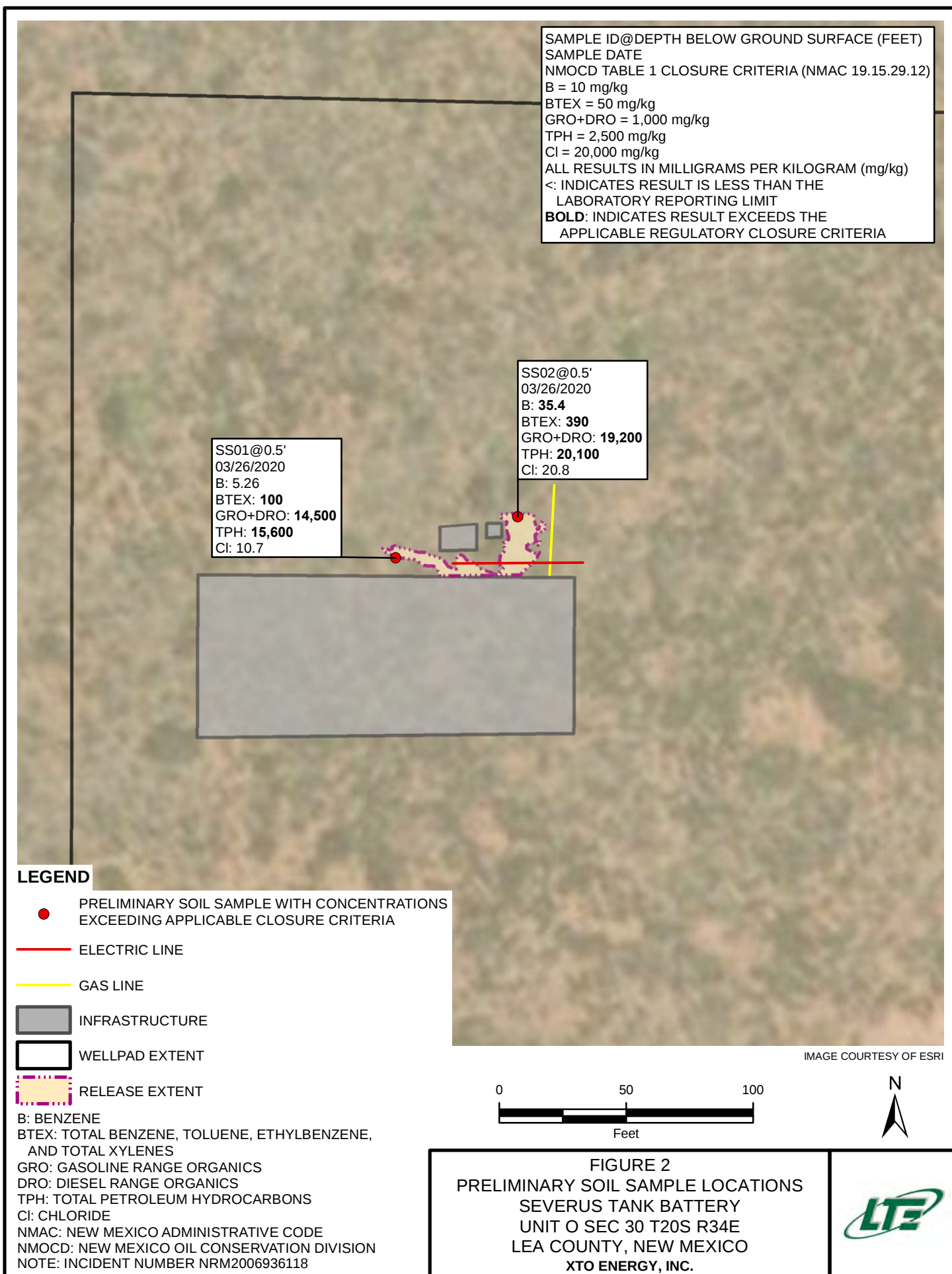
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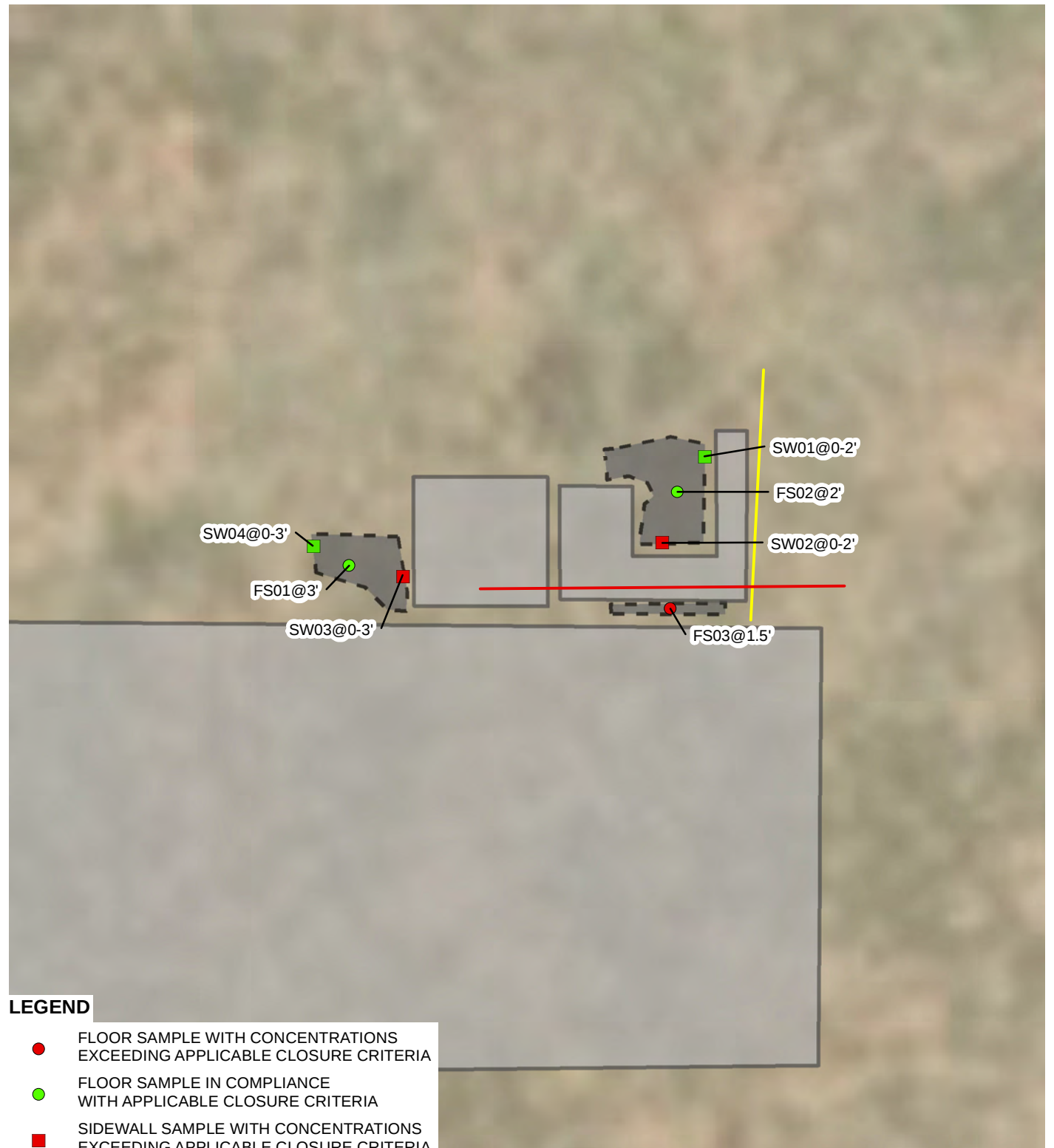
Figure 1 Site Location Map
Figure 2 Preliminary Soil Sampling Locations
Figure 3 Soil Sample Locations
Table 1 Soil Analytical Results
Attachment 1 Photographic Log
Attachment 2 Laboratory Analytical Results
Attachment 3 Lithologic/Soil Sampling Log

FIGURES







**LEGEND**

- FLOOR SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

— ELECTRIC LINE

— GAS LINE

■ EXCAVATION EXTENT

■ INFRASTRUCTURE

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
 NOTE: INCIDENT NUMBER NRM2006936118

IMAGE COURTESY OF ESRI

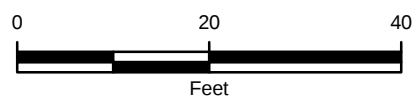
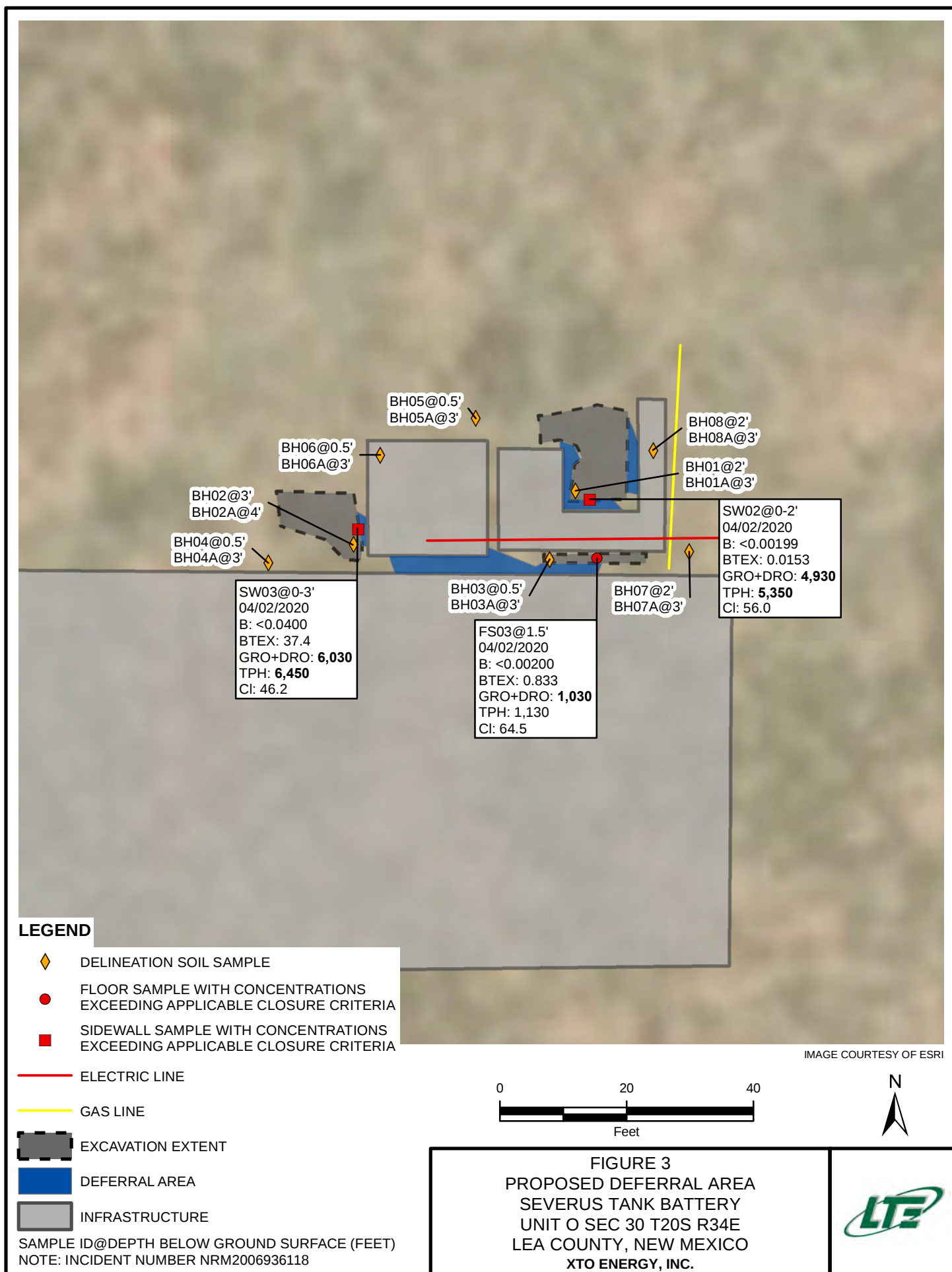


FIGURE 3
 EXCAVATION SOIL SAMPLE LOCATIONS
 SEVERUS TANK BATTERY
 UNIT O SEC 30 T20S R34E
 LEA COUNTY, NEW MEXICO
 XTO ENERGY, INC.





TABLES



TABLE 1
SOIL ANALYTICAL RESULTS

SEVERUS TANK BATTERY
INCIDENT NUMER NRM2006936118
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)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000
SS01	0.5	03/26/2020	5.26	29.9	18.1	47	100	2,610	11,900	1,060	14,500	15,600	10.7
SS02	0.5	03/26/2020	35.4	177	54.1	123	390	8100	11,100	928	19,200	20,100	20.8
BH01	2	04/02/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	108
BH01A	3	04/02/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	66.6
BH02	3	04/02/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	54.2
BH02A	4	04/02/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	24.3
BH03	0.5	04/02/2020	2.76	22.0	11.7	30.3	66.8	1,070	3,350	276	4,420	4,700	361
BH03A	4	04/02/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	<9.98
BH04	0.5	04/06/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	10.2
BH04A	3	04/06/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	28.5
BH05	0.5	04/06/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	33.5
BH05A	3	04/06/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	57.0
BH06	0.5	04/06/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	29.2
BH06A	3	04/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	28.7
BH07	2	04/06/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	42.5
BH07A	3	04/06/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	<10.1
BH08	2	04/06/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	38.8
BH08A	3	04/06/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	10.9
FS01	3	04/01/2020	<0.00200	0.00845	0.0129	0.0429	0.0643	<49.9	<49.9	<49.9	<49.9	<49.9	34.1
FS02	2	04/01/2020	<0.00200	<0.00200	<0.00200	0.0453	0.0453	<49.9	<49.9	<49.9	<49.9	<49.9	35.2
FS03	1.5	04/02/2020	<0.00200	0.147	0.171	0.515	0.833	51.7	974	109	1,030	1,130	64.5
SW01	0 - 2	04/02/2020	<0.00200	0.110	0.108	0.295	0.513	<50.1	217	<50.1	217	217	36.0

**TABLE 1
SOIL ANALYTICAL RESULTS**

**SEVERUS TANK BATTERY
INCIDENT NUMER NRM2006936118
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)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000
SW02	0 - 2	04/02/2020	<0.00199	<0.00199	<0.00199	0.0153	0.0153	445	4,480	421	4,930	5,350	56.0
SW03	0 - 3	04/02/2020	<0.0400	7.58	7.22	22.6	37.4	1,260	4,770	421	6,030	6,450	46.2
SW04	0 - 3	04/02/2020	<0.00199	0.00997	0.00714	0.0214	0.0385	<49.9	<49.9	<49.9	<49.9	<49.9	55.9

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

GRO - gasoline range organics

MRO - motor oil range organics

NMAC - New Mexico Administrative Code

NMOCD - New Mexico Oil Conservation Division

NE - not established

TPH - total petroleum hydrocarbons

NE - not established

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

TEXT - indicates soil removed during excavation activities

ATTACHMENT 1: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG



Photograph 1: View of staining on pad between active equipment facing south.



Photograph 2: View of staining north of lined containment on pad.



Photograph 3: View of excavation between active equipment facing south.



Photograph 4: View of excavation facing east.



Photograph 5: View of final backfill.



Photograph 6: View of final backfill.

ATTACHMENT 2: LABORATORY ANALYTICAL REPORTS



Analytical Report 657460

for
LT Environmental, Inc.

Project Manager: Dan Moir

Severus CTB

012920036

02-APR-20

Collected By: Client



1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):

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

Xenco-Dallas (EPA Lab Code: TX01468):

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

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

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

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

Xenco-Carlsbad (LELAP): Louisiana (05092)

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

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

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



02-APR-20

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

Reference: XENCO Report No(s): **657460**
Severus CTB
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 657460. 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. 657460 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer
Project Manager

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

Certified and approved by numerous States and Agencies.

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

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



Sample Cross Reference 657460

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	03-26-20 09:45	0.5 ft	657460-001
SS02	S	03-26-20 09:50	0.5 ft	657460-002



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Severus CTB

Project ID: 012920036
Work Order Number(s): 657460

Report Date: 02-APR-20
Date Received: 03/31/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3121570 BTEX by EPA 8021B

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



Certificate of Analysis Summary 657460

LT Environmental, Inc., Arvada, CO

Project Name: Severus CTB

Project Id: 012920036

Contact: Dan Moir

Project Location:

Date Received in Lab: Tue Mar-31-20 05:09 pm

Report Date: 02-APR-20

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	657460-001	657460-002				
	Field Id:	SS01	SS02				
	Depth:	0.5- ft	0.5- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	Mar-26-20 09:45	Mar-26-20 09:50				
BTEX by EPA 8021B	Extracted:	Mar-31-20 19:28	Mar-31-20 19:28				
	Analyzed:	Apr-01-20 12:50	Apr-01-20 13:11				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		5.26 0.377	35.4 2.04				
Toluene		29.9 0.377	177 2.04				
Ethylbenzene		18.1 0.377	54.1 2.04				
m,p-Xylenes		31.0 0.755	80.2 4.08				
o-Xylene		16.0 0.377	43.2 2.04				
Total Xylenes		47.0 0.377	123 2.04				
Total BTEX		100 0.377	390 2.04				
Chloride by EPA 300	Extracted:	Mar-31-20 19:18	Mar-31-20 19:18				
	Analyzed:	Apr-01-20 11:36	Apr-01-20 11:41				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		10.7 10.0	20.8 9.98				
TPH by SW8015 Mod	Extracted:	Apr-01-20 11:57	Apr-01-20 11:57				
	Analyzed:	Apr-02-20 02:21	Apr-02-20 02:41				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		2610 250	8100 250				
Diesel Range Organics (DRO)		11900 250	11100 250				
Motor Oil Range Hydrocarbons (MRO)		1060 250	928 250				
Total GRO-DRO		14500 250	19200 250				
Total TPH		15600 250	20100 250				

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

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

Jessica Kramer
Project Manager



Certificate of Analytical Results 657460

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SS01**
Lab Sample Id: 657460-001

Matrix: Soil
Date Collected: 03.26.20 09.45

Date Received: 03.31.20 17.09
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3121597

Date Prep: 03.31.20 19.18

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.7	10.0	mg/kg	04.01.20 11.36		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3121687

Date Prep: 04.01.20 11.57

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	2610	250	mg/kg	04.02.20 02.21		5
Diesel Range Organics (DRO)	C10C28DRO	11900	250	mg/kg	04.02.20 02.21		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	1060	250	mg/kg	04.02.20 02.21		5
Total GRO-DRO	PHC628	14500	250	mg/kg	04.02.20 02.21		5
Total TPH	PHC635	15600	250	mg/kg	04.02.20 02.21		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	127	%	70-135	04.02.20 02.21	
o-Terphenyl	84-15-1	114	%	70-135	04.02.20 02.21	



Certificate of Analytical Results 657460

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SS01**
Lab Sample Id: 657460-001

Matrix: Soil
Date Collected: 03.26.20 09.45

Date Received: 03.31.20 17.09
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.31.20 19.28

Basis: Wet Weight

Seq Number: 3121570

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	5.26	0.377	mg/kg	04.01.20 12.50		20
Toluene	108-88-3	29.9	0.377	mg/kg	04.01.20 12.50		20
Ethylbenzene	100-41-4	18.1	0.377	mg/kg	04.01.20 12.50		20
m,p-Xylenes	179601-23-1	31.0	0.755	mg/kg	04.01.20 12.50		20
o-Xylene	95-47-6	16.0	0.377	mg/kg	04.01.20 12.50		20
Total Xylenes	1330-20-7	47.0	0.377	mg/kg	04.01.20 12.50		20
Total BTEX		100	0.377	mg/kg	04.01.20 12.50		20
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	90	%	70-130	04.01.20 12.50		
1,4-Difluorobenzene	540-36-3	71	%	70-130	04.01.20 12.50		



Certificate of Analytical Results 657460

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: SS02
Lab Sample Id: 657460-002

Matrix: Soil
Date Collected: 03.26.20 09.50

Date Received: 03.31.20 17.09
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3121597

Date Prep: 03.31.20 19.18

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.8	9.98	mg/kg	04.01.20 11.41		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3121687

Date Prep: 04.01.20 11.57

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	8100	250	mg/kg	04.02.20 02.41		5
Diesel Range Organics (DRO)	C10C28DRO	11100	250	mg/kg	04.02.20 02.41		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	928	250	mg/kg	04.02.20 02.41		5
Total GRO-DRO	PHC628	19200	250	mg/kg	04.02.20 02.41		5
Total TPH	PHC635	20100	250	mg/kg	04.02.20 02.41		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	04.02.20 02.41	
o-Terphenyl	84-15-1	117	%	70-135	04.02.20 02.41	



Certificate of Analytical Results 657460

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: SS02
Lab Sample Id: 657460-002

Matrix: Soil
Date Collected: 03.26.20 09.50

Date Received: 03.31.20 17.09
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.31.20 19.28

Basis: Wet Weight

Seq Number: 3121570

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	35.4	2.04	mg/kg	04.01.20 13.11		100
Toluene	108-88-3	177	2.04	mg/kg	04.01.20 13.11		100
Ethylbenzene	100-41-4	54.1	2.04	mg/kg	04.01.20 13.11		100
m,p-Xylenes	179601-23-1	80.2	4.08	mg/kg	04.01.20 13.11		100
o-Xylene	95-47-6	43.2	2.04	mg/kg	04.01.20 13.11		100
Total Xylenes	1330-20-7	123	2.04	mg/kg	04.01.20 13.11		100
Total BTEX		390	2.04	mg/kg	04.01.20 13.11		100
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	73	%	70-130	04.01.20 13.11		
1,4-Difluorobenzene	540-36-3	112	%	70-130	04.01.20 13.11		



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 CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3121597

MB Sample Id: 7700191-1-BLK

Matrix: Solid

LCS Sample Id: 7700191-1-BKS

Prep Method: E300P

Date Prep: 03.31.20

LCSD Sample Id: 7700191-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	267	107	266	107	90-110	0	20	mg/kg	04.01.20 09:05	

Analytical Method: Chloride by EPA 300

Seq Number: 3121597

Parent Sample Id: 657453-001

Matrix: Soil

MS Sample Id: 657453-001 S

Prep Method: E300P

Date Prep: 03.31.20

MSD Sample Id: 657453-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	174	202	359	92	373	99	90-110	4	20	mg/kg	04.01.20 09:21	

Analytical Method: Chloride by EPA 300

Seq Number: 3121597

Parent Sample Id: 657454-011

Matrix: Soil

MS Sample Id: 657454-011 S

Prep Method: E300P

Date Prep: 03.31.20

MSD Sample Id: 657454-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	312	201	512	100	520	103	90-110	2	20	mg/kg	04.01.20 11:02	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121687

MB Sample Id: 770257-1-BLK

Matrix: Solid

LCS Sample Id: 770257-1-BKS

Prep Method: SW8015P

Date Prep: 04.01.20

LCSD Sample Id: 770257-1-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	1150	115	1130	113	70-135	2	35	mg/kg	04.01.20 23:18	
Diesel Range Organics (DRO)	<50.0	1000	1220	122	1260	126	70-135	3	35	mg/kg	04.01.20 23:18	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		134		129		70-135	%	04.01.20 23:18
o-Terphenyl	100		131		126		70-135	%	04.01.20 23:18

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121687

Matrix: Solid

MB Sample Id: 770257-1-BLK

Prep Method: SW8015P

Date Prep: 04.01.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.01.20 22:57	

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

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

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

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



LT Environmental, Inc.

Severus CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121687

Parent Sample Id: 657454-009

Matrix: Soil

MS Sample Id: 657454-009 S

Prep Method: SW8015P

Date Prep: 04.01.20

MSD Sample Id: 657454-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1020	102	902	91	70-135	12	35	mg/kg	04.02.20 00:19	
Diesel Range Organics (DRO)	<50.1	1000	1170	117	1040	104	70-135	12	35	mg/kg	04.02.20 00:19	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		116		70-135	%	04.02.20 00:19
o-Terphenyl	126		116		70-135	%	04.02.20 00:19

Analytical Method: BTEX by EPA 8021B

Seq Number: 3121570

MB Sample Id: 7700195-1-BLK

Matrix: Solid

LCS Sample Id: 7700195-1-BKS

Prep Method: SW5030B

Date Prep: 03.31.20

LCSD Sample Id: 7700195-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.111	111	0.105	105	70-130	6	35	mg/kg	04.01.20 04:20	
Toluene	<0.00200	0.100	0.105	105	0.0986	99	70-130	6	35	mg/kg	04.01.20 04:20	
Ethylbenzene	<0.00200	0.100	0.0980	98	0.0915	92	71-129	7	35	mg/kg	04.01.20 04:20	
m,p-Xylenes	<0.00400	0.200	0.202	101	0.188	94	70-135	7	35	mg/kg	04.01.20 04:20	
o-Xylene	<0.00200	0.100	0.103	103	0.0962	96	71-133	7	35	mg/kg	04.01.20 04:20	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		109		110		70-130	%	04.01.20 04:20
4-Bromofluorobenzene	96		95		95		70-130	%	04.01.20 04:20

Analytical Method: BTEX by EPA 8021B

Seq Number: 3121570

Parent Sample Id: 657364-019

Matrix: Soil

MS Sample Id: 657364-019 S

Prep Method: SW5030B

Date Prep: 03.31.20

MSD Sample Id: 657364-019 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0987	98	0.102	102	70-130	3	35	mg/kg	04.01.20 05:01	
Toluene	<0.00201	0.101	0.0930	92	0.0962	97	70-130	3	35	mg/kg	04.01.20 05:01	
Ethylbenzene	<0.00201	0.101	0.0867	86	0.0885	89	71-129	2	35	mg/kg	04.01.20 05:01	
m,p-Xylenes	<0.00402	0.201	0.177	88	0.181	91	70-135	2	35	mg/kg	04.01.20 05:01	
o-Xylene	<0.00201	0.101	0.0922	91	0.0947	95	71-133	3	35	mg/kg	04.01.20 05:01	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		109		70-130	%	04.01.20 05:01
4-Bromofluorobenzene	93		95		70-130	%	04.01.20 05:01

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

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

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

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



Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296

Work Order No:

20574160

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 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Little
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO-Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432.704.5178	Email:	dmoir@xenco.com kmlittle@xenco.com

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

Project Name:	Severns CTB	Turn Around	☐
Project Number:	012920036	Routine	☐
P.O. Number:	SP11 02-24-20	Rush: 3 day	
Sampler's Name:	Robert McAfee	Due Date:	

SAMPLE RECEIPT	Temp Blank: ☒ Yes ☐ No	Wet Ice: ☒ Yes ☐ No
Temperature (°C):	1.3	Thermometer ID
Received intact:	☒ Yes ☐ No	Correction Factor: -0.2
Cooler Custody Seals:	☒ Yes ☐ No	Total Containers: 2
Sample Custody Seals:	☒ Yes ☐ No	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth
SS01	S	03/26/20	0945	0.5'
SS02	S	03/26/20	0950	0.5'

Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)
1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

discrete
discrete

Element	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
SS01																												
SS02																												

Total 200.7 / 6010 200.8 / 6020:

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

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

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03.31.2020 05.09.00 PM

Work Order #: 657460

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)?	1.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 03.31.2020

Checklist reviewed by:



Jessica Kramer

Date: 04.01.2020



Analytical Report 657628

for

LT Environmental, Inc.

Project Manager: Dan Moir

Severus CTB

012920027

04.06.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



04.06.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **657628**

Severus CTB

Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 657628. 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. 657628 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	03.31.2020 09:18	2 ft	657628-001
FS02	S	03.31.2020 09:25	2 ft	657628-002
FS03	S	03.31.2020 09:28	2 ft	657628-003
FS04	S	03.31.2020 09:33	2 ft	657628-004
FS05	S	03.31.2020 10:15	2 ft	657628-005
FS06	S	03.31.2020 10:17	2 ft	657628-006
FS07	S	03.31.2020 10:21	2 ft	657628-007
FS08	S	03.31.2020 10:27	2 ft	657628-008
FS09	S	03.31.2020 11:00	2 ft	657628-009
FS10	S	03.31.2020 11:05	2 ft	657628-010
FS11	S	03.31.2020 11:08	2 ft	657628-011
FS12	S	03.31.2020 11:11	2 ft	657628-012
FS13	S	03.31.2020 11:15	2 ft	657628-013
FS14	S	03.31.2020 12:33	2 ft	657628-014
FS15	S	03.31.2020 12:35	2 ft	657628-015
FS16	S	03.31.2020 12:37	2 ft	657628-016
FS17	S	03.31.2020 12:40	2 ft	657628-017
FS18	S	03.31.2020 12:43	2 ft	657628-018
FS19	S	03.31.2020 12:45	2 ft	657628-019
FS20	S	03.31.2020 12:56	2 ft	657628-020
FS21	S	03.31.2020 12:58	2 ft	657628-021
FS22	S	03.31.2020 13:02	2 ft	657628-022
FS23	S	03.31.2020 13:05	2 ft	657628-023
FS24	S	03.31.2020 13:20	2 ft	657628-024
FS25	S	03.31.2020 13:25	2 ft	657628-025
FS26	S	03.31.2020 13:36	2 ft	657628-026
FS27	S	03.31.2020 13:40	2 ft	657628-027
FS28	S	03.31.2020 13:46	2 ft	657628-028
FS29	S	03.31.2020 13:55	2 ft	657628-029
FS30	S	03.31.2020 13:58	2 ft	657628-030
FS31	S	03.31.2020 14:01	2 ft	657628-031
SW01	S	03.31.2020 12:12	0 - 2 ft	657628-032
SW02	S	03.31.2020 12:18	0 - 2 ft	657628-033
SW03	S	03.31.2020 12:22	0 - 2 ft	657628-034
SW04	S	03.31.2020 12:27	0 - 2 ft	657628-035
SW05	S	03.31.2020 14:50	0 - 2 ft	657628-036
SW06	S	03.31.2020 15:02	0 - 2 ft	657628-037
SW07	S	03.31.2020 15:07	0 - 2 ft	657628-038
SW08	S	03.31.2020 15:10	0 - 2 ft	657628-039



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *Severus CTB*

Project ID: 012920027
Work Order Number(s): 657628

Report Date: 04.06.2020
Date Received: 04.01.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3121841 BTEX by EPA 8021B

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

Batch: LBA-3121954 BTEX by EPA 8021B

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

Batch: LBA-3121955 BTEX by EPA 8021B

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



Certificate of Analysis Summary 657628

LT Environmental, Inc., Arvada, CO

Project Name: Severus CTB

Project Id: 012920027

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed 04.01.2020 15:35

Report Date: 04.06.2020 12:59

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	657628-001	657628-002	657628-003	657628-004	657628-005	657628-006
	<i>Field Id:</i>	FS01	FS02	FS03	FS04	FS05	FS06
	<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>	03.31.2020 09:18	03.31.2020 09:25	03.31.2020 09:28	03.31.2020 09:33	03.31.2020 10:15	03.31.2020 10:17
BTEX by EPA 8021B	<i>Extracted:</i>	04.02.2020 20:45	04.02.2020 20:45	04.02.2020 20:45	04.02.2020 20:45	04.02.2020 20:45	04.02.2020 20:45
	<i>Analyzed:</i>	04.03.2020 11:14	04.03.2020 11:35	04.03.2020 11:55	04.03.2020 12:16	04.03.2020 12:36	04.03.2020 12:56
	<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	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00401 0.00401	<0.00398 0.00398	<0.00398 0.00398	<0.00399 0.00399	<0.00402 0.00402	<0.00399 0.00399
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	04.02.2020 20:32	04.02.2020 20:32	04.02.2020 20:32	04.02.2020 20:32	04.02.2020 20:32	04.02.2020 20:32
	<i>Analyzed:</i>	04.02.2020 21:59	04.02.2020 22:05	04.02.2020 22:10	04.02.2020 22:16	04.02.2020 22:32	04.02.2020 22:38
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<10.1 10.1	<9.98 9.98	10.2 9.96	<9.96 9.96	<9.96 9.96	12.3 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	04.02.2020 09:00	04.02.2020 09:00	04.02.2020 09:00	04.02.2020 09:00	04.02.2020 09:00	04.02.2020 09:00
	<i>Analyzed:</i>	04.02.2020 15:59	04.02.2020 16:19	04.02.2020 16:39	04.02.2020 17:00	04.02.2020 17:20	04.02.2020 17:41
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.3 50.3	<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.2 50.2	<50.1 50.1
Diesel Range Organics (DRO)		<50.3 50.3	<49.8 49.8	89.2 50.2	<50.3 50.3	<50.2 50.2	80.7 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3	<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.2 50.2	<50.1 50.1
Total GRO-DRO		<50.3 50.3	<49.8 49.8	89.2 50.2	<50.3 50.3	<50.2 50.2	80.7 50.1
Total TPH		<50.3 50.3	<49.8 49.8	89.2 50.2	<50.3 50.3	<50.2 50.2	80.7 50.1

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

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 657628

LT Environmental, Inc., Arvada, CO

Project Name: Severus CTB

Project Id: 012920027

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed 04.01.2020 15:35

Report Date: 04.06.2020 12:59

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	657628-007	657628-008	657628-009	657628-010	657628-011	657628-012
	Field Id:	FS07	FS08	FS09	FS10	FS11	FS12
	Depth:	2- ft	2- ft	2- ft	2- ft	2- ft	2- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	03.31.2020 10:21	03.31.2020 10:27	03.31.2020 11:00	03.31.2020 11:05	03.31.2020 11:08	03.31.2020 11:11
BTEX by EPA 8021B	Extracted:	04.02.2020 20:45	04.02.2020 20:45	04.02.2020 20:45	04.02.2020 20:45	04.02.2020 20:45	04.02.2020 20:45
	Analyzed:	04.03.2020 13:17	04.03.2020 13:37	04.03.2020 13:58	04.03.2020 14:18	04.03.2020 15:19	04.03.2020 15:40
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00399 0.00399	<0.00401 0.00401	<0.00399 0.00399	<0.00398 0.00398	<0.00401 0.00401	<0.00399 0.00399
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	Extracted:	04.02.2020 20:32	04.02.2020 20:32	04.02.2020 20:32	04.02.2020 20:32	04.02.2020 20:32	04.02.2020 20:32
	Analyzed:	04.02.2020 22:56	04.02.2020 23:02	04.02.2020 23:08	04.02.2020 23:14	04.02.2020 23:20	04.02.2020 23:26
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<9.98 9.98	<9.92 9.92	<10.1 10.1	<10.0 10.0	<9.96 9.96	<9.92 9.92
TPH by SW8015 Mod	Extracted:	04.02.2020 09:00	04.02.2020 09:00	04.02.2020 09:00	04.02.2020 09:00	04.02.2020 16:00	04.02.2020 16:00
	Analyzed:	04.02.2020 18:02	04.02.2020 18:22	04.02.2020 18:43	04.02.2020 19:03	04.03.2020 08:14	04.03.2020 08:35
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.1 50.1	<50.0 50.0	<50.0 50.0	<50.3 50.3	<50.1 50.1
Diesel Range Organics (DRO)		<50.2 50.2	<50.1 50.1	79.5 50.0	<50.0 50.0	<50.3 50.3	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<50.0 50.0	<50.0 50.0	<50.3 50.3	<50.1 50.1
Total GRO-DRO		<50.2 50.2	<50.1 50.1	79.5 50.0	<50.0 50.0	<50.3 50.3	<50.1 50.1
Total TPH		<50.2 50.2	<50.1 50.1	79.5 50.0	<50.0 50.0	<50.3 50.3	<50.1 50.1

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 657628

LT Environmental, Inc., Arvada, CO

Project Name: Severus CTB

Project Id: 012920027

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed 04.01.2020 15:35

Report Date: 04.06.2020 12:59

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	657628-013	657628-014	657628-015	657628-016	657628-017	657628-018
	Field Id:	FS13	FS14	FS15	FS16	FS17	FS18
	Depth:	2- ft	2- ft	2- ft	2- ft	2- ft	2- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	03.31.2020 11:15	03.31.2020 12:33	03.31.2020 12:35	03.31.2020 12:37	03.31.2020 12:40	03.31.2020 12:43
BTEX by EPA 8021B	Extracted:	04.02.2020 20:45	04.02.2020 20:45	04.02.2020 20:45	04.02.2020 20:45	04.02.2020 20:45	04.02.2020 20:45
	Analyzed:	04.03.2020 16:00	04.03.2020 16:21	04.03.2020 16:41	04.03.2020 17:02	04.03.2020 17:22	04.03.2020 17:42
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
m,p-Xylenes		<0.00402 0.00402	<0.00399 0.00399	<0.00399 0.00399	<0.00400 0.00400	<0.00398 0.00398	<0.00403 0.00403
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
Chloride by EPA 300	Extracted:	04.02.2020 20:32	04.02.2020 18:15	04.02.2020 18:15	04.02.2020 18:15	04.02.2020 18:15	04.02.2020 18:15
	Analyzed:	04.02.2020 23:32	04.03.2020 00:08	04.03.2020 00:28	04.03.2020 00:34	04.03.2020 00:40	04.03.2020 00:46
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<10.0 10.0	10.5 9.96	25.1 9.98	22.8 9.92	<9.97 9.97	<9.88 9.88
TPH by SW8015 Mod	Extracted:	04.02.2020 16:00	04.02.2020 16:00	04.02.2020 16:00	04.02.2020 16:00	04.02.2020 16:00	04.02.2020 16:00
	Analyzed:	04.03.2020 08:55	04.03.2020 09:15	04.03.2020 09:35	04.03.2020 09:56	04.03.2020 10:19	04.03.2020 10:39
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<49.9 49.9	<50.1 50.1	<50.3 50.3	<50.2 50.2	<50.0 50.0
Diesel Range Organics (DRO)		<50.1 50.1	104 49.9	65.3 50.1	194 50.3	<50.2 50.2	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<49.9 49.9	<50.1 50.1	<50.3 50.3	<50.2 50.2	<50.0 50.0
Total GRO-DRO		<50.1 50.1	104 49.9	65.3 50.1	194 50.3	<50.2 50.2	<50.0 50.0
Total TPH		<50.1 50.1	104 49.9	65.3 50.1	194 50.3	<50.2 50.2	<50.0 50.0

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 657628

LT Environmental, Inc., Arvada, CO

Project Name: Severus CTB

Project Id: 012920027

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed 04.01.2020 15:35

Report Date: 04.06.2020 12:59

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	657628-019	657628-020	657628-021	657628-022	657628-023	657628-024
	Field Id:	FS19	FS20	FS21	FS22	FS23	FS24
	Depth:	2- ft	2- ft	2- ft	2- ft	2- ft	2- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	03.31.2020 12:45	03.31.2020 12:56	03.31.2020 12:58	03.31.2020 13:02	03.31.2020 13:05	03.31.2020 13:20
BTEX by EPA 8021B	Extracted:	04.02.2020 20:45	04.02.2020 20:45	04.02.2020 20:43	04.02.2020 20:43	04.02.2020 20:43	04.02.2020 20:43
	Analyzed:	04.03.2020 18:03	04.03.2020 18:23	04.03.2020 06:13	04.03.2020 06:33	04.03.2020 06:54	04.03.2020 07:14
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202
m,p-Xylenes		<0.00404 0.00404	<0.00399 0.00399	<0.00404 0.00404	<0.00398 0.00398	<0.00398 0.00398	<0.00403 0.00403
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202
Chloride by EPA 300	Extracted:	04.02.2020 18:15	04.02.2020 18:15	04.02.2020 18:15	04.02.2020 18:15	04.02.2020 18:15	04.02.2020 18:15
	Analyzed:	04.03.2020 01:04	04.03.2020 01:10	04.03.2020 01:16	04.03.2020 01:22	04.03.2020 01:28	04.03.2020 01:34
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<9.98 9.98	<9.98 9.98	<9.96 9.96	11.0 9.92	14.5 9.98	11.7 9.98
TPH by SW8015 Mod	Extracted:	04.02.2020 16:00	04.02.2020 16:00	04.02.2020 16:00	04.02.2020 16:00	04.02.2020 16:00	04.02.2020 16:00
	Analyzed:	04.03.2020 11:00	04.03.2020 11:40	04.03.2020 12:00	04.03.2020 12:20	04.03.2020 12:41	04.03.2020 13:01
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.2 50.2	<49.8 49.8
Diesel Range Organics (DRO)		98.1 50.2	<50.0 50.0	180 50.0	244 50.0	76.5 50.2	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.2 50.2	<49.8 49.8
Total GRO-DRO		98.1 50.2	<50.0 50.0	180 50.0	244 50.0	76.5 50.2	<49.8 49.8
Total TPH		98.1 50.2	<50.0 50.0	180 50.0	244 50.0	76.5 50.2	<49.8 49.8

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 657628

LT Environmental, Inc., Arvada, CO

Project Name: Severus CTB

Project Id: 012920027

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed 04.01.2020 15:35

Report Date: 04.06.2020 12:59

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	657628-025	657628-026	657628-027	657628-028	657628-029	657628-030
	<i>Field Id:</i>	FS25	FS26	FS27	FS28	FS29	FS30
	<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>	03.31.2020 13:25	03.31.2020 13:36	03.31.2020 13:40	03.31.2020 13:46	03.31.2020 13:55	03.31.2020 13:58
BTEX by EPA 8021B	<i>Extracted:</i>	04.02.2020 20:43	04.02.2020 20:43	04.03.2020 13:24	04.03.2020 13:24	04.03.2020 13:24	04.03.2020 13:24
	<i>Analyzed:</i>	04.03.2020 07:35	04.03.2020 07:55	04.03.2020 23:29	04.03.2020 23:49	04.04.2020 00:09	04.04.2020 00:30
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
m,p-Xylenes		<0.00403 0.00403	<0.00404 0.00404	<0.00402 0.00402	<0.00401 0.00401	<0.00398 0.00398	<0.00400 0.00400
o-Xylene		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	04.05.2020 08:57	04.05.2020 08:57	04.05.2020 08:57	04.05.2020 08:57	04.05.2020 08:57	04.05.2020 08:57
	<i>Analyzed:</i>	04.05.2020 13:52	04.05.2020 14:09	04.05.2020 14:15	04.05.2020 14:21	04.05.2020 14:27	04.05.2020 14:32
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		18.7 9.88	12.4 10.0	12.8 10.1	17.3 9.94	31.6 10.0	19.5 9.96
TPH by SW8015 Mod	<i>Extracted:</i>	04.02.2020 16:00	04.02.2020 16:00	04.02.2020 16:00	04.02.2020 16:00	04.02.2020 16:00	04.03.2020 10:00
	<i>Analyzed:</i>	04.03.2020 13:21	04.03.2020 13:41	04.03.2020 14:02	04.03.2020 14:22	04.03.2020 14:42	04.04.2020 03:13
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.3 50.3	<49.8 49.8	<50.0 50.0	<49.8 49.8	<50.1 50.1
Diesel Range Organics (DRO)		<50.2 50.2	<50.3 50.3	<49.8 49.8	<50.0 50.0	<49.8 49.8	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.3 50.3	<49.8 49.8	<50.0 50.0	<49.8 49.8	<50.1 50.1
Total GRO-DRO		<50.2 50.2	<50.3 50.3	<49.8 49.8	<50.0 50.0	<49.8 49.8	<50.1 50.1
Total TPH		<50.2 50.2	<50.3 50.3	<49.8 49.8	<50.0 50.0	<49.8 49.8	<50.1 50.1

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 657628

LT Environmental, Inc., Arvada, CO

Project Name: Severus CTB

Project Id: 012920027

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed 04.01.2020 15:35

Report Date: 04.06.2020 12:59

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	657628-031	657628-032	657628-033	657628-034	657628-035	657628-036
	Field Id:	FS31	SW01	SW02	SW03	SW04	SW05
	Depth:	2- ft	0-2 ft	0-2 ft	0-2 ft	0-2 ft	0-2 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	03.31.2020 14:01	03.31.2020 12:12	03.31.2020 12:18	03.31.2020 12:22	03.31.2020 12:27	03.31.2020 14:50
BTEX by EPA 8021B	Extracted:	04.03.2020 13:24	04.03.2020 13:24	04.03.2020 13:24	04.03.2020 13:24	04.03.2020 13:24	04.03.2020 13:24
	Analyzed:	04.04.2020 00:50	04.04.2020 20:34	04.04.2020 02:32	04.04.2020 02:53	04.04.2020 03:13	04.04.2020 03:34
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.0200 0.0200	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201
Toluene		<0.00200 0.00200	0.273 0.0200	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201
Ethylbenzene		<0.00200 0.00200	0.909 0.0200	<0.00199 0.00199	0.00842 0.00201	<0.00200 0.00200	<0.00201 0.00201
m,p-Xylenes		<0.00400 0.00400	3.50 0.0400	<0.00398 0.00398	0.0383 0.00402	<0.00400 0.00400	<0.00402 0.00402
o-Xylene		<0.00200 0.00200	1.46 0.0200	<0.00199 0.00199	0.0239 0.00201	<0.00200 0.00200	<0.00201 0.00201
Total Xylenes		<0.00200 0.00200	4.96 0.0200	<0.00199 0.00199	0.0622 0.00201	<0.00200 0.00200	<0.00201 0.00201
Total BTEX		<0.00200 0.00200	6.14 0.0200	<0.00199 0.00199	0.0706 0.00201	<0.00200 0.00200	<0.00201 0.00201
Chloride by EPA 300	Extracted:	04.05.2020 08:57	04.05.2020 08:57	04.05.2020 08:57	04.05.2020 08:57	04.05.2020 08:57	04.05.2020 08:57
	Analyzed:	04.05.2020 14:38	04.05.2020 14:56	04.05.2020 15:02	04.05.2020 15:19	04.05.2020 15:25	04.05.2020 15:30
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		21.7 9.98	23.1 9.92	31.7 10.0	457 9.94	77.4 9.98	11.7 9.96
TPH by SW8015 Mod	Extracted:	04.03.2020 10:00	04.03.2020 10:00	04.03.2020 10:00	04.03.2020 10:00	04.03.2020 10:00	04.03.2020 10:00
	Analyzed:	04.04.2020 04:14	04.04.2020 10:38	04.04.2020 04:34	04.04.2020 09:37	04.04.2020 04:54	04.04.2020 05:14
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	681 50.2	<50.3 50.3	85.5 49.9	<50.2 50.2	<50.1 50.1
Diesel Range Organics (DRO)		<50.2 50.2	4610 50.2	269 50.3	1750 49.9	<50.2 50.2	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	449 50.2	<50.3 50.3	164 49.9	<50.2 50.2	<50.1 50.1
Total GRO-DRO		<50.2 50.2	5290 50.2	269 50.3	1840 49.9	<50.2 50.2	<50.1 50.1
Total TPH		<50.2 50.2	5740 50.2	269 50.3	2000 49.9	<50.2 50.2	<50.1 50.1

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 657628

LT Environmental, Inc., Arvada, CO

Project Name: Severus CTB

Project Id: 012920027

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed 04.01.2020 15:35

Report Date: 04.06.2020 12:59

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	657628-037	657628-038	657628-039			
	Field Id:	SW06	SW07	SW08			
	Depth:	0-2 ft	0-2 ft	0-2 ft			
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	03.31.2020 15:02	03.31.2020 15:07	03.31.2020 15:10			
BTEX by EPA 8021B	Extracted:	04.03.2020 13:24	04.03.2020 13:24	04.03.2020 13:24			
	Analyzed:	04.04.2020 03:54	04.04.2020 20:54	04.04.2020 04:35			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00200 0.00200	0.0297 0.0200	<0.0200 0.0200			
Toluene		<0.00200 0.00200	1.33 0.0200	0.488 0.0200			
Ethylbenzene		<0.00200 0.00200	1.33 0.0200	0.701 0.0200			
m,p-Xylenes		<0.00401 0.00401	3.54 0.0400	2.08 0.0400			
o-Xylene		<0.00200 0.00200	2.05 0.0200	1.20 0.0200			
Total Xylenes		<0.00200 0.00200	5.59 0.0200	3.28 0.0200			
Total BTEX		<0.00200 0.00200	8.28 0.0200	4.47 0.0200			
Chloride by EPA 300	Extracted:	04.05.2020 08:57	04.05.2020 08:57	04.05.2020 08:57			
	Analyzed:	04.05.2020 15:36	04.05.2020 15:42	04.05.2020 15:48			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		33.4 9.96	37.5 9.98	47.7 9.88			
TPH by SW8015 Mod	Extracted:	04.03.2020 10:00	04.03.2020 10:00	04.03.2020 10:00			
	Analyzed:	04.04.2020 05:34	04.04.2020 10:18	04.04.2020 09:57			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	529 50.3	345 50.2			
Diesel Range Organics (DRO)		187 49.8	4950 50.3	2690 50.2			
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	525 50.3	237 50.2			
Total GRO-DRO		187 49.8	5480 50.3	3040 50.2			
Total TPH		187 49.8	6000 50.3	3270 50.2			

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Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS01** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-001 Date Collected: 03.31.2020 09:18 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 20:32 Basis: Wet Weight
 Seq Number: 3121845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	04.02.2020 21:59	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 09:00 Basis: Wet Weight
 Seq Number: 3121741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	04.02.2020 15:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	04.02.2020 15:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	04.02.2020 15:59	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	04.02.2020 15:59	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	04.02.2020 15:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	04.02.2020 15:59	
o-Terphenyl	84-15-1	105	%	70-135	04.02.2020 15:59	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS01**
Lab Sample Id: 657628-001

Matrix: Soil
Date Collected: 03.31.2020 09:18

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:45

Basis: Wet Weight

Seq Number: 3121954

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.03.2020 11:14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.03.2020 11:14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.03.2020 11:14	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.03.2020 11:14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.03.2020 11:14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.03.2020 11:14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.03.2020 11:14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	04.03.2020 11:14		
1,4-Difluorobenzene	540-36-3	106	%	70-130	04.03.2020 11:14		



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS02** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-002 Date Collected: 03.31.2020 09:25 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 20:32 Basis: Wet Weight
 Seq Number: 3121845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	04.02.2020 22:05	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 09:00 Basis: Wet Weight
 Seq Number: 3121741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.02.2020 16:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	04.02.2020 16:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.02.2020 16:19	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	04.02.2020 16:19	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	04.02.2020 16:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	04.02.2020 16:19	
o-Terphenyl	84-15-1	104	%	70-135	04.02.2020 16:19	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS02**
Lab Sample Id: 657628-002

Matrix: Soil
Date Collected: 03.31.2020 09:25

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3121954

Date Prep: 04.02.2020 20:45

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	04.03.2020 11:35	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.03.2020 11:35	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.03.2020 11:35	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.03.2020 11:35	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.03.2020 11:35	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.03.2020 11:35	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.03.2020 11:35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	04.03.2020 11:35		
4-Bromofluorobenzene	460-00-4	94	%	70-130	04.03.2020 11:35		



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS03** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-003 Date Collected: 03.31.2020 09:28 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 20:32 Basis: Wet Weight
 Seq Number: 3121845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.2	9.96	mg/kg	04.02.2020 22:10		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 09:00 Basis: Wet Weight
 Seq Number: 3121741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.02.2020 16:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	89.2	50.2	mg/kg	04.02.2020 16:39		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.02.2020 16:39	U	1
Total GRO-DRO	PHC628	89.2	50.2	mg/kg	04.02.2020 16:39		1
Total TPH	PHC635	89.2	50.2	mg/kg	04.02.2020 16:39		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	04.02.2020 16:39	
o-Terphenyl	84-15-1	105	%	70-135	04.02.2020 16:39	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS03**
Lab Sample Id: 657628-003

Matrix: Soil
Date Collected: 03.31.2020 09:28

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:45

Basis: Wet Weight

Seq Number: 3121954

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.03.2020 11:55	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.03.2020 11:55	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.03.2020 11:55	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.03.2020 11:55	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.03.2020 11:55	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.03.2020 11:55	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.03.2020 11:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	04.03.2020 11:55	
1,4-Difluorobenzene	540-36-3	102	%	70-130	04.03.2020 11:55	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS04** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-004 Date Collected: 03.31.2020 09:33 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 20:32 Basis: Wet Weight
 Seq Number: 3121845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.96	9.96	mg/kg	04.02.2020 22:16	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 09:00 Basis: Wet Weight
 Seq Number: 3121741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	04.02.2020 17:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	04.02.2020 17:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	04.02.2020 17:00	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	04.02.2020 17:00	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	04.02.2020 17:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	04.02.2020 17:00	
o-Terphenyl	84-15-1	107	%	70-135	04.02.2020 17:00	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS04**
Lab Sample Id: 657628-004

Matrix: Soil
Date Collected: 03.31.2020 09:33

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:45

Basis: Wet Weight

Seq Number: 3121954

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.03.2020 12:16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.03.2020 12:16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.03.2020 12:16	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.03.2020 12:16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.03.2020 12:16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.03.2020 12:16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.03.2020 12:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	04.03.2020 12:16	
1,4-Difluorobenzene	540-36-3	107	%	70-130	04.03.2020 12:16	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS05** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-005 Date Collected: 03.31.2020 10:15 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 20:32 Basis: Wet Weight
 Seq Number: 3121845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.96	9.96	mg/kg	04.02.2020 22:32	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 09:00 Basis: Wet Weight
 Seq Number: 3121741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.02.2020 17:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.02.2020 17:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.02.2020 17:20	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.02.2020 17:20	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.02.2020 17:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	04.02.2020 17:20	
o-Terphenyl	84-15-1	106	%	70-135	04.02.2020 17:20	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS05**
Lab Sample Id: 657628-005

Matrix: Soil
Date Collected: 03.31.2020 10:15

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:45

Basis: Wet Weight

Seq Number: 3121954

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.03.2020 12:36	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.03.2020 12:36	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.03.2020 12:36	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.03.2020 12:36	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.03.2020 12:36	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.03.2020 12:36	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.03.2020 12:36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.03.2020 12:36		
1,4-Difluorobenzene	540-36-3	106	%	70-130	04.03.2020 12:36		



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS06** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-006 Date Collected: 03.31.2020 10:17 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 20:32 Basis: Wet Weight
 Seq Number: 3121845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.3	9.98	mg/kg	04.02.2020 22:38		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 09:00 Basis: Wet Weight
 Seq Number: 3121741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.02.2020 17:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	80.7	50.1	mg/kg	04.02.2020 17:41		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.02.2020 17:41	U	1
Total GRO-DRO	PHC628	80.7	50.1	mg/kg	04.02.2020 17:41		1
Total TPH	PHC635	80.7	50.1	mg/kg	04.02.2020 17:41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	04.02.2020 17:41	
o-Terphenyl	84-15-1	108	%	70-135	04.02.2020 17:41	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS06**
Lab Sample Id: 657628-006

Matrix: Soil
Date Collected: 03.31.2020 10:17

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:45

Basis: Wet Weight

Seq Number: 3121954

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.03.2020 12:56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.03.2020 12:56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.03.2020 12:56	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.03.2020 12:56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.03.2020 12:56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.03.2020 12:56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.03.2020 12:56	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	04.03.2020 12:56		
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.03.2020 12:56		



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS07** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-007 Date Collected: 03.31.2020 10:21 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 20:32 Basis: Wet Weight
 Seq Number: 3121845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	04.02.2020 22:56	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 09:00 Basis: Wet Weight
 Seq Number: 3121741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.02.2020 18:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.02.2020 18:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.02.2020 18:02	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.02.2020 18:02	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.02.2020 18:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	04.02.2020 18:02	
o-Terphenyl	84-15-1	107	%	70-135	04.02.2020 18:02	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS07**
Lab Sample Id: 657628-007

Matrix: Soil
Date Collected: 03.31.2020 10:21

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3121954

Prep Method: SW5030B

% Moisture:

Date Prep: 04.02.2020 20:45

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.03.2020 13:17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.03.2020 13:17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.03.2020 13:17	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.03.2020 13:17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.03.2020 13:17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.03.2020 13:17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.03.2020 13:17	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	04.03.2020 13:17		
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.03.2020 13:17		



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS08** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-008 Date Collected: 03.31.2020 10:27 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 20:32 Basis: Wet Weight
 Seq Number: 3121845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.92	9.92	mg/kg	04.02.2020 23:02	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 09:00 Basis: Wet Weight
 Seq Number: 3121741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.02.2020 18:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	04.02.2020 18:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.02.2020 18:22	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	04.02.2020 18:22	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	04.02.2020 18:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	04.02.2020 18:22	
o-Terphenyl	84-15-1	105	%	70-135	04.02.2020 18:22	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS08**
Lab Sample Id: 657628-008

Matrix: Soil
Date Collected: 03.31.2020 10:27

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:45

Basis: Wet Weight

Seq Number: 3121954

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.03.2020 13:37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.03.2020 13:37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.03.2020 13:37	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.03.2020 13:37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.03.2020 13:37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.03.2020 13:37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.03.2020 13:37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	04.03.2020 13:37		
1,4-Difluorobenzene	540-36-3	107	%	70-130	04.03.2020 13:37		



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS09** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-009 Date Collected: 03.31.2020 11:00 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 20:32 Basis: Wet Weight
 Seq Number: 3121845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	04.02.2020 23:08	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 09:00 Basis: Wet Weight
 Seq Number: 3121741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.02.2020 18:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	79.5	50.0	mg/kg	04.02.2020 18:43		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.02.2020 18:43	U	1
Total GRO-DRO	PHC628	79.5	50.0	mg/kg	04.02.2020 18:43		1
Total TPH	PHC635	79.5	50.0	mg/kg	04.02.2020 18:43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	04.02.2020 18:43	
o-Terphenyl	84-15-1	110	%	70-135	04.02.2020 18:43	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS09**
Lab Sample Id: 657628-009

Matrix: Soil
Date Collected: 03.31.2020 11:00

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:45

Basis: Wet Weight

Seq Number: 3121954

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.03.2020 13:58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.03.2020 13:58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.03.2020 13:58	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.03.2020 13:58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.03.2020 13:58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.03.2020 13:58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.03.2020 13:58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	04.03.2020 13:58		
4-Bromofluorobenzene	460-00-4	95	%	70-130	04.03.2020 13:58		



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS10** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-010 Date Collected: 03.31.2020 11:05 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 20:32 Basis: Wet Weight
 Seq Number: 3121845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	04.02.2020 23:14	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 09:00 Basis: Wet Weight
 Seq Number: 3121741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.02.2020 19:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.02.2020 19:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.02.2020 19:03	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	04.02.2020 19:03	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.02.2020 19:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	04.02.2020 19:03	
o-Terphenyl	84-15-1	109	%	70-135	04.02.2020 19:03	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS10**
Lab Sample Id: 657628-010

Matrix: Soil
Date Collected: 03.31.2020 11:05

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:45

Basis: Wet Weight

Seq Number: 3121954

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.03.2020 14:18	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.03.2020 14:18	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.03.2020 14:18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.03.2020 14:18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.03.2020 14:18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.03.2020 14:18	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.03.2020 14:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	04.03.2020 14:18	
1,4-Difluorobenzene	540-36-3	107	%	70-130	04.03.2020 14:18	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS11** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-011 Date Collected: 03.31.2020 11:08 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 20:32 Basis: Wet Weight
 Seq Number: 3121845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.96	9.96	mg/kg	04.02.2020 23:20	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 16:00 Basis: Wet Weight
 Seq Number: 3121840

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	04.03.2020 08:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	04.03.2020 08:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	04.03.2020 08:14	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	04.03.2020 08:14	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	04.03.2020 08:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	04.03.2020 08:14	
o-Terphenyl	84-15-1	106	%	70-135	04.03.2020 08:14	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS11**
Lab Sample Id: 657628-011

Matrix: Soil
Date Collected: 03.31.2020 11:08

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:45

Basis: Wet Weight

Seq Number: 3121954

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.03.2020 15:19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.03.2020 15:19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.03.2020 15:19	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.03.2020 15:19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.03.2020 15:19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.03.2020 15:19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.03.2020 15:19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.03.2020 15:19		
1,4-Difluorobenzene	540-36-3	105	%	70-130	04.03.2020 15:19		



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS12** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-012 Date Collected: 03.31.2020 11:11 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 20:32 Basis: Wet Weight
 Seq Number: 3121845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.92	9.92	mg/kg	04.02.2020 23:26	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 16:00 Basis: Wet Weight
 Seq Number: 3121840

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.03.2020 08:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	04.03.2020 08:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.03.2020 08:35	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	04.03.2020 08:35	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	04.03.2020 08:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	04.03.2020 08:35	
o-Terphenyl	84-15-1	104	%	70-135	04.03.2020 08:35	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS12**
Lab Sample Id: 657628-012

Matrix: Soil
Date Collected: 03.31.2020 11:11

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:45

Basis: Wet Weight

Seq Number: 3121954

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.03.2020 15:40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.03.2020 15:40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.03.2020 15:40	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.03.2020 15:40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.03.2020 15:40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.03.2020 15:40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.03.2020 15:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	04.03.2020 15:40	
4-Bromofluorobenzene	460-00-4	96	%	70-130	04.03.2020 15:40	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS13** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-013 Date Collected: 03.31.2020 11:15 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 20:32 Basis: Wet Weight
 Seq Number: 3121845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	04.02.2020 23:32	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 16:00 Basis: Wet Weight
 Seq Number: 3121840

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.03.2020 08:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	04.03.2020 08:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.03.2020 08:55	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	04.03.2020 08:55	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	04.03.2020 08:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	04.03.2020 08:55	
o-Terphenyl	84-15-1	105	%	70-135	04.03.2020 08:55	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS13**
Lab Sample Id: 657628-013

Matrix: Soil
Date Collected: 03.31.2020 11:15

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:45

Basis: Wet Weight

Seq Number: 3121954

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.03.2020 16:00	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.03.2020 16:00	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.03.2020 16:00	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.03.2020 16:00	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.03.2020 16:00	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.03.2020 16:00	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.03.2020 16:00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.03.2020 16:00		
1,4-Difluorobenzene	540-36-3	105	%	70-130	04.03.2020 16:00		



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS14** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-014 Date Collected: 03.31.2020 12:33 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 18:15 Basis: Wet Weight
 Seq Number: 3121846

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.5	9.96	mg/kg	04.03.2020 00:08		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 16:00 Basis: Wet Weight
 Seq Number: 3121840

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.03.2020 09:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	104	49.9	mg/kg	04.03.2020 09:15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.03.2020 09:15	U	1
Total GRO-DRO	PHC628	104	49.9	mg/kg	04.03.2020 09:15		1
Total TPH	PHC635	104	49.9	mg/kg	04.03.2020 09:15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	04.03.2020 09:15	
o-Terphenyl	84-15-1	101	%	70-135	04.03.2020 09:15	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS14**
Lab Sample Id: 657628-014

Matrix: Soil
Date Collected: 03.31.2020 12:33

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:45

Basis: Wet Weight

Seq Number: 3121954

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.03.2020 16:21	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.03.2020 16:21	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.03.2020 16:21	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.03.2020 16:21	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.03.2020 16:21	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.03.2020 16:21	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.03.2020 16:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	04.03.2020 16:21	
4-Bromofluorobenzene	460-00-4	94	%	70-130	04.03.2020 16:21	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS15** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-015 Date Collected: 03.31.2020 12:35 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 18:15 Basis: Wet Weight
 Seq Number: 3121846

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	25.1	9.98	mg/kg	04.03.2020 00:28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 16:00 Basis: Wet Weight
 Seq Number: 3121840

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.03.2020 09:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	65.3	50.1	mg/kg	04.03.2020 09:35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.03.2020 09:35	U	1
Total GRO-DRO	PHC628	65.3	50.1	mg/kg	04.03.2020 09:35		1
Total TPH	PHC635	65.3	50.1	mg/kg	04.03.2020 09:35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	04.03.2020 09:35	
o-Terphenyl	84-15-1	109	%	70-135	04.03.2020 09:35	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS15**
Lab Sample Id: 657628-015

Matrix: Soil
Date Collected: 03.31.2020 12:35

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:45

Basis: Wet Weight

Seq Number: 3121954

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.03.2020 16:41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.03.2020 16:41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.03.2020 16:41	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.03.2020 16:41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.03.2020 16:41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.03.2020 16:41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.03.2020 16:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	04.03.2020 16:41	
1,4-Difluorobenzene	540-36-3	108	%	70-130	04.03.2020 16:41	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS16** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-016 Date Collected: 03.31.2020 12:37 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 18:15 Basis: Wet Weight
 Seq Number: 3121846

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22.8	9.92	mg/kg	04.03.2020 00:34		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 16:00 Basis: Wet Weight
 Seq Number: 3121840

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	04.03.2020 09:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	194	50.3	mg/kg	04.03.2020 09:56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	04.03.2020 09:56	U	1
Total GRO-DRO	PHC628	194	50.3	mg/kg	04.03.2020 09:56		1
Total TPH	PHC635	194	50.3	mg/kg	04.03.2020 09:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	04.03.2020 09:56	
o-Terphenyl	84-15-1	105	%	70-135	04.03.2020 09:56	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS16**
Lab Sample Id: 657628-016

Matrix: Soil
Date Collected: 03.31.2020 12:37

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:45

Basis: Wet Weight

Seq Number: 3121954

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.03.2020 17:02	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.03.2020 17:02	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.03.2020 17:02	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.03.2020 17:02	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.03.2020 17:02	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.03.2020 17:02	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.03.2020 17:02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	04.03.2020 17:02		
4-Bromofluorobenzene	460-00-4	94	%	70-130	04.03.2020 17:02		



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS17** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-017 Date Collected: 03.31.2020 12:40 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 18:15 Basis: Wet Weight
 Seq Number: 3121846

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.97	9.97	mg/kg	04.03.2020 00:40	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 16:00 Basis: Wet Weight
 Seq Number: 3121840

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.03.2020 10:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.03.2020 10:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.03.2020 10:19	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.03.2020 10:19	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.03.2020 10:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	04.03.2020 10:19	
o-Terphenyl	84-15-1	100	%	70-135	04.03.2020 10:19	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS17**
Lab Sample Id: 657628-017

Matrix: Soil
Date Collected: 03.31.2020 12:40

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:45

Basis: Wet Weight

Seq Number: 3121954

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.03.2020 17:22	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.03.2020 17:22	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.03.2020 17:22	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.03.2020 17:22	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.03.2020 17:22	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.03.2020 17:22	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.03.2020 17:22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	04.03.2020 17:22		
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.03.2020 17:22		



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS18** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-018 Date Collected: 03.31.2020 12:43 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 18:15 Basis: Wet Weight
 Seq Number: 3121846

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.88	9.88	mg/kg	04.03.2020 00:46	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 16:00 Basis: Wet Weight
 Seq Number: 3121840

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.03.2020 10:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.03.2020 10:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.03.2020 10:39	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	04.03.2020 10:39	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.03.2020 10:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	04.03.2020 10:39	
o-Terphenyl	84-15-1	101	%	70-135	04.03.2020 10:39	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS18**
Lab Sample Id: 657628-018

Matrix: Soil
Date Collected: 03.31.2020 12:43

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:45

Basis: Wet Weight

Seq Number: 3121954

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.03.2020 17:42	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.03.2020 17:42	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.03.2020 17:42	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.03.2020 17:42	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.03.2020 17:42	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.03.2020 17:42	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.03.2020 17:42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	04.03.2020 17:42		
1,4-Difluorobenzene	540-36-3	107	%	70-130	04.03.2020 17:42		



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS19** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-019 Date Collected: 03.31.2020 12:45 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 18:15 Basis: Wet Weight
 Seq Number: 3121846

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	04.03.2020 01:04	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 16:00 Basis: Wet Weight
 Seq Number: 3121840

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.03.2020 11:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	98.1	50.2	mg/kg	04.03.2020 11:00		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.03.2020 11:00	U	1
Total GRO-DRO	PHC628	98.1	50.2	mg/kg	04.03.2020 11:00		1
Total TPH	PHC635	98.1	50.2	mg/kg	04.03.2020 11:00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	04.03.2020 11:00	
o-Terphenyl	84-15-1	107	%	70-135	04.03.2020 11:00	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS19**
Lab Sample Id: 657628-019

Matrix: Soil
Date Collected: 03.31.2020 12:45

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:45

Basis: Wet Weight

Seq Number: 3121954

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.03.2020 18:03	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.03.2020 18:03	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.03.2020 18:03	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	04.03.2020 18:03	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.03.2020 18:03	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.03.2020 18:03	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.03.2020 18:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	04.03.2020 18:03	
1,4-Difluorobenzene	540-36-3	107	%	70-130	04.03.2020 18:03	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS20** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-020 Date Collected: 03.31.2020 12:56 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 18:15 Basis: Wet Weight
 Seq Number: 3121846

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	04.03.2020 01:10	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 16:00 Basis: Wet Weight
 Seq Number: 3121840

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.03.2020 11:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.03.2020 11:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.03.2020 11:40	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	04.03.2020 11:40	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.03.2020 11:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	04.03.2020 11:40	
o-Terphenyl	84-15-1	105	%	70-135	04.03.2020 11:40	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS20**
Lab Sample Id: 657628-020

Matrix: Soil
Date Collected: 03.31.2020 12:56

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:45

Basis: Wet Weight

Seq Number: 3121954

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.03.2020 18:23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.03.2020 18:23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.03.2020 18:23	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.03.2020 18:23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.03.2020 18:23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.03.2020 18:23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.03.2020 18:23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	04.03.2020 18:23		
1,4-Difluorobenzene	540-36-3	107	%	70-130	04.03.2020 18:23		



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS21** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-021 Date Collected: 03.31.2020 12:58 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 18:15 Basis: Wet Weight
 Seq Number: 3121846

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.96	9.96	mg/kg	04.03.2020 01:16	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 16:00 Basis: Wet Weight
 Seq Number: 3121840

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.03.2020 12:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	180	50.0	mg/kg	04.03.2020 12:00		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.03.2020 12:00	U	1
Total GRO-DRO	PHC628	180	50.0	mg/kg	04.03.2020 12:00		1
Total TPH	PHC635	180	50.0	mg/kg	04.03.2020 12:00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	04.03.2020 12:00	
o-Terphenyl	84-15-1	104	%	70-135	04.03.2020 12:00	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS21**
Lab Sample Id: 657628-021

Matrix: Soil
Date Collected: 03.31.2020 12:58

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:43

Basis: Wet Weight

Seq Number: 3121841

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.03.2020 06:13	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.03.2020 06:13	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.03.2020 06:13	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	04.03.2020 06:13	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.03.2020 06:13	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.03.2020 06:13	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.03.2020 06:13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	04.03.2020 06:13		
1,4-Difluorobenzene	540-36-3	99	%	70-130	04.03.2020 06:13		



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: FS22 Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-022 Date Collected: 03.31.2020 13:02 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 18:15 Basis: Wet Weight
 Seq Number: 3121846

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.0	9.92	mg/kg	04.03.2020 01:22		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 16:00 Basis: Wet Weight
 Seq Number: 3121840

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.03.2020 12:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	244	50.0	mg/kg	04.03.2020 12:20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.03.2020 12:20	U	1
Total GRO-DRO	PHC628	244	50.0	mg/kg	04.03.2020 12:20		1
Total TPH	PHC635	244	50.0	mg/kg	04.03.2020 12:20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	04.03.2020 12:20	
o-Terphenyl	84-15-1	105	%	70-135	04.03.2020 12:20	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS22**
Lab Sample Id: 657628-022

Matrix: Soil
Date Collected: 03.31.2020 13:02

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:43

Basis: Wet Weight

Seq Number: 3121841

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.03.2020 06:33	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.03.2020 06:33	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.03.2020 06:33	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.03.2020 06:33	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.03.2020 06:33	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.03.2020 06:33	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.03.2020 06:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	04.03.2020 06:33		
1,4-Difluorobenzene	540-36-3	101	%	70-130	04.03.2020 06:33		



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS23** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-023 Date Collected: 03.31.2020 13:05 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 18:15 Basis: Wet Weight
 Seq Number: 3121846

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.5	9.98	mg/kg	04.03.2020 01:28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 16:00 Basis: Wet Weight
 Seq Number: 3121840

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.03.2020 12:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	76.5	50.2	mg/kg	04.03.2020 12:41		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.03.2020 12:41	U	1
Total GRO-DRO	PHC628	76.5	50.2	mg/kg	04.03.2020 12:41		1
Total TPH	PHC635	76.5	50.2	mg/kg	04.03.2020 12:41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	04.03.2020 12:41	
o-Terphenyl	84-15-1	103	%	70-135	04.03.2020 12:41	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS23**
Lab Sample Id: 657628-023

Matrix: Soil
Date Collected: 03.31.2020 13:05

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:43

Basis: Wet Weight

Seq Number: 3121841

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.03.2020 06:54	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.03.2020 06:54	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.03.2020 06:54	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.03.2020 06:54	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.03.2020 06:54	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.03.2020 06:54	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.03.2020 06:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	04.03.2020 06:54	
1,4-Difluorobenzene	540-36-3	105	%	70-130	04.03.2020 06:54	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS24** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-024 Date Collected: 03.31.2020 13:20 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.02.2020 18:15 Basis: Wet Weight
 Seq Number: 3121846

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.7	9.98	mg/kg	04.03.2020 01:34		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 16:00 Basis: Wet Weight
 Seq Number: 3121840

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.03.2020 13:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	04.03.2020 13:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.03.2020 13:01	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	04.03.2020 13:01	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	04.03.2020 13:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	04.03.2020 13:01	
o-Terphenyl	84-15-1	102	%	70-135	04.03.2020 13:01	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS24**
Lab Sample Id: 657628-024

Matrix: Soil
Date Collected: 03.31.2020 13:20

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:43

Basis: Wet Weight

Seq Number: 3121841

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.03.2020 07:14	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.03.2020 07:14	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.03.2020 07:14	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.03.2020 07:14	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.03.2020 07:14	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.03.2020 07:14	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.03.2020 07:14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.03.2020 07:14		
1,4-Difluorobenzene	540-36-3	106	%	70-130	04.03.2020 07:14		



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: FS25 Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-025 Date Collected: 03.31.2020 13:25 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.05.2020 08:57 Basis: Wet Weight
 Seq Number: 3121977

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18.7	9.88	mg/kg	04.05.2020 13:52		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 16:00 Basis: Wet Weight
 Seq Number: 3121840

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.03.2020 13:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.03.2020 13:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.03.2020 13:21	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.03.2020 13:21	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.03.2020 13:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	04.03.2020 13:21	
o-Terphenyl	84-15-1	105	%	70-135	04.03.2020 13:21	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: FS25
Lab Sample Id: 657628-025

Matrix: Soil
Date Collected: 03.31.2020 13:25

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3121841

Prep Method: SW5030B

% Moisture:

Date Prep: 04.02.2020 20:43

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.03.2020 07:35	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.03.2020 07:35	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.03.2020 07:35	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.03.2020 07:35	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.03.2020 07:35	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.03.2020 07:35	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.03.2020 07:35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	04.03.2020 07:35		
4-Bromofluorobenzene	460-00-4	92	%	70-130	04.03.2020 07:35		



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS26** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-026 Date Collected: 03.31.2020 13:36 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.05.2020 08:57 Basis: Wet Weight
 Seq Number: 3121977

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.4	10.0	mg/kg	04.05.2020 14:09		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 16:00 Basis: Wet Weight
 Seq Number: 3121840

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	04.03.2020 13:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	04.03.2020 13:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	04.03.2020 13:41	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	04.03.2020 13:41	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	04.03.2020 13:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	04.03.2020 13:41	
o-Terphenyl	84-15-1	103	%	70-135	04.03.2020 13:41	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS26**
Lab Sample Id: 657628-026

Matrix: Soil
Date Collected: 03.31.2020 13:36

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.02.2020 20:43

Basis: Wet Weight

Seq Number: 3121841

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.03.2020 07:55	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.03.2020 07:55	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.03.2020 07:55	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	04.03.2020 07:55	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.03.2020 07:55	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.03.2020 07:55	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.03.2020 07:55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	04.03.2020 07:55		
1,4-Difluorobenzene	540-36-3	106	%	70-130	04.03.2020 07:55		



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: FS27 Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-027 Date Collected: 03.31.2020 13:40 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.05.2020 08:57 Basis: Wet Weight
 Seq Number: 3121977

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.8	10.1	mg/kg	04.05.2020 14:15		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 16:00 Basis: Wet Weight
 Seq Number: 3121840

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.03.2020 14:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	04.03.2020 14:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.03.2020 14:02	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	04.03.2020 14:02	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	04.03.2020 14:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	04.03.2020 14:02	
o-Terphenyl	84-15-1	103	%	70-135	04.03.2020 14:02	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: FS27
Lab Sample Id: 657628-027

Matrix: Soil
Date Collected: 03.31.2020 13:40

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.03.2020 13:24

Basis: Wet Weight

Seq Number: 3121955

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.03.2020 23:29	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.03.2020 23:29	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.03.2020 23:29	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.03.2020 23:29	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.03.2020 23:29	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.03.2020 23:29	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.03.2020 23:29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	04.03.2020 23:29		
1,4-Difluorobenzene	540-36-3	113	%	70-130	04.03.2020 23:29		



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS28** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-028 Date Collected: 03.31.2020 13:46 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.05.2020 08:57 Basis: Wet Weight
 Seq Number: 3121977

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17.3	9.94	mg/kg	04.05.2020 14:21		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 16:00 Basis: Wet Weight
 Seq Number: 3121840

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.03.2020 14:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.03.2020 14:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.03.2020 14:22	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	04.03.2020 14:22	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.03.2020 14:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	04.03.2020 14:22	
o-Terphenyl	84-15-1	104	%	70-135	04.03.2020 14:22	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS28**
Lab Sample Id: 657628-028

Matrix: Soil
Date Collected: 03.31.2020 13:46

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.03.2020 13:24

Basis: Wet Weight

Seq Number: 3121955

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.03.2020 23:49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.03.2020 23:49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.03.2020 23:49	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.03.2020 23:49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.03.2020 23:49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.03.2020 23:49	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.03.2020 23:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	86	%	70-130	04.03.2020 23:49	
1,4-Difluorobenzene	540-36-3	111	%	70-130	04.03.2020 23:49	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS29** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-029 Date Collected: 03.31.2020 13:55 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.05.2020 08:57 Basis: Wet Weight
 Seq Number: 3121977

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.6	10.0	mg/kg	04.05.2020 14:27		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.02.2020 16:00 Basis: Wet Weight
 Seq Number: 3121840

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.03.2020 14:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	04.03.2020 14:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.03.2020 14:42	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	04.03.2020 14:42	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	04.03.2020 14:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	04.03.2020 14:42	
o-Terphenyl	84-15-1	100	%	70-135	04.03.2020 14:42	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS29**
Lab Sample Id: 657628-029

Matrix: Soil
Date Collected: 03.31.2020 13:55

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.03.2020 13:24

Basis: Wet Weight

Seq Number: 3121955

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.04.2020 00:09	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.04.2020 00:09	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.04.2020 00:09	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.04.2020 00:09	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.04.2020 00:09	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.04.2020 00:09	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.04.2020 00:09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	04.04.2020 00:09		
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.04.2020 00:09		



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS30** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-030 Date Collected: 03.31.2020 13:58 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.05.2020 08:57 Basis: Wet Weight
 Seq Number: 3121977

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	19.5	9.96	mg/kg	04.05.2020 14:32		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.03.2020 10:00 Basis: Wet Weight
 Seq Number: 3122001

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.04.2020 03:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	04.04.2020 03:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.04.2020 03:13	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	04.04.2020 03:13	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	04.04.2020 03:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	04.04.2020 03:13	
o-Terphenyl	84-15-1	104	%	70-135	04.04.2020 03:13	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS30**
Lab Sample Id: 657628-030

Matrix: Soil
Date Collected: 03.31.2020 13:58

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.03.2020 13:24

Basis: Wet Weight

Seq Number: 3121955

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.04.2020 00:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.04.2020 00:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.04.2020 00:30	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.04.2020 00:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.04.2020 00:30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.04.2020 00:30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.04.2020 00:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	04.04.2020 00:30	
1,4-Difluorobenzene	540-36-3	113	%	70-130	04.04.2020 00:30	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS31** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-031 Date Collected: 03.31.2020 14:01 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.05.2020 08:57 Basis: Wet Weight
 Seq Number: 3121977

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.7	9.98	mg/kg	04.05.2020 14:38		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.03.2020 10:00 Basis: Wet Weight
 Seq Number: 3122001

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.04.2020 04:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.04.2020 04:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.04.2020 04:14	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.04.2020 04:14	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.04.2020 04:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	04.04.2020 04:14	
o-Terphenyl	84-15-1	108	%	70-135	04.04.2020 04:14	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS31**
Lab Sample Id: 657628-031

Matrix: Soil
Date Collected: 03.31.2020 14:01

Date Received: 04.01.2020 15:35
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.03.2020 13:24

Basis: Wet Weight

Seq Number: 3121955

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.04.2020 00:50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.04.2020 00:50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.04.2020 00:50	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.04.2020 00:50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.04.2020 00:50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.04.2020 00:50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.04.2020 00:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	04.04.2020 00:50	
1,4-Difluorobenzene	540-36-3	113	%	70-130	04.04.2020 00:50	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW01** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-032 Date Collected: 03.31.2020 12:12 Sample Depth: 0 - 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.05.2020 08:57 Basis: Wet Weight
 Seq Number: 3121977

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23.1	9.92	mg/kg	04.05.2020 14:56		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.03.2020 10:00 Basis: Wet Weight
 Seq Number: 3122001

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	681	50.2	mg/kg	04.04.2020 10:38		1
Diesel Range Organics (DRO)	C10C28DRO	4610	50.2	mg/kg	04.04.2020 10:38		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	449	50.2	mg/kg	04.04.2020 10:38		1
Total GRO-DRO	PHC628	5290	50.2	mg/kg	04.04.2020 10:38		1
Total TPH	PHC635	5740	50.2	mg/kg	04.04.2020 10:38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	123	%	70-135	04.04.2020 10:38	
o-Terphenyl	84-15-1	106	%	70-135	04.04.2020 10:38	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW01**
Lab Sample Id: 657628-032

Matrix: Soil
Date Collected: 03.31.2020 12:12

Date Received: 04.01.2020 15:35
Sample Depth: 0 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.03.2020 13:24

Basis: Wet Weight

Seq Number: 3121955

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0200	0.0200	mg/kg	04.04.2020 20:34	U	1
Toluene	108-88-3	0.273	0.0200	mg/kg	04.04.2020 20:34		1
Ethylbenzene	100-41-4	0.909	0.0200	mg/kg	04.04.2020 20:34		1
m,p-Xylenes	179601-23-1	3.50	0.0400	mg/kg	04.04.2020 20:34		1
o-Xylene	95-47-6	1.46	0.0200	mg/kg	04.04.2020 20:34		1
Total Xylenes	1330-20-7	4.96	0.0200	mg/kg	04.04.2020 20:34		1
Total BTEX		6.14	0.0200	mg/kg	04.04.2020 20:34		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	04.04.2020 20:34		
4-Bromofluorobenzene	460-00-4	101	%	70-130	04.04.2020 20:34		



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW02** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-033 Date Collected: 03.31.2020 12:18 Sample Depth: 0 - 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.05.2020 08:57 Basis: Wet Weight
 Seq Number: 3121977

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.7	10.0	mg/kg	04.05.2020 15:02		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.03.2020 10:00 Basis: Wet Weight
 Seq Number: 3122001

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	04.04.2020 04:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	269	50.3	mg/kg	04.04.2020 04:34		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	04.04.2020 04:34	U	1
Total GRO-DRO	PHC628	269	50.3	mg/kg	04.04.2020 04:34		1
Total TPH	PHC635	269	50.3	mg/kg	04.04.2020 04:34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	04.04.2020 04:34	
o-Terphenyl	84-15-1	108	%	70-135	04.04.2020 04:34	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW02**
Lab Sample Id: 657628-033

Matrix: Soil
Date Collected: 03.31.2020 12:18

Date Received: 04.01.2020 15:35
Sample Depth: 0 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.03.2020 13:24

Basis: Wet Weight

Seq Number: 3121955

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.04.2020 02:32	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.04.2020 02:32	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.04.2020 02:32	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.04.2020 02:32	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.04.2020 02:32	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.04.2020 02:32	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.04.2020 02:32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	85	%	70-130	04.04.2020 02:32		
1,4-Difluorobenzene	540-36-3	105	%	70-130	04.04.2020 02:32		



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW03** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-034 Date Collected: 03.31.2020 12:22 Sample Depth: 0 - 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.05.2020 08:57 Basis: Wet Weight
 Seq Number: 3121977

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	457	9.94	mg/kg	04.05.2020 15:19		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.03.2020 10:00 Basis: Wet Weight
 Seq Number: 3122001

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	85.5	49.9	mg/kg	04.04.2020 09:37		1
Diesel Range Organics (DRO)	C10C28DRO	1750	49.9	mg/kg	04.04.2020 09:37		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	164	49.9	mg/kg	04.04.2020 09:37		1
Total GRO-DRO	PHC628	1840	49.9	mg/kg	04.04.2020 09:37		1
Total TPH	PHC635	2000	49.9	mg/kg	04.04.2020 09:37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	04.04.2020 09:37	
o-Terphenyl	84-15-1	118	%	70-135	04.04.2020 09:37	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW03**
Lab Sample Id: 657628-034

Matrix: Soil
Date Collected: 03.31.2020 12:22

Date Received: 04.01.2020 15:35
Sample Depth: 0 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.03.2020 13:24

Basis: Wet Weight

Seq Number: 3121955

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.04.2020 02:53	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.04.2020 02:53	U	1
Ethylbenzene	100-41-4	0.00842	0.00201	mg/kg	04.04.2020 02:53		1
m,p-Xylenes	179601-23-1	0.0383	0.00402	mg/kg	04.04.2020 02:53		1
o-Xylene	95-47-6	0.0239	0.00201	mg/kg	04.04.2020 02:53		1
Total Xylenes	1330-20-7	0.0622	0.00201	mg/kg	04.04.2020 02:53		1
Total BTEX		0.0706	0.00201	mg/kg	04.04.2020 02:53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	80	%	70-130	04.04.2020 02:53	
1,4-Difluorobenzene	540-36-3	94	%	70-130	04.04.2020 02:53	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW04** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-035 Date Collected: 03.31.2020 12:27 Sample Depth: 0 - 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.05.2020 08:57 Basis: Wet Weight
 Seq Number: 3121977

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	77.4	9.98	mg/kg	04.05.2020 15:25		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.03.2020 10:00 Basis: Wet Weight
 Seq Number: 3122001

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.04.2020 04:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.04.2020 04:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.04.2020 04:54	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.04.2020 04:54	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.04.2020 04:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	04.04.2020 04:54	
o-Terphenyl	84-15-1	109	%	70-135	04.04.2020 04:54	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW04**
Lab Sample Id: 657628-035

Matrix: Soil
Date Collected: 03.31.2020 12:27

Date Received: 04.01.2020 15:35
Sample Depth: 0 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.03.2020 13:24

Basis: Wet Weight

Seq Number: 3121955

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.04.2020 03:13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.04.2020 03:13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.04.2020 03:13	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.04.2020 03:13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.04.2020 03:13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.04.2020 03:13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.04.2020 03:13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	89	%	70-130	04.04.2020 03:13		
1,4-Difluorobenzene	540-36-3	113	%	70-130	04.04.2020 03:13		



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW05** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-036 Date Collected: 03.31.2020 14:50 Sample Depth: 0 - 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.05.2020 08:57 Basis: Wet Weight
 Seq Number: 3121977

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.7	9.96	mg/kg	04.05.2020 15:30		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.03.2020 10:00 Basis: Wet Weight
 Seq Number: 3122001

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.04.2020 05:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	04.04.2020 05:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.04.2020 05:14	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	04.04.2020 05:14	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	04.04.2020 05:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	04.04.2020 05:14	
o-Terphenyl	84-15-1	107	%	70-135	04.04.2020 05:14	



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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW05**
Lab Sample Id: 657628-036

Matrix: Soil
Date Collected: 03.31.2020 14:50

Date Received: 04.01.2020 15:35
Sample Depth: 0 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.03.2020 13:24

Basis: Wet Weight

Seq Number: 3121955

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.04.2020 03:34	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.04.2020 03:34	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.04.2020 03:34	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.04.2020 03:34	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.04.2020 03:34	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.04.2020 03:34	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.04.2020 03:34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.04.2020 03:34		
4-Bromofluorobenzene	460-00-4	92	%	70-130	04.04.2020 03:34		



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW06** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-037 Date Collected: 03.31.2020 15:02 Sample Depth: 0 - 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.05.2020 08:57 Basis: Wet Weight
 Seq Number: 3121977

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	33.4	9.96	mg/kg	04.05.2020 15:36		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.03.2020 10:00 Basis: Wet Weight
 Seq Number: 3122001

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.04.2020 05:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	187	49.8	mg/kg	04.04.2020 05:34		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.04.2020 05:34	U	1
Total GRO-DRO	PHC628	187	49.8	mg/kg	04.04.2020 05:34		1
Total TPH	PHC635	187	49.8	mg/kg	04.04.2020 05:34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	04.04.2020 05:34	
o-Terphenyl	84-15-1	107	%	70-135	04.04.2020 05:34	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW06**
Lab Sample Id: 657628-037

Matrix: Soil
Date Collected: 03.31.2020 15:02

Date Received: 04.01.2020 15:35
Sample Depth: 0 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.03.2020 13:24

Basis: Wet Weight

Seq Number: 3121955

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.04.2020 03:54	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.04.2020 03:54	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.04.2020 03:54	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.04.2020 03:54	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.04.2020 03:54	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.04.2020 03:54	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.04.2020 03:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	04.04.2020 03:54	
1,4-Difluorobenzene	540-36-3	112	%	70-130	04.04.2020 03:54	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW07** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-038 Date Collected: 03.31.2020 15:07 Sample Depth: 0 - 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.05.2020 08:57 Basis: Wet Weight
 Seq Number: 3121977

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	37.5	9.98	mg/kg	04.05.2020 15:42		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.03.2020 10:00 Basis: Wet Weight
 Seq Number: 3122001

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	529	50.3	mg/kg	04.04.2020 10:18		1
Diesel Range Organics (DRO)	C10C28DRO	4950	50.3	mg/kg	04.04.2020 10:18		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	525	50.3	mg/kg	04.04.2020 10:18		1
Total GRO-DRO	PHC628	5480	50.3	mg/kg	04.04.2020 10:18		1
Total TPH	PHC635	6000	50.3	mg/kg	04.04.2020 10:18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	04.04.2020 10:18	
o-Terphenyl	84-15-1	102	%	70-135	04.04.2020 10:18	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW07**
Lab Sample Id: 657628-038

Matrix: Soil
Date Collected: 03.31.2020 15:07

Date Received: 04.01.2020 15:35
Sample Depth: 0 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.03.2020 13:24

Basis: Wet Weight

Seq Number: 3121955

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0297	0.0200	mg/kg	04.04.2020 20:54		1
Toluene	108-88-3	1.33	0.0200	mg/kg	04.04.2020 20:54		1
Ethylbenzene	100-41-4	1.33	0.0200	mg/kg	04.04.2020 20:54		1
m,p-Xylenes	179601-23-1	3.54	0.0400	mg/kg	04.04.2020 20:54		1
o-Xylene	95-47-6	2.05	0.0200	mg/kg	04.04.2020 20:54		1
Total Xylenes	1330-20-7	5.59	0.0200	mg/kg	04.04.2020 20:54		1
Total BTEX		8.28	0.0200	mg/kg	04.04.2020 20:54		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	04.04.2020 20:54		
1,4-Difluorobenzene	540-36-3	102	%	70-130	04.04.2020 20:54		



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW08** Matrix: Soil Date Received: 04.01.2020 15:35
 Lab Sample Id: 657628-039 Date Collected: 03.31.2020 15:10 Sample Depth: 0 - 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.05.2020 08:57 Basis: Wet Weight
 Seq Number: 3121977

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	47.7	9.88	mg/kg	04.05.2020 15:48		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.03.2020 10:00 Basis: Wet Weight
 Seq Number: 3122001

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	345	50.2	mg/kg	04.04.2020 09:57		1
Diesel Range Organics (DRO)	C10C28DRO	2690	50.2	mg/kg	04.04.2020 09:57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	237	50.2	mg/kg	04.04.2020 09:57		1
Total GRO-DRO	PHC628	3040	50.2	mg/kg	04.04.2020 09:57		1
Total TPH	PHC635	3270	50.2	mg/kg	04.04.2020 09:57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	04.04.2020 09:57	
o-Terphenyl	84-15-1	119	%	70-135	04.04.2020 09:57	



Certificate of Analytical Results 657628

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW08**
Lab Sample Id: 657628-039

Matrix: Soil
Date Collected: 03.31.2020 15:10

Date Received: 04.01.2020 15:35
Sample Depth: 0 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.03.2020 13:24

Basis: Wet Weight

Seq Number: 3121955

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0200	0.0200	mg/kg	04.04.2020 04:35	U	1
Toluene	108-88-3	0.488	0.0200	mg/kg	04.04.2020 04:35		1
Ethylbenzene	100-41-4	0.701	0.0200	mg/kg	04.04.2020 04:35		1
m,p-Xylenes	179601-23-1	2.08	0.0400	mg/kg	04.04.2020 04:35		1
o-Xylene	95-47-6	1.20	0.0200	mg/kg	04.04.2020 04:35		1
Total Xylenes	1330-20-7	3.28	0.0200	mg/kg	04.04.2020 04:35		1
Total BTEX		4.47	0.0200	mg/kg	04.04.2020 04:35		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	04.04.2020 04:35		
1,4-Difluorobenzene	540-36-3	102	%	70-130	04.04.2020 04:35		



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. **ND** Not Detected.

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 CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3121846

MB Sample Id: 7700439-1-BLK

Matrix: Solid

LCS Sample Id: 7700439-1-BKS

Prep Method: E300P

Date Prep: 04.02.2020

LCSD Sample Id: 7700439-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	257	103	257	103	90-110	0	20	mg/kg	04.02.2020 23:56	

Analytical Method: Chloride by EPA 300

Seq Number: 3121845

MB Sample Id: 7700410-1-BLK

Matrix: Solid

LCS Sample Id: 7700410-1-BKS

Prep Method: E300P

Date Prep: 04.02.2020

LCSD Sample Id: 7700410-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	257	103	258	103	90-110	0	20	mg/kg	04.02.2020 20:47	

Analytical Method: Chloride by EPA 300

Seq Number: 3121977

MB Sample Id: 7700526-1-BLK

Matrix: Solid

LCS Sample Id: 7700526-1-BKS

Prep Method: E300P

Date Prep: 04.05.2020

LCSD Sample Id: 7700526-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	256	102	247	99	90-110	4	20	mg/kg	04.05.2020 13:05	

Analytical Method: Chloride by EPA 300

Seq Number: 3121846

Parent Sample Id: 657628-014

Matrix: Soil

MS Sample Id: 657628-014 S

Prep Method: E300P

Date Prep: 04.02.2020

MSD Sample Id: 657628-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10.5	200	218	104	213	102	90-110	2	20	mg/kg	04.03.2020 00:14	

Analytical Method: Chloride by EPA 300

Seq Number: 3121846

Parent Sample Id: 657628-024

Matrix: Soil

MS Sample Id: 657628-024 S

Prep Method: E300P

Date Prep: 04.02.2020

MSD Sample Id: 657628-024 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11.7	200	217	103	217	103	90-110	0	20	mg/kg	04.03.2020 01:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3121845

Parent Sample Id: 657628-004

Matrix: Soil

MS Sample Id: 657628-004 S

Prep Method: E300P

Date Prep: 04.02.2020

MSD Sample Id: 657628-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.96	398	422	106	421	106	90-110	0	20	mg/kg	04.02.2020 22:21	

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

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

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

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



LT Environmental, Inc.
Severus CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3121845

Parent Sample Id: 657763-021

Matrix: Soil

MS Sample Id: 657763-021 S

Prep Method: E300P

Date Prep: 04.02.2020

MSD Sample Id: 657763-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	21.5	200	216	97	229	104	90-110	6	20	mg/kg	04.02.2020 21:03	

Analytical Method: Chloride by EPA 300

Seq Number: 3121977

Parent Sample Id: 657628-031

Matrix: Soil

MS Sample Id: 657628-031 S

Prep Method: E300P

Date Prep: 04.05.2020

MSD Sample Id: 657628-031 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	21.7	200	229	104	230	105	90-110	0	20	mg/kg	04.05.2020 14:44	

Analytical Method: Chloride by EPA 300

Seq Number: 3121977

Parent Sample Id: 657885-001

Matrix: Soil

MS Sample Id: 657885-001 S

Prep Method: E300P

Date Prep: 04.05.2020

MSD Sample Id: 657885-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	36.3	200	249	106	248	106	90-110	0	20	mg/kg	04.05.2020 13:23	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121741

MB Sample Id: 7700357-1-BLK

Matrix: Solid

LCS Sample Id: 7700357-1-BKS

Prep Method: SW8015P

Date Prep: 04.02.2020

LCSD Sample Id: 7700357-1-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	990	99	890	89	70-135	11	35	mg/kg	04.02.2020 09:28	
Diesel Range Organics (DRO)	<50.0	1000	1150	115	1020	102	70-135	12	35	mg/kg	04.02.2020 09:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		124		107		70-135	%	04.02.2020 09:28
o-Terphenyl	109		121		106		70-135	%	04.02.2020 09:28

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121840

MB Sample Id: 7700396-1-BLK

Matrix: Solid

LCS Sample Id: 7700396-1-BKS

Prep Method: SW8015P

Date Prep: 04.02.2020

LCSD Sample Id: 7700396-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	958	96	970	97	70-135	1	35	mg/kg	04.03.2020 06:33	
Diesel Range Organics (DRO)	<50.0	1000	1160	116	1180	118	70-135	2	35	mg/kg	04.03.2020 06:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		120		119		70-135	%	04.03.2020 06:33
o-Terphenyl	109		120		121		70-135	%	04.03.2020 06:33

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

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

Analytical Method: TPH by SW8015 Mod

Seq Number: 3122001

MB Sample Id: 7700462-1-BLK

Matrix: Solid

LCS Sample Id: 7700462-1-BKS

Prep Method: SW8015P

Date Prep: 04.03.2020

LCSD Sample Id: 7700462-1-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	925	93	941	94	70-135	2	35	mg/kg	04.04.2020 02:33	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	1050	105	70-135	4	35	mg/kg	04.04.2020 02:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		127		113		70-135	%	04.04.2020 02:33
o-Terphenyl	98		108		105		70-135	%	04.04.2020 02:33

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121741

Matrix: Solid

MB Sample Id: 7700357-1-BLK

Prep Method: SW8015P

Date Prep: 04.02.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.02.2020 09:07	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121840

Matrix: Solid

MB Sample Id: 7700396-1-BLK

Prep Method: SW8015P

Date Prep: 04.02.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.03.2020 16:04	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3122001

Matrix: Solid

MB Sample Id: 7700462-1-BLK

Prep Method: SW8015P

Date Prep: 04.03.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.04.2020 02:12	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121741

Matrix: Soil

Parent Sample Id: 657638-007

MS Sample Id: 657638-007 S

Prep Method: SW8015P

Date Prep: 04.02.2020

MSD Sample Id: 657638-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	995	842	85	815	82	70-135	3	35	mg/kg	04.02.2020 10:29	
Diesel Range Organics (DRO)	<49.8	995	978	98	948	95	70-135	3	35	mg/kg	04.02.2020 10:29	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		133		70-135	%	04.02.2020 10:29
o-Terphenyl	126		122		70-135	%	04.02.2020 10:29

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

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

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121840

Parent Sample Id: 657683-021

Matrix: Soil

MS Sample Id: 657683-021 S

Prep Method: SW8015P

Date Prep: 04.02.2020

MSD Sample Id: 657683-021 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	954	95	945	95	70-135	1	35	mg/kg	04.03.2020 07:34	
Diesel Range Organics (DRO)	<50.1	1000	1120	112	1100	111	70-135	2	35	mg/kg	04.03.2020 07:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		115		70-135	%	04.03.2020 07:34
o-Terphenyl	110		109		70-135	%	04.03.2020 07:34

Analytical Method: TPH by SW8015 Mod

Seq Number: 3122001

Parent Sample Id: 657628-030

Matrix: Soil

MS Sample Id: 657628-030 S

Prep Method: SW8015P

Date Prep: 04.03.2020

MSD Sample Id: 657628-030 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	1010	101	1010	101	70-135	0	35	mg/kg	04.04.2020 03:33	
Diesel Range Organics (DRO)	<50.1	1000	1120	112	1120	112	70-135	0	35	mg/kg	04.04.2020 03:33	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		119		70-135	%	04.04.2020 03:33
o-Terphenyl	112		114		70-135	%	04.04.2020 03:33

Analytical Method: BTEX by EPA 8021B

Seq Number: 3121841

MB Sample Id: 7700414-1-BLK

Matrix: Solid

LCS Sample Id: 7700414-1-BKS

Prep Method: SW5030B

Date Prep: 04.02.2020

LCSD Sample Id: 7700414-1-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	0.102	102	0.104	104	70-130	2	35	mg/kg	04.02.2020 23:25	
Toluene	<0.00200	0.100	0.0965	97	0.0984	98	70-130	2	35	mg/kg	04.02.2020 23:25	
Ethylbenzene	<0.00200	0.100	0.0899	90	0.0920	92	71-129	2	35	mg/kg	04.02.2020 23:25	
m,p-Xylenes	<0.00400	0.200	0.184	92	0.189	95	70-135	3	35	mg/kg	04.02.2020 23:25	
o-Xylene	<0.00200	0.100	0.0950	95	0.0968	97	71-133	2	35	mg/kg	04.02.2020 23:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		104		104		70-130	%	04.02.2020 23:25
4-Bromofluorobenzene	94		91		92		70-130	%	04.02.2020 23:25

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

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

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

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



LT Environmental, Inc.
Severus CTB

Analytical Method: BTEX by EPA 8021B

Seq Number: 3121954

Matrix: Solid

Prep Method: SW5030B

Date Prep: 04.02.2020

MB Sample Id: 7700415-1-BLK

LCS Sample Id: 7700415-1-BKS

LCSD Sample Id: 7700415-1-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	0.106	106	0.107	107	70-130	1	35	mg/kg	04.03.2020 09:17	
Toluene	<0.00200	0.100	0.100	100	0.103	103	70-130	3	35	mg/kg	04.03.2020 09:17	
Ethylbenzene	<0.00200	0.100	0.0941	94	0.0957	96	71-129	2	35	mg/kg	04.03.2020 09:17	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.197	99	70-135	2	35	mg/kg	04.03.2020 09:17	
o-Xylene	<0.00200	0.100	0.0995	100	0.101	101	71-133	1	35	mg/kg	04.03.2020 09:17	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene	106		104		104		70-130			%	04.03.2020 09:17	
4-Bromofluorobenzene	93		92		89		70-130			%	04.03.2020 09:17	

Analytical Method: BTEX by EPA 8021B

Seq Number: 3121955

Matrix: Solid

Prep Method: SW5030B

Date Prep: 04.03.2020

MB Sample Id: 7700534-1-BLK

LCS Sample Id: 7700534-1-BKS

LCSD Sample Id: 7700534-1-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	0.115	115	0.119	119	70-130	3	35	mg/kg	04.03.2020 20:04	
Toluene	<0.00200	0.100	0.105	105	0.109	109	70-130	4	35	mg/kg	04.03.2020 20:04	
Ethylbenzene	<0.00200	0.100	0.0978	98	0.102	102	71-129	4	35	mg/kg	04.03.2020 20:04	
m,p-Xylenes	<0.00400	0.200	0.190	95	0.198	99	70-135	4	35	mg/kg	04.03.2020 20:04	
o-Xylene	<0.00200	0.100	0.0975	98	0.101	101	71-133	4	35	mg/kg	04.03.2020 20:04	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene	112		108		108		70-130			%	04.03.2020 20:04	
4-Bromofluorobenzene	91		84		87		70-130			%	04.03.2020 20:04	

Analytical Method: BTEX by EPA 8021B

Seq Number: 3121841

Matrix: Soil

Prep Method: SW5030B

Date Prep: 04.02.2020

Parent Sample Id: 657369-001

MS Sample Id: 657369-001 S

MSD Sample Id: 657369-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0892	89	0.0944	94	70-130	6	35	mg/kg	04.03.2020 00:05	
Toluene	<0.00200	0.100	0.0816	82	0.0839	84	70-130	3	35	mg/kg	04.03.2020 00:05	
Ethylbenzene	<0.00200	0.100	0.0731	73	0.0712	71	71-129	3	35	mg/kg	04.03.2020 00:05	
m,p-Xylenes	<0.00401	0.200	0.143	72	0.145	73	70-135	1	35	mg/kg	04.03.2020 00:05	
o-Xylene	<0.00200	0.100	0.0740	74	0.0755	76	71-133	2	35	mg/kg	04.03.2020 00:05	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene			106		105		70-130			%	04.03.2020 00:05	
4-Bromofluorobenzene			95		94		70-130			%	04.03.2020 00:05	

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

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

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

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



LT Environmental, Inc.
Severus CTB

Analytical Method: BTEX by EPA 8021B

Seq Number: 3121954

Parent Sample Id: 657628-001

Matrix: Soil

MS Sample Id: 657628-001 S

Prep Method: SW5030B

Date Prep: 04.02.2020

MSD Sample Id: 657628-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0911	91	0.0861	85	70-130	6	35	mg/kg	04.03.2020 09:58	
Toluene	<0.00200	0.0998	0.0858	86	0.0816	81	70-130	5	35	mg/kg	04.03.2020 09:58	
Ethylbenzene	<0.00200	0.0998	0.0804	81	0.0755	75	71-129	6	35	mg/kg	04.03.2020 09:58	
m,p-Xylenes	<0.00399	0.200	0.164	82	0.152	76	70-135	8	35	mg/kg	04.03.2020 09:58	
o-Xylene	<0.00200	0.0998	0.0846	85	0.0803	80	71-133	5	35	mg/kg	04.03.2020 09:58	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		105		70-130	%	04.03.2020 09:58
4-Bromofluorobenzene	92		98		70-130	%	04.03.2020 09:58

Analytical Method: BTEX by EPA 8021B

Seq Number: 3121955

Parent Sample Id: 657678-021

Matrix: Soil

MS Sample Id: 657678-021 S

Prep Method: SW5030B

Date Prep: 04.03.2020

MSD Sample Id: 657678-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.128	128	0.123	123	70-130	4	35	mg/kg	04.03.2020 20:45	
Toluene	<0.00200	0.0998	0.105	105	0.103	103	70-130	2	35	mg/kg	04.03.2020 20:45	
Ethylbenzene	<0.00200	0.0998	0.103	103	0.0994	99	71-129	4	35	mg/kg	04.03.2020 20:45	
m,p-Xylenes	<0.00399	0.200	0.194	97	0.189	95	70-135	3	35	mg/kg	04.03.2020 20:45	
o-Xylene	<0.00200	0.0998	0.105	105	0.102	102	71-133	3	35	mg/kg	04.03.2020 20:45	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		108		70-130	%	04.03.2020 20:45
4-Bromofluorobenzene	85		85		70-130	%	04.03.2020 20:45

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

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

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

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

Work Order No.:

1571028

Page 1 of 4

Project Manager: Dan Moir		Bill to: (if different) Kyle Littrell	
Company Name: LT Environmental, Inc., Permian office		Company Name: XTO Energy	
Address: 3300 North A St. Bldg 1, Unit 222		Address: 3104 E Greene St.	
City, State ZIP: Midland, TX 79705		City, State ZIP: Carlsbad, NM	
Phone: (432) 701-2610		Email: dmoir@ltenv.com mmcatee@ltenv.com	

(703) 539-3922 / (755) 480-355-0900 / (404) 770-449-8800 / (813) 620-2000
www.xenco.com

Page 1 of 4

Work Order Comments			
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐			
State of Project: NM			
Reporting Level II ☐	Level III ☐	UST/UST ☐	RRP ☐
Deliverables: EDD ☐	ADAPT ☐	Other: ☐	

ANALYSIS REQUEST							Work Order Notes	
Project Name:		Sevens CIB			Turn Around			
Project Number:		019220027			Routine		☐	
P.O. Number:					Rush:		3 day	
Sampler's Name:		Robert McAfee			Due Date:			
SAMPLE RECEIPT		Temp Blank:		☒ Yes	No	Wet Ice:	☒ Yes	No
Temperature (°C):		1.2		Thermometer ID				
Received Intact:		☒ Yes		No	T-20K-007			
Cooler Custody Seals:		Yes		☒ No	N/A	Correction Factor:		
Sample Custody Seals:		Yes		☒ No	N/A	Total Containers:	39	
Number of Containers								
(EPA 8015)								
(EPA 8021)								
(EPA 300.0)								
TAT starts the day received by the lab, if received by 4:30pm								

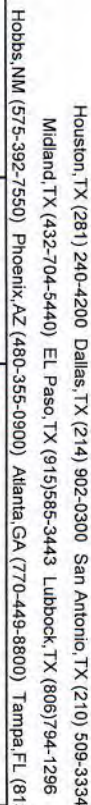
[illegible]

TC/PLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

Na Sr Ti Sn U V Zn
1631/245.1/7470/7471: Hg

10. **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
		4/11/20 1535			



Chain of Custody

Work Order No:

625-7628

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

Project Name:						Turn Around			
Project Number:						Routine ☐			
P.O. Number:						Rush:			
Sampler's Name:						Due Date:			
SAMPLE RECEIPT									
Temperature (°C):		Temp Blank:		Yes No		Wet Ice:		Yes No	
Received Intact:		Yes No		Thermometer ID					
Cooler Custody Seals:		Yes No		N/A		Correction Factor:			
Sample Custody Seals:		Yes No		N/A		Total Containers:			
Number of Containers									
EPA 8015)									
EPA 8021)									
le (EPA 300.0)									
TAT starts the day received by the lab, if received by 4:30pm									

[illegible]

Circle Method(s) and Metal(s) to be analyzed	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 SiO ₂ Na Sr Ti Sn U V Zn			
TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag 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 to Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$3 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
		4/11/20 1535			



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)

Chain of Custody

Work Order No: 1054029

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Page 3 of 4

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 St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 701-2610	Email:	dmair@xenco.com kmcalfree@xenco.com

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

Project Name:		Turn Around	
Project Number:		Routine ☐	
P.O. Number:		Rush:	
Sampler's Name:	Robert McAlfee	Due Date:	

Sample Identification					Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments											
FS21		S	03/31/20	1258	2'	1		X	X	X	X		Composite											
FS22				1302				X	X	X	X													
FS23				1305				X	X	X	X													
FS24				1320				X	X	X	X													
FS25				1325				X	X	X	X													
FS26				1336				X	X	X	X													
FS27				1340				X	X	X	X													
FS28				1346				X	X	X	X													
FS29				1355				X	X	X	X													
FS30				1358				X	X	X	X													
									</															

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb 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
<i>[Signature]</i>	<i>[Signature]</i>	4/1/20 1535			
		2			
		4			
		6			



Chain of Custody

Work Order No.:

1057121-8

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, NIM (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 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 701-2610	Email:	dmoir@ltenv.com mmcatee@ltenv.com

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

Project Name:				Turn Around		ANALYSIS REQUEST	Work Order Notes
Project Number:				Routine ☐			
P.O. Number:				Rush:			
Sampler's Name:				Due Date:			
Robert McAffee							
SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):		Thermometer ID					
Received In tact:		Yes	No				
Cooler Custody Seals:		Yes	No	N/A	Correction Factor:		
Sample Custody Seals:		Yes	No	N/A	Total Containers:		
Number of Containers							
PA 8015)							
(EPA 8021)							
de (EPA 300.0)							
TAT starts the day received by the lab. if received by 4:30pm							

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (E)	BTEX	Chloride	Sample Comments									
FS31	S	03/3/22	1401	2'	1	X	X	X	Composite									
SW01			1212			X	X	X										
SW02			1218			X	X	X										
SW03			1222			X	X	X										
SW04			1227			X	X	X										
SW05			1450			X	X	X										
SW06			1502			X	X	X										
SW07			1507			X	X	X										
SW08	A	A	1510	A	A	X	X	X										

Total 200.7 / 6010 200.8 / 6020:

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb 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 / 1470 / 1471 : Hg

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		4/1/2015 3:35	2		
			4		
			6		

Revised Date 05/14/18 Rev. 2018

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04.01.2020 03.35.00 PM

Work Order #: 657628

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 04.01.2020

Checklist reviewed by:



Jessica Kramer

Date: 04.02.2020



Analytical Report 658074

for

LT Environmental, Inc.

Project Manager: Dan Moir

Severus CTB

012920036

04.08.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



04.08.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **658074**

Severus CTB

Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 658074. 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. 658074 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 658074****LT Environmental, Inc., Arvada, CO**

Severus CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	04.01.2020 13:11	3 ft	658074-001
FS02	S	04.01.2020 13:22	2 ft	658074-002
FS03	S	04.02.2020 09:55	1.5 ft	658074-003
SW01	S	04.02.2020 09:29	0 - 2 ft	658074-004
SW02	S	04.02.2020 09:33	0 - 2 ft	658074-005
SW03	S	04.02.2020 10:39	0 - 3 ft	658074-006
SW04	S	04.02.2020 10:42	0 - 3 ft	658074-007



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *Severus CTB*

Project ID: 012920036
Work Order Number(s): 658074

Report Date: 04.08.2020
Date Received: 04.07.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3122298 BTEX by EPA 8021B

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



Certificate of Analysis Summary 658074

LT Environmental, Inc., Arvada, CO

Project Name: Severus CTB

Project Id: 012920036

Contact: Dan Moir

Project Location:

Date Received in Lab: Tue 04.07.2020 08:25

Report Date: 04.08.2020 12:11

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	658074-001	658074-002	658074-003	658074-004	658074-005	658074-006
	Field Id:	FS01	FS02	FS03	SW01	SW02	SW03
	Depth:	3- ft	2- ft	1.5- ft	0-2 ft	0-2 ft	0-3 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	04.01.2020 13:11	04.01.2020 13:22	04.02.2020 09:55	04.02.2020 09:29	04.02.2020 09:33	04.02.2020 10:39
BTEX by EPA 8021B	Extracted:	04.07.2020 10:36	04.07.2020 10:36	04.07.2020 10:36	04.07.2020 10:36	04.07.2020 10:36	04.07.2020 10:36
	Analyzed:	04.07.2020 13:16	04.07.2020 13:37	04.07.2020 13:57	04.07.2020 14:18	04.07.2020 14:38	04.07.2020 21:05
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.0400 0.0400
Toluene		0.00845 0.00200	<0.00200 0.00200	0.147 0.00200	0.110 0.00200	<0.00199 0.00199	7.58 0.0400
Ethylbenzene		0.0129 0.00200	<0.00200 0.00200	0.171 0.00200	0.108 0.00200	<0.00199 0.00199	7.22 0.0400
m,p-Xylenes		0.0234 0.00399	<0.00399 0.00399	0.323 0.00401	0.191 0.00401	0.00975 0.00398	14.6 0.0800
o-Xylene		0.0195 0.00200	0.0453 0.00200	0.192 0.00200	0.104 0.00200	0.00551 0.00199	7.96 0.0400
Total Xylenes		0.0429 0.00200	0.0453 0.00200	0.515 0.00200	0.295 0.00200	0.0153 0.00199	22.6 0.0400
Total BTEX		0.0643 0.00200	0.0453 0.00200	0.833 0.00200	0.513 0.00200	0.0153 0.00199	37.4 0.0400
Chloride by EPA 300	Extracted:	04.07.2020 11:01	04.07.2020 11:01	04.07.2020 11:01	04.07.2020 11:01	04.07.2020 11:01	04.07.2020 11:01
	Analyzed:	04.07.2020 17:42	04.07.2020 18:09	04.07.2020 18:15	04.07.2020 18:20	04.07.2020 18:26	04.07.2020 18:31
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		34.1 9.94	35.2 9.96	64.5 9.90	36.0 10.0	56.0 10.0	46.2 9.98
TPH by SW8015 Mod	Extracted:	04.07.2020 14:00	04.07.2020 14:00	04.07.2020 14:00	04.07.2020 14:00	04.07.2020 14:00	04.07.2020 14:00
	Analyzed:	04.07.2020 14:41	04.07.2020 15:42	04.07.2020 20:48	04.07.2020 16:03	04.07.2020 21:50	04.07.2020 22:10
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<49.9 49.9	51.7 50.0	<50.1 50.1	445 49.8	1260 50.0
Diesel Range Organics (DRO)		<49.9 49.9	<49.9 49.9	974 50.0	217 50.1	4480 49.8	4770 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.9 49.9	109 50.0	<50.1 50.1	421 49.8	421 50.0
Total GRO-DRO		<49.9 49.9	<49.9 49.9	1030 50.0	217 50.1	4930 49.8	6030 50.0
Total TPH		<49.9 49.9	<49.9 49.9	1130 50.0	217 50.1	5350 49.8	6450 50.0

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

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 658074

LT Environmental, Inc., Arvada, CO

Project Name: Severus CTB

Project Id: 012920036

Contact: Dan Moir

Project Location:

Date Received in Lab: Tue 04.07.2020 08:25

Report Date: 04.08.2020 12:11

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	658074-007					
	Field Id:	SW04					
	Depth:	0-3 ft					
	Matrix:	SOIL					
	Sampled:	04.02.2020 10:42					
BTEX by EPA 8021B	Extracted:	04.07.2020 10:36					
	Analyzed:	04.07.2020 15:19					
	Units/RL:	mg/kg RL					
Benzene		<0.00199 0.00199					
Toluene		0.00997 0.00199					
Ethylbenzene		0.00714 0.00199					
m,p-Xylenes		0.0134 0.00398					
o-Xylene		0.00795 0.00199					
Total Xylenes		0.0214 0.00199					
Total BTEX		0.0385 0.00199					
Chloride by EPA 300	Extracted:	04.07.2020 11:01					
	Analyzed:	04.07.2020 18:37					
	Units/RL:	mg/kg RL					
Chloride		55.9 9.98					
TPH by SW8015 Mod	Extracted:	04.07.2020 14:00					
	Analyzed:	04.07.2020 16:23					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9					
Diesel Range Organics (DRO)		<49.9 49.9					
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9					
Total GRO-DRO		<49.9 49.9					
Total TPH		<49.9 49.9					

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

Jessica Kramer
Project Manager



Certificate of Analytical Results 658074

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS01** Matrix: Soil Date Received: 04.07.2020 08:25
 Lab Sample Id: 658074-001 Date Collected: 04.01.2020 13:11 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.07.2020 11:01 Basis: Wet Weight
 Seq Number: 3122305

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	34.1	9.94	mg/kg	04.07.2020 17:42		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.07.2020 14:00 Basis: Wet Weight
 Seq Number: 3122322

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.07.2020 14:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.07.2020 14:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.07.2020 14:41	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	04.07.2020 14:41	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.07.2020 14:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	04.07.2020 14:41	
o-Terphenyl	84-15-1	115	%	70-135	04.07.2020 14:41	



Certificate of Analytical Results 658074

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS01**
Lab Sample Id: 658074-001

Matrix: Soil
Date Collected: 04.01.2020 13:11

Date Received: 04.07.2020 08:25
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.07.2020 10:36

Basis: Wet Weight

Seq Number: 3122298

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.07.2020 13:16	U	1
Toluene	108-88-3	0.00845	0.00200	mg/kg	04.07.2020 13:16		1
Ethylbenzene	100-41-4	0.0129	0.00200	mg/kg	04.07.2020 13:16		1
m,p-Xylenes	179601-23-1	0.0234	0.00399	mg/kg	04.07.2020 13:16		1
o-Xylene	95-47-6	0.0195	0.00200	mg/kg	04.07.2020 13:16		1
Total Xylenes	1330-20-7	0.0429	0.00200	mg/kg	04.07.2020 13:16		1
Total BTEX		0.0643	0.00200	mg/kg	04.07.2020 13:16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	04.07.2020 13:16	
1,4-Difluorobenzene	540-36-3	103	%	70-130	04.07.2020 13:16	



Certificate of Analytical Results 658074

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS02** Matrix: Soil Date Received: 04.07.2020 08:25
 Lab Sample Id: 658074-002 Date Collected: 04.01.2020 13:22 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.07.2020 11:01 Basis: Wet Weight
 Seq Number: 3122305

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	35.2	9.96	mg/kg	04.07.2020 18:09		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.07.2020 14:00 Basis: Wet Weight
 Seq Number: 3122322

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.07.2020 15:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.07.2020 15:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.07.2020 15:42	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	04.07.2020 15:42	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.07.2020 15:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	04.07.2020 15:42	
o-Terphenyl	84-15-1	116	%	70-135	04.07.2020 15:42	



Certificate of Analytical Results 658074

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS02**
Lab Sample Id: 658074-002

Matrix: Soil
Date Collected: 04.01.2020 13:22

Date Received: 04.07.2020 08:25
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.07.2020 10:36

Basis: Wet Weight

Seq Number: 3122298

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.07.2020 13:37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.07.2020 13:37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.07.2020 13:37	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.07.2020 13:37	U	1
o-Xylene	95-47-6	0.0453	0.00200	mg/kg	04.07.2020 13:37		1
Total Xylenes	1330-20-7	0.0453	0.00200	mg/kg	04.07.2020 13:37		1
Total BTEX		0.0453	0.00200	mg/kg	04.07.2020 13:37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	04.07.2020 13:37	
4-Bromofluorobenzene	460-00-4	98	%	70-130	04.07.2020 13:37	



Certificate of Analytical Results 658074

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS03** Matrix: Soil Date Received: 04.07.2020 08:25
 Lab Sample Id: 658074-003 Date Collected: 04.02.2020 09:55 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.07.2020 11:01 Basis: Wet Weight
 Seq Number: 3122305

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	64.5	9.90	mg/kg	04.07.2020 18:15		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.07.2020 14:00 Basis: Wet Weight
 Seq Number: 3122322

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	51.7	50.0	mg/kg	04.07.2020 20:48		1
Diesel Range Organics (DRO)	C10C28DRO	974	50.0	mg/kg	04.07.2020 20:48		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	109	50.0	mg/kg	04.07.2020 20:48		1
Total GRO-DRO	PHC628	1030	50.0	mg/kg	04.07.2020 20:48		1
Total TPH	PHC635	1130	50.0	mg/kg	04.07.2020 20:48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	04.07.2020 20:48	
o-Terphenyl	84-15-1	117	%	70-135	04.07.2020 20:48	



Certificate of Analytical Results 658074

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **FS03**
Lab Sample Id: 658074-003

Matrix: Soil
Date Collected: 04.02.2020 09:55

Date Received: 04.07.2020 08:25
Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.07.2020 10:36

Basis: Wet Weight

Seq Number: 3122298

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.07.2020 13:57	U	1
Toluene	108-88-3	0.147	0.00200	mg/kg	04.07.2020 13:57		1
Ethylbenzene	100-41-4	0.171	0.00200	mg/kg	04.07.2020 13:57		1
m,p-Xylenes	179601-23-1	0.323	0.00401	mg/kg	04.07.2020 13:57		1
o-Xylene	95-47-6	0.192	0.00200	mg/kg	04.07.2020 13:57		1
Total Xylenes	1330-20-7	0.515	0.00200	mg/kg	04.07.2020 13:57		1
Total BTEX		0.833	0.00200	mg/kg	04.07.2020 13:57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	04.07.2020 13:57	
4-Bromofluorobenzene	460-00-4	106	%	70-130	04.07.2020 13:57	



Certificate of Analytical Results 658074

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW01** Matrix: Soil Date Received: 04.07.2020 08:25
 Lab Sample Id: 658074-004 Date Collected: 04.02.2020 09:29 Sample Depth: 0 - 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.07.2020 11:01 Basis: Wet Weight
 Seq Number: 3122305

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	36.0	10.0	mg/kg	04.07.2020 18:20		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.07.2020 14:00 Basis: Wet Weight
 Seq Number: 3122322

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.07.2020 16:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	217	50.1	mg/kg	04.07.2020 16:03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.07.2020 16:03	U	1
Total GRO-DRO	PHC628	217	50.1	mg/kg	04.07.2020 16:03		1
Total TPH	PHC635	217	50.1	mg/kg	04.07.2020 16:03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	04.07.2020 16:03	
o-Terphenyl	84-15-1	118	%	70-135	04.07.2020 16:03	



Certificate of Analytical Results 658074

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW01**
Lab Sample Id: 658074-004

Matrix: Soil
Date Collected: 04.02.2020 09:29

Date Received: 04.07.2020 08:25
Sample Depth: 0 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.07.2020 10:36

Basis: Wet Weight

Seq Number: 3122298

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.07.2020 14:18	U	1
Toluene	108-88-3	0.110	0.00200	mg/kg	04.07.2020 14:18		1
Ethylbenzene	100-41-4	0.108	0.00200	mg/kg	04.07.2020 14:18		1
m,p-Xylenes	179601-23-1	0.191	0.00401	mg/kg	04.07.2020 14:18		1
o-Xylene	95-47-6	0.104	0.00200	mg/kg	04.07.2020 14:18		1
Total Xylenes	1330-20-7	0.295	0.00200	mg/kg	04.07.2020 14:18		1
Total BTEX		0.513	0.00200	mg/kg	04.07.2020 14:18		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	04.07.2020 14:18		
1,4-Difluorobenzene	540-36-3	97	%	70-130	04.07.2020 14:18		



Certificate of Analytical Results 658074

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW02** Matrix: Soil Date Received: 04.07.2020 08:25
 Lab Sample Id: 658074-005 Date Collected: 04.02.2020 09:33 Sample Depth: 0 - 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.07.2020 11:01 Basis: Wet Weight
 Seq Number: 3122305

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	56.0	10.0	mg/kg	04.07.2020 18:26		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.07.2020 14:00 Basis: Wet Weight
 Seq Number: 3122322

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	445	49.8	mg/kg	04.07.2020 21:50		1
Diesel Range Organics (DRO)	C10C28DRO	4480	49.8	mg/kg	04.07.2020 21:50		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	421	49.8	mg/kg	04.07.2020 21:50		1
Total GRO-DRO	PHC628	4930	49.8	mg/kg	04.07.2020 21:50		1
Total TPH	PHC635	5350	49.8	mg/kg	04.07.2020 21:50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	125	%	70-135	04.07.2020 21:50	
o-Terphenyl	84-15-1	118	%	70-135	04.07.2020 21:50	



Certificate of Analytical Results 658074

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW02**
Lab Sample Id: 658074-005

Matrix: Soil
Date Collected: 04.02.2020 09:33

Date Received: 04.07.2020 08:25
Sample Depth: 0 - 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3122298

Prep Method: SW5030B

% Moisture:

Date Prep: 04.07.2020 10:36

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.07.2020 14:38	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.07.2020 14:38	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.07.2020 14:38	U	1
m,p-Xylenes	179601-23-1	0.00975	0.00398	mg/kg	04.07.2020 14:38		1
o-Xylene	95-47-6	0.00551	0.00199	mg/kg	04.07.2020 14:38		1
Total Xylenes	1330-20-7	0.0153	0.00199	mg/kg	04.07.2020 14:38		1
Total BTEX		0.0153	0.00199	mg/kg	04.07.2020 14:38		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	04.07.2020 14:38		
1,4-Difluorobenzene	540-36-3	102	%	70-130	04.07.2020 14:38		



Certificate of Analytical Results 658074

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW03** Matrix: Soil Date Received: 04.07.2020 08:25
 Lab Sample Id: 658074-006 Date Collected: 04.02.2020 10:39 Sample Depth: 0 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.07.2020 11:01 Basis: Wet Weight
 Seq Number: 3122305

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	46.2	9.98	mg/kg	04.07.2020 18:31		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.07.2020 14:00 Basis: Wet Weight
 Seq Number: 3122322

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	1260	50.0	mg/kg	04.07.2020 22:10		1
Diesel Range Organics (DRO)	C10C28DRO	4770	50.0	mg/kg	04.07.2020 22:10		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	421	50.0	mg/kg	04.07.2020 22:10		1
Total GRO-DRO	PHC628	6030	50.0	mg/kg	04.07.2020 22:10		1
Total TPH	PHC635	6450	50.0	mg/kg	04.07.2020 22:10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	128	%	70-135	04.07.2020 22:10	
o-Terphenyl	84-15-1	115	%	70-135	04.07.2020 22:10	



Certificate of Analytical Results 658074

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW03**
Lab Sample Id: 658074-006

Matrix: Soil
Date Collected: 04.02.2020 10:39

Date Received: 04.07.2020 08:25
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.07.2020 10:36

Basis: Wet Weight

Seq Number: 3122298

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0400	0.0400	mg/kg	04.07.2020 21:05	U	1
Toluene	108-88-3	7.58	0.0400	mg/kg	04.07.2020 21:05		1
Ethylbenzene	100-41-4	7.22	0.0400	mg/kg	04.07.2020 21:05		1
m,p-Xylenes	179601-23-1	14.6	0.0800	mg/kg	04.07.2020 21:05		1
o-Xylene	95-47-6	7.96	0.0400	mg/kg	04.07.2020 21:05		1
Total Xylenes	1330-20-7	22.6	0.0400	mg/kg	04.07.2020 21:05		1
Total BTEX		37.4	0.0400	mg/kg	04.07.2020 21:05		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	04.07.2020 21:05		
1,4-Difluorobenzene	540-36-3	93	%	70-130	04.07.2020 21:05		



Certificate of Analytical Results 658074

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW04** Matrix: Soil Date Received: 04.07.2020 08:25
 Lab Sample Id: 658074-007 Date Collected: 04.02.2020 10:42 Sample Depth: 0 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.07.2020 11:01 Basis: Wet Weight
 Seq Number: 3122305

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	55.9	9.98	mg/kg	04.07.2020 18:37		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.07.2020 14:00 Basis: Wet Weight
 Seq Number: 3122322

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.07.2020 16:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.07.2020 16:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.07.2020 16:23	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	04.07.2020 16:23	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.07.2020 16:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	04.07.2020 16:23	
o-Terphenyl	84-15-1	114	%	70-135	04.07.2020 16:23	



Certificate of Analytical Results 658074

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **SW04**
Lab Sample Id: 658074-007

Matrix: Soil
Date Collected: 04.02.2020 10:42

Date Received: 04.07.2020 08:25
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.07.2020 10:36

Basis: Wet Weight

Seq Number: 3122298

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.07.2020 15:19	U	1
Toluene	108-88-3	0.00997	0.00199	mg/kg	04.07.2020 15:19		1
Ethylbenzene	100-41-4	0.00714	0.00199	mg/kg	04.07.2020 15:19		1
m,p-Xylenes	179601-23-1	0.0134	0.00398	mg/kg	04.07.2020 15:19		1
o-Xylene	95-47-6	0.00795	0.00199	mg/kg	04.07.2020 15:19		1
Total Xylenes	1330-20-7	0.0214	0.00199	mg/kg	04.07.2020 15:19		1
Total BTEX		0.0385	0.00199	mg/kg	04.07.2020 15:19		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	04.07.2020 15:19	
4-Bromofluorobenzene	460-00-4	92	%	70-130	04.07.2020 15:19	



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. **ND** Not Detected.

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 CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3122305

MB Sample Id: 7700689-1-BLK

Matrix: Solid

LCS Sample Id: 7700689-1-BKS

Prep Method: E300P

Date Prep: 04.07.2020

LCSD Sample Id: 7700689-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	260	104	260	104	90-110	0	20	mg/kg	04.07.2020 16:14	

Analytical Method: Chloride by EPA 300

Seq Number: 3122305

Parent Sample Id: 658052-001

Matrix: Soil

MS Sample Id: 658052-001 S

Prep Method: E300P

Date Prep: 04.07.2020

MSD Sample Id: 658052-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	7800	202	8010	104	8000	99	90-110	0	20	mg/kg	04.07.2020 16:31	

Analytical Method: Chloride by EPA 300

Seq Number: 3122305

Parent Sample Id: 658074-001

Matrix: Soil

MS Sample Id: 658074-001 S

Prep Method: E300P

Date Prep: 04.07.2020

MSD Sample Id: 658074-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	34.1	199	248	107	257	110	90-110	4	20	mg/kg	04.07.2020 17:47	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3122322

MB Sample Id: 7700752-1-BLK

Matrix: Solid

LCS Sample Id: 7700752-1-BKS

Prep Method: SW8015P

Date Prep: 04.07.2020

LCSD Sample Id: 7700752-1-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	984	98	999	100	70-135	2	35	mg/kg	04.07.2020 14:00	
Diesel Range Organics (DRO)	<50.0	1000	1140	114	1150	115	70-135	1	35	mg/kg	04.07.2020 14:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		124		126		70-135	%	04.07.2020 14:00
o-Terphenyl	116		124		126		70-135	%	04.07.2020 14:00

Analytical Method: TPH by SW8015 Mod

Seq Number: 3122322

Matrix: Solid

MB Sample Id: 7700752-1-BLK

Prep Method: SW8015P

Date Prep: 04.07.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.07.2020 13:40	

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

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

Analytical Method: TPH by SW8015 Mod

Seq Number: 3122322

Parent Sample Id: 658074-001

Matrix: Soil

MS Sample Id: 658074-001 S

Prep Method: SW8015P

Date Prep: 04.07.2020

MSD Sample Id: 658074-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1000	100	1030	102	70-135	3	35	mg/kg	04.07.2020 15:01	
Diesel Range Organics (DRO)	<50.0	1000	1200	120	1110	110	70-135	8	35	mg/kg	04.07.2020 15:01	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		130		70-135	%	04.07.2020 15:01
o-Terphenyl	128		133		70-135	%	04.07.2020 15:01

Analytical Method: BTEX by EPA 8021B

Seq Number: 3122298

MB Sample Id: 7700729-1-BLK

Matrix: Solid

LCS Sample Id: 7700729-1-BKS

Prep Method: SW5030B

Date Prep: 04.07.2020

LCSD Sample Id: 7700729-1-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	0.102	102	0.0985	99	70-130	3	35	mg/kg	04.07.2020 11:34	
Toluene	<0.00200	0.100	0.0961	96	0.0940	94	70-130	2	35	mg/kg	04.07.2020 11:34	
Ethylbenzene	<0.00200	0.100	0.0902	90	0.0879	88	71-129	3	35	mg/kg	04.07.2020 11:34	
m,p-Xylenes	<0.00400	0.200	0.184	92	0.181	91	70-135	2	35	mg/kg	04.07.2020 11:34	
o-Xylene	<0.00200	0.100	0.0940	94	0.0919	92	71-133	2	35	mg/kg	04.07.2020 11:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		105		105		70-130	%	04.07.2020 11:34
4-Bromofluorobenzene	94		94		92		70-130	%	04.07.2020 11:34

Analytical Method: BTEX by EPA 8021B

Seq Number: 3122298

Parent Sample Id: 658074-001

Matrix: Soil

MS Sample Id: 658074-001 S

Prep Method: SW5030B

Date Prep: 04.07.2020

MSD Sample Id: 658074-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.113	114	0.0959	96	70-130	16	35	mg/kg	04.07.2020 12:15	
Toluene	0.00845	0.0994	0.118	110	0.110	102	70-130	7	35	mg/kg	04.07.2020 12:15	
Ethylbenzene	0.0129	0.0994	0.111	99	0.113	101	71-129	2	35	mg/kg	04.07.2020 12:15	
m,p-Xylenes	0.0234	0.199	0.231	104	0.238	108	70-135	3	35	mg/kg	04.07.2020 12:15	
o-Xylene	0.0195	0.0994	0.123	104	0.117	98	71-133	5	35	mg/kg	04.07.2020 12:15	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		98		70-130	%	04.07.2020 12:15
4-Bromofluorobenzene	98		95		70-130	%	04.07.2020 12:15

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

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

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

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



Chain of Custody

Work Order No: 658074

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

www.xenco.com

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Little
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 701-2610	Email:	dmair@ltenv.com rmcalfree@ltenv.com

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

Project Name:	Sevcrus CTB	Turn Around	☐	ANALYSIS REQUEST	Work Order Notes
Project Number:	012920036	Routine	☐		
P.O. Number:		Rush: 3 day			
Sampler's Name:	Robert McAlfee	Due Date:			
SAMPLE RECEIPT Temperature (°C): 1.0 Received intact: Yes ☒ No ☐ Cooler Custody Seals: Yes ☒ No ☐ Sample Custody Seals: Yes ☒ No ☐ Thermometer ID: TMM007 Correction Factor: -0.2 Total Containers: 7					
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers
FSO1	S	04/01/20	1311	3'	1
FSO2		04/01/20	1322	2'	
FSO3		04/02/20	0955	1.5'	
SW01			0929	0-2'	
SW02			0933	0-2'	
SW03			1039	0-3'	
SW04			1042	0-3'	
TPH (EPA 8015) ☒ BTEX (EPA 8021) ☒ Chloride (EPA 300.0) ☒					
TAT starts the day received by the lab, if received by 4:30pm					
Sample Comments					
Composite					

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Pb Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
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 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>Robert McAlfee</i>	<i>Walt</i>	4/12/20 4:18 AM	<i>Walt</i>	<i>[Signature]</i>	4/12/20 08:25

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04.07.2020 08.25.00 AM

Work Order #: 658074

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 04.07.2020

Checklist reviewed by:

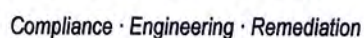


Jessica Kramer

Date: 04.07.2020



[Handwritten signature]



Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		OPEN
						1		Excavation
						2		
M	291	13.4	N		3'	3		SP-SC Brown - light Brown
M	124	20.6	N		4'	4		↓
						5		
						6		
						7		
						8		RA
						9		
						10		
						11		
						12		



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 BHO_3

04/02/2020

Severus CTB

LTE Job Number:

Logged By: Robert M.

Method:	Hand Auger
---------	------------

Lat/Long:

Field Screening:	
------------------	--

Hole Diameter: 3"

Total Depth	4
-------------	---

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	680	3612	Y		0.5'	0		CHCE white-tan
M	124 380	457.6	N		1'	1		SP-SC Brown-red
M	124	593	N		2'	2		
M	124	197	N		3'	3		more clay content at 3'
M	124	91	N		4'	4		increased clay content
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		



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ВН021

Date: _____

04/06/20

Site Name: Severns CTB

RP or Incident Number:

LTE Job Number:

Logged By: Robert M

Robert M

Method:	Hand Auger
---------	------------

Lat/Long:

Field Screening:	
------------------	--

Hole Diameter:	
----------------	--

 3^{1-}

Total Depth:	
--------------	--

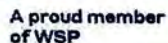
3'

Chloride, PID

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	<124	5.3	N		0.5'	0		CHCE trace Brown sand white/tan
M	<124	0.4	N		1'	1		SP-SM Brown-dark Brown
M	<124	0.8	N		2'	2		SP-SC Brown
M	<124	1.8	N		3'	3		clayey sand Brown non-plastic
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 A proud member of WSP Compliance · Engineering · Remediation		BH or PH Name: BH05		Date: 04/06/20			
		Site Name: Severus CTB					
RP or Incident Number:							
LTE Job Number:							
LITHOLOGIC / SOIL SAMPLING LOG							
Lat/Long:		Field Screening: Chloride, PID		Logged By: Robert M.			
				Method: Hand Auger			
				Hole Diameter: 3"			
				Total Depth: 3'			
Comments:							
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
					0		
D	<124	2.1	N		0.5'		CHCE trace sand tan / white
M	<124	0.2	N		1'		SP-SM Brown - Dark Brown
M	<124	0.5	N		2'		SP-SC Brown
M	<124	1.0	N		3'		clayey sand low-moist plasticity Brown
					4		
					5		
					6		
					7		
					8		
					9		
					10		
					11		
					12		



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Date:

4-6-20

RP or Incident Number:

LTE Job Number:

Logged By: Travis C.

Method: Hand Aug-1

Lat/Long:

Field Screening:	
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Hole Diameter:	
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Total Depth:	2
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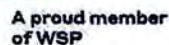
Chloride, PID

311

3

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	<124	28.5	N			0		CHCE trace sand tan/white
M	<124	0.4	N		-5 1'	1		SP-SM Brown - Dark Brown
M	<124	0.6	N		2'	2		SP-SC Brown
M	<124	5.5	N		3'	3		Clayey sand low-moist plasticity Brown
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		



Compliance · Engineering · Remediation

BHOT

04/06/20

RP or Incident Number:

LTE Job Number:

LITHOLOGIC / SOIL SAMPLING LOG

Method:	Hand Auger
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Hole Diameter: 2.5"

Total Depth:	3'
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Lat/Long:

Field Screening:

Chloride, PID

Comments:

[illegible]



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

**A proud member
of WSP**

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BH or PH Name: _____

B408

Date:

e: 04/06/20

Site Name: SEVCHUF CTB

RP or Incident Number:

LTE Job Number:

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: Robert M

Method: Hand Auger

Hole Diameter:	2"
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Total Depth:	
--------------	--

Lat/Long:

Field Screening:
Chloride, PID

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	124	1.9	N		0.5'	0		CHCE / poor ^{trace} ^{Poor grade} Brown Sand tan/white
M	124	1.6	N		1'	1		SP-SC Brown non-plastic
M	200	2.1	N		2'	2		Clayey sand Poor grade low-mod Plasticity Brown
M	124	3.3	N		3'	3		SP-SC Brown non-plastic
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		