

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)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 80.6	Volume Recovered (bbls) 80
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> 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.

Incident ID	NRM2006936148 <i>Page 2 of 160</i>
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> 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: _____

<u>OCD Only</u>	
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

Incident ID	NRM2006936118
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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


Page 4

Incident ID	NRM2006936118
District RP	
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell

Title: SH&E Supervisor

Signature: 

Date: 3-31-2021

email: Kyle.Littrell@xtoenergy.com

Telephone: _____

OCD Only

Received by: _____

Date: _____

Incident ID	NRM2006936118
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 3-31-2021

email: Kyle.Littrell@xtoenergy.com Telephone: _____

OCD Only

Received by: Chad Hensley Date: 06/18/2021

- Approved
 Approved with Attached Conditions of Approval
 Denied
 Deferral Approved

Signature:  Date: 06/18/2021



WSP USA

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

March 31, 2021

District II
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210

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

To Whom it May Concern:

WSP USA Inc. on behalf of XTO Energy, Inc. (XTO), presents the following Addendum to the Deferral Request submitted May 24, 2020. This Addendum provides a description of the depth to groundwater determination activities at the Severus Tank Battery (Site) in Unit O, Section 30, Township 20 South, Range 34 East, in Lea County, New Mexico (Figure 1), in response to the denial of the Deferral Request by the New Mexico Oil Conservation Division (NMOCD). In the denial, NMOCD expressed concern that the depth to groundwater assessment and horizontal delineation may not be sufficient. Based on the additional depth to groundwater determination activities described below, XTO is submitting this Deferral Request Addendum, requesting deferral of final remediation for Incident Number NRM2006936118 until the Site is reconstructed, and/or the well pad is abandoned.

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 onto the surrounding caliche well pad. A vacuum truck was immediately dispatched to the Site to recover freestanding fluids, of which approximately 80 bbls of crude oil were recovered. Approximately 0.6 bbls of crude oil was not recoverable from the well pad. XTO notified NMOCD of the release immediately via email on February 25, 2020 and submitted a Release Notification and Corrective Action Form C-141 (Form C-141) on March 6, 2020. The release was assigned Incident Number NRM2006936118.

The Deferral Request detailed site characterization 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). Based on the site characterization, the following Closure Criteria were applied:

- 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

As described in the original deferral request, XTO excavated approximately 21 yards of impacted soil north of the tank battery and surrounding active production equipment. Confirmation soil samples were collected to confirm the impacted soil had been addressed. Deferral was requested due to TPH-GRO/TPH-DRO and TPH impacted soil left in place immediately surrounding active production equipment near floor sample FS03 and sidewall samples SW02 and SW03. XTO safety policy restricts earth-moving activities within two feet of active production equipment. An estimated 49 cubic yards of residual impacted soil remains in-place. The requested deferral area and active production equipment are shown on Figure 2. The residual impacted soil beneath or adjacent to the active production equipment is delineated by soil borings BH01 through BH08. Sidewall sample SW02 is delineated by samples collected from boreholes BH01, BH07 and BH08, and excavation floor sample FS02. Sidewall sample SW03 is delineated by samples collected from boreholes BH02, BH04, and BH06, excavation floor sample FS01, and excavation sidewall sample SW04. Floor sample FS03 is delineated by samples collected from boreholes BH03 and BH07 and by the lined containment to the south. The delineation samples were compliant with the Site Closure Criteria. The borehole and delineation soil samples in relation to excavation samples containing TPH concentrations proposed for deferral are shown on Figure 2.

On July 9, 2020, NMOCD denied the Deferral Request for Incident Number NRM2006936118 for the following reasons:

- *The Depth to groundwater has been incorrectly assessed. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided. If XTO believes that groundwater is > 100', a borehole will need to be drilled onsite and a copy of the driller's log must be provided. Vertical delineation, which is driven by depth to water, is incomplete because the depth to groundwater has not been established.*
- *The horizontal extent of the release has not been delineated. The edges -horizontal definition- of a liquid release must be determined. A visual footprint on the surface is not sufficient or adequate to assess the horizontal extent of the release. The only value for determination of horizontal impact are derived by either "background" value as determined appropriate to Rule 29, or, for chloride, 600 mg/Kg in soils.*

ADDITIONAL SITE ACTIVITIES

In an effort to confirm the depth to groundwater determination, WSP installed a soil boring within 0.5 miles of the Site utilizing a truck-mounted hollow-stem auger rig. Soil boring CP-1860



was drilled to a depth of 110 feet bgs. A WSP geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activities. The well record and log are included in Attachment 1. The location of the borehole is approximately 0.1 miles southwest of the site and is depicted on Figure 1. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 110 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips. Based on the confirmed depth to water greater than 110 feet bgs, the Table 1 Closure Criteria identified in the original Deferral Request are applicable and appropriate for protection of groundwater at this Site.

DELINEATION

An estimated 49 cubic yards of residual impacted soil remains in-place immediately surrounding active production equipment near excavation floor sample FS03 and sidewall samples SW02 and SW03. The residual impacted soil beneath or adjacent to the active production equipment is delineated laterally and vertically to the correctly applied Closure Criteria by final excavation floor soil samples FS01, FS02, sidewall samples SW01 and SW04, and by delineation samples collected from boreholes BH01 through BH08 that were compliant with the strictest Closure Criteria. Based on the confirmed depth to groundwater greater than 100 feet bgs, the samples meet the applied Closure Criteria and no further delineation is necessary. The requested deferral area, soil sample locations, and analytical results are shown on Figure 2. Analytical results are summarized in Table 1 and laboratory analytical reports are included in Attachment 2.

DEFERRAL REQUEST

Site assessment and excavation activities were completed at the Site to address the impacted soil resulting from the February 24, 2020 release of crude oil. An estimated 49 cubic yards of residual impacted soil remains in-place beneath or adjacent to the active production equipment. The impacted soil remaining in-place is laterally and vertically delineated to below the Site Closure Criteria and the strictest Closure Criteria.

Based on the confirmed depth to water greater than 110 feet bgs and laboratory analytical results for the lateral and vertical delineation soil samples below the Site Closure Criteria, XTO respectfully requests deferral of final remediation for Incident Number NRM2006936118 until the Site is reconstructed, and/or the well pad is abandoned.



District II
Page 4

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

Sincerely,
WSP USA, INC.

A handwritten signature in black ink, appearing to read 'Fatima Smith'.

Fatima Smith
Associate Consultant, Geologist

A handwritten signature in black ink, appearing to read 'Ashley L. Ager'.

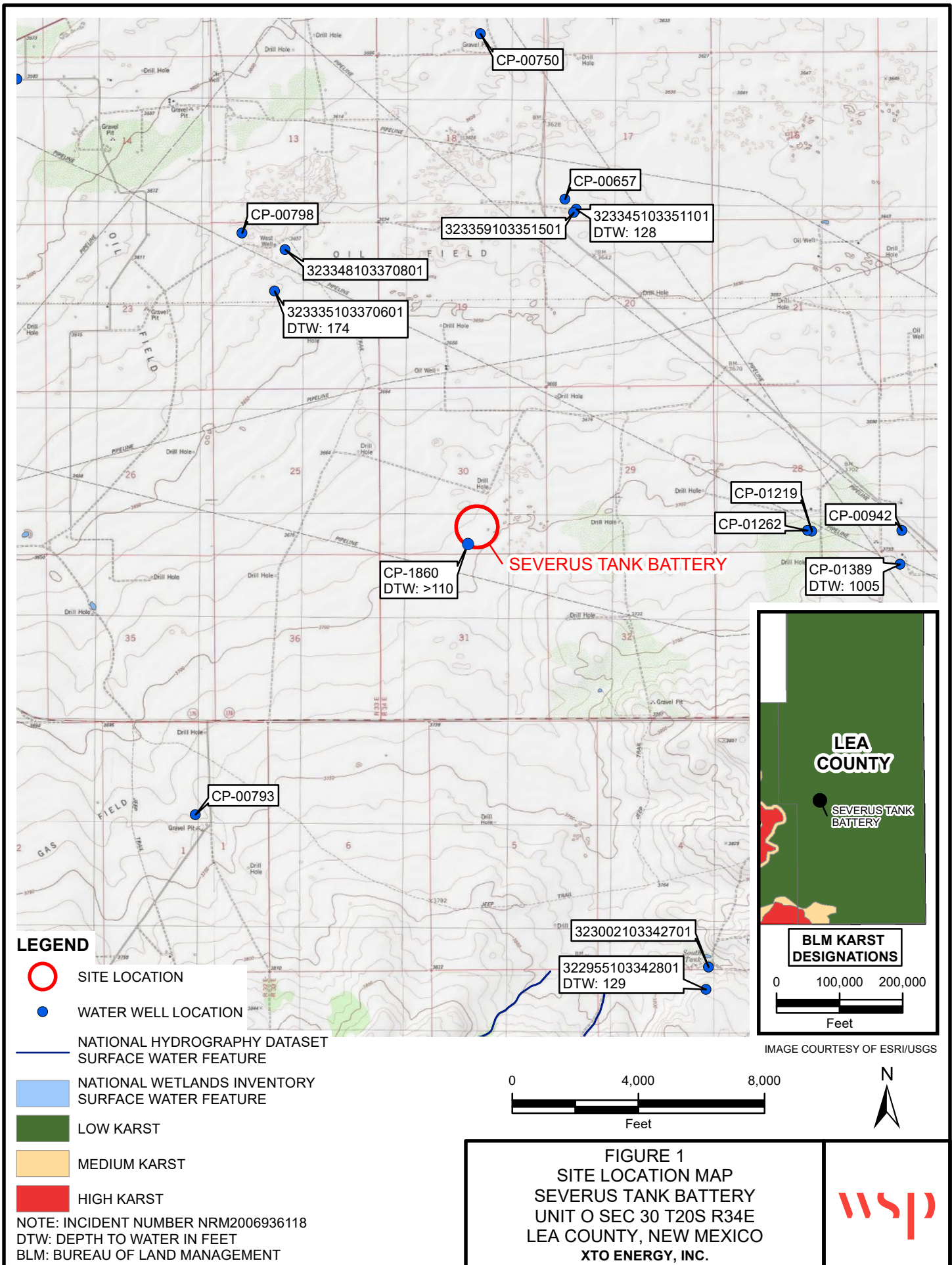
Ashley L. Ager, P.G.
Managing Director, Geologist

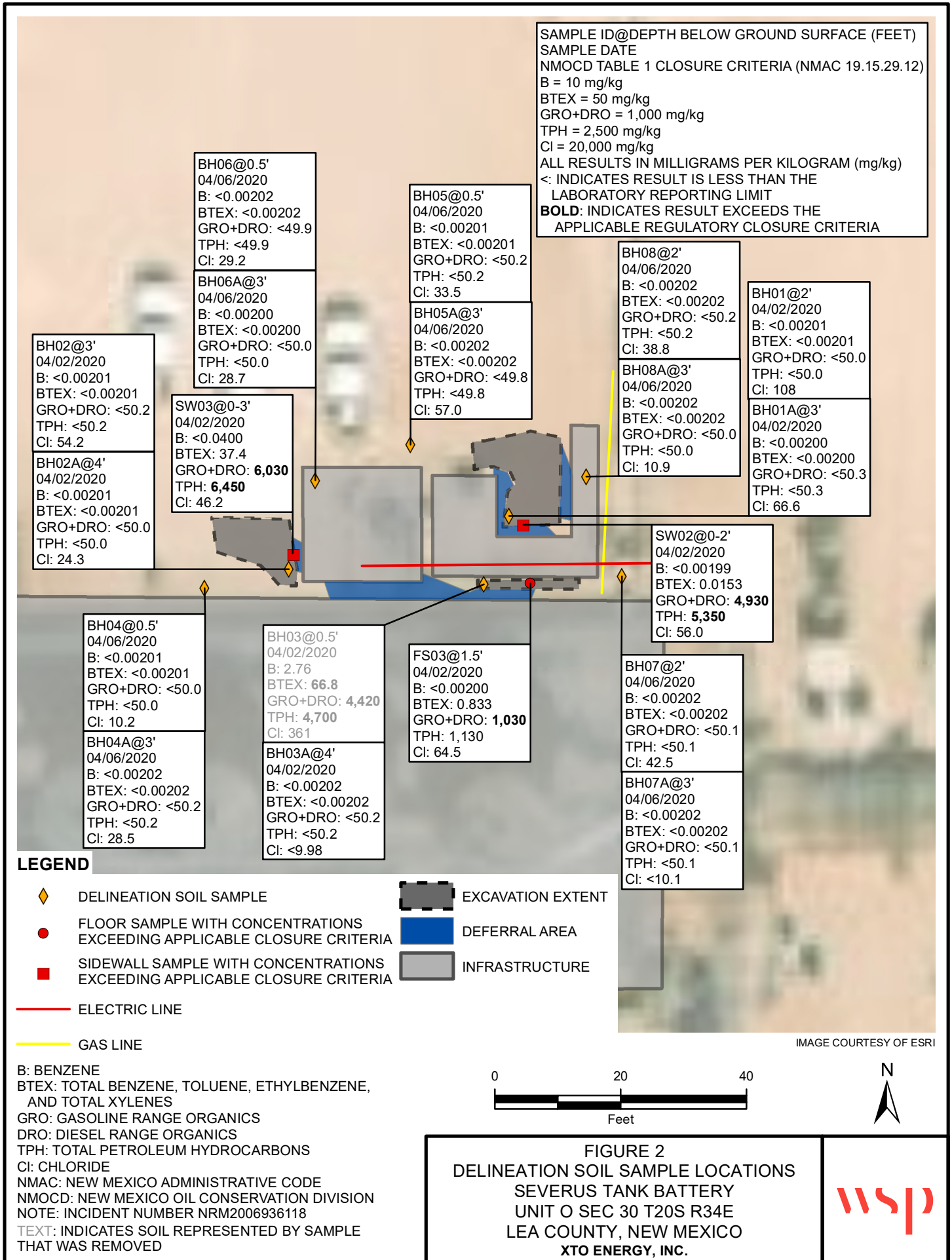
cc: Kyle Littrell, XTO
United States Bureau of Land Management – New Mexico

Attachments:

- Figure 1 Site Location Map
- Figure 2 Proposed Deferral Area
- Table 1 Soil Analytical Results
- Attachment 1 Referenced Well Record
- Attachment 2 Laboratory Analytical Reports

FIGURES





SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
 SAMPLE DATE
 NMOCD TABLE 1 CLOSURE CRITERIA (NMAC 19.15.29.12)
 B = 10 mg/kg
 BTEX = 50 mg/kg
 GRO+DRO = 1,000 mg/kg
 TPH = 2,500 mg/kg
 Cl = 20,000 mg/kg
 ALL RESULTS IN MILLIGRAMS PER KILOGRAM (mg/kg)
 <: INDICATES RESULT IS LESS THAN THE LABORATORY REPORTING LIMIT
BOLD: INDICATES RESULT EXCEEDS THE APPLICABLE REGULATORY CLOSURE CRITERIA

BH06@0.5'
 04/06/2020
 B: <0.00202
 BTEX: <0.00202
 GRO+DRO: <49.9
 TPH: <49.9
 Cl: 29.2

BH05@0.5'
 04/06/2020
 B: <0.00201
 BTEX: <0.00201
 GRO+DRO: <50.2
 TPH: <50.2
 Cl: 33.5

BH08@2'
 04/06/2020
 B: <0.00202
 BTEX: <0.00202
 GRO+DRO: <50.2
 TPH: <50.2
 Cl: 38.8

BH01@2'
 04/02/2020
 B: <0.00201
 BTEX: <0.00201
 GRO+DRO: <50.0
 TPH: <50.0
 Cl: 108

BH02@3'
 04/02/2020
 B: <0.00201
 BTEX: <0.00201
 GRO+DRO: <50.2
 TPH: <50.2
 Cl: 54.2

BH06A@3'
 04/06/2020
 B: <0.00200
 BTEX: <0.00200
 GRO+DRO: <50.0
 TPH: <50.0
 Cl: 28.7

BH05A@3'
 04/06/2020
 B: <0.00202
 BTEX: <0.00202
 GRO+DRO: <49.8
 TPH: <49.8
 Cl: 57.0

BH08A@3'
 04/06/2020
 B: <0.00202
 BTEX: <0.00202
 GRO+DRO: <50.0
 TPH: <50.0
 Cl: 10.9

BH01A@3'
 04/02/2020
 B: <0.00200
 BTEX: <0.00200
 GRO+DRO: <50.3
 TPH: <50.3
 Cl: 66.6

SW03@0-3'
 04/02/2020
 B: <0.0400
 BTEX: 37.4
 GRO+DRO: **6,030**
 TPH: **6,450**
 Cl: 46.2

SW02@0-2'
 04/02/2020
 B: <0.00199
 BTEX: 0.0153
 GRO+DRO: **4,930**
 TPH: **5,350**
 Cl: 56.0

BH02A@4'
 04/02/2020
 B: <0.00201
 BTEX: <0.00201
 GRO+DRO: <50.0
 TPH: <50.0
 Cl: 24.3

BH04@0.5'
 04/06/2020
 B: <0.00201
 BTEX: <0.00201
 GRO+DRO: <50.0
 TPH: <50.0
 Cl: 10.2

BH03@0.5'
 04/02/2020
 B: 2.76
 BTEX: **66.8**
 GRO+DRO: 4,420
 TPH: **4,700**
 Cl: 361

FS03@1.5'
 04/02/2020
 B: <0.00200
 BTEX: 0.833
 GRO+DRO: **1,030**
 TPH: 1,130
 Cl: 64.5

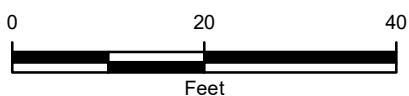
BH07@2'
 04/06/2020
 B: <0.00202
 BTEX: <0.00202
 GRO+DRO: <50.1
 TPH: <50.1
 Cl: 42.5

BH04A@3'
 04/06/2020
 B: <0.00202
 BTEX: <0.00202
 GRO+DRO: <50.2
 TPH: <50.2
 Cl: 28.5

BH03A@4'
 04/02/2020
 B: <0.00202
 BTEX: <0.00202
 GRO+DRO: <50.2
 TPH: <50.2
 Cl: <9.98

BH07A@3'
 04/06/2020
 B: <0.00202
 BTEX: <0.00202
 GRO+DRO: <50.1
 TPH: <50.1
 Cl: <10.1

B: BENZENE
 BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
 GRO: GASOLINE RANGE ORGANICS
 DRO: DIESEL RANGE ORGANICS
 TPH: TOTAL PETROLEUM HYDROCARBONS
 Cl: CHLORIDE
 NMAC: NEW MEXICO ADMINISTRATIVE CODE
 NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
 NOTE: INCIDENT NUMBER NRM2006936118
 TEXT: INDICATES SOIL REPRESENTED BY SAMPLE THAT WAS REMOVED



TABLES

Table 1
Soil Analytical Results
Severus Tank Battery
Incident Number NRM2006936118
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000
Surface Samples													
SS01	03/26/2020	0.5	5.26	29.9	18.1	47	100	2,610	11,900	1,060	14,500	15,600	10.7
SS02	03/26/2020	0.5	35.4	177	54.1	123	390	8,100	11,100	928	19,200	20,100	20.8
Excavation Samples													
BH01	04/02/2020	2	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	108
BH01A	04/02/2020	3	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	66.6
BH02	04/02/2020	3	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	54.2
BH02A	04/02/2020	4	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	24.3
BH03	04/02/2020	0.5	2.76	22.0	11.7	30.3	66.8	1,070	3,350	276	4,420	4,700	361
BH03A	04/02/2020	4	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	<9.98
BH04	04/06/2020	0.5	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	10.2
BH04A	04/06/2020	3	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	28.5
BH05	04/06/2020	0.5	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	33.5
BH05A	04/06/2020	3	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	57.0
BH06	04/06/2020	0.5	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	29.2
BH06A	04/06/2020	3	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	28.7
BH07	04/06/2020	2	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	42.5
BH07A	04/06/2020	3	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	<10.1
BH08	04/06/2020	2	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	38.8
BH08A	04/06/2020	3	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	10.9
Excavation Samples													
FS01	04/01/2020	3	<0.00200	0.00845	0.0129	0.0429	0.0643	<49.9	<49.9	<49.9	<49.9	<49.9	34.1
FS02	04/01/2020	2	<0.00200	<0.00200	<0.00200	0.0453	0.0453	<49.9	<49.9	<49.9	<49.9	<49.9	35.2
FS03	04/02/2020	1.5	<0.00200	0.147	0.171	0.515	0.833	51.7	974	109	1,030	1,130	64.5


Table 1
Soil Analytical Results
Severus Tank Battery
Incident Number NRM2006936118
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000
Sidewall Samples													
SW01	4/02/2020	0-2	<0.00200	0.110	0.108	0.295	0.513	<50.1	217	<50.1	217	217	36.0
SW02	4/02/2020	0-2	<0.00199	<0.00199	<0.00199	0.0153	0.0153	445	4,480	421	4,930	5,350	56.0
SW03	4/02/2020	0-3	<0.0400	7.58	7.22	22.6	37.4	1,260	4,770	421	6,030	6,450	46.2
SW04	4/02/2020	0-3	<0.00199	0.00997	0.00714	0.0214	0.0385	<49.9	<49.9	<49.9	<49.9	<49.9	55.9

ft - feet/foot
 mg/kg - milligrams per kilograms
 BTEX - benzene, toluene, ethylbenzene, and total xylenes
 TPH - total petroleum hydrocarbons
 DRO - diesel range organics
 GRO - gasoline range organics

ORO - motor oil range organics
 NMOCD - New Mexico Oil Conservation Division
 NMAC - New Mexico Administrative Code
 < - indicates result is less than the stated laboratory method practical quantitation limit
 NE - Not Established
BOLD - indicates results exceed the higher of the background sample result or applicable regulatory standard
 impacted soil was removed
 * - indicates sample was collected in area to be reclaimed after remediation is complete; closure criteria for chloride concentration in the top 4 feet of soil is 600 mg/kg

ATTACHMENT 1: REFERENCED WELL RECORD

 <p style="text-align: center;">WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>				BH or PH Name:		Date:		
				BH01		2/25/2021		
				Site Name: Severus Tank Battery				
				RP or Incident Number:				
LITHOLOGIC / SOIL SAMPLING LOG				LTE Job Number: TE012920036				
Lat/Long: 32.537726,-103.599083		Field Screening: N/A		Logged By SL		Method: Hollow Stem Auger		
				Hole Diameter: 6.5"		Total Depth: 112.8		
Comments: No field screening, only logged lithology, well screened from 92.8' - 112.8'								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D			N			0	CCHE	0-2' Caliche, tan, off-white, no odor, no stain, gravel, dry
D			N			5	SP-SM	2'-6' Sand, brown, no odor, no stain, m-f, well sorted, trace silt, dry
D			N			10 15	SP-SM	6'-15' Sandy clay, brown, moist, no odor, no stain, m-f, well sorted, no plasticity, no cohesion, trace silt, dry -8' increase in clay
M			N			20	SC	15'-21' Clayey sand, tan-brown, moist, no odor, no stain, m-f, well sorted, cohesive, low plasticity
D			N			25 30 35 40	CCHE	21'-40' Caliche w/ sand, tan, off-white, no odor, no stain, m-f grain, well sorted, dry -23' gravel caliche -37' increase in sand content
D			N			45	SP-SM	40'-44' Sand w/ caliche, tan, brown, m-f grain, well sorted, no odor, no stain, dry
						50 55	ST	44'-58' Sandstone, moderate consolidation, no stain, no odor, m-f grain, tan, brown, dry, little caliche content -55' increase in caliche gravel content
D			N			60 65	SC	58'-65' Clayey sand, brown, no stain, no odor, dry, m-f grain, well sorted, cohesive, medium plasticity -63'-64' m-f grain sand stringer
M			N			70 75 80 85 90 95 100 105 110	CLST	65'-112.8' Claystone, no odor, no stain, high plasticity, cohesive, brown, moist -78'-79' m-f grain sand stringer -108' fine grain sand stringer
						115		TD @ 112.8'
						120		

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS

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'.

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

<i>Analysis Requested</i>	<i>Lab Id:</i>	657460-001	657460-002				
	<i>Field Id:</i>	SS01	SS02				
	<i>Depth:</i>	0.5- ft	0.5- ft				
	<i>Matrix:</i>	SOIL	SOIL				
	<i>Sampled:</i>	Mar-26-20 09:45	Mar-26-20 09:50				
BTEX by EPA 8021B	<i>Extracted:</i>	Mar-31-20 19:28	Mar-31-20 19:28				
	<i>Analyzed:</i>	Apr-01-20 12:50	Apr-01-20 13:11				
	<i>Units/RL:</i>	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	<i>Extracted:</i>	Mar-31-20 19:18	Mar-31-20 19:18				
	<i>Analyzed:</i>	Apr-01-20 11:36	Apr-01-20 11:41				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Chloride		10.7 10.0	20.8 9.98				
TPH by SW8015 Mod	<i>Extracted:</i>	Apr-01-20 11:57	Apr-01-20 11:57				
	<i>Analyzed:</i>	Apr-02-20 02:21	Apr-02-20 02:41				
	<i>Units/RL:</i>	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** Matrix: Soil Date Received: 03.31.20 17.09
 Lab Sample Id: 657460-001 Date Collected: 03.26.20 09.45 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.31.20 19.18 Basis: Wet Weight
 Seq Number: 3121597

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 Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.01.20 11.57 Basis: Wet Weight
 Seq Number: 3121687

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	Matrix: Soil	Date Received: 03.31.20 17.09
Lab Sample Id: 657460-001	Date Collected: 03.26.20 09.45	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** Matrix: Soil Date Received: 03.31.20 17.09
 Lab Sample Id: 657460-002 Date Collected: 03.26.20 09.50 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 03.31.20 19.18 Basis: Wet Weight
 Seq Number: 3121597

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 Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.01.20 11.57 Basis: Wet Weight
 Seq Number: 3121687

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	Matrix: Soil	Date Received: 03.31.20 17.09
Lab Sample Id: 657460-002	Date Collected: 03.26.20 09.50	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 Matrix: Solid Prep Method: E300P
 MB Sample Id: 7700191-1-BLK LCS Sample Id: 7700191-1-BKS 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 Matrix: Soil Prep Method: E300P
 Parent Sample Id: 657453-001 MS Sample Id: 657453-001 S 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 Matrix: Soil Prep Method: E300P
 Parent Sample Id: 657454-011 MS Sample Id: 657454-011 S 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 Matrix: Solid Prep Method: SW8015P
 MB Sample Id: 770257-1-BLK LCS Sample Id: 770257-1-BKS 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

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 Prep Method: SW8015P
 MB Sample Id: 770257-1-BLK 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 [D] = 100*(C-A) / B
 Relative Percent Difference RPD = 200* |(C-E) / (C+E)|
 LCS/LCSD Recovery [D] = 100 * (C) / [B]
 Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)
 LCS = Laboratory Control Sample MS = Matrix Spike
 A = Parent Result B = Spike Added
 C = MS/LCS Result D = MSD/LCSD % Rec
 E = MSD/LCSD Result



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
 Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

Work Order No: 60574160

Project Manager: Dan Moir
 Company Name: LT Environmental, Inc., Permian office
 Address: 3300 North A Street
 City, State ZIP: Midland, TX 79705
 Phone: 432.704.5178
 Email: dmoir@ltenv.com mcafee@ltenv.com

Bill to: (if different) Kyle Litrel
 Company Name: XTO-Energy
 Address:
 City, State ZIP: Carlsbad, NM

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

Project Name: Severns CTB
 Project Number: 012920036
 P.O. Number: SPILL 02-24-20
 Sampler's Name: Robert McAfee

Turn Around
 Routine
 Rush: 3 day
 Due Date:

Work Order Comments
 Work Order Notes

SAMPLE RECEIPT
 Temperature (°C): 1.8
 Received Intact: Yes No
 Cooler Custody Seals: Yes No N/A
 Sample Custody Seals: Yes No N/A

Thermometer ID: T-111-001
 Correction Factor: -0.2
 Total Containers: 2

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	Analysis Request	Work Order Notes
SS01	S	03/26/20	0945	0.5'	1	X	X	X		
SS02	S	03/26/20	0950	0.5'	1	X	X	X		discrete

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

Relinquished by: (Signature) Received by: (Signature) Date/Time

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: TNI02385): 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, slightly slanted 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

<i>Analysis Requested</i>	<i>Lab Id:</i>	657628-007		657628-008		657628-009		657628-010		657628-011		657628-012	
	<i>Field Id:</i>	FS07		FS08		FS09		FS10		FS11		FS12	
	<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 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	<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 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	
	<i>Units/RL:</i>	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	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	<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 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	
	<i>Units/RL:</i>	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	<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 16:00		04.02.2020 16:00	
	<i>Analyzed:</i>	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	
	<i>Units/RL:</i>	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.2	50.2	<50.1	50.1	<50.0	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

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

<i>Analysis Requested</i>	<i>Lab Id:</i>	657628-013		657628-014		657628-015		657628-016		657628-017		657628-018	
	<i>Field Id:</i>	FS13		FS14		FS15		FS16		FS17		FS18	
	<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 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	<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 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	
	<i>Units/RL:</i>	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	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	<i>Extracted:</i>	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	
	<i>Analyzed:</i>	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	
	<i>Units/RL:</i>	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<10.0	10.0	10.5	9.96	25.1	9.98	22.8	9.92	<9.97	9.97	<9.88	9.88
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		04.02.2020 16:00	
	<i>Analyzed:</i>	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	
	<i>Units/RL:</i>	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<49.9	49.9	<50.1	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

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

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

Jessica Kramer

Jessica Kramer
Project Manager



Certificate of Analysis Summary 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>	657628-019		657628-020		657628-021		657628-022		657628-023		657628-024	
	<i>Field Id:</i>	FS19		FS20		FS21		FS22		FS23		FS24	
	<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 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	<i>Extracted:</i>	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	
	<i>Analyzed:</i>	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	
	<i>Units/RL:</i>	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00200	0.00200	<0.00202	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	<i>Extracted:</i>	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	
	<i>Analyzed:</i>	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	
	<i>Units/RL:</i>	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	<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		04.02.2020 16:00	
	<i>Analyzed:</i>	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	
	<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	<50.0	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

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

<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

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

<i>Analysis Requested</i>	<i>Lab Id:</i>	657628-031	657628-032	657628-033	657628-034	657628-035	657628-036
	<i>Field Id:</i>	FS31	SW01	SW02	SW03	SW04	SW05
	<i>Depth:</i>	2- ft	0-2 ft	0-2 ft	0-2 ft	0-2 ft	0-2 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	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	<i>Extracted:</i>	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
	<i>Analyzed:</i>	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
	<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	<0.0200 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	<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 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
	<i>Units/RL:</i>	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	<i>Extracted:</i>	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
	<i>Analyzed:</i>	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
	<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	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

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

<i>Analysis Requested</i>	<i>Lab Id:</i>	657628-037	657628-038	657628-039			
	<i>Field Id:</i>	SW06	SW07	SW08			
	<i>Depth:</i>	0-2 ft	0-2 ft	0-2 ft			
	<i>Matrix:</i>	SOIL	SOIL	SOIL			
	<i>Sampled:</i>	03.31.2020 15:02	03.31.2020 15:07	03.31.2020 15:10			
BTEX by EPA 8021B	<i>Extracted:</i>	04.03.2020 13:24	04.03.2020 13:24	04.03.2020 13:24			
	<i>Analyzed:</i>	04.04.2020 03:54	04.04.2020 20:54	04.04.2020 04:35			
	<i>Units/RL:</i>	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	<i>Extracted:</i>	04.05.2020 08:57	04.05.2020 08:57	04.05.2020 08:57			
	<i>Analyzed:</i>	04.05.2020 15:36	04.05.2020 15:42	04.05.2020 15:48			
	<i>Units/RL:</i>	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	<i>Extracted:</i>	04.03.2020 10:00	04.03.2020 10:00	04.03.2020 10:00			
	<i>Analyzed:</i>	04.04.2020 05:34	04.04.2020 10:18	04.04.2020 09:57			
	<i>Units/RL:</i>	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			

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 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	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: 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
Seq Number: 3121741	Basis: Wet Weight

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	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: 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 11:35	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
Seq Number: 3121741	Basis: Wet Weight

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	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: 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		



Certificate of Analytical Results 657628

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
Seq Number: 3121741	Basis: Wet Weight

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	



Certificate of Analytical Results 657628

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: 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		



Certificate of Analytical Results 657628

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	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: 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	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: 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
Seq Number: 3121741	Basis: Wet Weight

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	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: 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 13:17	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
Seq Number: 3121741	Basis: Wet Weight

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	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: 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
Seq Number: 3121741	Basis: Wet Weight

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	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: 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	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: 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		



Certificate of Analytical Results 657628

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
Seq Number: 3121840	Basis: Wet Weight

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	



Certificate of Analytical Results 657628

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: 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
Seq Number: 3121840	Basis: Wet Weight

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	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: 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	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: 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
Seq Number: 3121840	Basis: Wet Weight

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	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: 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
Seq Number: 3121840	Basis: Wet Weight

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	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: 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
Seq Number: 3121840	Basis: Wet Weight

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	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: 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	



Certificate of Analytical Results 657628

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	



Certificate of Analytical Results 657628

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: 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		



Certificate of Analytical Results 657628

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	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: 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		



Certificate of Analytical Results 657628

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	



Certificate of Analytical Results 657628

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: 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		



Certificate of Analytical Results 657628

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
Seq Number: 3121840	Basis: Wet Weight

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	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: 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	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: 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		



Certificate of Analytical Results 657628

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	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: 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
Seq Number: 3121840	Basis: Wet Weight

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	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: 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
Seq Number: 3121840	Basis: Wet Weight

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	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: 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		



Certificate of Analytical Results 657628

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	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: 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 07:35	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		



Certificate of Analytical Results 657628

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
Seq Number: 3121840	Basis: Wet Weight

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	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: 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		



Certificate of Analytical Results 657628

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	



Certificate of Analytical Results 657628

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: 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		



Certificate of Analytical Results 657628

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
Seq Number: 3121840	Basis: Wet Weight

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	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: 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		



Certificate of Analytical Results 657628

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
Seq Number: 3121840	Basis: Wet Weight

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	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: 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	



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: 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		



Certificate of Analytical Results 657628

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	



Certificate of Analytical Results 657628

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: 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		



Certificate of Analytical Results 657628

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	



Certificate of Analytical Results 657628

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: 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		



Certificate of Analytical Results 657628

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	



Certificate of Analytical Results 657628

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: 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		



Certificate of Analytical Results 657628

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	



Certificate of Analytical Results 657628

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: 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		



Certificate of Analytical Results 657628

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	



Certificate of Analytical Results 657628

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: 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	



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: 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	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: 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	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: 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
Seq Number: 3122001	Basis: Wet Weight

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	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: 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
Parent Sample Id: 657638-007

Matrix: Soil
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

MB Sample Id: 7700415-1-BLK

Matrix: Solid

LCS Sample Id: 7700415-1-BKS

Prep Method: SW5030B

Date Prep: 04.02.2020

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

MB Sample Id: 7700534-1-BLK

Matrix: Solid

LCS Sample Id: 7700534-1-BKS

Prep Method: SW5030B

Date Prep: 04.03.2020

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

Parent Sample Id: 657369-001

Matrix: Soil

MS Sample Id: 657369-001 S

Prep Method: SW5030B

Date Prep: 04.02.2020

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



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: 10571028

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

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

Project Name: Turn Around
 Project Number: Routine
 P.O. Number: Rush:
 Sampler's Name: Robert McAtee Due Date:
SAMPLE RECEIPT Temp Blank: Yes No Wet Ice: Yes No
 Temperature (°C): Thermometer ID
 Received Intact: Yes No
 Cooler Custody Seals: Yes No N/A Correction Factor:
 Sample Custody Seals: Yes No N/A Total Containers:

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST											Work Order Notes
FS31	S	03/31/20	1401	2'	1	X	X	X												TAT starts the day received by the lab, if received by 4:30pm
SW01			1212	0-2'		X	X	X												Composite
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			1510			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
 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: 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: TNI02385): 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, slightly slanted 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

<i>Analysis Requested</i>	<i>Lab Id:</i>	658074-001	658074-002	658074-003	658074-004	658074-005	658074-006
	<i>Field Id:</i>	FS01	FS02	FS03	SW01	SW02	SW03
	<i>Depth:</i>	3- ft	2- ft	1.5- ft	0-2 ft	0-2 ft	0-3 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	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	<i>Extracted:</i>	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
	<i>Analyzed:</i>	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
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 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	<i>Extracted:</i>	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
	<i>Analyzed:</i>	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
	<i>Units/RL:</i>	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	<i>Extracted:</i>	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
	<i>Analyzed:</i>	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
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<49.9 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					

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 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
Seq Number: 3122322	Basis: Wet Weight

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	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: 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** 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: 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	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: 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	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: 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	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: 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 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
Seq Number: 3122322	Basis: Wet Weight

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** 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: 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	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: 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 **SQL** Sample 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

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)

Work Order No: 158074

Project Manager: Dan Moir
 Company Name: LT Environmental, Inc., Permian office
 Address: 3300 North A St. Bldg 1, Unit 222
 City, State ZIP: Midland, TX 79705
 Phone: (432) 701-2610
 Email: dmoir@ltenv.com

Bill to: (if different)
 Company Name: XTO Energy
 Address: 3104 E Greene St.
 City, State ZIP: Carlsbad, NM

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

Project Name: Servus CTB
 Project Number: 012920036
 P.O. Number:
 Sampler's Name: Robert McAfee
 Turn Around: Routine Rush: 3 day
 Due Date:

SAMPLE RECEIPT
 Temperature (°C): 1.0
 Received Intact: Yes No
 Cooler Custody Seals: Yes No N/A
 Sample Custody Seals: Yes No N/A
 Thermometer ID: FNMO07
 Correction Factor: -0.2
 Total Containers: 7

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST										Work Order Notes
<u>FS01</u>	<u>S</u>	<u>04/01/20</u>	<u>1311</u>	<u>3'</u>	<u>1</u>	<u>X</u>	<u>X</u>	<u>X</u>											
<u>FS02</u>		<u>04/01/20</u>	<u>1322</u>	<u>2'</u>		<u>X</u>	<u>X</u>	<u>X</u>											
<u>FS03</u>		<u>04/02/20</u>	<u>0955</u>	<u>1.5'</u>		<u>X</u>	<u>X</u>	<u>X</u>											
<u>SW01</u>			<u>0929</u>	<u>0-2'</u>		<u>X</u>	<u>X</u>	<u>X</u>											
<u>SW02</u>			<u>0933</u>	<u>0-2'</u>		<u>X</u>	<u>X</u>	<u>X</u>											
<u>SW03</u>			<u>1039</u>	<u>0-3'</u>		<u>X</u>	<u>X</u>	<u>X</u>											
<u>SW04</u>			<u>1042</u>	<u>0-3'</u>		<u>X</u>	<u>X</u>	<u>X</u>											

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

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date/Time 4/20/20 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

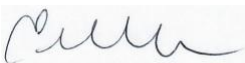
Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6*Custody Seals Signed and dated?	Yes
#7 *Chain 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

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

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

CONDITIONS

Action 25043

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 25043
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	XTO's deferral requests to complete final remediation during any future major construction/alteration or final plugging and abandonment, whichever occurs first is approved. The deferred C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue.	6/18/2021