District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NDHR1922533133
District RP	1RP-5638
Facility ID	
Application ID	pDHR1922532602

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 32.495649° Longitude -103.257399°

(NAD 83 in decimal degrees to 5 decimal places)

Site Name AJ Adkins Tank Battery #3	Site Type Bulk Storage and Separation Facility
Date Release Discovered 7/28/2019	API# *(if applicable)* 30-025-26327 (AJ Adkins Com #2)

Unit Letter	Section	Township	Range	County
F	10	21S	36E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name:* Terry Richey (Deck Millard Est))

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls) 4.52	Volume Recovered (bbls) 1.75
☒ Produced Water	Volume Released (bbls) 8.39	Volume Recovered (bbls) 3.25
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Fluids were released to the pad and pasture west of the pad when the heater treater manway gasket failed. Miscommunication by the pipeline company led to vessel overload. Additional third party resources have been retained to assist with remediation.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NDHR1922533133
District RP	1RP-5638
Facility ID	
Application ID	pDHR1922532602

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

Initial Response

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

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

If all the actions described above have not been undertaken, explain why:
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: Amy C. Ruth
Title: SH&E Coordinator
Signature:
Date: 8/9/2019
email: Amy_Ruth@xtoenergy.com
Telephone: 575-689-3380

OCD Only

Received by: Dylan Rose-Coss
Date: 08/09/2019

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	NDHR1922533133
District RP	1RP-5638
Facility ID	
Application ID	pDHR1922532602

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NDHR1922533133
District RP	1RP-5638
Facility ID	
Application ID	pDHR1922532602

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:

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

OCD Only

Received by: Date:

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	NDHR1922533133
District RP	1RP-5638
Facility ID	
Application ID	pDHR1922532602

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: _____

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

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

LT Environmental, Inc.
3300 North "A" Street
Building 1, Unit 222
Midland, Texas 79705
432.704.5178

December 20, 2019

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

RE: Deferral Request
AJ Adkins Tank Battery #3
Remediation Permit Number 1RP-5638
Incident ID NDHR1922533133
Lea County, New Mexico

To Whom It May Concern:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Deferral Request detailing soil sampling and excavation activities at the AJ Adkins Tank Battery #3 (Site) in Unit F, Section 10, Township 21 South, Range 36 East, in Lea County, New Mexico (Figure 1). The purpose of the soil sampling and excavation activities was to address impacts to soil after a crude oil and produced water release at the Site.

On July 28, 2019, a heater treater manway gasket failed, causing a crude oil and produced water release to the pad and pasture to the west of the pad. Miscommunication by the pipeline company led to the vessel overload. The failed gasket allowed 4.52 barrels (bbls) of crude oil and 8.39 bbls of produced water to escape. A vacuum truck was able to recover approximately 1.75 bbls of crude oil and approximately 3.25 bbls of produced water. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 on August 9, 2019 and was assigned Remediation Permit (RP) Number 1RP-5638. Based on the excavation activities and results of the soil sampling events, XTO is describing remediation that has occurred and submitting a Deferral Request of final remediation.

BACKGROUND

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the water well data from the nearest active water well. The nearest permitted water well with depth to water data is New Mexico well CP00692 located approximately 1,305 feet northwest of the Site. The water well has a depth to groundwater of 195 feet bgs. The total depth of the water well was 215 feet bgs. Ground surface elevation at the water well location is 3,603 feet, which is eight feet higher in elevation than the Site. New Mexico well CP80177, reportedly located 485 feet to the north of the release, was installed in 1988 at

the top of the "red bed" with a 15 feet water column. LTE conducted a 10,00-foot radius pedestrian survey to determine the presence or absence of this well. The well is no longer present and is believed to be abandoned.

The closest continuously flowing water or significant watercourse to the Site is an unnamed dry wash located approximately 15,358 feet northeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, or church. The nearest wetland is greater than 300 feet from the Site. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is located in a low potential karst area.

CLOSURE CRITERIA

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

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- 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

PRELIMINARY SOIL SAMPLING

On August 22, 2019, LTE inspected the Site to evaluate the release extent and collected preliminary soil samples. Surface hydrocarbon staining was observed in the release area and overspray was observed to the north and west of the release point. The release extent was mapped using a handheld Global Positing System (GPS) unit and is depicted on Figure 2. LTE personnel collected six preliminary soil samples (SS01 through SS06) within the release area from a depth of 0.5 feet bgs to assess the lateral extent of soil impacts. Additional preliminary samples SS07 and SS08 were collected on October 23, 2019, to further assess potentially impacted areas at the northwestern release extent. The samples were collected using hand auger equipment. The soil samples were screened for volatile aromatic hydrocarbons and chloride using a photo-ionization detector (PID) and Hach® chloride QuanTab® test strips. The soil samples were placed directly into pre-cleaned glass jars, labeled with location, date, time, sampler, and method of analysis, and immediately placed on ice. The samples were shipped to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, at 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures for analysis of BTEX by United States Environmental Protection Agency (EPA) Method 8021B, TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) by EPA Method 8015M/D, and chloride by EPA Method 300.0. The soil sample locations are presented on Figure 2. A photographic log of the Site is included as Attachment 2.

Laboratory analytical results indicated that total GRO and DRO, and/or TPH concentrations exceeded the NMOCD Table 1 Closure Criteria in preliminary soil samples SS01 and SS05 through SS08. In addition, total BTEX concentrations exceeded the Closure Criteria in preliminary soil sample SS01. Based on the laboratory analytical results, boreholes and potholing was scheduled to delineate the lateral and vertical extent of impacted soil and direct excavation activities. Laboratory analytical results are presented on Figure 2 and summarized in Table 1, and the laboratory analytical report is included in Attachment 3.

DELINEATION ACTIVITIES

Between October 22 and November 1, 2019, LTE conducted borehole and pothole sampling activities to delineate the lateral and vertical extent of impacted soil and to direct excavation activities. Boreholes BH01 through BH06 were advanced at the locations of preliminary soil samples SS01 through SS06 via hand auger to depths ranging from 0.75 feet to two feet bgs. One delineation soil sample was collected for laboratory analysis from each borehole with the exception of BH02 where two samples were collected. In addition, potholes PH01 and PH02 were advanced for additional delineation to depths of three feet bgs and eight feet bgs, respectively. Two samples were collected from PH01 and three samples were collected from PH02 utilizing a backhoe. Soil was field screened in the potholes using a PID and Hach® chloride QuanTab® test strips. The delineation soil samples were collected, handled, and analyzed as described above and submitted to Xenco in Carlsbad, New Mexico. The soil sample locations and depths are depicted on Figure 3 and soil sampling logs are included in Attachment 2.

Laboratory analytical results indicated that TPH GRO/DRO and TPH concentrations exceeded the Closure Criteria in delineation soil sample BH01 collected at a depth of one-foot bgs. In addition, chloride concentrations exceeded the Closure Criteria in delineation pothole PH01 at a depth of two feet bgs. The remaining delineation samples were below the Closure Criteria. Based on the laboratory analytical results, the lateral and vertical extent of impacted soil was defined. Laboratory analytical results are presented on Figure 3 and summarized in Table 1, and the laboratory analytical reports are included in Attachment 3.

EXCAVATION ACTIVITIES

Hydro-excavation and mechanical excavation activities with a Track Hoe were conducted between October 21 and November 1, 2019 to remove impacted soil at concentrations exceeding the Closure Criteria. Hydro-excavation was conducted in the areas around active production equipment and active pipelines. Both surface hydrocarbon staining and overspray areas were remediated. Hydro-excavation activities were conducted to the largest extent possible; however, active pipelines, tight spacing between equipment, and high-pressure lines limited the lateral excavation extent that was safe to complete. XTO safety policy restricts soil-disturbing activities within a 2-foot radius of any on-site production equipment and pipelines. This XTO safety policy is established to protect workers and reduce the likelihood of compromising the foundation of

the production equipment or pipelines. LTE personnel oversaw excavation of impacted soil with mechanical equipment in areas outside of the active production equipment and active pipelines.

To direct all excavation activities, LTE screened soil samples using a PID and Hach® chloride QuanTab® test strips. Due to the presence of active production equipment and pipelines in the release area, impacted soil was excavated to the extent possible to a depth ranging from one foot to eight feet bgs. Following removal of impacted soil, LTE collected 5-point composite soil samples every 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples were collected by depositing 5 aliquots of soil into a 1-gallon, resealable plastic bag, and homogenizing the samples by thoroughly mixing. The excavation soil samples were collected, handled, and analyzed as described above and submitted to Xenco in Carlsbad, New Mexico. The excavation soil sample locations are presented on Figure 4.

The excavation measured approximately 7,150 square feet in area. The horizontal extent of the excavation is presented on Figure 4. A total of approximately 645 cubic yards of impacted soil were removed from the excavation. The impacted soil was transported and properly disposed of at the R360 disposal facility located in Carlsbad, New Mexico.

ANALYTICAL RESULTS

A summary of the soil sampling analytical results is provided below.

PRELIMINARY SAMPLE RESULTS

Eight preliminary soil samples (SS01 through SS08) were collected from within and adjacent to the release extent. Laboratory analytical results indicated that total GRO and DRO, and/or TPH concentrations exceeded the Closure Criteria in preliminary soil samples SS01 and SS05 through SS08. In addition, total BTEX concentrations exceeded the Closure Criteria in preliminary soil sample SS01. The greatest concentration of total BTEX, TPH GRO/DRO, and TPH impact was reported in the sample SS01 at a depth of 0.5 feet bgs and was located adjacent to the release location.

DELINEATION SAMPLE RESULTS

Twelve soil samples from six boreholes (BH01 through BH06) and two potholes (PH01 and PH02) were collected for vertical and lateral delineation. Laboratory analytical results indicated that the greatest concentration of TPH GRO/DRO and TPH that exceeded the Closure Criteria was detected in soil sample BH01 collected at a depth of one-foot bgs. In addition, chloride concentrations exceeded the Closure Criteria in delineation pothole PH01 at a depth of two feet bgs and was located adjacent to the release location.

CONFIRMATION SAMPLE RESULTS

Thirty-six floor samples (FS01 through FS36) and 12 sidewall samples (SW01 through SW12) were collected for confirmation purposes. Laboratory analytical results indicated that TPH GRO/DRO and TPH concentrations exceeded the Closure Criteria in sidewall samples SW05, SW10, and SW11, and floor sample FS29. Sidewall sample SW05 was collected at a depth of 0.0 to 8.0 feet bgs and the excavation extended to within two feet of an existing pipeline. Sidewall samples SW10, SW11 and floor sample FS29 were collected at a depth of 0.0 to 2.5 feet bgs and was located within close proximity to production equipment on the well pad. In addition, floor sample FS01 (4.0 to 6.0 feet bgs) reported TPH GRO/DRO concentrations exceeding closure criteria; however, the excavation was extended to a depth of eight feet bgs in this area. Subsequent confirmation floor sample FS11 results were below the Closure Criteria.

Although hydro excavation was conducted in areas of production equipment and active pipelines, further excavation of impacted soil beyond excavation sidewall samples SW05, SW10, and SW11, and excavation floor samples FS29, was limited by the presence of active production equipment and pipelines. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 3.

DEFERRAL REQUEST

A total of 645 cubic yards of impacted soil were excavated from the Site; however, residual impacted soil was left in place for compliance with the XTO safety policy regarding soil-disturbing activities within two feet of production equipment and pipelines. Prior to mechanical excavation, hydro-excavation was conducted to remove impacted soil to the extent possible in the active production areas and adjacent to pipelines.

The exterior excavation sidewall and floor samples are compliant the Closure Criteria except for SW05 located adjacent to the western pipeline, and SW10 and SW11, which represent soil remaining in place around the active storage tanks (ASTs), flowlines, and production equipment. Excavation floor sample FS29 exceeded the Closure Criteria for TPH GRO/DRO and TPH; however, continued vertical excavation was limited by pipelines and production equipment. The impacted soil remaining in place in the area of SW05 is delineated by pothole PH02 located 10 feet to the south, and confirmation samples FS01/FS11 and SW06 located 15 feet to the north.

Sidewall samples SW10 and SW11 are delineated to the west and south by the excavation and to the east by sidewall sample SW09. An estimated 28 cubic yards of impacted soil remain in place in the area of SW05 assuming a maximum depth of eight feet bgs. An estimated 31 cubic yards of impacted soil remain in place in the area of SW10, SW11, and FS29 assuming a maximum depth of four feet bgs.

The southern portion of the excavation in the area of the lease road was backfilled. XTO requests to backfill the remaining excavation and complete remediation during any future major construction/alteration or final plugging and abandonment, whichever occurs first. LTE and XTO

do not believe deferment will result in imminent risk to human health, the environment, or groundwater. XTO requests deferral of final remediation for RP Number 1RP-5638. Upon approval of this Deferral Request, XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing Site conditions. An updated NMOCD Form C-141 is attached to this request.

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

Sincerely,
LT ENVIRONMENTAL, INC.

Kevin M. Axe, P.G.
Senior Geologist

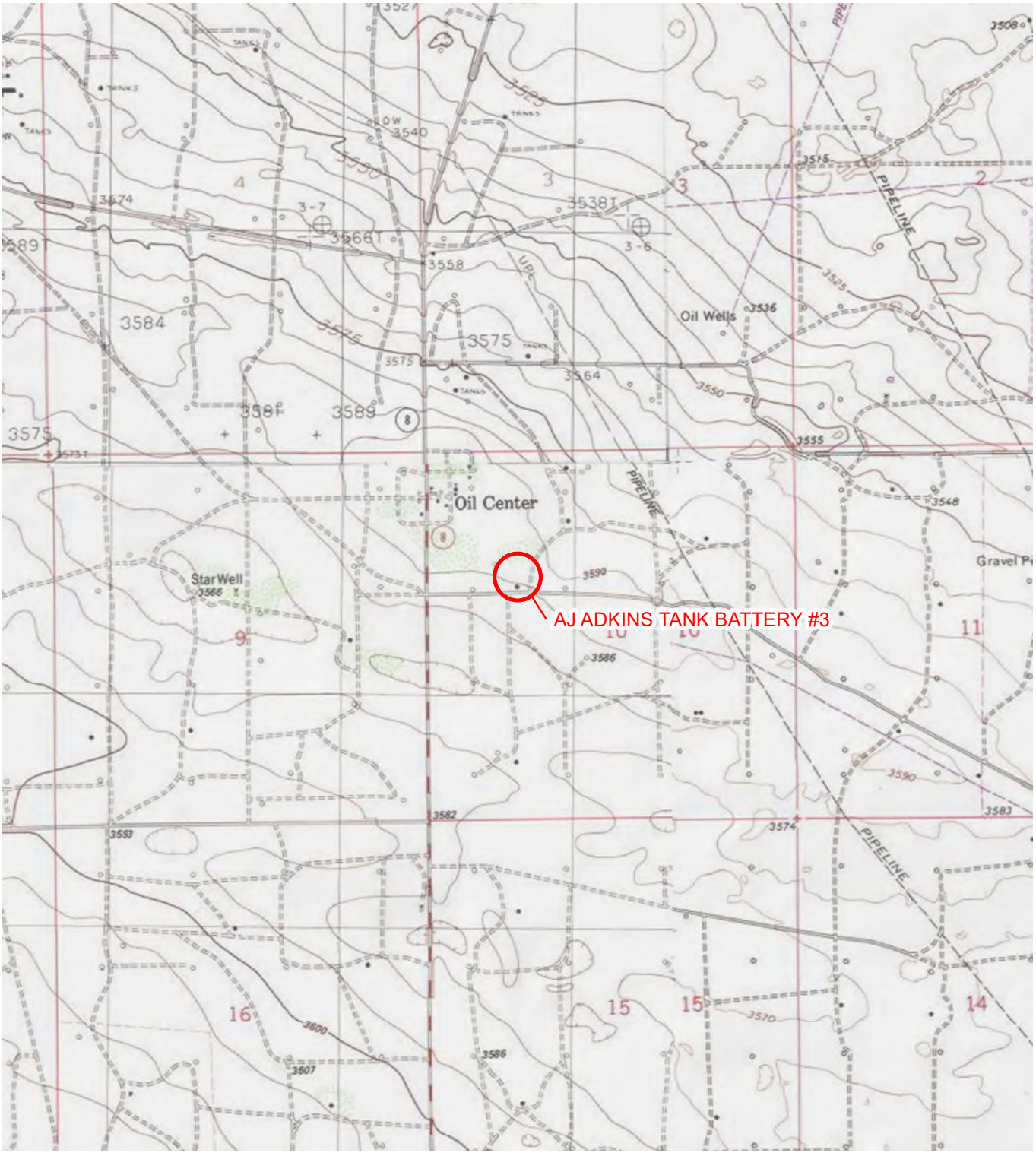
Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO

Appendices:

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

FIGURES



LEGEND

SITE LOCATION

IMAGE COURTESY OF ESRI/USGS

0 2,000 4,000

Feet

N

NEW MEXICO

NOTE: REMEDIATION PERMIT NUMBER 1RP-5638

FIGURE 1
SITE LOCATION MAP
AJ ADKINS TANK BATTERY #3
UNIT F SEC 10 T21S R36E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

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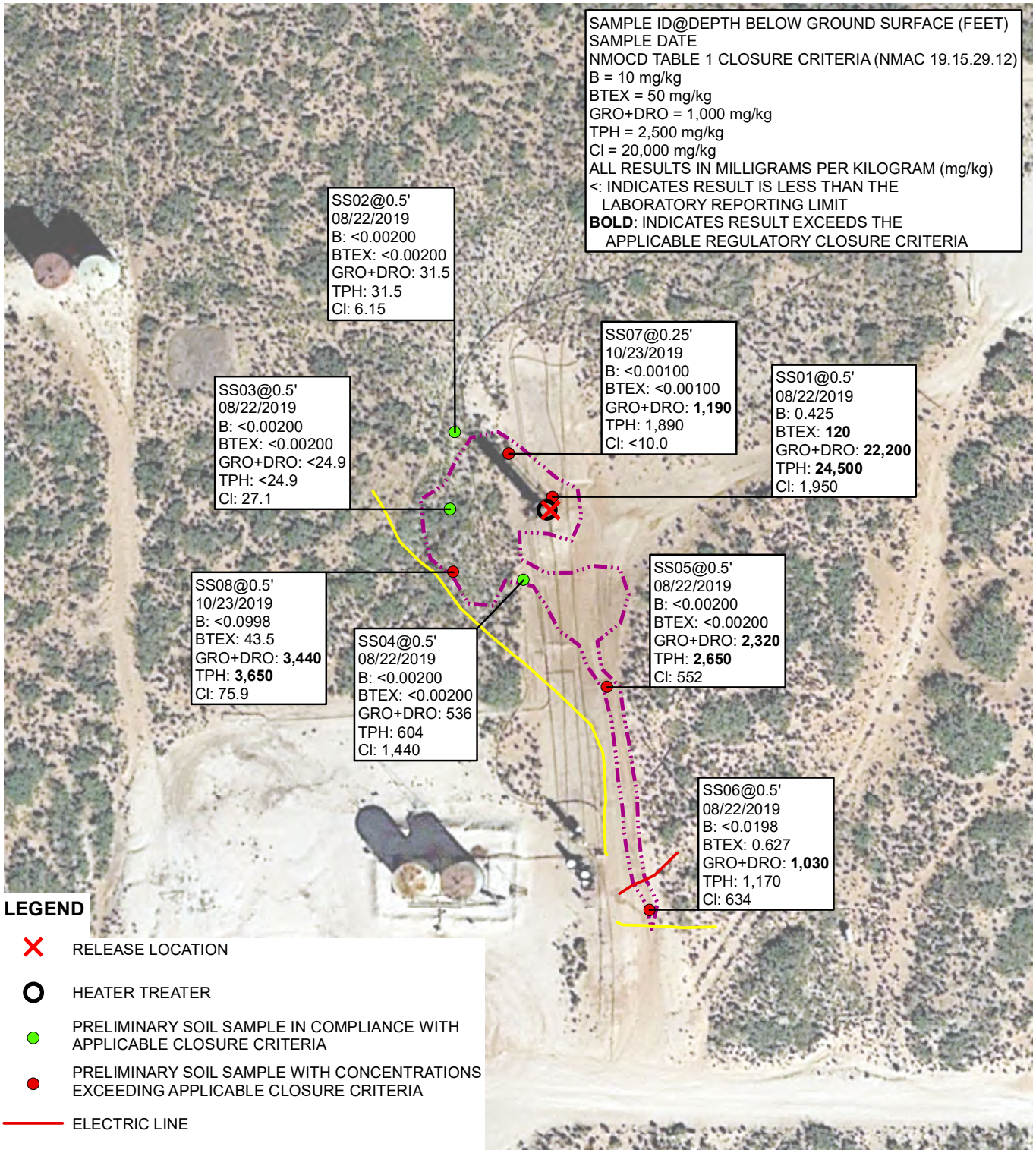
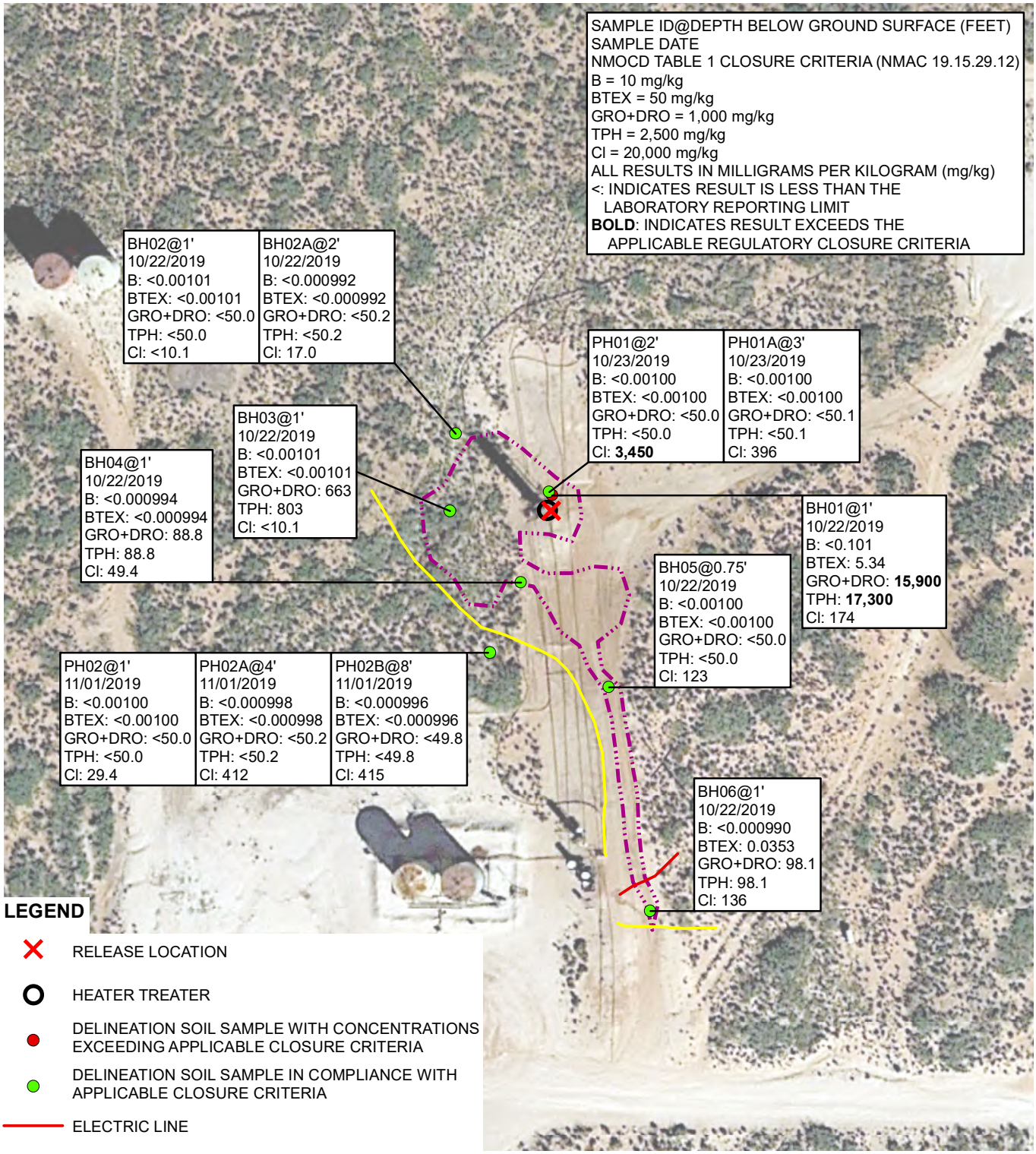


B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
GRO: GASOLINE RANGE ORGANICS
DRO: DIESEL RANGE ORGANICS
TPH: TOTAL PETROLEUM HYDROCARBONS
Cl: CHLORIDE
NMAC: NEW MEXICO ADMINISTRATIVE CODE
NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
NOTE: REMEDIATION PERMIT NUMBER 1RP-5638

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
AJ ADKINS TANK BATTERY #3
UNIT F SEC 10 T21S R36E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

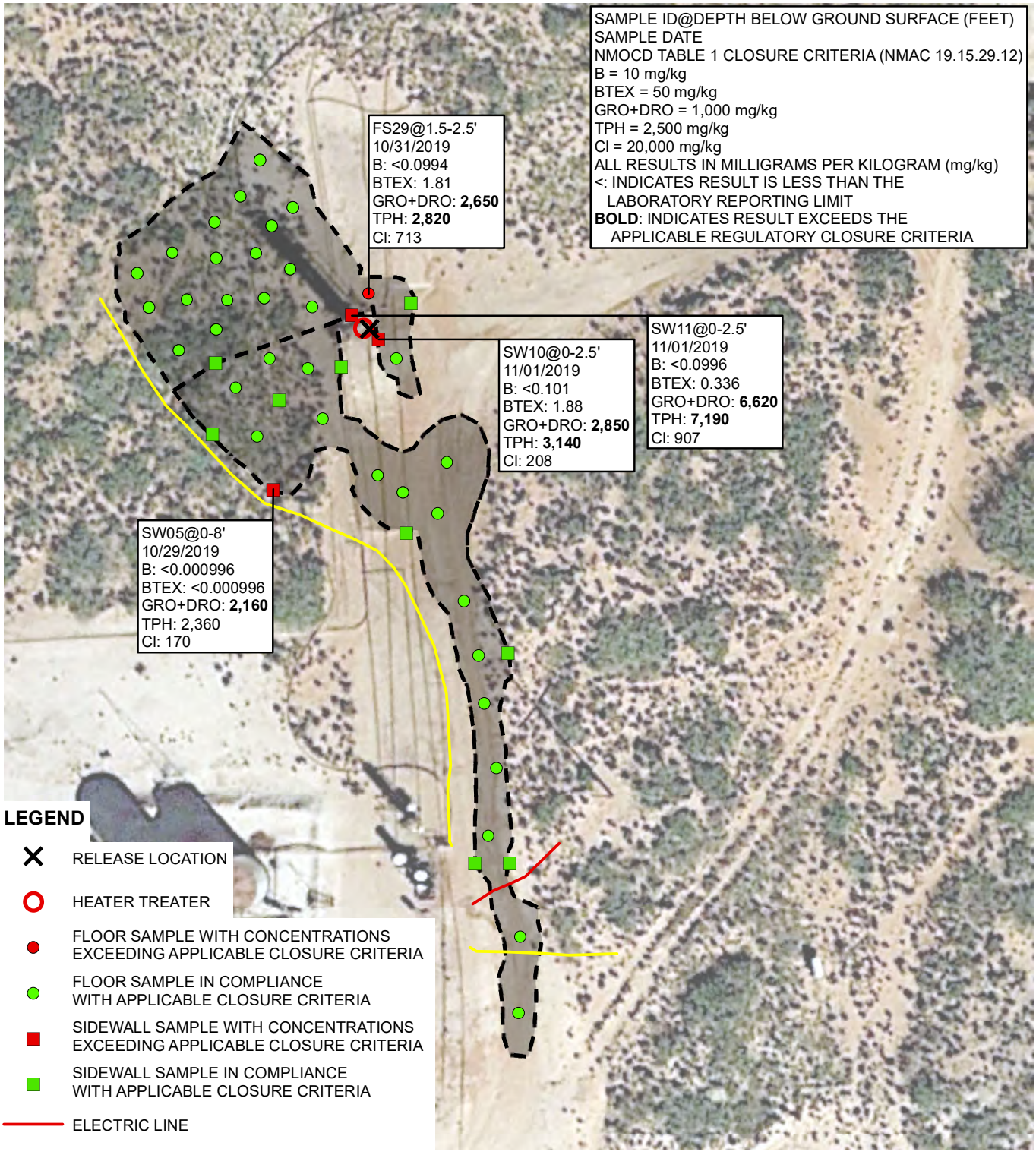
P:\XTO Energy\GIS\MXD\012919187_AJ ADKINS TANK BATTERY #3\012919187_FIG02_PRELIMINARY_5638.mxd



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: REMEDIATION PERMIT NUMBER 1RP-5638

FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
AJ ADKINS TANK BATTERY #3
UNIT F SEC 10 T21S R36E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919187_AJ ADKINS TANK BATTERY #3\012919187_FIG03_DELINEATION_5638.mxd



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: REMEDIATION PERMIT NUMBER 1RP-5638

FIGURE 4
EXCAVATION SOIL SAMPLE LOCATIONS
AJ ADKINS TANK BATTERY #3
UNIT F SEC 10 T21S R36E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919187_AJ ADKINS TANK BATTERY #3\012919187_FIG04_EXCAVATION_5638_NO DATA.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

AJ ADKINS TANK BATTERY #3
REMEDIATION PERMIT NUMBER 1RP-5638
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
SS01	0.5	08/22/2019	0.425	18.5	37.7	63.7	**120**	4,650	17,500	2,330	**22,200**	**24,500**	1,950
SS02	0.5	08/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<25.0	31.5	<25.0	31.5	31.5	6.15
SS03	0.5	08/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<24.9	<24.9	<24.9	<24.9	<24.9	27.1
SS04	0.5	08/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<25.0	536	67.8	536	604	1,440
SS05	0.5	08/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	88.7	2,230	329	**2,320**	**2,650**	552
SS06	0.5	08/22/2019	<0.0198	<0.0198	0.269	0.358	0.627	51.8	983	140	**1,030**	1,170	634
SS07	0.25	10/23/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.1	1,190	700	**1,190**	1,890	<10.0
SS08	0.5	10/23/2019	<0.0998	2.81	10.2	30.5	43.5	479	2,960	215	**3,440**	**3,650**	75.9
BH01	1	10/22/2019	<0.101	0.133	1.61	3.60	5.34	790	15,100	1,390	**15,900**	**17,300**	174
BH02	1	10/22/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<50.0	<50.0	<50.0	<50.0	<50.0	<10.1
BH02A	2	10/22/2019	<0.000992	<0.000992	<0.000992	<0.000992	<0.000992	<50.2	<50.2	<50.2	<50.2	<50.2	17.0
BH03	1	10/22/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<50.2	663	140	663	803	<10.1
BH04	1	10/22/2019	<0.000994	<0.000994	<0.000994	<0.000994	<0.000994	<50.3	88.8	<50.3	88.8	88.8	49.4
BH05	0.75	10/22/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.0	<50.0	<50.0	<50.0	<50.0	123
BH06	1	10/22/2019	<0.000990	<0.000990	0.00798	0.0273	0.0353	<50.1	98.1	<50.1	98.1	98.1	136
PH01	2	10/23/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.0	<50.0	<50.0	<50.0	<50.0	3,450
PH01A	3	10/23/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<50.1	<50.1	<50.1	<50.1	<50.1	396
PH02	1	11/01/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.0	<50.0	<50.0	<50.0	<50.0	29.4
PH02A	4	11/01/2019	<0.000998	<0.000998	<0.000998	<0.000998	<0.000998	<50.2	<50.2	<50.2	<50.2	<50.2	412
PH02B	8	11/01/2019	<0.000996	<0.000996	<0.000996	<0.000996	<0.000996	<49.8	<49.8	<49.8	<49.8	<49.8	415
FS01	4 - 6	10/25/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<50.0	2,530	243	**2,530**	**2,770**	219
FS02	1 - 1.5	10/28/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<49.8	<49.8	<49.8	<49.8	<49.8	1,090
FS03	2	10/28/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.2	890	186	890	1,080	760
FS04	1.5 - 2	10/28/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<49.8	462	104	462	566	1,320
FS05	1.5 - 2	10/28/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.2	<50.2	<50.2	<50.2	<50.2	1,560
FS06	1.5 - 2	10/28/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<49.9	<49.9	<49.9	<49.9	<49.9	1,410

TABLE 1
SOIL ANALYTICAL RESULTS

AJ ADKINS TANK BATTERY #3
REMEDIATION PERMIT NUMBER 1RP-5638
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
FS07	1.5 - 2.5	10/28/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.3	<50.3	<50.3	<50.3	<50.3	737
FS08	1.5 - 2	10/28/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<49.8	<49.8	<49.8	<49.8	<49.8	719
FS09	1.5 - 2	10/28/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.0	<50.0	<50.0	<50.0	<50.0	945
FS10	1.5 - 2	10/28/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<49.9	<49.9	<49.9	<49.9	<49.9	572
FS11	8	10/29/2019	<0.000994	<0.000994	<0.000994	<0.000994	<0.000994	<49.9	218	<49.9	218	218	162
FS12	7 - 8	10/29/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<49.7	181	<49.7	181	181	64.3
FS13	0 - 1	10/31/2019	<0.000994	<0.000994	<0.000994	<0.000994	<0.000994	<50.0	<50.0	<50.0	<50.0	<50.0	313
FS14	0 - 1	10/31/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.0	<50.0	<50.0	<50.0	<50.0	69.3
FS15	0 - 1	10/31/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<49.9	<49.9	<49.9	<49.9	<49.9	160
FS16	0.5 - 1	10/31/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.1	<50.1	<50.1	<50.1	<50.1	86.5
FS17	0 - 1	10/31/2019	<0.000994	<0.000994	<0.000994	<0.000994	<0.000994	<50.1	<50.1	<50.1	<50.1	<50.1	38.5
FS18	1	10/31/2019	<0.000994	<0.000994	<0.000994	0.00326	0.00326	<50.2	<50.2	<50.2	<50.2	<50.2	19.2
FS19	0.5 - 1	10/31/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.3	<50.3	<50.3	<50.3	<50.3	16.3
FS20	0 - 0.5	10/31/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<50.0	<50.0	<50.0	<50.0	<50.0	28.5
FS21	0.5	10/31/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.0	<50.0	<50.0	<50.0	<50.0	17.1
FS22	0.5 - 1	10/31/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<50.3	<50.3	<50.3	<50.3	<50.3	15.7
FS23	0.5 - 1	10/31/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<49.9	<49.9	<49.9	<49.9	<49.9	41.0
FS24	0.5	10/31/2019	<0.000992	<0.000992	<0.000992	0.00207	0.00207	<50.0	<50.0	<50.0	<50.0	<50.0	27.1
FS25	0 - 0.5	10/31/2019	<0.000998	<0.000998	0.00113	0.00215	0.00328	<50.0	<50.0	<50.0	<50.0	<50.0	11.5
FS26	0 - 0.5	10/31/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<50.3	<50.3	<50.3	<50.3	<50.3	<10.1
FS27	0 - 0.5	10/31/2019	<0.00101	<0.00101	0.00104	<0.00101	0.00104	<50.3	<50.3	<50.3	<50.3	<50.3	18.5
FS28	0 - 1	10/31/2019	<0.000994	<0.000994	<0.000994	0.0327	0.0327	<50.1	<50.1	<50.1	<50.1	<50.1	19.8
FS29	1.5 - 2.5	10/31/2019	<0.0994	<0.0994	0.220	1.59	1.81	305	2,340	171	**2,650**	**2,820**	713
FS30	1.5 - 2.5	10/31/2019	<0.0102	<0.0102	<0.0102	0.0355	0.0355	<50.2	<50.2	<50.2	<50.2	<50.2	1,140

TABLE 1
SOIL ANALYTICAL RESULTS

AJ ADKINS TANK BATTERY #3
REMEDIATION PERMIT NUMBER 1RP-5638
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
FS31	1 - 2	11/01/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.2	<50.2	<50.2	<50.2	<50.2	1,440
FS32	2	11/01/2019	<0.000998	<0.000998	<0.000998	<0.000998	<0.000998	<50.0	<50.0	<50.0	<50.0	<50.0	769
FS33	1 - 3	11/01/2019	<0.000992	<0.000992	<0.000992	0.00660	0.00660	<50.2	379	<50.2	379	379	166
FS34	1 - 2	11/01/2019	<0.00100	<0.00100	<0.00100	0.00326	0.00326	<50.2	278	<50.2	278	278	802
FS35	0 - 1	11/01/2019	<0.000990	<0.000990	<0.000990	<0.000990	<0.000990	<50.0	<50.0	<50.0	<50.0	<50.0	460
FS36	0 - 1.5	11/01/2019	<0.00101	<0.00101	<0.00101	0.00589	0.00589	<50.1	<50.1	<50.1	<50.1	<50.1	416
SW01	0 - 2	10/28/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.0	161	<50.0	161	161	606
SW02	0 - 2	10/28/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<49.9	<49.9	<49.9	<49.9	<49.9	829
SW03	0 - 2	10/28/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<49.8	<49.8	<49.8	<49.8	<49.8	182
SW04	0 - 2	10/28/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.2	220	<50.2	220	220	312
SW05	0 - 8	10/29/2019	<0.000996	<0.000996	<0.000996	<0.000996	<0.000996	<49.8	2,160	200	**2,160**	2,360	170
SW06	0 - 8	10/29/2019	<0.00495	<0.00495	<0.00495	<0.00495	<0.00495	<50.2	325	56.9	325	382	22.5
SW07	1 - 7	10/29/2019	<0.000998	<0.000998	<0.000998	0.00266	0.00266	<50.1	361	<50.1	361	361	244
SW08	3 - 8	10/29/2019	<0.000994	<0.000994	<0.000994	<0.000994	<0.000994	<50.1	929	90.0	929	1,020	313
SW09	0 - 2.5	11/01/2019	<0.000992	<0.000992	<0.000992	<0.000992	<0.000992	<50.2	<50.2	<50.2	<50.2	<50.2	264
SW10	0 - 2.5	11/01/2019	<0.101	<0.101	0.708	1.17	1.88	137	2,710	291	**2,850**	**3,140**	208
SW11	0 - 2.5	11/01/2019	<0.0996	<0.0996	<0.0996	0.336	0.336	368	6,250	572	**6,620**	**7,190**	907
SW12	0 - 2.5	11/01/2019	<0.000994	<0.000994	<0.000994	<0.000994	<0.000994	<50.3	<50.3	<50.3	<50.3	<50.3	340

Notes:

bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
DRO - diesel range organics
GRO - gasoline range organics
mg/kg - milligrams per kilogram
MRO - motor oil range organics
NMAC - New Mexico Administrative Code
NMOCD - New Mexico Oil Conservation Division
NE - not established
TPH - total petroleum hydrocarbons
Bold - indicates result exceeds the applicable regulatory standard
< - indicates result is below laboratory reporting limits
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018

ATTACHMENT 1 : PHOTOGRAPHIC LOG

AJ Adkins Tank Battery #3 ■ Lea County, New Mexico
Date Photos Taken: 8/22/2019 – 11/4/2019 ■ Remediation Number: 1RP-5638

Photo #1 West facing view of spill within earthen berm.

Photo #2 South facing view of release extent.

Photo #3 Southwest facing view of release extent.

Photo #4 Southwest facing view of excavation near separator.

Photo #5 Southwest facing view of excavation.

Photo #6 South facing view of excavation.

ATTACHMENT 2 : SOIL SAMPLE LOGS

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

Identifier:	Date:
BH01 @ SS01	10/22/2019
Project Name:	RP Number:
AS Adkins	1RP-5C38
Logged By: GG	Method: HA
Hole Diameter:	Total Depth: 1'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: CTS/PID

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1120 M	<180	940	Y	BH01	1		SM	Dark brown Sandy loam, high plasticity, Auger refusal
					2			
					3			
					4			
					6			
					8			
					10			
					12			
					14			
					16			
					18			
					20			
					22			

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

Identifier: BH02 @ 5502	Date: 10/22/2019
Project Name: AJ Adkins	RP Number: 1RP-5638
Logged By: GG	Method: HA
Lat/Long:	Field Screening: CTS/PID
Hole Diameter:	Total Depth: 21

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1135 M	<180	4.0	N	BH02	1	~~5~~ 11	SM	Brown, Sandy loam med plasticity
1140 D	<180	0.8	N	BH02A	2		SM	Brown Sandy loam, w/ some grey-white caliche
					3			
					4			
					6			
					8			
					10			
					12			
					14			
					16			
					18			
					20			
					22			

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

Identifier: BH03	Date: 10/22/2019
Project Name: AJ ADKins	RP Number: 1RP-5638
Logged By: GG	Method: HA
Lat/Long:	Field Screening: CTS/PID
Hole Diameter:	Total Depth: 1'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1155 D	<150	1.9	N	BH03	1		SM	Sandy loam, brown, with small chunks of white to grey caliche Auger refusal

2 3 4 6 8 10 12 14 16 18 20 22

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

Identifier:	Date:
BH04	10/22/2019
Project Name:	**RP Number:**
AJAdkins	IRP-5638
Logged By: GG	**Method:** HA
Lat/Long:	**Field Screening:** CTS/PID
Hole Diameter:	**Total Depth:** 1'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1205 D M	2150	2.4	N	BH04	1 2 3 4 6 8 10 12 14 16 18 20 22		SM	Brown sandy loam with chunks of white-grey caliche, med plasticity Auger refusal

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
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Identifier: BH05 @ SS05	Date: 10/22/2019
Project Name: AJ Adkins	RP Number: 1RP-5638
Logged By: GG	Method: HA
Lat/Long:	Field Screening: CTS/PID
Hole Diameter:	Total Depth: .75'

Comments:

LITHOLOGIC / SOIL SAMPLING LOG

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1210 M	543	82.5	~~BH05~~ N	BH05	.75'		SM	Brown sandy loam w/coarse grained white caliche Auger refusal

2
3
4
6
8
10
12
14
16
18
20
22

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

Identifier: BH06 @ 3506	Date: 10/22/2019		
Project Name: AJ Adkins	RP Number: 1RP-5638		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GG	Method: HA	
Lat/Long:	Field Screening: CTS / PID	Hole Diameter:	Total Depth: 1'
Comments:			

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1220 D M	838	132.3	N	BH06	1	~~SM~~	SM	sand/silts w/ fine grain white caliche light brown - tan
					2			
					3			
					4			
					6			
					8			
					10			
					12			
					14			
					16			
					18			
					20			
					22			

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

Identifier: PH02	Date: 11/01/2019
Project Name: AJ Adkins	RP Number: IRP-5638
Logged By: GG	Method: Excavator
Lat/Long:	Field Screening: CTS/PID
Hole Diameter:	Total Depth: 8'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: Deliniation of SW05

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
1005 D	<180	1.0	N	PH02	1			Sandy loam, brown, low plasticity
1010 D	<180	0	N		2			Sandy loam, brown, low plasticity
1015 D	<180	0	N		3			Sandy loam, brown low plasticity w/ some caliche, white - grey
1020 D	386	0	N	PH02A	4			caliche, white - grey, low plasticity
1030 D	386		N		5			caliche, white - grey, low plasticity
1035 D	336	0	N		6			caliche, white - grey, low plasticity
1040 D	336	0	N		7			caliche, white - grey, low plasticity
1045 D	336	0	N	PH02B	8			caliche, white - grey, low plasticity
					9			
					10			
					11			
					12			

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

Identifier:	Date:
PH01 @ BH01	10/23/19
Project Name:	**RP Number:**
AJ Adkins	1RP-5638
Logged By: GG	**Method:** Backhoe
Hole Diameter:	**Total Depth:** 4'
Lat/Long:	**Field Screening:** PID

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
0855 D		41.0	N	PH01	1–22			white-tan caliche, low plasticity
0900 D		5.0	N	PH01A				white-tan caliche, Low plasticity
0905 D		5.0	N					whit-tan caliche, low plasticity

ATTACHMENT 3 : LABORATORY ANALYTICAL RESULTS

Analytical Report 634970

for

LT Environmental, Inc.

Project Manager: Dan Moir

AJ Adkins Tank Battery #3

1RP-5638

03-SEP-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

03-SEP-19

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

Reference: XENCO Report No(s): **634970**
AJ Adkins Tank Battery #3
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) 634970. 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. 634970 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,

Jessica Kramer

Jessica Kramer
Project Assistant

Sample Cross Reference 634970

LT Environmental, Inc., Arvada, CO

AJ Adkins Tank Battery #3

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	08-22-19 13:25	.5	634970-001
SS02	S	08-22-19 13:30	.5	634970-002
SS03	S	08-22-19 13:35	.5	634970-003
SS04	S	08-22-19 13:50	.5	634970-004
SS05	S	08-22-19 13:55	.5	634970-005
SS06	S	08-22-19 14:00	.5	634970-006

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: AJ Adkins Tank Battery #3

Project ID:	*1RP-5638*	Report Date:	*03-SEP-19*
Work Order Number(s):	*634970*	Date Received:	*08/22/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3099998 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 634970-001,634970-003,634970-006,634970-005.

Certificate of Analysis Summary 634970

LT Environmental, Inc., Arvada, CO

Project Name: AJ Adkins Tank Battery #3

Project Id: 1RP-5638
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu Aug-22-19 04:39 pm
Report Date: 03-SEP-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	634970-001		634970-002		634970-003		634970-004		634970-005		634970-006	
	Field Id:	SS01		SS02		SS03		SS04		SS05		SS06	
	Depth:	.5-		.5-		.5-		.5-		.5-		.5-	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-22-19 13:25		Aug-22-19 13:30		Aug-22-19 13:35		Aug-22-19 13:50		Aug-22-19 13:55		Aug-22-19 14:00	
BTEX by EPA 8021B	***Extracted:***	Aug-26-19 16:00										Aug-26-19 16:00	
SUB: T104704400-18-16	***Analyzed:***	Aug-27-19 12:43		Aug-29-19 11:05		Aug-29-19 11:05		Aug-29-19 11:05		Aug-29-19 11:05		Aug-27-19 14:24	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		0.425	0.0992	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.0198	0.0198
Toluene		18.5	0.0992	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.0198	0.0198
Ethylbenzene		37.7 D	0.198	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	0.269	0.0198
m,p-Xylenes		44.7 D	0.397	<0.00400	0.00400	<0.00400	0.00400	<0.00400	0.00400	<0.00400	0.00400	0.209	0.0397
o-Xylene		19.0	0.0992	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	0.149	0.0198
Total Xylenes		63.7	0.0992	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	0.358	0.0198
Total BTEX		120	0.0992	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	0.627	0.0198
Chloride by EPA 300	***Extracted:***	Aug-26-19 10:40		Aug-26-19 10:40		Aug-26-19 10:40		Aug-26-19 10:40		Aug-26-19 10:40		Aug-26-19 10:40	
SUB: T104704400-18-16	***Analyzed:***	Aug-26-19 12:30		Aug-26-19 12:36		Aug-26-19 12:49		Aug-26-19 12:43		Aug-26-19 13:08		Aug-26-19 13:14	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1950	25.0	6.15	5.02	27.1	4.95	1440	4.98	552	5.04	634	5.01
TPH by SW8015 Mod	***Extracted:***	Aug-26-19 08:00		Aug-26-19 08:00		Aug-26-19 08:00		Aug-26-19 08:00		Aug-26-19 08:00		Aug-26-19 08:00	
SUB: T104704400-18-16	***Analyzed:***	Aug-26-19 13:42		Aug-26-19 14:01		Aug-26-19 14:21		Aug-26-19 14:40		Aug-26-19 14:59		Aug-26-19 15:19	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		4650	125	<25.0	25.0	<24.9	24.9	<25.0	25.0	88.7	25.0	51.8	24.9
Diesel Range Organics (DRO)		17500	125	31.5	25.0	<24.9	24.9	536	25.0	2230	25.0	983	24.9
Motor Oil Range Hydrocarbons (MRO)		2330	125	<25.0	25.0	<24.9	24.9	67.8	25.0	329	25.0	140	24.9
Total TPH		24500	125	31.5	25.0	<24.9	24.9	604	25.0	2650	25.0	1170	24.9
Total GRO-DRO		22200	125	31.5	25.0	<24.9	24.9	536	25.0	2320	25.0	1030	24.9

Jessica Kramer
Project Assistant

Certificate of Analytical Results 634970

LT Environmental, Inc., Arvada, CO

AJ Adkins Tank Battery #3

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	08.22.19 16.39
Lab Sample Id:	634970-001	Date Collected:	08.22.19 13.25	Sample Depth:	.5

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.26.19 10.40	Basis:	Wet Weight
Seq Number:	3099705			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1950**	25.0	mg/kg	08.26.19 12.30		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.26.19 08.00	Basis:	Wet Weight
Seq Number:	3099768			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**4650**	125	mg/kg	08.26.19 13.42		5
Diesel Range Organics (DRO)	C10C28DRO	**17500**	125	mg/kg	08.26.19 13.42		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**2330**	125	mg/kg	08.26.19 13.42		5
Total TPH	PHC635	**24500**	125	mg/kg	08.26.19 13.42		5
Total GRO-DRO	PHC628	**22200**	125	mg/kg	08.26.19 13.42		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	08.26.19 13.42	
o-Terphenyl	84-15-1	110	%	70-135	08.26.19 13.42	

Certificate of Analytical Results 634970

LT Environmental, Inc., Arvada, CO

AJ Adkins Tank Battery #3

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	08.22.19 16.39
Lab Sample Id:	634970-001	Date Collected:	08.22.19 13.25	Sample Depth:	.5
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.26.19 16.00	Basis:	Wet Weight
Seq Number:	3099998			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.425**	0.0992	mg/kg	08.27.19 12.43		50
Toluene	108-88-3	**18.5**	0.0992	mg/kg	08.27.19 12.43		50
Ethylbenzene	100-41-4	**37.7**	0.198	mg/kg	08.29.19 05.09	D	100
m,p-Xylenes	179601-23-1	**44.7**	0.397	mg/kg	08.29.19 05.09	D	100
o-Xylene	95-47-6	**19.0**	0.0992	mg/kg	08.27.19 12.43		50
Total Xylenes	1330-20-7	**63.7**	0.0992	mg/kg	08.29.19 05.09		100
Total BTEX		**120**	0.0992	mg/kg	08.29.19 05.09		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	08.27.19 12.43	
4-Bromofluorobenzene	460-00-4	321	%	70-130	08.27.19 12.43	

Certificate of Analytical Results 634970

LT Environmental, Inc., Arvada, CO

AJ Adkins Tank Battery #3

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	08.22.19 16.39
Lab Sample Id:	634970-002	Date Collected:	08.22.19 13.30	Sample Depth:	.5

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.26.19 10.40	Basis:	Wet Weight
Seq Number:	3099705			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.15**	5.02	mg/kg	08.26.19 12.36		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.26.19 08.00	Basis:	Wet Weight
Seq Number:	3099768			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.26.19 14.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	**31.5**	25.0	mg/kg	08.26.19 14.01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.26.19 14.01	U	1
Total TPH	PHC635	**31.5**	25.0	mg/kg	08.26.19 14.01		1
Total GRO-DRO	PHC628	**31.5**	25.0	mg/kg	08.26.19 14.01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	08.26.19 14.01	
o-Terphenyl	84-15-1	100	%	70-135	08.26.19 14.01	

Analytical Method:	BTEX by EPA 8021B				
Tech:	KTL			% Moisture:	
Analyst:	KTL			Basis:	Wet Weight
Seq Number:	3099998			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.29.19 11.05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1

Certificate of Analytical Results 634970

LT Environmental, Inc., Arvada, CO

AJ Adkins Tank Battery #3

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	08.22.19 16.39
Lab Sample Id:	634970-003	Date Collected:	08.22.19 13.35	Sample Depth:	.5

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.26.19 10.40	Basis:	Wet Weight
Seq Number:	3099705			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**27.1**	4.95	mg/kg	08.26.19 12.49		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.26.19 08.00	Basis:	Wet Weight
Seq Number:	3099768			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.26.19 14.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<24.9	24.9	mg/kg	08.26.19 14.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.26.19 14.21	U	1
Total TPH	PHC635	<24.9	24.9	mg/kg	08.26.19 14.21	U	1
Total GRO-DRO	PHC628	<24.9	24.9	mg/kg	08.26.19 14.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	08.26.19 14.21	
o-Terphenyl	84-15-1	104	%	70-135	08.26.19 14.21	

Analytical Method:	BTEX by EPA 8021B				
Tech:	KTL			% Moisture:	
Analyst:	KTL			Basis:	Wet Weight
Seq Number:	3099998			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.29.19 11.05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1

Certificate of Analytical Results 634970

LT Environmental, Inc., Arvada, CO

AJ Adkins Tank Battery #3

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	08.22.19 16.39
Lab Sample Id:	634970-004	Date Collected:	08.22.19 13.50	Sample Depth:	.5

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.26.19 10.40	Basis:	Wet Weight
Seq Number:	3099705			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1440**	4.98	mg/kg	08.26.19 12.43		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.26.19 08.00	Basis:	Wet Weight
Seq Number:	3099768			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.26.19 14.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	**536**	25.0	mg/kg	08.26.19 14.40		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**67.8**	25.0	mg/kg	08.26.19 14.40		1
Total TPH	PHC635	**604**	25.0	mg/kg	08.26.19 14.40		1
Total GRO-DRO	PHC628	**536**	25.0	mg/kg	08.26.19 14.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	08.26.19 14.40	
o-Terphenyl	84-15-1	112	%	70-135	08.26.19 14.40	

Analytical Method:	BTEX by EPA 8021B				
Tech:	KTL			% Moisture:	
Analyst:	KTL			Basis:	Wet Weight
Seq Number:	3099998			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.29.19 11.05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1

Certificate of Analytical Results 634970

LT Environmental, Inc., Arvada, CO

AJ Adkins Tank Battery #3

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	08.22.19 16.39
Lab Sample Id:	634970-005	Date Collected:	08.22.19 13.55	Sample Depth:	.5

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.26.19 10.40	Basis:	Wet Weight
Seq Number:	3099705			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**552**	5.04	mg/kg	08.26.19 13.08		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.26.19 08.00	Basis:	Wet Weight
Seq Number:	3099768			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**88.7**	25.0	mg/kg	08.26.19 14.59		1
Diesel Range Organics (DRO)	C10C28DRO	**2230**	25.0	mg/kg	08.26.19 14.59		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**329**	25.0	mg/kg	08.26.19 14.59		1
Total TPH	PHC635	**2650**	25.0	mg/kg	08.26.19 14.59		1
Total GRO-DRO	PHC628	**2320**	25.0	mg/kg	08.26.19 14.59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	08.26.19 14.59	
o-Terphenyl	84-15-1	90	%	70-135	08.26.19 14.59	

Analytical Method:	BTEX by EPA 8021B				
Tech:	KTL			% Moisture:	
Analyst:	KTL			Basis:	Wet Weight
Seq Number:	3099998			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.29.19 11.05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.29.19 11.05	U	1

Certificate of Analytical Results 634970

LT Environmental, Inc., Arvada, CO

AJ Adkins Tank Battery #3

Sample Id:	**SS06**	Matrix:	Soil	Date Received:	08.22.19 16.39
Lab Sample Id:	634970-006	Date Collected:	08.22.19 14.00	Sample Depth:	.5

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.26.19 10.40	Basis:	Wet Weight
Seq Number:	3099705			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**634**	5.01	mg/kg	08.26.19 13.14		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.26.19 08.00	Basis:	Wet Weight
Seq Number:	3099768			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**51.8**	24.9	mg/kg	08.26.19 15.19		1
Diesel Range Organics (DRO)	C10C28DRO	**983**	24.9	mg/kg	08.26.19 15.19		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**140**	24.9	mg/kg	08.26.19 15.19		1
Total TPH	PHC635	**1170**	24.9	mg/kg	08.26.19 15.19		1
Total GRO-DRO	PHC628	**1030**	24.9	mg/kg	08.26.19 15.19		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	08.26.19 15.19	
o-Terphenyl	84-15-1	121	%	70-135	08.26.19 15.19	

Certificate of Analytical Results 634970

LT Environmental, Inc., Arvada, CO

AJ Adkins Tank Battery #3

Sample Id:	**SS06**	Matrix:	Soil	Date Received:	08.22.19 16.39
Lab Sample Id:	634970-006	Date Collected:	08.22.19 14.00	Sample Depth:	.5
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.26.19 16.00	Basis:	Wet Weight
Seq Number:	3099998			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0198	0.0198	mg/kg	08.27.19 14.24	U	10
Toluene	108-88-3	<0.0198	0.0198	mg/kg	08.27.19 14.24	U	10
Ethylbenzene	100-41-4	**0.269**	0.0198	mg/kg	08.27.19 14.24		10
m,p-Xylenes	179601-23-1	**0.209**	0.0397	mg/kg	08.27.19 14.24		10
o-Xylene	95-47-6	**0.149**	0.0198	mg/kg	08.27.19 14.24		10
Total Xylenes	1330-20-7	**0.358**	0.0198	mg/kg	08.27.19 14.24		10
Total BTEX		**0.627**	0.0198	mg/kg	08.27.19 14.24		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	140	%	70-130	08.27.19 14.24	
1,4-Difluorobenzene	540-36-3	115	%	70-130	08.27.19 14.24	

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

QC Summary 634970

LT Environmental, Inc.

AJ Adkins Tank Battery #3

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3099705 — Matrix: Solid — Date Prep: 08.26.19
MB Sample Id: 7684957-1-BLK — LCS Sample Id: 7684957-1-BKS — LCSD Sample Id: 7684957-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	245	98	244	98	90-110	0	20	mg/kg	08.26.19 11:02	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3099705 — Matrix: Soil — Date Prep: 08.26.19
Parent Sample Id: 634804-007 — MS Sample Id: 634804-007 S — MSD Sample Id: 634804-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	56.4	250	296	96	296	96	90-110	0	20	mg/kg	08.26.19 11:21	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3099705 — Matrix: Soil — Date Prep: 08.26.19
Parent Sample Id: 634970-003 — MS Sample Id: 634970-003 S — MSD Sample Id: 634970-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	27.1	248	272	99	271	98	90-110	0	20	mg/kg	08.26.19 12:55	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3099768 — Matrix: Solid — Date Prep: 08.26.19
MB Sample Id: 7684950-1-BLK — LCS Sample Id: 7684950-1-BKS — LCSD Sample Id: 7684950-1-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)	<15.0	1000	894	89	943	94	70-135	5	20	mg/kg	08.26.19 11:25	
Diesel Range Organics (DRO)	<25.0	1000	936	94	992	99	70-135	6	20	mg/kg	08.26.19 11:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	77		118		124		70-135	%	08.26.19 11:25
o-Terphenyl	76		118		121		70-135	%	08.26.19 11:25

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

QC Summary 634970

LT Environmental, Inc.

AJ Adkins Tank Battery #3

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3099768 | Matrix: Soil | Date Prep: 08.26.19
Parent Sample Id: 634967-001 | MS Sample Id: 634967-001 S | MSD Sample Id: 634967-001 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)	<15.0	997	952	95	955	96	70-135	0	20	mg/kg	08.26.19 12:24	
Diesel Range Organics (DRO)	<24.9	997	884	89	890	89	70-135	1	20	mg/kg	08.26.19 12:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		128		70-135	%	08.26.19 12:24
o-Terphenyl	125		106		70-135	%	08.26.19 12:24

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3099998 | Matrix: Solid | Date Prep: 08.26.19
MB Sample Id: 7685031-1-BLK | LCS Sample Id: 7685031-1-BKS | LCSD Sample Id: 7685031-1-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	0.0971	97	0.102	102	70-130	5	35	mg/kg	08.27.19 09:23	
Toluene	<0.000456	0.100	0.0975	98	0.102	102	70-130	5	35	mg/kg	08.27.19 09:23	
Ethylbenzene	<0.000565	0.100	0.102	102	0.108	108	70-130	6	35	mg/kg	08.27.19 09:23	
m,p-Xylenes	<0.00101	0.200	0.197	99	0.206	103	70-130	4	35	mg/kg	08.27.19 09:23	
o-Xylene	<0.000344	0.100	0.102	102	0.107	107	70-130	5	35	mg/kg	08.27.19 09:23	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		98		98		70-130	%	08.27.19 09:23
4-Bromofluorobenzene	95		105		104		70-130	%	08.27.19 09:23

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3099998 | Matrix: Soil | Date Prep: 08.26.19
Parent Sample Id: 634978-001 | MS Sample Id: 634978-001 S | MSD Sample Id: 634978-001 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	0.0735	74	0.0792	80	70-130	7	35	mg/kg	08.27.19 10:03	
Toluene	<0.00200	0.0998	0.0690	69	0.0747	75	70-130	8	35	mg/kg	08.27.19 10:03	X
Ethylbenzene	<0.00200	0.0998	0.0661	66	0.0760	76	70-130	14	35	mg/kg	08.27.19 10:03	X
m,p-Xylenes	<0.00101	0.200	0.120	60	0.124	62	70-130	3	35	mg/kg	08.27.19 10:03	X
o-Xylene	<0.000344	0.0998	0.0651	65	0.0764	77	70-130	16	35	mg/kg	08.27.19 10:03	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		104		70-130	%	08.27.19 10:03
4-Bromofluorobenzene	108		107		70-130	%	08.27.19 10:03

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

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)
www.xenco.com

Work Order No: 634970

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Midland, Tx 79705
Phone:	432.704.5178	Email:	ggreen@ltenv.com ; dmoir@ltenv.com

Work Order Comments

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

Project Name:	AJ Adkins Tank Battery #3	Turn Around	
Project Number:		Routine	☑
P.O. Number:	IRP-5638	Rush:	
Sampler's Name:	Garrett Green	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	3.2	Thermometer ID	
Received Intact:	Yes No	T-NM-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	6

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SS01	S	8/22/19	1325	.5'	1	X	X	X
SS02	S		1330		1			
SS03	S		1335		1			
SS04	S		1350		1			
SS05	S		1355		1			
SS06	S		1400		1			

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Dan Moir		08/22/19 @ 16:26	2		8/22/19 16:39
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number **46841**

Date/Time: 08/23/19 13:03
Created by: Elizabeth Mcclellan
Please send report to: Jessica Kramer

Lab# From: **Carlsbad**
Delivery Priority:
Address: 1089 N Canal Street

Lab# To: **Midland**
Air Bill No.: 776067465701
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
634970-001	S	SS01	08/22/19 13:25	SW8015MOD_NM	TPH by SW8015 Mod	08/28/19	09/05/19	JKR	GRO-DRO PHCC10C28 PI	
634970-001	S	SS01	08/22/19 13:25	SW8021B	BTEX by EPA 8021B	08/28/19	09/05/19	JKR	BR4FBZ BZ BZME EBZ X	
634970-001	S	SS01	08/22/19 13:25	E300_CL	Chloride by EPA 300	08/28/19	02/18/20	JKR	CL	
634970-002	S	SS02	08/22/19 13:30	SW8015MOD_NM	TPH by SW8015 Mod	08/28/19	09/05/19	JKR	GRO-DRO PHCC10C28 PI	
634970-002	S	SS02	08/22/19 13:30	E300_CL	Chloride by EPA 300	08/28/19	02/18/20	JKR	CL	
634970-002	S	SS02	08/22/19 13:30	SW8021B	BTEX by EPA 8021B	08/28/19	09/05/19	JKR	BR4FBZ BZ BZME EBZ X	
634970-003	S	SS03	08/22/19 13:35	SW8021B	BTEX by EPA 8021B	08/28/19	09/05/19	JKR	BR4FBZ BZ BZME EBZ X	
634970-003	S	SS03	08/22/19 13:35	SW8015MOD_NM	TPH by SW8015 Mod	08/28/19	09/05/19	JKR	GRO-DRO PHCC10C28 PI	
634970-003	S	SS03	08/22/19 13:35	E300_CL	Chloride by EPA 300	08/28/19	02/18/20	JKR	CL	
634970-004	S	SS04	08/22/19 13:50	SW8021B	BTEX by EPA 8021B	08/28/19	09/05/19	JKR	BR4FBZ BZ BZME EBZ X	
634970-004	S	SS04	08/22/19 13:50	SW8015MOD_NM	TPH by SW8015 Mod	08/28/19	09/05/19	JKR	GRO-DRO PHCC10C28 PI	
634970-004	S	SS04	08/22/19 13:50	E300_CL	Chloride by EPA 300	08/28/19	02/18/20	JKR	CL	
634970-005	S	SS05	08/22/19 13:55	SW8015MOD_NM	TPH by SW8015 Mod	08/28/19	09/05/19	JKR	GRO-DRO PHCC10C28 PI	
634970-005	S	SS05	08/22/19 13:55	E300_CL	Chloride by EPA 300	08/28/19	02/18/20	JKR	CL	
634970-005	S	SS05	08/22/19 13:55	SW8021B	BTEX by EPA 8021B	08/28/19	09/05/19	JKR	BR4FBZ BZ BZME EBZ X	
634970-006	S	SS06	08/22/19 14:00	SW8015MOD_NM	TPH by SW8015 Mod	08/28/19	09/05/19	JKR	GRO-DRO PHCC10C28 PI	
634970-006	S	SS06	08/22/19 14:00	E300_CL	Chloride by EPA 300	08/28/19	02/18/20	JKR	CL	
634970-006	S	SS06	08/22/19 14:00	SW8021B	BTEX by EPA 8021B	08/28/19	09/05/19	JKR	BR4FBZ BZ BZME EBZ X	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 08/23/2019

Received By: Brianna Teel

Date Received: 08/26/2019 07:35

Cooler Temperature: 0.7

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 46841

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sent By: Elizabeth McClellan **Date Sent:** 08/23/2019 01:03 PM

Received By: Brianna Teel **Date Received:** 08/26/2019 07:35 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.7	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Brianna Teel Date: 08/26/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08/22/2019 04:39:00 PM

Work Order #: 634970

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	3.2	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**No**	
#5 Custody Seals intact on sample bottles?	**No**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Subbed to Xenco Midland.
#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: 08/23/2019

Checklist reviewed by: Jessica Kramer Date: 08/27/2019

Analytical Report 640740

for

LT Environmental, Inc.

Project Manager: Dan Moir

AJ Adkins

24-OCT-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

24-OCT-19

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

Reference: XENCO Report No(s): **640740**
AJ Adkins
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) 640740. 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. 640740 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,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

Sample Cross Reference 640740

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	10-22-19 11:20	1 ft	640740-001
BH02	S	10-22-19 11:35	1 ft	640740-002
BH02A	S	10-22-19 11:40	2 ft	640740-003
BH03	S	10-22-19 11:55	1 ft	640740-004
BH04	S	10-22-19 12:05	1 ft	640740-005
BH05	S	10-22-19 12:10	.75 ft	640740-006
BH06	S	10-22-19 12:20	1 ft	640740-007

CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: AJ Adkins

Project ID:
Work Order Number(s): *640740*

Report Date: *24-OCT-19*
Date Received: *10/22/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3105101 TPH by SW8015 Mod
Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 640740-001.

Batch: LBA-3105178 Chloride by EPA 300
Lab Sample ID 640740-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 640740-001, -002, -003, -004, -005, -006, -007.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3105186 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 640740

LT Environmental, Inc., Arvada, CO

Project Name: AJ Adkins

Project Id:

Contact: Dan Moir

Project Location:

Date Received in Lab: Tue Oct-22-19 04:10 pm

Report Date: 24-OCT-19

Project Manager: Jessica Kramer

Analysis Requested	*Lab Id:*	640740-001		640740-002		640740-003		640740-004		640740-005		640740-006	
	Field Id:	BH01		BH02		BH02A		BH03		BH04		BH05	
	Depth:	1- ft		1- ft		2- ft		1- ft		1- ft		.75- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-22-19 11:20		Oct-22-19 11:35		Oct-22-19 11:40		Oct-22-19 11:55		Oct-22-19 12:05		Oct-22-19 12:10	
BTEX by EPA 8021B	*Extracted:*	Oct-22-19 18:10		Oct-22-19 18:10		Oct-22-19 18:10		Oct-22-19 18:10		Oct-22-19 18:10		Oct-22-19 18:10	
	Analyzed:	Oct-23-19 08:50		Oct-23-19 06:48		Oct-23-19 07:08		Oct-23-19 07:29		Oct-23-19 07:49		Oct-23-19 08:10	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.101	0.101	<0.00101	0.00101	<0.000992	0.000992	<0.00101	0.00101	<0.000994	0.000994	<0.00100	0.00100
Toluene		0.133	0.101	<0.00101	0.00101	<0.000992	0.000992	<0.00101	0.00101	<0.000994	0.000994	<0.00100	0.00100
Ethylbenzene		1.61	0.101	<0.00101	0.00101	<0.000992	0.000992	<0.00101	0.00101	<0.000994	0.000994	<0.00100	0.00100
m,p-Xylenes		1.90	0.202	<0.00202	0.00202	<0.00198	0.00198	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200
o-Xylene		1.70	0.101	<0.00101	0.00101	<0.000992	0.000992	<0.00101	0.00101	<0.000994	0.000994	<0.00100	0.00100
Total Xylenes		3.60	0.101	<0.00101	0.00101	<0.000992	0.000992	<0.00101	0.00101	<0.000994	0.000994	<0.00100	0.00100
Total BTEX		5.34	0.101	<0.00101	0.00101	<0.000992	0.000992	<0.00101	0.00101	<0.000994	0.000994	<0.00100	0.00100
Chloride by EPA 300	*Extracted:*	Oct-22-19 20:11		Oct-22-19 20:11		Oct-22-19 20:11		Oct-22-19 20:11		Oct-22-19 20:11		Oct-22-19 20:11	
	Analyzed:	Oct-22-19 20:42		Oct-22-19 21:01		Oct-22-19 21:07		Oct-22-19 21:13		Oct-22-19 21:20		Oct-22-19 21:38	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		174	9.90	<10.1	10.1	17.0	9.98	<10.1	10.1	49.4	10.1	123	9.92
TPH by SW8015 Mod	*Extracted:*	Oct-22-19 16:30		Oct-22-19 16:30		Oct-22-19 16:30		Oct-22-19 16:30		Oct-22-19 16:30		Oct-22-19 16:30	
	Analyzed:	Oct-22-19 23:41		Oct-22-19 23:41		Oct-23-19 00:01		Oct-23-19 00:01		Oct-23-19 00:21		Oct-23-19 00:41	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		790	251	<50.0	50.0	<50.2	50.2	<50.2	50.2	<50.3	50.3	<50.0	50.0
Diesel Range Organics (DRO)		15100	251	<50.0	50.0	<50.2	50.2	663	50.2	88.8	50.3	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		1390	251	<50.0	50.0	<50.2	50.2	140	50.2	<50.3	50.3	<50.0	50.0
Total GRO-DRO		15900	251	<50.0	50.0	<50.2	50.2	663	50.2	88.8	50.3	<50.0	50.0
Total TPH		17300	251	<50.0	50.0	<50.2	50.2	803	50.2	88.8	50.3	<50.0	50.0

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 640740

LT Environmental, Inc., Arvada, CO

Project Name: AJ Adkins

Project Id:

Contact: Dan Moir

Project Location:

Date Received in Lab: Tue Oct-22-19 04:10 pm

Report Date: 24-OCT-19

Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	640740-007					
	Field Id:	BH06					
	Depth:	1- ft					
	Matrix:	SOIL					
	Sampled:	Oct-22-19 12:20					
BTEX by EPA 8021B	***Extracted:***	Oct-22-19 18:10					
	Analyzed:	Oct-23-19 08:30					
	Units/RL:	mg/kg	RL				
Benzene		<0.000990	0.000990				
Toluene		<0.000990	0.000990				
Ethylbenzene		0.00798	0.000990				
m,p-Xylenes		0.00994	0.00198				
o-Xylene		0.0174	0.000990				
Total Xylenes		0.0273	0.000990				
Total BTEX		0.0353	0.000990				
Chloride by EPA 300	***Extracted:***	Oct-22-19 20:11					
	Analyzed:	Oct-22-19 21:45					
	Units/RL:	mg/kg	RL				
Chloride		136	9.90				
TPH by SW8015 Mod	***Extracted:***	Oct-22-19 16:30					
	Analyzed:	Oct-23-19 00:41					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1				
Diesel Range Organics (DRO)		98.1	50.1				
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1				
Total GRO-DRO		98.1	50.1				
Total TPH		98.1	50.1				

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analytical Results 640740

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	10.22.19 16.10
Lab Sample Id:	640740-001	Date Collected:	10.22.19 11.20	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.22.19 20.11	Basis:	Wet Weight
Seq Number:	3105178				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**174**	9.90	mg/kg	10.22.19 20.42		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.22.19 16.30	Basis:	Wet Weight
Seq Number:	3105101				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**790**	251	mg/kg	10.22.19 23.41		5
Diesel Range Organics (DRO)	C10C28DRO	**15100**	251	mg/kg	10.22.19 23.41		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**1390**	251	mg/kg	10.22.19 23.41		5
Total GRO-DRO	PHC628	**15900**	251	mg/kg	10.22.19 23.41		5
Total TPH	PHC635	**17300**	251	mg/kg	10.22.19 23.41		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	133	%	70-135	10.22.19 23.41	
o-Terphenyl	84-15-1	252	%	70-135	10.22.19 23.41	**

Certificate of Analytical Results 640740

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	10.22.19 16.10
Lab Sample Id:	640740-001	Date Collected:	10.22.19 11.20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.22.19 18.10	Basis:	Wet Weight
Seq Number:	3105186				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.101	0.101	mg/kg	10.23.19 08.50	U	100
Toluene	108-88-3	**0.133**	0.101	mg/kg	10.23.19 08.50		100
Ethylbenzene	100-41-4	**1.61**	0.101	mg/kg	10.23.19 08.50		100
m,p-Xylenes	179601-23-1	**1.90**	0.202	mg/kg	10.23.19 08.50		100
o-Xylene	95-47-6	**1.70**	0.101	mg/kg	10.23.19 08.50		100
Total Xylenes	1330-20-7	**3.60**	0.101	mg/kg	10.23.19 08.50		100
Total BTEX		**5.34**	0.101	mg/kg	10.23.19 08.50		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	10.23.19 08.50	
1,4-Difluorobenzene	540-36-3	97	%	70-130	10.23.19 08.50	

Certificate of Analytical Results 640740

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	10.22.19 16.10
Lab Sample Id:	640740-002	Date Collected:	10.22.19 11.35	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.22.19 20.11	Basis:	Wet Weight
Seq Number:	3105178				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	10.22.19 21.01	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.22.19 16.30	Basis:	Wet Weight
Seq Number:	3105101				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.22.19 23.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.22.19 23.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.22.19 23.41	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.22.19 23.41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.22.19 23.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	10.22.19 23.41	
o-Terphenyl	84-15-1	83	%	70-135	10.22.19 23.41	

Certificate of Analytical Results 640740

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	10.22.19 16.10
Lab Sample Id:	640740-002	Date Collected:	10.22.19 11.35	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.22.19 18.10	Basis:	Wet Weight
Seq Number:	3105186				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	10.23.19 06.48	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	10.23.19 06.48	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	10.23.19 06.48	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	10.23.19 06.48	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	10.23.19 06.48	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	10.23.19 06.48	U	1
Total BTEX		<0.00101	0.00101	mg/kg	10.23.19 06.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	10.23.19 06.48	
1,4-Difluorobenzene	540-36-3	103	%	70-130	10.23.19 06.48	

Certificate of Analytical Results 640740

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	10.22.19 16.10
Lab Sample Id:	640740-003	Date Collected:	10.22.19 11.40	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.22.19 20.11	Basis:	Wet Weight
Seq Number:	3105178				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**17.0**	9.98	mg/kg	10.22.19 21.07		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.22.19 16.30	Basis:	Wet Weight
Seq Number:	3105101				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.23.19 00.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.23.19 00.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.23.19 00.01	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.23.19 00.01	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.23.19 00.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	10.23.19 00.01	
o-Terphenyl	84-15-1	93	%	70-135	10.23.19 00.01	

Certificate of Analytical Results 640740

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	10.22.19 16.10
Lab Sample Id:	640740-003	Date Collected:	10.22.19 11.40	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.22.19 18.10	Basis:	Wet Weight
Seq Number:	3105186				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000992	0.000992	mg/kg	10.23.19 07.08	U	1
Toluene	108-88-3	<0.000992	0.000992	mg/kg	10.23.19 07.08	U	1
Ethylbenzene	100-41-4	<0.000992	0.000992	mg/kg	10.23.19 07.08	U	1
m,p-Xylenes	179601-23-1	<0.00198	0.00198	mg/kg	10.23.19 07.08	U	1
o-Xylene	95-47-6	<0.000992	0.000992	mg/kg	10.23.19 07.08	U	1
Total Xylenes	1330-20-7	<0.000992	0.000992	mg/kg	10.23.19 07.08	U	1
Total BTEX		<0.000992	0.000992	mg/kg	10.23.19 07.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.23.19 07.08	
4-Bromofluorobenzene	460-00-4	112	%	70-130	10.23.19 07.08	

Certificate of Analytical Results 640740

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	10.22.19 16.10
Lab Sample Id:	640740-004	Date Collected:	10.22.19 11.55	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.22.19 20.11	Basis:	Wet Weight
Seq Number:	3105178				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	10.22.19 21.13	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.22.19 16.30	Basis:	Wet Weight
Seq Number:	3105101				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.23.19 00.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	**663**	50.2	mg/kg	10.23.19 00.01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**140**	50.2	mg/kg	10.23.19 00.01		1
Total GRO-DRO	PHC628	**663**	50.2	mg/kg	10.23.19 00.01		1
Total TPH	PHC635	**803**	50.2	mg/kg	10.23.19 00.01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	10.23.19 00.01	
o-Terphenyl	84-15-1	90	%	70-135	10.23.19 00.01	

Certificate of Analytical Results 640740

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	10.22.19 16.10
Lab Sample Id:	640740-004	Date Collected:	10.22.19 11.55	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.22.19 18.10	Basis:	Wet Weight
Seq Number:	3105186				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	10.23.19 07.29	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	10.23.19 07.29	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	10.23.19 07.29	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	10.23.19 07.29	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	10.23.19 07.29	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	10.23.19 07.29	U	1
Total BTEX		<0.00101	0.00101	mg/kg	10.23.19 07.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	10.23.19 07.29	
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.23.19 07.29	

Certificate of Analytical Results 640740

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	10.22.19 16.10
Lab Sample Id:	640740-005	Date Collected:	10.22.19 12.05	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.22.19 20.11	Basis:	Wet Weight
Seq Number:	3105178				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**49.4**	10.1	mg/kg	10.22.19 21.20		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.22.19 16.30	Basis:	Wet Weight
Seq Number:	3105101				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	10.23.19 00.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	**88.8**	50.3	mg/kg	10.23.19 00.21		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	10.23.19 00.21	U	1
Total GRO-DRO	PHC628	**88.8**	50.3	mg/kg	10.23.19 00.21		1
Total TPH	PHC635	**88.8**	50.3	mg/kg	10.23.19 00.21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	10.23.19 00.21	
o-Terphenyl	84-15-1	105	%	70-135	10.23.19 00.21	

Certificate of Analytical Results 640740

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	10.22.19 16.10
Lab Sample Id:	640740-005	Date Collected:	10.22.19 12.05	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.22.19 18.10	Basis:	Wet Weight
Seq Number:	3105186				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	10.23.19 07.49	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	10.23.19 07.49	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	10.23.19 07.49	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	10.23.19 07.49	U	1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	10.23.19 07.49	U	1
Total Xylenes	1330-20-7	<0.000994	0.000994	mg/kg	10.23.19 07.49	U	1
Total BTEX		<0.000994	0.000994	mg/kg	10.23.19 07.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	10.23.19 07.49	
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.23.19 07.49	

Certificate of Analytical Results 640740

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**BH05**	Matrix:	Soil	Date Received:	10.22.19 16.10
Lab Sample Id:	640740-006	Date Collected:	10.22.19 12.10	Sample Depth:	.75 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.22.19 20.11	Basis:	Wet Weight
Seq Number:	3105178				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**123**	9.92	mg/kg	10.22.19 21.38		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.22.19 16.30	Basis:	Wet Weight
Seq Number:	3105101				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.23.19 00.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.23.19 00.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.23.19 00.41	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.23.19 00.41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.23.19 00.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	10.23.19 00.41	
o-Terphenyl	84-15-1	95	%	70-135	10.23.19 00.41	

Certificate of Analytical Results 640740

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**BH05**	Matrix:	Soil	Date Received:	10.22.19 16.10
Lab Sample Id:	640740-006	Date Collected:	10.22.19 12.10	Sample Depth:	.75 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.22.19 18.10	Basis:	Wet Weight
Seq Number:	3105186				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.23.19 08.10	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.23.19 08.10	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.23.19 08.10	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.23.19 08.10	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.23.19 08.10	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.23.19 08.10	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.23.19 08.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	10.23.19 08.10	
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.23.19 08.10	

Certificate of Analytical Results 640740

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**BH06**	Matrix:	Soil	Date Received:	10.22.19 16.10
Lab Sample Id:	640740-007	Date Collected:	10.22.19 12.20	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.22.19 20.11	Basis:	Wet Weight
Seq Number:	3105178				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**136**	9.90	mg/kg	10.22.19 21.45		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.22.19 16.30	Basis:	Wet Weight
Seq Number:	3105101				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.23.19 00.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	**98.1**	50.1	mg/kg	10.23.19 00.41		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	10.23.19 00.41	U	1
Total GRO-DRO	PHC628	**98.1**	50.1	mg/kg	10.23.19 00.41		1
Total TPH	PHC635	**98.1**	50.1	mg/kg	10.23.19 00.41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	10.23.19 00.41	
o-Terphenyl	84-15-1	92	%	70-135	10.23.19 00.41	

Certificate of Analytical Results 640740

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**BH06**	Matrix:	Soil	Date Received:	10.22.19 16.10
Lab Sample Id:	640740-007	Date Collected:	10.22.19 12.20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.22.19 18.10	Basis:	Wet Weight
Seq Number:	3105186				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000990	0.000990	mg/kg	10.23.19 08.30	U	1
Toluene	108-88-3	<0.000990	0.000990	mg/kg	10.23.19 08.30	U	1
Ethylbenzene	100-41-4	**0.00798**	0.000990	mg/kg	10.23.19 08.30		1
m,p-Xylenes	179601-23-1	**0.00994**	0.00198	mg/kg	10.23.19 08.30		1
o-Xylene	95-47-6	**0.0174**	0.000990	mg/kg	10.23.19 08.30		1
Total Xylenes	1330-20-7	**0.0273**	0.000990	mg/kg	10.23.19 08.30		1
Total BTEX		**0.0353**	0.000990	mg/kg	10.23.19 08.30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.23.19 08.30	
4-Bromofluorobenzene	460-00-4	111	%	70-130	10.23.19 08.30	

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

QC Summary 640740

LT Environmental, Inc.

AJ Adkins

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Seq Number: 3105178 Matrix: Soil Date Prep: 10.22.19
Parent Sample Id: 640740-001 MS Sample Id: 640740-001 S MSD Sample Id: 640740-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	174	200	178	2	177	1	90-110	1	20	mg/kg	10.22.19 20:48	X

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Seq Number: 3105101 Matrix: Solid Date Prep: 10.22.19
MB Sample Id: 7688651-1-BLK LCS Sample Id: 7688651-1-BKS LCSD Sample Id: 7688651-1-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	889	89	875	88	70-135	2	35	mg/kg	10.22.19 22:02	
Diesel Range Organics (DRO)	<50.0	1000	826	83	807	81	70-135	2	35	mg/kg	10.22.19 22:02	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	77		93		92		70-135	%	10.22.19 22:02
o-Terphenyl	78		88		87		70-135	%	10.22.19 22:02

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Seq Number: 3105101 Matrix: Solid Date Prep: 10.22.19
MB Sample Id: 7688651-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.22.19 22:02	

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Seq Number: 3105101 Matrix: Soil Date Prep: 10.22.19
Parent Sample Id: 640662-011 MS Sample Id: 640662-011 S MSD Sample Id: 640662-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	832	83	790	79	70-135	5	35	mg/kg	10.22.19 22:42	
Diesel Range Organics (DRO)	18.0	1000	726	71	713	70	70-135	2	35	mg/kg	10.22.19 22:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		99		70-135	%	10.22.19 22:42
o-Terphenyl	97		96		70-135	%	10.22.19 22:42

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

QC Summary 640740

LT Environmental, Inc.

AJ Adkins

Analytical Method: BTEX by EPA 8021B
Prep Method: SW5030B
Seq Number: 3105186
Matrix: Solid
Date Prep: 10.22.19
MB Sample Id: 7688754-1-BLK
LCS Sample Id: 7688754-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.104	104	70-130	mg/kg	10.23.19 04:32	
Toluene	0.00140	0.100	0.0999	100	70-130	mg/kg	10.23.19 04:32	
Ethylbenzene	<0.00100	0.100	0.102	102	71-129	mg/kg	10.23.19 04:32	
m,p-Xylenes	<0.00200	0.200	0.203	102	70-135	mg/kg	10.23.19 04:32	
o-Xylene	<0.00100	0.100	0.103	103	71-133	mg/kg	10.23.19 04:32	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		104		70-130	%	10.23.19 04:32
4-Bromofluorobenzene	106		107		70-130	%	10.23.19 04:32

Analytical Method: BTEX by EPA 8021B
Prep Method: SW5030B
Seq Number: 3105186
Matrix: Soil
Date Prep: 10.22.19
Parent Sample Id: 640665-001
MS Sample Id: 640665-001 S
MSD Sample Id: 640665-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000992	0.0992	0.0869	88	0.0797	80	70-130	9	35	mg/kg	10.23.19 05:12	
Toluene	<0.000992	0.0992	0.0827	83	0.0763	77	70-130	8	35	mg/kg	10.23.19 05:12	
Ethylbenzene	<0.000992	0.0992	0.0837	84	0.0778	78	71-129	7	35	mg/kg	10.23.19 05:12	
m,p-Xylenes	<0.00198	0.198	0.166	84	0.155	78	70-135	7	35	mg/kg	10.23.19 05:12	
o-Xylene	<0.000992	0.0992	0.0853	86	0.0788	79	71-133	8	35	mg/kg	10.23.19 05:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		101		70-130	%	10.23.19 05:12
4-Bromofluorobenzene	110		108		70-130	%	10.23.19 05:12

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
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)
www.xenco.com

Work Order No: 640740

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Midland, Tx 79705
Phone:	432.704.5178 Email:		ggreen@ltenv.com ; dmoir@ltenv.com

Work Order Comments

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

Project Name:	AS Adkins	Turn Around	
Project Number:		Routine ☐	
P.O. Number:	1RP-5638	Rush: 48 Hr	
Sampler's Name:	Garrett Green	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	2.8	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	7	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BH01	S	10/22/19	1120	1'	1	X	X	X
BH02	"	"	1135	1'	1	"	"	"
BH02A	"	"	1140	2'	1	"	"	"
BH03	"	"	1155	1'	1	"	"	"
BH04	"	"	1205	1'	1	"	"	"
BH05	"	"	1210	.75'	1	"	"	"
BH06	↓	↓	1220	1'	1	↓	↓	↓

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			10/22/19 12:10	2			
3				4			
5				6			

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/22/2019 04:10:00 PM

Work Order #: 640740

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.8
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**No**
#5 Custody Seals intact on sample bottles?	**No**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 10/22/2019

Checklist reviewed by: Jessica Kramer Date: 10/23/2019

Analytical Report 640881

for

LT Environmental, Inc.

Project Manager: Dan Moir

AJ Adkins

24-OCT-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

24-OCT-19

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

Reference: XENCO Report No(s): **640881**
AJ Adkins
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) 640881. 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. 640881 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,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

Sample Cross Reference 640881

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	10-23-19 08:55	2 ft	640881-001
PH01A	S	10-23-19 09:00	3 ft	640881-002

CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: AJ Adkins

Project ID:
Work Order Number(s): *640881*

Report Date: *24-OCT-19*
Date Received: *10/23/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3105224 Chloride by EPA 300
Lab Sample ID 640881-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 640881-001, -002.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3105305 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 640881

LT Environmental, Inc., Arvada, CO

Project Name: AJ Adkins

Project Id:

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Oct-23-19 04:54 pm

Report Date: 24-OCT-19

Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	640881-001		640881-002					
	Field Id:	PH01		PH01A					
	Depth:	2- ft		3- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Oct-23-19 08:55		Oct-23-19 09:00					
BTEX by EPA 8021B	***Extracted:***	Oct-23-19 18:10		Oct-23-19 18:10					
	Analyzed:	Oct-24-19 09:11		Oct-24-19 09:31					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00100	0.00100	<0.00101	0.00101				
Toluene		<0.00100	0.00100	<0.00101	0.00101				
Ethylbenzene		<0.00100	0.00100	<0.00101	0.00101				
m,p-Xylenes		<0.00200	0.00200	<0.00202	0.00202				
o-Xylene		<0.00100	0.00100	<0.00101	0.00101				
Total Xylenes		<0.00100	0.00100	<0.00101	0.00101				
Total BTEX		<0.00100	0.00100	<0.00101	0.00101				
Chloride by EPA 300	***Extracted:***	Oct-23-19 18:10		Oct-23-19 18:10					
	Analyzed:	Oct-24-19 00:20		Oct-24-19 00:40					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		3450	99.4	396	49.7				
TPH by SW8015 Mod	***Extracted:***	Oct-23-19 17:00		Oct-23-19 17:00					
	Analyzed:	Oct-24-19 05:32		Oct-24-19 05:52					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.1	50.1				
Diesel Range Organics (DRO)		<50.0	50.0	<50.1	50.1				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.1	50.1				
Total GRO-DRO		<50.0	50.0	<50.1	50.1				
Total TPH		<50.0	50.0	<50.1	50.1				

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 640881

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	10.23.19 16.54
Lab Sample Id:	640881-001	Date Collected:	10.23.19 08.55	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.23.19 18.10	Basis:	Wet Weight
Seq Number:	3105224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3450**	99.4	mg/kg	10.24.19 00.20		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.23.19 17.00	Basis:	Wet Weight
Seq Number:	3105269				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.24.19 05.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.24.19 05.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.24.19 05.32	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.24.19 05.32	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.24.19 05.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	10.24.19 05.32	
o-Terphenyl	84-15-1	89	%	70-135	10.24.19 05.32	

Certificate of Analytical Results 640881

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	10.23.19 16.54
Lab Sample Id:	640881-001	Date Collected:	10.23.19 08.55	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.23.19 18.10	Basis:	Wet Weight
Seq Number:	3105305				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.24.19 09.11	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.24.19 09.11	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.24.19 09.11	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.24.19 09.11	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.24.19 09.11	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.24.19 09.11	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.24.19 09.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	10.24.19 09.11	
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.24.19 09.11	

Certificate of Analytical Results 640881

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	10.23.19 16.54
Lab Sample Id:	640881-002	Date Collected:	10.23.19 09.00	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.23.19 18.10	Basis:	Wet Weight
Seq Number:	3105224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**396**	49.7	mg/kg	10.24.19 00.40		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.23.19 17.00	Basis:	Wet Weight
Seq Number:	3105269				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.24.19 05.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	10.24.19 05.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	10.24.19 05.52	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	10.24.19 05.52	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	10.24.19 05.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	10.24.19 05.52	
o-Terphenyl	84-15-1	86	%	70-135	10.24.19 05.52	

Certificate of Analytical Results 640881

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	10.23.19 16.54
Lab Sample Id:	640881-002	Date Collected:	10.23.19 09.00	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.23.19 18.10	Basis:	Wet Weight
Seq Number:	3105305				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	10.24.19 09.31	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	10.24.19 09.31	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	10.24.19 09.31	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	10.24.19 09.31	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	10.24.19 09.31	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	10.24.19 09.31	U	1
Total BTEX		<0.00101	0.00101	mg/kg	10.24.19 09.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.24.19 09.31	
4-Bromofluorobenzene	460-00-4	113	%	70-130	10.24.19 09.31	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 640881

LT Environmental, Inc.

AJ Adkins

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105224 — Matrix: Solid — Date Prep: 10.23.19
MB Sample Id: 7688756-1-BLK — LCS Sample Id: 7688756-1-BKS — LCSD Sample Id: 7688756-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	259	104	261	104	90-110	1	20	mg/kg	10.23.19 22:26	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105224 — Matrix: Soil — Date Prep: 10.23.19
Parent Sample Id: 640879-001 — MS Sample Id: 640879-001 S — MSD Sample Id: 640879-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	29.2	990	1100	108	1110	108	90-110	1	20	mg/kg	10.23.19 22:46	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105224 — Matrix: Solid — Date Prep: 10.23.19
Parent Sample Id: 640881-001 — MS Sample Id: 640881-001 S — MSD Sample Id: 640881-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3450	1980	6100	134	6130	134	90-110	0	20	mg/kg	10.24.19 00:27	X

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105269 — Matrix: Solid — Date Prep: 10.23.19
MB Sample Id: 7688787-1-BLK — LCS Sample Id: 7688787-1-BKS — LCSD Sample Id: 7688787-1-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	845	85	755	76	70-135	11	35	mg/kg	10.23.19 22:14	
Diesel Range Organics (DRO)	<50.0	1000	783	78	770	77	70-135	2	35	mg/kg	10.23.19 22:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		110		97		70-135	%	10.23.19 22:14
o-Terphenyl	89		114		95		70-135	%	10.23.19 22:14

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105269 — Matrix: Solid — Date Prep: 10.23.19
MB Sample Id: 7688787-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.23.19 21:54	

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

QC Summary 640881

LT Environmental, Inc.

AJ Adkins

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105269 — Matrix: Soil — Date Prep: 10.23.19
Parent Sample Id: 640822-001 — MS Sample Id: 640822-001 S — MSD Sample Id: 640822-001 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)	20.3	1000	875	85	814	80	70-135	7	35	mg/kg	10.23.19 23:13	
Diesel Range Organics (DRO)	24.7	1000	780	76	740	72	70-135	5	35	mg/kg	10.23.19 23:13	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		98		70-135	%	10.23.19 23:13
o-Terphenyl	108		98		70-135	%	10.23.19 23:13

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3105305 — Matrix: Solid — Date Prep: 10.23.19
MB Sample Id: 7688829-1-BLK — LCS Sample Id: 7688829-1-BKS — LCSD Sample Id: 7688829-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.0983	98	0.0996	100	70-130	1	35	mg/kg	10.24.19 02:36	
Toluene	0.00107	0.100	0.0954	95	0.0966	97	70-130	1	35	mg/kg	10.24.19 02:36	
Ethylbenzene	<0.00100	0.100	0.0974	97	0.0989	99	71-129	2	35	mg/kg	10.24.19 02:36	
m,p-Xylenes	<0.00200	0.200	0.195	98	0.198	99	70-135	2	35	mg/kg	10.24.19 02:36	
o-Xylene	<0.00100	0.100	0.0985	99	0.101	101	71-133	3	35	mg/kg	10.24.19 02:36	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		103		105		70-130	%	10.24.19 02:36
4-Bromofluorobenzene	106		110		111		70-130	%	10.24.19 02:36

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3105305 — Matrix: Soil — Date Prep: 10.23.19
Parent Sample Id: 640879-001 — MS Sample Id: 640879-001 S — MSD Sample Id: 640879-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000998	0.0998	0.0643	64	0.0851	86	70-130	28	35	mg/kg	10.24.19 03:16	X
Toluene	<0.000998	0.0998	0.0631	63	0.0775	78	70-130	20	35	mg/kg	10.24.19 03:16	X
Ethylbenzene	<0.000998	0.0998	0.0603	60	0.0713	72	71-129	17	35	mg/kg	10.24.19 03:16	X
m,p-Xylenes	<0.00200	0.200	0.120	60	0.140	70	70-135	15	35	mg/kg	10.24.19 03:16	X
o-Xylene	<0.000998	0.0998	0.0625	63	0.0716	72	71-133	14	35	mg/kg	10.24.19 03:16	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		105		70-130	%	10.24.19 03:16
4-Bromofluorobenzene	114		116		70-130	%	10.24.19 03:16

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

Chain of Custody

XENCO LABORATORIES

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: 640881

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Midland, Tx 79705
Phone:	432.704.5178	Email:	ggreen@ltenv.com ; dmoir@ltenv.com

Work Order Comments

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

Project Name:	AJ Adkins	Turn Around	
Project Number:		Routine	☐
P.O. Number:	1RP-5638	Rush:	24Hr
Sampler's Name:	Garrett Green	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	0.8	Thermometer ID	
Received Intact:	(Yes) No	T-NM-007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	2

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH01	S	10/23/19	0855	2'	1	X	X	X
PH01A	S	10/23/19	0900	3'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		10/23/19 1610:54	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/23/2019 04:54:00 PM

Work Order #: 640881

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 10/23/2019

Checklist reviewed by: Jessica Kramer Date: 10/24/2019

Jessica Kramer

Analytical Report 640882

for

LT Environmental, Inc.

Project Manager: Dan Moir

AJ Adkins

24-OCT-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

24-OCT-19

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

Reference: XENCO Report No(s): **640882**
AJ Adkins
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) 640882. 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. 640882 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,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

Sample Cross Reference 640882

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS07	S	10-23-19 12:15	0.25 ft	640882-001
SS08	S	10-23-19 14:55	.5 ft	640882-002

CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: AJ Adkins

Project ID:
Work Order Number(s): *640882*

Report Date: *24-OCT-19*
Date Received: *10/23/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3105305 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 640882

LT Environmental, Inc., Arvada, CO

Project Name: AJ Adkins

Project Id:

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Oct-23-19 04:54 pm

Report Date: 24-OCT-19

Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	640882-001		640882-002					
	Field Id:	SS07		SS08					
	Depth:	0.25- ft		.5- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Oct-23-19 12:15		Oct-23-19 14:55					
BTEX by EPA 8021B	***Extracted:***	Oct-23-19 18:10		Oct-23-19 18:10					
	Analyzed:	Oct-24-19 09:52		Oct-24-19 10:12					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00100	0.00100	<0.0998	0.0998				
Toluene		<0.00100	0.00100	2.81	0.0998				
Ethylbenzene		<0.00100	0.00100	10.2	0.0998				
m,p-Xylenes		<0.00200	0.00200	19.1	0.200				
o-Xylene		<0.00100	0.00100	11.4	0.0998				
Total Xylenes		<0.00100	0.00100	30.5	0.0998				
Total BTEX		<0.00100	0.00100	43.5	0.0998				
Chloride by EPA 300	***Extracted:***	Oct-23-19 18:10		Oct-23-19 18:10					
	Analyzed:	Oct-24-19 01:00		Oct-24-19 01:07					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		<10.0	10.0	75.9	10.0				
TPH by SW8015 Mod	***Extracted:***	Oct-23-19 17:00		Oct-23-19 17:00					
	Analyzed:	Oct-24-19 14:18		Oct-23-19 23:53					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	479	50.2				
Diesel Range Organics (DRO)		1190	50.1	2960	50.2				
Motor Oil Range Hydrocarbons (MRO)		700	50.1	215	50.2				
Total GRO-DRO		1190	50.1	3440	50.2				
Total TPH		1890	50.1	3650	50.2				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 640882

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SS07**	Matrix:	Soil	Date Received:	10.23.19 16.54
Lab Sample Id:	640882-001	Date Collected:	10.23.19 12.15	Sample Depth:	0.25 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.23.19 18.10	Basis:	Wet Weight
Seq Number:	3105224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	10.24.19 01.00	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.23.19 17.00	Basis:	Wet Weight
Seq Number:	3105269				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.24.19 14.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1190**	50.1	mg/kg	10.24.19 14.18		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**700**	50.1	mg/kg	10.24.19 14.18		1
Total GRO-DRO	PHC628	**1190**	50.1	mg/kg	10.24.19 14.18		1
Total TPH	PHC635	**1890**	50.1	mg/kg	10.24.19 14.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	10.24.19 14.18	
o-Terphenyl	84-15-1	83	%	70-135	10.24.19 14.18	

Certificate of Analytical Results 640882

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SS07**	Matrix:	Soil	Date Received:	10.23.19 16.54
Lab Sample Id:	640882-001	Date Collected:	10.23.19 12.15	Sample Depth:	0.25 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.23.19 18.10	Basis:	Wet Weight
Seq Number:	3105305				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.24.19 09.52	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.24.19 09.52	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.24.19 09.52	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.24.19 09.52	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.24.19 09.52	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.24.19 09.52	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.24.19 09.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	10.24.19 09.52	
1,4-Difluorobenzene	540-36-3	106	%	70-130	10.24.19 09.52	

Certificate of Analytical Results 640882

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SS08**	Matrix:	Soil	Date Received:	10.23.19 16.54
Lab Sample Id:	640882-002	Date Collected:	10.23.19 14.55	Sample Depth:	.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.23.19 18.10	Basis:	Wet Weight
Seq Number:	3105224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**75.9**	10.0	mg/kg	10.24.19 01.07		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.23.19 17.00	Basis:	Wet Weight
Seq Number:	3105336				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**479**	50.2	mg/kg	10.23.19 23.53		1
Diesel Range Organics (DRO)	C10C28DRO	**2960**	50.2	mg/kg	10.23.19 23.53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**215**	50.2	mg/kg	10.23.19 23.53		1
Total GRO-DRO	PHC628	**3440**	50.2	mg/kg	10.23.19 23.53		1
Total TPH	PHC635	**3650**	50.2	mg/kg	10.23.19 23.53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	134	%	70-135	10.23.19 23.53	
o-Terphenyl	84-15-1	108	%	70-135	10.23.19 23.53	

Certificate of Analytical Results 640882

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SS08**	Matrix:	Soil	Date Received:	10.23.19 16.54
Lab Sample Id:	640882-002	Date Collected:	10.23.19 14.55	Sample Depth:	.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.23.19 18.10	Basis:	Wet Weight
Seq Number:	3105305				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0998	0.0998	mg/kg	10.24.19 10.12	U	100
Toluene	108-88-3	**2.81**	0.0998	mg/kg	10.24.19 10.12		100
Ethylbenzene	100-41-4	**10.2**	0.0998	mg/kg	10.24.19 10.12		100
m,p-Xylenes	179601-23-1	**19.1**	0.200	mg/kg	10.24.19 10.12		100
o-Xylene	95-47-6	**11.4**	0.0998	mg/kg	10.24.19 10.12		100
Total Xylenes	1330-20-7	**30.5**	0.0998	mg/kg	10.24.19 10.12		100
Total BTEX		**43.5**	0.0998	mg/kg	10.24.19 10.12		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	125	%	70-130	10.24.19 10.12	
1,4-Difluorobenzene	540-36-3	100	%	70-130	10.24.19 10.12	

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

QC Summary 640882

LT Environmental, Inc.

AJ Adkins

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105224 — Matrix: Solid — Date Prep: 10.23.19
MB Sample Id: 7688756-1-BLK — LCS Sample Id: 7688756-1-BKS — LCSD Sample Id: 7688756-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	259	104	261	104	90-110	1	20	mg/kg	10.23.19 22:26	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105224 — Matrix: Soil — Date Prep: 10.23.19
Parent Sample Id: 640879-001 — MS Sample Id: 640879-001 S — MSD Sample Id: 640879-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	29.2	990	1100	108	1110	108	90-110	1	20	mg/kg	10.23.19 22:46	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105224 — Matrix: Solid — Date Prep: 10.23.19
Parent Sample Id: 640881-001 — MS Sample Id: 640881-001 S — MSD Sample Id: 640881-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3450	1980	6100	134	6130	134	90-110	0	20	mg/kg	10.24.19 00:27	X

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105269 — Matrix: Solid — Date Prep: 10.23.19
MB Sample Id: 7688787-1-BLK — LCS Sample Id: 7688787-1-BKS — LCSD Sample Id: 7688787-1-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	845	85	755	76	70-135	11	35	mg/kg	10.23.19 22:14	
Diesel Range Organics (DRO)	<50.0	1000	783	78	770	77	70-135	2	35	mg/kg	10.23.19 22:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		110		97		70-135	%	10.23.19 22:14
o-Terphenyl	89		114		95		70-135	%	10.23.19 22:14

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

QC Summary 640882

LT Environmental, Inc.

AJ Adkins

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105336 — Matrix: Solid — Date Prep: 10.23.19
MB Sample Id: 7688793-1-BLK — LCS Sample Id: 7688793-1-BKS — LCSD Sample Id: 7688793-1-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	859	86	899	90	70-135	5	35	mg/kg	10.23.19 22:14	
Diesel Range Organics (DRO)	<50.0	1000	745	75	787	79	70-135	5	35	mg/kg	10.23.19 22:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		117		124		70-135	%	10.23.19 22:14
o-Terphenyl	98		101		108		70-135	%	10.23.19 22:14

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105269 — Matrix: Solid — Date Prep: 10.23.19
MB Sample Id: 7688787-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.23.19 21:54	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105336 — Matrix: Solid — Date Prep: 10.23.19
MB Sample Id: 7688793-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.23.19 21:54	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105269 — Matrix: Soil — Date Prep: 10.23.19
Parent Sample Id: 640822-001 — MS Sample Id: 640822-001 S — MSD Sample Id: 640822-001 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)	20.3	1000	875	85	814	80	70-135	7	35	mg/kg	10.23.19 23:13	
Diesel Range Organics (DRO)	24.7	1000	780	76	740	72	70-135	5	35	mg/kg	10.23.19 23:13	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		98		70-135	%	10.23.19 23:13
o-Terphenyl	108		98		70-135	%	10.23.19 23:13

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

QC Summary 640882

LT Environmental, Inc.

AJ Adkins

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105336 — Matrix: Soil — Date Prep: 10.23.19
Parent Sample Id: 640754-047 — MS Sample Id: 640754-047 S — MSD Sample Id: 640754-047 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)	914	1010	914	0	918	0	70-135	0	35	mg/kg	10.23.19 23:13	X
Diesel Range Organics (DRO)	804	1010	804	0	813	0	70-135	1	35	mg/kg	10.23.19 23:13	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		133		70-135	%	10.23.19 23:13
o-Terphenyl	111		118		70-135	%	10.23.19 23:13

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3105305 — Matrix: Solid — Date Prep: 10.23.19
MB Sample Id: 7688829-1-BLK — LCS Sample Id: 7688829-1-BKS — LCSD Sample Id: 7688829-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.0983	98	0.0996	100	70-130	1	35	mg/kg	10.24.19 02:36	
Toluene	0.00107	0.100	0.0954	95	0.0966	97	70-130	1	35	mg/kg	10.24.19 02:36	
Ethylbenzene	<0.00100	0.100	0.0974	97	0.0989	99	71-129	2	35	mg/kg	10.24.19 02:36	
m,p-Xylenes	<0.00200	0.200	0.195	98	0.198	99	70-135	2	35	mg/kg	10.24.19 02:36	
o-Xylene	<0.00100	0.100	0.0985	99	0.101	101	71-133	3	35	mg/kg	10.24.19 02:36	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		103		105		70-130	%	10.24.19 02:36
4-Bromofluorobenzene	106		110		111		70-130	%	10.24.19 02:36

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3105305 — Matrix: Soil — Date Prep: 10.23.19
Parent Sample Id: 640879-001 — MS Sample Id: 640879-001 S — MSD Sample Id: 640879-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000998	0.0998	0.0643	64	0.0851	86	70-130	28	35	mg/kg	10.24.19 03:16	X
Toluene	<0.000998	0.0998	0.0631	63	0.0775	78	70-130	20	35	mg/kg	10.24.19 03:16	X
Ethylbenzene	<0.000998	0.0998	0.0603	60	0.0713	72	71-129	17	35	mg/kg	10.24.19 03:16	X
m,p-Xylenes	<0.00200	0.200	0.120	60	0.140	70	70-135	15	35	mg/kg	10.24.19 03:16	X
o-Xylene	<0.000998	0.0998	0.0625	63	0.0716	72	71-133	14	35	mg/kg	10.24.19 03:16	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		105		70-130	%	10.24.19 03:16
4-Bromofluorobenzene	114		116		70-130	%	10.24.19 03:16

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

Chain of Custody

Work Order No: 640882

XENCO LABORATORIES

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)

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Midland, Tx 79705
Phone:	432.704.5178	Email:	ggreen@ltenv.com ; dmoir@ltenv.com

Work Order Comments

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

Project Name:	AJ Adkins	Turn Around	
Project Number:		Routine ☐	
P.O. Number:	IRP-5638	Rush: 24Hr	
Sampler's Name:	Garrett Green	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	Yes (No)
Temperature (°C):	0.8	Thermometer ID	
Received Intact:	(Yes) No	T-NM	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	2

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SS06	S	10/23/19	1215	.25'	1	X	X	X
SS08	S	10/23/19	1455	.5'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		10/23/19 1654	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/23/2019 04:54:00 PM

Work Order #: 640882

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 10/23/2019

Checklist reviewed by: Jessica Kramer Date: 10/24/2019

Analytical Report 641183

for

LT Environmental, Inc.

Project Manager: Dan Moir

AJ Adkins

29-OCT-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

29-OCT-19

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

Reference: XENCO Report No(s): **641183**
AJ Adkins
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) 641183. 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. 641183 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,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

Sample Cross Reference 641183

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	10-25-19 10:50	4 - 6 ft	641183-001

CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: AJ Adkins

Project ID:
Work Order Number(s): *641183*

Report Date: *29-OCT-19*
Date Received: *10/25/2019*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3105558 BTEX by EPA 8021B
Passing MS/MSD analyzed on sample 641096-001 not reported, this sample was analyzed and reported at a different location. BKS/BSD are considered sufficient to validate analytical data.

Batch: LBA-3105559 TPH by SW8015 Mod
Passing MS/MSD analyzed on sample 641096-001 not reported, this sample was analyzed and reported at a different location. BKS/BSD are considered sufficient to validate analytical data.

Certificate of Analysis Summary 641183

LT Environmental, Inc., Arvada, CO

Project Name: AJ Adkins

Project Id:
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri Oct-25-19 04:25 pm
Report Date: 29-OCT-19
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	641183-001					
	Field Id:	FS01					
	Depth:	4-6 ft					
	Matrix:	SOIL					
	Sampled:	Oct-25-19 10:50					
BTEX by EPA 8021B	***Extracted:***	Oct-25-19 18:00					
	Analyzed:	Oct-25-19 21:18					
	Units/RL:	mg/kg	RL				
Benzene		<0.00101	0.00101				
Toluene		<0.00101	0.00101				
Ethylbenzene		<0.00101	0.00101				
m,p-Xylenes		<0.00202	0.00202				
o-Xylene		<0.00101	0.00101				
Total Xylenes		<0.00101	0.00101				
Total BTEX		<0.00101	0.00101				
Chloride by EPA 300 **SUB: T104704400-19-19**	***Extracted:***	Oct-28-19 13:20					
	Analyzed:	Oct-28-19 15:51					
	Units/RL:	mg/kg	RL				
Chloride		219	5.01				
TPH by SW8015 Mod	***Extracted:***	Oct-25-19 17:30					
	Analyzed:	Oct-25-19 17:53					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0				
Diesel Range Organics (DRO)		2530	50.0				
Motor Oil Range Hydrocarbons (MRO)		243	50.0				
Total GRO-DRO		2530	50.0				
Total TPH		2770	50.0				

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analytical Results 641183

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	10.25.19 16.25
Lab Sample Id:	641183-001	Date Collected:	10.25.19 10.50	Sample Depth:	4 - 6 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.28.19 13.20	Basis:	Wet Weight
Seq Number:	3105654			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**219**	5.01	mg/kg	10.28.19 15.51		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.25.19 17.30	Basis:	Wet Weight
Seq Number:	3105559				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.25.19 17.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	**2530**	50.0	mg/kg	10.25.19 17.53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**243**	50.0	mg/kg	10.25.19 17.53		1
Total GRO-DRO	PHC628	**2530**	50.0	mg/kg	10.25.19 17.53		1
Total TPH	PHC635	**2770**	50.0	mg/kg	10.25.19 17.53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	10.25.19 17.53	
o-Terphenyl	84-15-1	127	%	70-135	10.25.19 17.53	

Certificate of Analytical Results 641183

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	10.25.19 16.25
Lab Sample Id:	641183-001	Date Collected:	10.25.19 10.50	Sample Depth:	4 - 6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.25.19 18.00	Basis:	Wet Weight
Seq Number:	3105558				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	10.25.19 21.18	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	10.25.19 21.18	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	10.25.19 21.18	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	10.25.19 21.18	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	10.25.19 21.18	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	10.25.19 21.18	U	1
Total BTEX		<0.00101	0.00101	mg/kg	10.25.19 21.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	10.25.19 21.18	
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.25.19 21.18	

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

QC Summary 641183

LT Environmental, Inc.

AJ Adkins

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105654 — Matrix: Solid — Date Prep: 10.28.19
MB Sample Id: 7689018-1-BLK — LCS Sample Id: 7689018-1-BKS — LCSD Sample Id: 7689018-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	263	105	262	105	90-110	0	20	mg/kg	10.28.19 14:39	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105654 — Matrix: Soil — Date Prep: 10.28.19
Parent Sample Id: 641128-007 — MS Sample Id: 641128-007 S — MSD Sample Id: 641128-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	579	249	803	90	806	91	90-110	0	20	mg/kg	10.28.19 16:07	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105654 — Matrix: Soil — Date Prep: 10.28.19
Parent Sample Id: 641200-021 — MS Sample Id: 641200-021 S — MSD Sample Id: 641200-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	218	250	479	104	471	101	90-110	2	20	mg/kg	10.28.19 14:55	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105559 — Matrix: Solid — Date Prep: 10.25.19
MB Sample Id: 7688983-1-BLK — LCS Sample Id: 7688983-1-BKS — LCSD Sample Id: 7688983-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<13.9	1000	801	80	840	84	70-135	5	35	mg/kg	10.25.19 14:39	
Diesel Range Organics (DRO)	<11.5	1000	721	72	782	78	70-135	8	35	mg/kg	10.25.19 14:39	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	89		98		104		70-135	%	10.25.19 14:39
o-Terphenyl	87		92		95		70-135	%	10.25.19 14:39

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105559 — Matrix: Solid — Date Prep: 10.25.19
MB Sample Id: 7688983-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.25.19 14:19	

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

QC Summary 641183

LT Environmental, Inc.

AJ Adkins

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3105558 Matrix: Solid Date Prep: 10.25.19
MB Sample Id: 7688975-1-BLK LCS Sample Id: 7688975-1-BKS LCSD Sample Id: 7688975-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.0966	97	0.104	104	70-130	7	35	mg/kg	10.25.19 18:00	
Toluene	<0.00100	0.100	0.0965	97	0.103	103	70-130	7	35	mg/kg	10.25.19 18:00	
Ethylbenzene	<0.00100	0.100	0.0995	100	0.106	106	71-129	6	35	mg/kg	10.25.19 18:00	
m,p-Xylenes	<0.00200	0.200	0.200	100	0.215	108	70-135	7	35	mg/kg	10.25.19 18:00	
o-Xylene	<0.00100	0.100	0.0980	98	0.106	106	71-133	8	35	mg/kg	10.25.19 18:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		101		70-130	%	10.25.19 18:00
4-Bromofluorobenzene	104		102		105		70-130	%	10.25.19 18:00

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

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)
www.xenco.com

Work Order No: 641183

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Midland, Tx 79705
Phone:	432.704.5178	Email:	ggreen@ltenv.com ; dmoir@ltenv.com

Work Order Comments

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

Project Name:	AJ Adkins	Turn Around	
Project Number:		Routine	☐
P.O. Number:	IRP-5635	Rush:	24Hr
Sampler's Name:	Garrett Green	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	3.4	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	1	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS01	S	10/25/19	1050	4'-6'	1	X	X	X

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			10/25/19 16:20	2		
3				4		
5						

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number **50921**

Date/Time: 10/26/19 11:52
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Carlos Castro
Delivery Priority:
Air Bill No.:

Please send report to: Jessica Kramer
Address: 1089 N Canal Street
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
641183-001	S	FS01	10/25/19 10:50	E300_CL	Chloride by EPA 300	**10/30/19**	04/22/20	JKR	CL	

Inter Office Shipment or Sample Comments:

Relinquished By: Carlos Castro

Date Relinquished: 10/26/2019

Received By: Brianna Teel

Date Received: 10/28/2019 09:34

Cooler Temperature: 0.6

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 50921

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sent By: Carlos Castro **Date Sent:** 10/26/2019 11:52 AM

Received By: Brianna Teel **Date Received:** 10/28/2019 09:34 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.6	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**Yes**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Brianna Teel Date: 10/28/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10.25.2019 04.25.00 PM

Work Order #: 641183

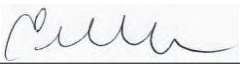
Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

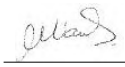
Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	3.4	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Choride will be subbed to Midland on Monday, client gave permission to change.
#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:  Date: 10.25.2019

Elizabeth McClellan

Checklist reviewed by:  Date: 10.26.2019

Martha Castro

Analytical Report 641339

for

LT Environmental, Inc.

Project Manager: Dan Moir

AJ Adkins

1RP-5638

30-OCT-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

30-OCT-19

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

Reference: XENCO Report No(s): **641339**
AJ Adkins
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) 641339. 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. 641339 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,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

Sample Cross Reference 641339

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW01	S	10-28-19 12:30	0 - 2 ft	641339-001
SW02	S	10-28-19 12:35	0 - 2 ft	641339-002
SW03	S	10-28-19 12:40	0 - 2 ft	641339-003
SW04	S	10-28-19 12:45	0 - 2 ft	641339-004
FS02	S	10-28-19 13:10	1 - 1.5 ft	641339-005
FS03	S	10-28-19 13:15	2 ft	641339-006
FS04	S	10-28-19 13:20	1.5 - 2 ft	641339-007
FS05	S	10-28-19 13:25	1.5 - 2 ft	641339-008
FS06	S	10-28-19 13:50	1.5 - 2 ft	641339-009
FS07	S	10-28-19 13:55	1.5 - 2.5 ft	641339-010
FS08	S	10-28-19 14:00	1.5 - 2 ft	641339-011
FS09	S	10-28-19 14:05	1.5 - 2 ft	641339-012
FS10	S	10-28-19 14:10	1.5 - 2 ft	641339-013

CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: AJ Adkins

Project ID: *1RP-5638*
Work Order Number(s): *641339*

Report Date: *30-OCT-19*
Date Received: *10/29/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3105805 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3105806 BTEX by EPA 8021B
Lab Sample ID 641339-010 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).
m,p-Xylenes , o-Xylene recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 641339-010, -011, -012, -013.
The Laboratory Control Sample for m,p-Xylenes , o-Xylene is within laboratory Control Limits, therefore the data was accepted.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
m,p-Xylenes , o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.
Samples in the analytical batch are: 641339-010, -011, -012, -013

Batch: LBA-3105880 TPH by SW8015 Mod
Surrogate 1-Chlorooctane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 641345-010 S.

Certificate of Analysis Summary 641339

LT Environmental, Inc., Arvada, CO

Project Name: AJ Adkins

Project Id: 1RP-5638
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue Oct-29-19 09:30 am
Report Date: 30-OCT-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	641339-001		641339-002		641339-003		641339-004		641339-005		641339-006	
	Field Id:	SW01		SW02		SW03		SW04		FS02		FS03	
	Depth:	0-2 ft		0-2 ft		0-2 ft		0-2 ft		1-1.5 ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-28-19 12:30		Oct-28-19 12:35		Oct-28-19 12:40		Oct-28-19 12:45		Oct-28-19 13:10		Oct-28-19 13:15	
BTEX by EPA 8021B	***Extracted:***	Oct-29-19 11:10		Oct-29-19 11:10		Oct-29-19 11:10		Oct-29-19 11:10		Oct-29-19 11:10		Oct-29-19 11:10	
	Analyzed:	Oct-29-19 21:03		Oct-29-19 21:24		Oct-29-19 21:44		Oct-29-19 22:04		Oct-29-19 22:25		Oct-29-19 22:45	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100
Toluene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100
Ethylbenzene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100
m,p-Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
o-Xylene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100
Total Xylenes		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100
Total BTEX		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100
Chloride by EPA 300	***Extracted:***	Oct-29-19 12:10		Oct-29-19 12:10		Oct-29-19 12:10		Oct-29-19 12:10		Oct-29-19 12:10		Oct-29-19 12:10	
	Analyzed:	Oct-29-19 15:09		Oct-29-19 15:28		Oct-29-19 15:34		Oct-29-19 15:40		Oct-29-19 15:46		Oct-29-19 16:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		606	49.4	829	50.1	182	10.1	312	9.98	1090	49.7	760	50.4
TPH by SW8015 Mod	***Extracted:***	Oct-29-19 16:30		Oct-29-19 16:30		Oct-29-19 16:30		Oct-29-19 16:30		Oct-29-19 16:30		Oct-29-19 16:30	
	Analyzed:	Oct-29-19 17:49		Oct-29-19 17:49		Oct-29-19 18:09		Oct-29-19 18:09		Oct-29-19 18:29		Oct-29-19 18:29	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.2	50.2	<49.8	49.8	<50.2	50.2
Diesel Range Organics (DRO)		161	50.0	<49.9	49.9	<49.8	49.8	220	50.2	<49.8	49.8	890	50.2
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.2	50.2	<49.8	49.8	186	50.2
Total GRO-DRO		161	50.0	<49.9	49.9	<49.8	49.8	220	50.2	<49.8	49.8	890	50.2
Total TPH		161	50.0	<49.9	49.9	<49.8	49.8	220	50.2	<49.8	49.8	1080	50.2

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 641339

LT Environmental, Inc., Arvada, CO

Project Name: AJ Adkins

Project Id: 1RP-5638
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue Oct-29-19 09:30 am
Report Date: 30-OCT-19
Project Manager: Jessica Kramer

Analysis Requested	*Lab Id:*	641339-007		641339-008		641339-009		641339-010		641339-011		641339-012	
	Field Id:	FS04		FS05		FS06		FS07		FS08		FS09	
	Depth:	1.5-2 ft		1.5-2 ft		1.5-2 ft		1.5-2.5 ft		1.5-2 ft		1.5-2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-28-19 13:20		Oct-28-19 13:25		Oct-28-19 13:50		Oct-28-19 13:55		Oct-28-19 14:00		Oct-28-19 14:05	
BTEX by EPA 8021B	*Extracted:*	Oct-29-19 11:10		Oct-29-19 11:10		Oct-29-19 11:10		Oct-29-19 11:10		Oct-29-19 11:10		Oct-29-19 11:10	
	Analyzed:	Oct-29-19 23:06		Oct-29-19 23:26		Oct-29-19 23:46		Oct-29-19 16:18		Oct-29-19 16:37		Oct-29-19 16:57	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100
Toluene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100
Ethylbenzene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100
m,p-Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
o-Xylene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100
Total Xylenes		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100
Total BTEX		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100
Chloride by EPA 300	*Extracted:*	Oct-29-19 12:10		Oct-29-19 12:10		Oct-29-19 12:10		Oct-29-19 12:10		Oct-29-19 12:10		Oct-29-19 12:10	
	Analyzed:	Oct-29-19 16:11		Oct-29-19 16:18		Oct-29-19 16:24		Oct-29-19 16:30		Oct-29-19 16:36		Oct-29-19 16:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1320	50.3	1560	99.4	1410	99.2	737	49.7	719	49.6	945	49.8
TPH by SW8015 Mod	*Extracted:*	Oct-29-19 16:30		Oct-29-19 16:30		Oct-29-19 16:30		Oct-29-19 16:30		Oct-29-19 16:30		Oct-29-19 16:30	
	Analyzed:	Oct-29-19 18:49		Oct-29-19 19:09		Oct-29-19 19:09		Oct-29-19 19:29		Oct-29-19 19:29		Oct-29-19 19:49	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<50.2	50.2	<49.9	49.9	<50.3	50.3	<49.8	49.8	<50.0	50.0
Diesel Range Organics (DRO)		462	49.8	<50.2	50.2	<49.9	49.9	<50.3	50.3	<49.8	49.8	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		104	49.8	<50.2	50.2	<49.9	49.9	<50.3	50.3	<49.8	49.8	<50.0	50.0
Total GRO-DRO		462	49.8	<50.2	50.2	<49.9	49.9	<50.3	50.3	<49.8	49.8	<50.0	50.0
Total TPH		566	49.8	<50.2	50.2	<49.9	49.9	<50.3	50.3	<49.8	49.8	<50.0	50.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 641339

LT Environmental, Inc., Arvada, CO

Project Name: AJ Adkins

Project Id: 1RP-5638
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue Oct-29-19 09:30 am
Report Date: 30-OCT-19
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	641339-013					
	Field Id:	FS10					
	Depth:	1.5-2 ft					
	Matrix:	SOIL					
	Sampled:	Oct-28-19 14:10					
BTEX by EPA 8021B	***Extracted:***	Oct-29-19 11:10					
	Analyzed:	Oct-29-19 17:16					
	Units/RL:	mg/kg	RL				
Benzene		<0.00100	0.00100				
Toluene		<0.00100	0.00100				
Ethylbenzene		<0.00100	0.00100				
m,p-Xylenes		<0.00200	0.00200				
o-Xylene		<0.00100	0.00100				
Total Xylenes		<0.00100	0.00100				
Total BTEX		<0.00100	0.00100				
Chloride by EPA 300	***Extracted:***	Oct-29-19 12:10					
	Analyzed:	Oct-29-19 17:01					
	Units/RL:	mg/kg	RL				
Chloride		572	49.4				
TPH by SW8015 Mod	***Extracted:***	Oct-29-19 16:30					
	Analyzed:	Oct-29-19 19:49					
	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				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 641339

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-001	Date Collected:	10.28.19 12.30	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 12.10	Basis:	Wet Weight
Seq Number:	3105792				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**606**	49.4	mg/kg	10.29.19 15.09		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.29.19 16.30	Basis:	Wet Weight
Seq Number:	3105880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.29.19 17.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	**161**	50.0	mg/kg	10.29.19 17.49		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.29.19 17.49	U	1
Total GRO-DRO	PHC628	**161**	50.0	mg/kg	10.29.19 17.49		1
Total TPH	PHC635	**161**	50.0	mg/kg	10.29.19 17.49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	10.29.19 17.49	
o-Terphenyl	84-15-1	114	%	70-135	10.29.19 17.49	

Certificate of Analytical Results 641339

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-001	Date Collected:	10.28.19 12.30	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 11.10	Basis:	Wet Weight
Seq Number:	3105805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.29.19 21.03	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.29.19 21.03	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.29.19 21.03	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.29.19 21.03	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.29.19 21.03	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.29.19 21.03	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.29.19 21.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	70-130	10.29.19 21.03	
1,4-Difluorobenzene	540-36-3	102	%	70-130	10.29.19 21.03	

Certificate of Analytical Results 641339

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-002	Date Collected:	10.28.19 12.35	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 12.10	Basis:	Wet Weight
Seq Number:	3105792				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**829**	50.1	mg/kg	10.29.19 15.28		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.29.19 16.30	Basis:	Wet Weight
Seq Number:	3105880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.29.19 17.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.29.19 17.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.29.19 17.49	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.29.19 17.49	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.29.19 17.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	10.29.19 17.49	
o-Terphenyl	84-15-1	110	%	70-135	10.29.19 17.49	

Certificate of Analytical Results 641339

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-002	Date Collected:	10.28.19 12.35	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 11.10	Basis:	Wet Weight
Seq Number:	3105805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.29.19 21.24	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.29.19 21.24	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.29.19 21.24	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.29.19 21.24	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.29.19 21.24	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.29.19 21.24	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.29.19 21.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	10.29.19 21.24	
1,4-Difluorobenzene	540-36-3	102	%	70-130	10.29.19 21.24	

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LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-003	Date Collected:	10.28.19 12.40	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 12.10	Basis:	Wet Weight
Seq Number:	3105792				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**182**	10.1	mg/kg	10.29.19 15.34		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.29.19 16.30	Basis:	Wet Weight
Seq Number:	3105880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.29.19 18.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.29.19 18.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.29.19 18.09	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.29.19 18.09	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.29.19 18.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	10.29.19 18.09	
o-Terphenyl	84-15-1	113	%	70-135	10.29.19 18.09	

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LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-003	Date Collected:	10.28.19 12.40	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 11.10	Basis:	Wet Weight
Seq Number:	3105805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.29.19 21.44	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.29.19 21.44	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.29.19 21.44	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.29.19 21.44	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.29.19 21.44	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.29.19 21.44	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.29.19 21.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	10.29.19 21.44	
4-Bromofluorobenzene	460-00-4	114	%	70-130	10.29.19 21.44	

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AJ Adkins

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-004	Date Collected:	10.28.19 12.45	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 12.10	Basis:	Wet Weight
Seq Number:	3105792				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**312**	9.98	mg/kg	10.29.19 15.40		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.29.19 16.30	Basis:	Wet Weight
Seq Number:	3105880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.29.19 18.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	**220**	50.2	mg/kg	10.29.19 18.09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.29.19 18.09	U	1
Total GRO-DRO	PHC628	**220**	50.2	mg/kg	10.29.19 18.09		1
Total TPH	PHC635	**220**	50.2	mg/kg	10.29.19 18.09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	10.29.19 18.09	
o-Terphenyl	84-15-1	113	%	70-135	10.29.19 18.09	

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LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-004	Date Collected:	10.28.19 12.45	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 11.10	Basis:	Wet Weight
Seq Number:	3105805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.29.19 22.04	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.29.19 22.04	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.29.19 22.04	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.29.19 22.04	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.29.19 22.04	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.29.19 22.04	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.29.19 22.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	10.29.19 22.04	
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.29.19 22.04	

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AJ Adkins

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-005	Date Collected:	10.28.19 13.10	Sample Depth:	1 - 1.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 12.10	Basis:	Wet Weight
Seq Number:	3105792				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1090**	49.7	mg/kg	10.29.19 15.46		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.29.19 16.30	Basis:	Wet Weight
Seq Number:	3105880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.29.19 18.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.29.19 18.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.29.19 18.29	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.29.19 18.29	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.29.19 18.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	10.29.19 18.29	
o-Terphenyl	84-15-1	116	%	70-135	10.29.19 18.29	

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AJ Adkins

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-005	Date Collected:	10.28.19 13.10	Sample Depth:	1 - 1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 11.10	Basis:	Wet Weight
Seq Number:	3105805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.29.19 22.25	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.29.19 22.25	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.29.19 22.25	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.29.19 22.25	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.29.19 22.25	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.29.19 22.25	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.29.19 22.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.29.19 22.25	
4-Bromofluorobenzene	460-00-4	120	%	70-130	10.29.19 22.25	

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Sample Id:	**FS03**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-006	Date Collected:	10.28.19 13.15	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 12.10	Basis:	Wet Weight
Seq Number:	3105792				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**760**	50.4	mg/kg	10.29.19 16.05		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.29.19 16.30	Basis:	Wet Weight
Seq Number:	3105880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.29.19 18.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	**890**	50.2	mg/kg	10.29.19 18.29		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**186**	50.2	mg/kg	10.29.19 18.29		1
Total GRO-DRO	PHC628	**890**	50.2	mg/kg	10.29.19 18.29		1
Total TPH	PHC635	**1080**	50.2	mg/kg	10.29.19 18.29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	10.29.19 18.29	
o-Terphenyl	84-15-1	111	%	70-135	10.29.19 18.29	

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AJ Adkins

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-006	Date Collected:	10.28.19 13.15	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 11.10	Basis:	Wet Weight
Seq Number:	3105805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.29.19 22.45	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.29.19 22.45	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.29.19 22.45	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.29.19 22.45	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.29.19 22.45	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.29.19 22.45	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.29.19 22.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.29.19 22.45	
4-Bromofluorobenzene	460-00-4	107	%	70-130	10.29.19 22.45	

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AJ Adkins

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-007	Date Collected:	10.28.19 13.20	Sample Depth:	1.5 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 12.10	Basis:	Wet Weight
Seq Number:	3105792				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1320**	50.3	mg/kg	10.29.19 16.11		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.29.19 16.30	Basis:	Wet Weight
Seq Number:	3105880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.29.19 18.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	**462**	49.8	mg/kg	10.29.19 18.49		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**104**	49.8	mg/kg	10.29.19 18.49		1
Total GRO-DRO	PHC628	**462**	49.8	mg/kg	10.29.19 18.49		1
Total TPH	PHC635	**566**	49.8	mg/kg	10.29.19 18.49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	10.29.19 18.49	
o-Terphenyl	84-15-1	112	%	70-135	10.29.19 18.49	

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LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-007	Date Collected:	10.28.19 13.20	Sample Depth:	1.5 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 11.10	Basis:	Wet Weight
Seq Number:	3105805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.29.19 23.06	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.29.19 23.06	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.29.19 23.06	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.29.19 23.06	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.29.19 23.06	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.29.19 23.06	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.29.19 23.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.29.19 23.06	
4-Bromofluorobenzene	460-00-4	109	%	70-130	10.29.19 23.06	

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AJ Adkins

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-008	Date Collected:	10.28.19 13.25	Sample Depth:	1.5 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 12.10	Basis:	Wet Weight
Seq Number:	3105792				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1560**	99.4	mg/kg	10.29.19 16.18		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.29.19 16.30	Basis:	Wet Weight
Seq Number:	3105880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.29.19 19.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.29.19 19.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.29.19 19.09	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.29.19 19.09	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.29.19 19.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	10.29.19 19.09	
o-Terphenyl	84-15-1	116	%	70-135	10.29.19 19.09	

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AJ Adkins

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-008	Date Collected:	10.28.19 13.25	Sample Depth:	1.5 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 11.10	Basis:	Wet Weight
Seq Number:	3105805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.29.19 23.26	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.29.19 23.26	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.29.19 23.26	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.29.19 23.26	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.29.19 23.26	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.29.19 23.26	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.29.19 23.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	10.29.19 23.26	
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.29.19 23.26	

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LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-009	Date Collected:	10.28.19 13.50	Sample Depth:	1.5 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 12.10	Basis:	Wet Weight
Seq Number:	3105792				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1410**	99.2	mg/kg	10.29.19 16.24		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.29.19 16.30	Basis:	Wet Weight
Seq Number:	3105880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.29.19 19.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.29.19 19.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.29.19 19.09	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.29.19 19.09	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.29.19 19.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	10.29.19 19.09	
o-Terphenyl	84-15-1	115	%	70-135	10.29.19 19.09	

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LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-009	Date Collected:	10.28.19 13.50	Sample Depth:	1.5 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 11.10	Basis:	Wet Weight
Seq Number:	3105805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.29.19 23.46	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.29.19 23.46	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.29.19 23.46	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.29.19 23.46	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.29.19 23.46	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.29.19 23.46	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.29.19 23.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	10.29.19 23.46	
1,4-Difluorobenzene	540-36-3	100	%	70-130	10.29.19 23.46	

Certificate of Analytical Results 641339

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-010	Date Collected:	10.28.19 13.55	Sample Depth:	1.5 - 2.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 12.10	Basis:	Wet Weight
Seq Number:	3105792				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**737**	49.7	mg/kg	10.29.19 16.30		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.29.19 16.30	Basis:	Wet Weight
Seq Number:	3105880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	10.29.19 19.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	10.29.19 19.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	10.29.19 19.29	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	10.29.19 19.29	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	10.29.19 19.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	10.29.19 19.29	
o-Terphenyl	84-15-1	109	%	70-135	10.29.19 19.29	

Certificate of Analytical Results 641339

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-010	Date Collected:	10.28.19 13.55	Sample Depth:	1.5 - 2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 11.10	Basis:	Wet Weight
Seq Number:	3105806				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.29.19 16.18	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.29.19 16.18	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.29.19 16.18	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.29.19 16.18	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.29.19 16.18	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.29.19 16.18	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.29.19 16.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	10.29.19 16.18	
1,4-Difluorobenzene	540-36-3	103	%	70-130	10.29.19 16.18	

Certificate of Analytical Results 641339

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-011	Date Collected:	10.28.19 14.00	Sample Depth:	1.5 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 12.10	Basis:	Wet Weight
Seq Number:	3105792				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**719**	49.6	mg/kg	10.29.19 16.36		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.29.19 16.30	Basis:	Wet Weight
Seq Number:	3105880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.29.19 19.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.29.19 19.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.29.19 19.29	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.29.19 19.29	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.29.19 19.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	10.29.19 19.29	
o-Terphenyl	84-15-1	109	%	70-135	10.29.19 19.29	

Certificate of Analytical Results 641339

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-011	Date Collected:	10.28.19 14.00	Sample Depth:	1.5 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 11.10	Basis:	Wet Weight
Seq Number:	3105806				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.29.19 16.37	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.29.19 16.37	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.29.19 16.37	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.29.19 16.37	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.29.19 16.37	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.29.19 16.37	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.29.19 16.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.29.19 16.37	
4-Bromofluorobenzene	460-00-4	118	%	70-130	10.29.19 16.37	

Certificate of Analytical Results 641339

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS09**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-012	Date Collected:	10.28.19 14.05	Sample Depth:	1.5 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 12.10	Basis:	Wet Weight
Seq Number:	3105792				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**945**	49.8	mg/kg	10.29.19 16.55		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.29.19 16.30	Basis:	Wet Weight
Seq Number:	3105880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.29.19 19.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.29.19 19.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.29.19 19.49	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.29.19 19.49	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.29.19 19.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	10.29.19 19.49	
o-Terphenyl	84-15-1	111	%	70-135	10.29.19 19.49	

Certificate of Analytical Results 641339

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS09**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-012	Date Collected:	10.28.19 14.05	Sample Depth:	1.5 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 11.10	Basis:	Wet Weight
Seq Number:	3105806				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.29.19 16.57	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.29.19 16.57	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.29.19 16.57	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.29.19 16.57	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.29.19 16.57	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.29.19 16.57	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.29.19 16.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	10.29.19 16.57	
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.29.19 16.57	

Certificate of Analytical Results 641339

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS10**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-013	Date Collected:	10.28.19 14.10	Sample Depth:	1.5 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 12.10	Basis:	Wet Weight
Seq Number:	3105792				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**572**	49.4	mg/kg	10.29.19 17.01		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.29.19 16.30	Basis:	Wet Weight
Seq Number:	3105880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.29.19 19.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.29.19 19.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.29.19 19.49	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.29.19 19.49	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.29.19 19.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	10.29.19 19.49	
o-Terphenyl	84-15-1	115	%	70-135	10.29.19 19.49	

Certificate of Analytical Results 641339

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS10**	Matrix:	Soil	Date Received:	10.29.19 09.30
Lab Sample Id:	641339-013	Date Collected:	10.28.19 14.10	Sample Depth:	1.5 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.29.19 11.10	Basis:	Wet Weight
Seq Number:	3105806				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.29.19 17.16	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.29.19 17.16	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.29.19 17.16	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.29.19 17.16	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.29.19 17.16	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.29.19 17.16	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.29.19 17.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.29.19 17.16	
4-Bromofluorobenzene	460-00-4	115	%	70-130	10.29.19 17.16	

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

QC Summary 641339

LT Environmental, Inc.

AJ Adkins

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105792 — Matrix: Solid — Date Prep: 10.29.19
MB Sample Id: 7689123-1-BLK — LCS Sample Id: 7689123-1-BKS — LCSD Sample Id: 7689123-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	300	304	101	302	101	90-110	1	20	mg/kg	10.29.19 14:56	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105792 — Matrix: Soil — Date Prep: 10.29.19
Parent Sample Id: 641339-001 — MS Sample Id: 641339-001 S — MSD Sample Id: 641339-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	606	1240	1940	108	1830	99	90-110	6	20	mg/kg	10.29.19 15:15	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105792 — Matrix: Soil — Date Prep: 10.29.19
Parent Sample Id: 641339-011 — MS Sample Id: 641339-011 S — MSD Sample Id: 641339-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	719	1240	2070	109	2070	108	90-110	0	20	mg/kg	10.29.19 16:43	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105880 — Matrix: Solid — Date Prep: 10.29.19
MB Sample Id: 7689206-1-BLK — LCS Sample Id: 7689206-1-BKS — LCSD Sample Id: 7689206-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<13.9	1000	887	89	895	90	70-135	1	35	mg/kg	10.29.19 16:30	
Diesel Range Organics (DRO)	<11.5	1000	762	76	752	75	70-135	1	35	mg/kg	10.29.19 16:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		134		123		70-135	%	10.29.19 16:30
o-Terphenyl	105		120		122		70-135	%	10.29.19 16:30

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105880 — Matrix: Solid — Date Prep: 10.29.19
MB Sample Id: 7689206-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.29.19 16:30	

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

QC Summary 641339

LT Environmental, Inc.

AJ Adkins

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3105880 | Matrix: Soil | Date Prep: 10.29.19
Parent Sample Id: 641345-010 | MS Sample Id: 641345-010 S | MSD Sample Id: 641345-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<13.8	995	903	91	870	87	70-135	4	35	mg/kg	10.29.19 17:10	
Diesel Range Organics (DRO)	15.8	995	746	73	741	73	70-135	1	35	mg/kg	10.29.19 17:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	144	**	131		70-135	%	10.29.19 17:10
o-Terphenyl	128		125		70-135	%	10.29.19 17:10

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3105805 | Matrix: Solid | Date Prep: 10.29.19
MB Sample Id: 7689195-1-BLK | LCS Sample Id: 7689195-1-BKS | LCSD Sample Id: 7689195-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.105	105	0.0816	82	70-130	25	35	mg/kg	10.29.19 14:28	
Toluene	<0.00100	0.100	0.106	106	0.0816	82	70-130	26	35	mg/kg	10.29.19 14:28	
Ethylbenzene	<0.00100	0.100	0.110	110	0.0846	85	71-129	26	35	mg/kg	10.29.19 14:28	
m,p-Xylenes	<0.00200	0.200	0.225	113	0.173	87	70-135	26	35	mg/kg	10.29.19 14:28	
o-Xylene	<0.00100	0.100	0.112	112	0.0865	87	71-133	26	35	mg/kg	10.29.19 14:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		102		99		70-130	%	10.29.19 14:28
4-Bromofluorobenzene	109		111		110		70-130	%	10.29.19 14:28

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3105806 | Matrix: Solid | Date Prep: 10.29.19
MB Sample Id: 7689196-1-BLK | LCS Sample Id: 7689196-1-BKS | LCSD Sample Id: 7689196-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.104	104	0.0989	99	70-130	5	35	mg/kg	10.29.19 14:36	
Toluene	<0.00100	0.100	0.105	105	0.0994	99	70-130	5	35	mg/kg	10.29.19 14:36	
Ethylbenzene	<0.00100	0.100	0.105	105	0.0990	99	71-129	6	35	mg/kg	10.29.19 14:36	
m,p-Xylenes	<0.00200	0.200	0.225	113	0.212	106	70-135	6	35	mg/kg	10.29.19 14:36	
o-Xylene	<0.00100	0.100	0.112	112	0.106	106	71-133	6	35	mg/kg	10.29.19 14:36	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		100		101		70-130	%	10.29.19 14:36
4-Bromofluorobenzene	107		109		109		70-130	%	10.29.19 14:36

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

QC Summary 641339

LT Environmental, Inc.

AJ Adkins

Analytical Method: BTEX by EPA 8021B
Prep Method: SW5030B
Seq Number: 3105805
Matrix: Soil
Date Prep: 10.29.19
Parent Sample Id: 641338-001
MS Sample Id: 641338-001 S
MSD Sample Id: 641338-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.0935	94	0.0874	87	70-130	7	35	mg/kg	10.29.19 15:09	
Toluene	<0.00100	0.100	0.0933	93	0.0867	87	70-130	7	35	mg/kg	10.29.19 15:09	
Ethylbenzene	<0.00100	0.100	0.0948	95	0.0884	88	71-129	7	35	mg/kg	10.29.19 15:09	
m,p-Xylenes	<0.00200	0.200	0.194	97	0.180	90	70-135	7	35	mg/kg	10.29.19 15:09	
o-Xylene	<0.00100	0.100	0.0973	97	0.0897	90	71-133	8	35	mg/kg	10.29.19 15:09	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		70-130	%	10.29.19 15:09
4-Bromofluorobenzene	114		108		70-130	%	10.29.19 15:09

Analytical Method: BTEX by EPA 8021B
Prep Method: SW5030B
Seq Number: 3105806
Matrix: Soil
Date Prep: 10.29.19
Parent Sample Id: 641339-010
MS Sample Id: 641339-010 S
MSD Sample Id: 641339-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.0719	72	0.0993	99	70-130	32	35	mg/kg	10.29.19 15:14	
Toluene	<0.00100	0.100	0.0790	79	0.0971	97	70-130	21	35	mg/kg	10.29.19 15:14	
Ethylbenzene	0.000820	0.100	0.0749	74	0.0950	94	71-129	24	35	mg/kg	10.29.19 15:14	
m,p-Xylenes	<0.00100	0.200	0.138	69	0.201	101	70-135	37	35	mg/kg	10.29.19 15:14	XF
o-Xylene	<0.00100	0.100	0.0702	70	0.102	102	71-133	37	35	mg/kg	10.29.19 15:14	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		105		70-130	%	10.29.19 15:14
4-Bromofluorobenzene	121		120		70-130	%	10.29.19 15:14

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

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

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

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

Chain of Custody

XENCO LABORATORIES

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: 641339

www.xenco.com Page 1 of 2

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Midland, Tx 79705
Phone:	432.704.5178	Email:	ggreen@ltenv.com ; dmoir@ltenv.com

Work Order Comments

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

Project Name:	AJ Adkins
Project Number:	
P.O. Number:	IRP-5638
Sampler's Name:	Garrett Green

Turn Around
Routine ☐
Rush: 24hr
Due Date:

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	2.2	Thermometer ID	
Received Intact:	(Yes) No	T-NM-007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	13

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SW01	S	10/28/19	1230	0'-2'	1	X	X	X
SW02			1235		1			
SW03			1240		1			
SW04			1245	0'-2.5'	1			
FS02			1310	1'-1.5'	1			
FS03			1315	2'	1			
FS04			1320	1.5-2'	1			
FS05			1325	1.5-2'	1			
FS06			1350	1.5'-2'	1			
FS07			1355	1.5'-2.5'	1			

Work Order Notes

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

Sample Comments

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

1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		10/29/19 0930	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

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)
www.xenco.com

Work Order No: 641339

Page 2 of 2

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Midland, Tx 79705
Phone:	432.704.5178	Email:	ggreen@ltenv.com ; dmoir@ltenv.com

Work Order Comments

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:	AJ Adkins	Turn Around	
Project Number:		Routine	☐
P.O. Number:	IRP-5638	Rush:	24Hr
Sampler's Name:	Garrett Green	Due Date:	

SAMPLE RECEIPT				
Temperature (°C):		Temp Blank:	Yes No	Wet Ice: Yes ~~No~~
Received Intact:	Yes No	Thermometer ID	see pg 1	
Cooler Custody Seals:	Yes No ~~N/A~~	Correction Factor:		
Sample Custody Seals:	~~Yes~~ No N/A	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
FS08	S	10/28/19	1400	1.5'-2'	1	X	X	X
FS09	S	↓	1405	↓	1	X	X	X
FS10	S	↓	1410	↓	1	X	X	X

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		10/29/19 @ 0930	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/29/2019 09:30:00 AM

Work Order #: 641339

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.2
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**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: 10/29/2019

Checklist reviewed by: Jessica Kramer Date: 10/30/2019

Jessica Kramer

Analytical Report 641581

for

LT Environmental, Inc.

Project Manager: Dan Moir

AJ Adkins

31-OCT-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

31-OCT-19

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

Reference: XENCO Report No(s): **641581**
AJ Adkins
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) 641581. 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. 641581 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,

Jessica Kramer

Jessica Kramer
Project Assistant

Sample Cross Reference 641581

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW05	S	10-29-19 10:45	0 - 8 ft	641581-001
SW06	S	10-29-19 10:50	0 - 8 ft	641581-002
SW07	S	10-29-19 14:20	1 - 7 ft	641581-003
SW08	S	10-29-19 14:30	3 - 8 ft	641581-004
FS11	S	10-29-19 15:05	8 ft	641581-005
FS12	S	10-29-19 15:00	7 - 8 ft	641581-006

Version: 1.%

CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: AJ Adkins

Project ID:
Work Order Number(s): *641581*

Report Date: *31-OCT-19*
Date Received: *10/30/2019*

Sample receipt non conformances and comments:

Per clients email - Sample 003 - changed depth to 1-7'. NEW VERSION GENERATED JK 10/31/19

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3105990 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 641581-004.

Lab Sample ID 641581-006 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, m,p-Xylenes , o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Benzene, Toluene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 641581-001, -002, -003, -004, -005, -006.
The Laboratory Control Sample for m,p-Xylenes , Toluene, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3106000 TPH by SW8015 Mod
Lab Sample ID 641581-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Diesel Range Organics (DRO) recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 641581-001, -002, -003, -004, -005, -006.
The Laboratory Control Sample for Diesel Range Organics (DRO) is within laboratory Control Limits, therefore the data was accepted.

Motor Oil Range Hydrocarbons (MRO) RPD was outside laboratory control limits.
Samples in the analytical batch are: 641581-001, -002, -003, -004, -005, -006

Certificate of Analysis Summary 641581

LT Environmental, Inc., Arvada, CO

Project Name: AJ Adkins

Project Id:

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Oct-30-19 02:44 pm

Report Date: 31-OCT-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	641581-001		641581-002		641581-003		641581-004		641581-005		641581-006	
	Field Id:	SW05		SW06		SW07		SW08		FS11		FS12	
	Depth:	0-8 ft		0-8 ft		1-7 ft		3-8 ft		8- ft		7-8 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-29-19 10:45		Oct-29-19 10:50		Oct-29-19 14:20		Oct-29-19 14:30		Oct-29-19 15:05		Oct-29-19 15:00	
BTEX by EPA 8021B	***Extracted:***	** ** ** **		** ** ** **		** ** ** **		** ** ** **		** ** ** **		** ** ** **	
	Analyzed:	Oct-30-19 21:19		Oct-30-19 19:58		Oct-30-19 20:18		Oct-30-19 20:38		Oct-30-19 20:59		Oct-30-19 19:37	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.000996	0.000996	<0.00495	0.00495	<0.000998	0.000998	<0.000994	0.000994	<0.000994	0.000994	<0.00101	0.00101
Toluene		<0.000996	0.000996	<0.00495	0.00495	<0.000998	0.000998	<0.000994	0.000994	<0.000994	0.000994	<0.00101	0.00101
Ethylbenzene		<0.000996	0.000996	<0.00495	0.00495	<0.000998	0.000998	<0.000994	0.000994	<0.000994	0.000994	<0.00101	0.00101
m,p-Xylenes		<0.00199	0.00199	<0.00990	0.00990	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00202	0.00202
o-Xylene		<0.000996	0.000996	<0.00495	0.00495	0.00266	0.000998	<0.000994	0.000994	<0.000994	0.000994	<0.00101	0.00101
Total Xylenes		<0.000996	0.000996	<0.00495	0.00495	0.00266	0.000998	<0.000994	0.000994	<0.000994	0.000994	<0.00101	0.00101
Total BTEX		<0.000996	0.000996	<0.00495	0.00495	0.00266	0.000998	<0.000994	0.000994	<0.000994	0.000994	<0.00101	0.00101
Chloride by EPA 300	***Extracted:***	Oct-30-19 15:30		Oct-30-19 15:30		Oct-30-19 15:30		Oct-30-19 15:30		Oct-30-19 15:30		Oct-30-19 15:30	
	Analyzed:	Oct-30-19 16:03		Oct-30-19 16:22		Oct-30-19 16:28		Oct-30-19 16:35		Oct-30-19 16:41		Oct-30-19 17:00	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		170	9.88	22.5 D	5.00	244 D	50.1	313 D	49.9	162	10.1	64.3	10.1
TPH by SW8015 Mod	***Extracted:***	Oct-30-19 15:30		Oct-30-19 15:30		Oct-30-19 15:30		Oct-30-19 15:30		Oct-30-19 15:30		Oct-30-19 15:30	
	Analyzed:	Oct-30-19 18:14		Oct-30-19 18:54		Oct-30-19 18:54		Oct-30-19 19:13		Oct-30-19 19:13		Oct-30-19 19:33	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<50.2	50.2	<50.1	50.1	<50.1	50.1	<49.9	49.9	<49.7	49.7
Diesel Range Organics (DRO)		2160	49.8	325	50.2	361	50.1	929	50.1	218	49.9	181	49.7
Motor Oil Range Hydrocarbons (MRO)		200	49.8	56.9	50.2	<50.1	50.1	90.0	50.1	<49.9	49.9	<49.7	49.7
Total GRO-DRO		2160	49.8	325	50.2	361	50.1	929	50.1	218	49.9	181	49.7
Total TPH		2360	49.8	382	50.2	361	50.1	1020	50.1	218	49.9	181	49.7

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analytical Results 641581

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	10.30.19 14.44
Lab Sample Id:	641581-001	Date Collected:	10.29.19 10.45	Sample Depth:	0 - 8 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.30.19 15.30	Basis:	Wet Weight
Seq Number:	3105981				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**170**	9.88	mg/kg	10.30.19 16.03		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.30.19 15.30	Basis:	Wet Weight
Seq Number:	3106000				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.30.19 18.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	**2160**	49.8	mg/kg	10.30.19 18.14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**200**	49.8	mg/kg	10.30.19 18.14		1
Total GRO-DRO	PHC628	**2160**	49.8	mg/kg	10.30.19 18.14		1
Total TPH	PHC635	**2360**	49.8	mg/kg	10.30.19 18.14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	10.30.19 18.14	
o-Terphenyl	84-15-1	122	%	70-135	10.30.19 18.14	

Certificate of Analytical Results 641581

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	10.30.19 14.44
Lab Sample Id:	641581-001	Date Collected:	10.29.19 10.45	Sample Depth:	0 - 8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.30.19 09.10	Basis:	Wet Weight
Seq Number:	3105990				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000996	0.000996	mg/kg	10.30.19 21.19	U	1
Toluene	108-88-3	<0.000996	0.000996	mg/kg	10.30.19 21.19	U	1
Ethylbenzene	100-41-4	<0.000996	0.000996	mg/kg	10.30.19 21.19	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	10.30.19 21.19	U	1
o-Xylene	95-47-6	<0.000996	0.000996	mg/kg	10.30.19 21.19	U	1
Total Xylenes	1330-20-7	<0.000996	0.000996	mg/kg	10.30.19 21.19	U	1
Total BTEX		<0.000996	0.000996	mg/kg	10.30.19 21.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	10.30.19 21.19	
1,4-Difluorobenzene	540-36-3	97	%	70-130	10.30.19 21.19	

Certificate of Analytical Results 641581

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	10.30.19 14.44
Lab Sample Id:	641581-002	Date Collected:	10.29.19 10.50	Sample Depth:	0 - 8 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.30.19 15.30	Basis:	Wet Weight
Seq Number:	3105981				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**22.5**	5.00	mg/kg	10.30.19 17.43	D	5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.30.19 15.30	Basis:	Wet Weight
Seq Number:	3106000				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.30.19 18.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	**325**	50.2	mg/kg	10.30.19 18.54		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**56.9**	50.2	mg/kg	10.30.19 18.54		1
Total GRO-DRO	PHC628	**325**	50.2	mg/kg	10.30.19 18.54		1
Total TPH	PHC635	**382**	50.2	mg/kg	10.30.19 18.54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	10.30.19 18.54	
o-Terphenyl	84-15-1	118	%	70-135	10.30.19 18.54	

Certificate of Analytical Results 641581

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	10.30.19 14.44
Lab Sample Id:	641581-002	Date Collected:	10.29.19 10.50	Sample Depth:	0 - 8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.30.19 09.10	Basis:	Wet Weight
Seq Number:	3105990				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00495	0.00495	mg/kg	10.30.19 19.58	U	1
Toluene	108-88-3	<0.00495	0.00495	mg/kg	10.30.19 19.58	U	1
Ethylbenzene	100-41-4	<0.00495	0.00495	mg/kg	10.30.19 19.58	U	1
m,p-Xylenes	179601-23-1	<0.00990	0.00990	mg/kg	10.30.19 19.58	U	1
o-Xylene	95-47-6	<0.00495	0.00495	mg/kg	10.30.19 19.58	U	1
Total Xylenes	1330-20-7	<0.00495	0.00495	mg/kg	10.30.19 19.58	U	1
Total BTEX		<0.00495	0.00495	mg/kg	10.30.19 19.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.30.19 19.58	
4-Bromofluorobenzene	460-00-4	112	%	70-130	10.30.19 19.58	

Certificate of Analytical Results 641581

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	10.30.19 14.44
Lab Sample Id:	641581-003	Date Collected:	10.29.19 14.20	Sample Depth:	1 - 7 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.30.19 15.30	Basis:	Wet Weight
Seq Number:	3105981				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**244**	50.1	mg/kg	10.30.19 17.50	D	5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.30.19 15.30	Basis:	Wet Weight
Seq Number:	3106000				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.30.19 18.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	**361**	50.1	mg/kg	10.30.19 18.54		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	10.30.19 18.54	U	1
Total GRO-DRO	PHC628	**361**	50.1	mg/kg	10.30.19 18.54		1
Total TPH	PHC635	**361**	50.1	mg/kg	10.30.19 18.54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	10.30.19 18.54	
o-Terphenyl	84-15-1	109	%	70-135	10.30.19 18.54	

Certificate of Analytical Results 641581

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	10.30.19 14.44
Lab Sample Id:	641581-003	Date Collected:	10.29.19 14.20	Sample Depth:	1 - 7 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.30.19 09.10	Basis:	Wet Weight
Seq Number:	3105990				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000998	0.000998	mg/kg	10.30.19 20.18	U	1
Toluene	108-88-3	<0.000998	0.000998	mg/kg	10.30.19 20.18	U	1
Ethylbenzene	100-41-4	<0.000998	0.000998	mg/kg	10.30.19 20.18	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.30.19 20.18	U	1
o-Xylene	95-47-6	**0.00266**	0.000998	mg/kg	10.30.19 20.18		1
Total Xylenes	1330-20-7	**0.00266**	0.000998	mg/kg	10.30.19 20.18		1
Total BTEX		**0.00266**	0.000998	mg/kg	10.30.19 20.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	10.30.19 20.18	
4-Bromofluorobenzene	460-00-4	111	%	70-130	10.30.19 20.18	

Certificate of Analytical Results 641581

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	10.30.19 14.44
Lab Sample Id:	641581-004	Date Collected:	10.29.19 14.30	Sample Depth:	3 - 8 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.30.19 15.30	Basis:	Wet Weight
Seq Number:	3105981				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**313**	49.9	mg/kg	10.30.19 17.56	D	5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.30.19 15.30	Basis:	Wet Weight
Seq Number:	3106000				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.30.19 19.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	**929**	50.1	mg/kg	10.30.19 19.13		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**90.0**	50.1	mg/kg	10.30.19 19.13		1
Total GRO-DRO	PHC628	**929**	50.1	mg/kg	10.30.19 19.13		1
Total TPH	PHC635	**1020**	50.1	mg/kg	10.30.19 19.13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	10.30.19 19.13	
o-Terphenyl	84-15-1	118	%	70-135	10.30.19 19.13	

Certificate of Analytical Results 641581

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	10.30.19 14.44
Lab Sample Id:	641581-004	Date Collected:	10.29.19 14.30	Sample Depth:	3 - 8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.30.19 09.10	Basis:	Wet Weight
Seq Number:	3105990				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	10.30.19 20.38	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	10.30.19 20.38	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	10.30.19 20.38	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	10.30.19 20.38	U	1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	10.30.19 20.38	U	1
Total Xylenes	1330-20-7	<0.000994	0.000994	mg/kg	10.30.19 20.38	U	1
Total BTEX		<0.000994	0.000994	mg/kg	10.30.19 20.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	147	%	70-130	10.30.19 20.38	**
1,4-Difluorobenzene	540-36-3	100	%	70-130	10.30.19 20.38	

Certificate of Analytical Results 641581

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS11**	Matrix:	Soil	Date Received:	10.30.19 14.44
Lab Sample Id:	641581-005	Date Collected:	10.29.19 15.05	Sample Depth:	8 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.30.19 15.30	Basis:	Wet Weight
Seq Number:	3105981				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**162**	10.1	mg/kg	10.30.19 16.41		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.30.19 15.30	Basis:	Wet Weight
Seq Number:	3106000				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.30.19 19.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	**218**	49.9	mg/kg	10.30.19 19.13		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.30.19 19.13	U	1
Total GRO-DRO	PHC628	**218**	49.9	mg/kg	10.30.19 19.13		1
Total TPH	PHC635	**218**	49.9	mg/kg	10.30.19 19.13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	10.30.19 19.13	
o-Terphenyl	84-15-1	117	%	70-135	10.30.19 19.13	

Certificate of Analytical Results 641581

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS11**	Matrix:	Soil	Date Received:	10.30.19 14.44
Lab Sample Id:	641581-005	Date Collected:	10.29.19 15.05	Sample Depth:	8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.30.19 09.10	Basis:	Wet Weight
Seq Number:	3105990				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	10.30.19 20.59	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	10.30.19 20.59	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	10.30.19 20.59	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	10.30.19 20.59	U	1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	10.30.19 20.59	U	1
Total Xylenes	1330-20-7	<0.000994	0.000994	mg/kg	10.30.19 20.59	U	1
Total BTEX		<0.000994	0.000994	mg/kg	10.30.19 20.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.30.19 20.59	
4-Bromofluorobenzene	460-00-4	125	%	70-130	10.30.19 20.59	

Certificate of Analytical Results 641581

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS12**	Matrix:	Soil	Date Received:	10.30.19 14.44
Lab Sample Id:	641581-006	Date Collected:	10.29.19 15.00	Sample Depth:	7 - 8 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.30.19 15.30	Basis:	Wet Weight
Seq Number:	3105981				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**64.3**	10.1	mg/kg	10.30.19 17.00		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.30.19 15.30	Basis:	Wet Weight
Seq Number:	3106000				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.7	49.7	mg/kg	10.30.19 19.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	**181**	49.7	mg/kg	10.30.19 19.33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.7	49.7	mg/kg	10.30.19 19.33	U	1
Total GRO-DRO	PHC628	**181**	49.7	mg/kg	10.30.19 19.33		1
Total TPH	PHC635	**181**	49.7	mg/kg	10.30.19 19.33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	10.30.19 19.33	
o-Terphenyl	84-15-1	115	%	70-135	10.30.19 19.33	

Certificate of Analytical Results 641581

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS12**	Matrix:	Soil	Date Received:	10.30.19 14.44
Lab Sample Id:	641581-006	Date Collected:	10.29.19 15.00	Sample Depth:	7 - 8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.30.19 09.10	Basis:	Wet Weight
Seq Number:	3105990				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	10.30.19 19.37	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	10.30.19 19.37	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	10.30.19 19.37	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	10.30.19 19.37	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	10.30.19 19.37	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	10.30.19 19.37	U	1
Total BTEX		<0.00101	0.00101	mg/kg	10.30.19 19.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	10.30.19 19.37	
4-Bromofluorobenzene	460-00-4	113	%	70-130	10.30.19 19.37	

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

QC Summary 641581

LT Environmental, Inc.

AJ Adkins

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105981 — Matrix: Solid — Date Prep: 10.30.19
MB Sample Id: 7689261-1-BLK — LCS Sample Id: 7689261-1-BKS — LCSD Sample Id: 7689261-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	261	104	263	105	90-110	1	20	mg/kg	10.30.19 14:03	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105981 — Matrix: Soil — Date Prep: 10.30.19
Parent Sample Id: 641581-001 — MS Sample Id: 641581-001 S — MSD Sample Id: 641581-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	170	247	427	104	433	106	90-110	1	20	mg/kg	10.30.19 16:09	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3106000 — Matrix: Solid — Date Prep: 10.30.19
MB Sample Id: 7689264-1-BLK — LCS Sample Id: 7689264-1-BKS — LCSD Sample Id: 7689264-1-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)	17.0	1000	859	86	870	87	70-135	1	35	mg/kg	10.30.19 17:54	
Diesel Range Organics (DRO)	36.4	1000	838	84	754	75	70-135	11	35	mg/kg	10.30.19 17:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	134		134		134		70-135	%	10.30.19 17:54
o-Terphenyl	127		126		130		70-135	%	10.30.19 17:54

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3106000 — Matrix: Solid — Date Prep: 10.30.19
MB Sample Id: 7689264-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.30.19 17:54	

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

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

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

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

QC Summary 641581

LT Environmental, Inc.

AJ Adkins

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3106000 — Matrix: Soil — Date Prep: 10.30.19
Parent Sample Id: 641581-001 — MS Sample Id: 641581-001 S — MSD Sample Id: 641581-001 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)	30.0	993	822	80	760	74	70-135	8	35	mg/kg	10.30.19 18:34	
Diesel Range Organics (DRO)	2160	993	2870	72	2710	55	70-135	6	35	mg/kg	10.30.19 18:34	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		125		70-135	%	10.30.19 18:34
o-Terphenyl	134		124		70-135	%	10.30.19 18:34

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3105990 — Matrix: Solid — Date Prep: 10.30.19
MB Sample Id: 7689287-1-BLK — LCS Sample Id: 7689287-1-BKS — LCSD Sample Id: 7689287-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.105	105	0.102	102	70-130	3	35	mg/kg	10.30.19 17:41	
Toluene	<0.00100	0.100	0.106	106	0.104	104	70-130	2	35	mg/kg	10.30.19 17:41	
Ethylbenzene	<0.00100	0.100	0.111	111	0.110	110	71-129	1	35	mg/kg	10.30.19 17:41	
m,p-Xylenes	<0.00200	0.200	0.226	113	0.225	113	70-135	0	35	mg/kg	10.30.19 17:41	
o-Xylene	<0.00100	0.100	0.112	112	0.111	111	71-133	1	35	mg/kg	10.30.19 17:41	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		99		100		70-130	%	10.30.19 17:41
4-Bromofluorobenzene	109		107		111		70-130	%	10.30.19 17:41

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3105990 — Matrix: Soil — Date Prep: 10.30.19
Parent Sample Id: 641581-006 — MS Sample Id: 641581-006 S — MSD Sample Id: 641581-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00101	0.101	0.0778	77	0.0620	61	70-130	23	35	mg/kg	10.30.19 18:22	X
Toluene	<0.00101	0.101	0.0730	72	0.0577	57	70-130	23	35	mg/kg	10.30.19 18:22	X
Ethylbenzene	<0.00101	0.101	0.0620	61	0.0502	50	71-129	21	35	mg/kg	10.30.19 18:22	X
m,p-Xylenes	<0.00202	0.202	0.122	60	0.0996	49	70-135	20	35	mg/kg	10.30.19 18:22	X
o-Xylene	<0.00101	0.101	0.0630	62	0.0508	50	71-133	21	35	mg/kg	10.30.19 18:22	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		70-130	%	10.30.19 18:22
4-Bromofluorobenzene	122		120		70-130	%	10.30.19 18:22

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

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)
www.xenco.com

Work Order No: 641581

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Midland, Tx 79705
Phone:	432.704.5178	Email:	ggreen@ltenv.com ; dmoir@ltenv.com

Work Order Comments

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

Project Name:	AJ Atkins	Turn Around	
Project Number:		Routine ☐	
P.O. Number:	IRP - 5638	Rush: 24 hrs	
Sampler's Name:	Garrett Green	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.8	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	6	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SW 05	S	10/29/19	1045	0'-8'	1	X	X	X
SW 06			1050	0'-8'				
SW 07			1420	0'-8'				
SW 08			1430	3'-8'				
FS 11			1505	8'				
FS 12			1500	7'-8'				

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			10/30/19 14:44	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/30/2019 02:44:00 PM

Work Order #: 641581

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 10/30/2019

Checklist reviewed by: Jessica Kramer Date: 10/30/2019

Analytical Report 641907

for

LT Environmental, Inc.

Project Manager: Dan Moir

AJ Adkins

06-NOV-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

06-NOV-19

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

Reference: XENCO Report No(s): **641907**
AJ Adkins
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) 641907. 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. 641907 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,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

Sample Cross Reference 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS13	S	10-31-19 11:25	0 - 1 ft	641907-001
FS14	S	10-31-19 11:30	0 - 1 ft	641907-002
FS15	S	10-31-19 11:35	0 - 1 ft	641907-003
FS16	S	10-31-19 11:40	.5 - 1 ft	641907-004
FS17	S	10-31-19 12:20	0 - 1 ft	641907-005
FS18	S	10-31-19 12:25	1 ft	641907-006
FS19	S	10-31-19 12:30	.5 - 1 ft	641907-007
FS20	S	10-31-19 12:35	0 - .5 ft	641907-008
FS21	S	10-31-19 13:20	.5 ft	641907-009
FS22	S	10-31-19 13:25	.5 - 1 ft	641907-010
FS23	S	10-31-19 13:30	.5 - 1 ft	641907-011
FS24	S	10-31-19 13:40	.5 ft	641907-012
FS25	S	10-31-19 14:05	0 - .5 ft	641907-013
FS26	S	10-31-19 14:10	0 - .5 ft	641907-014
FS27	S	10-31-19 14:15	0 - .5 ft	641907-015
FS28	S	10-31-19 14:20	0 - 1 ft	641907-016
FS29	S	10-31-19 15:00	1.5 - 2.5 ft	641907-017
FS30	S	10-31-19 12:05	1.5 - 2.5 ft	641907-018
FS31	S	11-01-19 12:10	1 - 2 ft	641907-019
FS32	S	11-01-19 12:10	2 ft	641907-020
FS33	S	11-01-19 12:15	1 - 3 ft	641907-021
FS34	S	11-01-19 12:20	1 - 2 ft	641907-022
FS35	S	11-01-19 12:40	0 - 1 ft	641907-023
FS36	S	11-01-19 12:45	0 - 1.5 ft	641907-024
SW09	S	11-01-19 14:30	0 - 2.5 ft	641907-025
SW10	S	11-01-19 13:25	0 - 2.5 ft	641907-026
SW11	S	11-01-19 13:30	0 - 2.5 ft	641907-027
SW12	S	11-01-19 13:40	0 - 2.5 ft	641907-028

CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: AJ Adkins

Project ID:
Work Order Number(s): *641907*

Report Date: *06-NOV-19*
Date Received: *11/04/2019*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3106428 Chloride by EPA 300
Lab Sample ID 641907-011 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 641907-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3106431 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3106433 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3106450 TPH by SW8015 Mod
Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 641909-001 SD,641907-001,641907-004,641907-007,641907-016.
Surrogate 1-Chlorooctane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 641909-001 SD,641907-001,641907-016.

Batch: LBA-3106525 TPH by SW8015 Mod
Surrogate 1-Chlorooctane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 641907-019 SD.
Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 641907-027.

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: AJ Adkins

Project ID:
Work Order Number(s): *641907*

Report Date: *06-NOV-19*
Date Received: *11/04/2019*

Certificate of Analysis Summary 641907

LT Environmental, Inc., Arvada, CO

Project Name: AJ Adkins

Project Id:

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Nov-04-19 08:01 am

Report Date: 06-NOV-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	641907-001		641907-002		641907-003		641907-004		641907-005		641907-006	
	Field Id:	FS13		FS14		FS15		FS16		FS17		FS18	
	Depth:	0-1 ft		0-1 ft		0-1 ft		.5-1 ft		0-1 ft		1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-31-19 11:25		Oct-31-19 11:30		Oct-31-19 11:35		Oct-31-19 11:40		Oct-31-19 12:20		Oct-31-19 12:25	
BTEX by EPA 8021B	***Extracted:***	Nov-04-19 09:00		Nov-04-19 09:00		Nov-04-19 09:00		Nov-04-19 09:00		Nov-04-19 09:00		Nov-04-19 09:00	
	Analyzed:	Nov-04-19 13:11		Nov-04-19 13:30		Nov-04-19 13:49		Nov-04-19 14:08		Nov-04-19 14:27		Nov-04-19 14:47	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.000994	0.000994	<0.00100	0.00100	<0.00101	0.00101	<0.00100	0.00100	<0.000994	0.000994	<0.000994	0.000994
Toluene		<0.000994	0.000994	<0.00100	0.00100	<0.00101	0.00101	<0.00100	0.00100	<0.000994	0.000994	<0.000994	0.000994
Ethylbenzene		<0.000994	0.000994	<0.00100	0.00100	<0.00101	0.00101	<0.00100	0.00100	<0.000994	0.000994	<0.000994	0.000994
m,p-Xylenes		<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	0.00326	0.00199
o-Xylene		<0.000994	0.000994	<0.00100	0.00100	<0.00101	0.00101	<0.00100	0.00100	<0.000994	0.000994	<0.000994	0.000994
Total Xylenes		<0.000994	0.000994	<0.00100	0.00100	<0.00101	0.00101	<0.00100	0.00100	<0.000994	0.000994	0.00326	0.000994
Total BTEX		<0.000994	0.000994	<0.00100	0.00100	<0.00101	0.00101	<0.00100	0.00100	<0.000994	0.000994	0.00326	0.000994
Chloride by EPA 300	***Extracted:***	Nov-04-19 15:11		Nov-04-19 15:11		Nov-04-19 15:11		Nov-04-19 15:11		Nov-04-19 15:11		Nov-04-19 15:11	
	Analyzed:	Nov-04-19 18:18		Nov-04-19 18:36		Nov-04-19 18:42		Nov-04-19 18:48		Nov-04-19 18:54		Nov-04-19 19:13	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		313	19.8	69.3	9.98	160	10.1	86.5	10.1	38.5	9.94	19.2	10.1
TPH by SW8015 Mod	***Extracted:***	Nov-04-19 14:00		Nov-04-19 14:00		Nov-04-19 14:00		Nov-04-19 14:00		Nov-04-19 14:00		Nov-04-19 14:00	
	Analyzed:	Nov-04-19 17:46		Nov-04-19 18:07		Nov-04-19 18:27		Nov-04-19 18:47		Nov-04-19 19:08		Nov-04-19 19:28	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.1	50.1	<50.1	50.1	<50.2	50.2
Diesel Range Organics (DRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.1	50.1	<50.1	50.1	<50.2	50.2
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.1	50.1	<50.1	50.1	<50.2	50.2
Total GRO-DRO		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.1	50.1	<50.1	50.1	<50.2	50.2
Total TPH		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.1	50.1	<50.1	50.1	<50.2	50.2

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 641907

LT Environmental, Inc., Arvada, CO

Project Name: AJ Adkins

Project Id:

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Nov-04-19 08:01 am

Report Date: 06-NOV-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	641907-007		641907-008		641907-009		641907-010		641907-011		641907-012	
	Field Id:	FS19		FS20		FS21		FS22		FS23		FS24	
	Depth:	.5-1 ft		0-.5 ft		.5- ft		.5-1 ft		.5-1 ft		.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-31-19 12:30		Oct-31-19 12:35		Oct-31-19 13:20		Oct-31-19 13:25		Oct-31-19 13:30		Oct-31-19 13:40	
BTEX by EPA 8021B	*Extracted:*	Nov-04-19 09:00		Nov-04-19 09:00		Nov-04-19 09:00		Nov-04-19 09:00		Nov-04-19 09:00		Nov-04-19 09:00	
	Analyzed:	Nov-04-19 15:06		Nov-04-19 16:10		Nov-04-19 16:29		Nov-04-19 16:48		Nov-04-19 17:07		Nov-04-19 17:27	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00100	0.00100	<0.00101	0.00101	<0.00100	0.00100	<0.00101	0.00101	<0.00100	0.00100	<0.000992	0.000992
Toluene		<0.00100	0.00100	<0.00101	0.00101	<0.00100	0.00100	<0.00101	0.00101	<0.00100	0.00100	<0.000992	0.000992
Ethylbenzene		<0.00100	0.00100	<0.00101	0.00101	<0.00100	0.00100	<0.00101	0.00101	<0.00100	0.00100	<0.000992	0.000992
m,p-Xylenes		<0.00201	0.00201	<0.00202	0.00202	<0.00201	0.00201	<0.00202	0.00202	<0.00201	0.00201	<0.00198	0.00198
o-Xylene		<0.00100	0.00100	<0.00101	0.00101	<0.00100	0.00100	<0.00101	0.00101	<0.00100	0.00100	0.00207	0.000992
Total Xylenes		<0.00100	0.00100	<0.00101	0.00101	<0.00100	0.00100	<0.00101	0.00101	<0.00100	0.00100	0.00207	0.000992
Total BTEX		<0.00100	0.00100	<0.00101	0.00101	<0.00100	0.00100	<0.00101	0.00101	<0.00100	0.00100	0.00207	0.000992
Chloride by EPA 300	*Extracted:*	Nov-04-19 15:11		Nov-04-19 15:11		Nov-04-19 15:11		Nov-04-19 15:11		Nov-04-19 15:11		Nov-04-19 15:11	
	Analyzed:	Nov-04-19 19:20		Nov-04-19 19:27		Nov-04-19 19:33		Nov-04-19 19:40		Nov-04-19 20:01		Nov-04-19 20:08	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		16.3	10.1	28.5	10.0	17.1	9.96	15.7	9.90	41.0	9.94	27.1	10.0
TPH by SW8015 Mod	*Extracted:*	Nov-04-19 14:00		Nov-04-19 14:00		Nov-04-19 14:00		Nov-04-19 14:00		Nov-04-19 14:00		Nov-04-19 14:00	
	Analyzed:	Nov-04-19 19:48		Nov-04-19 20:29		Nov-04-19 20:49		Nov-04-19 21:09		Nov-04-19 21:30		Nov-04-19 21:50	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.3	50.3	<50.0	50.0	<50.0	50.0	<50.3	50.3	<49.9	49.9	<50.0	50.0
Diesel Range Organics (DRO)		<50.3	50.3	<50.0	50.0	<50.0	50.0	<50.3	50.3	<49.9	49.9	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<50.3	50.3	<50.0	50.0	<50.0	50.0	<50.3	50.3	<49.9	49.9	<50.0	50.0
Total GRO-DRO		<50.3	50.3	<50.0	50.0	<50.0	50.0	<50.3	50.3	<49.9	49.9	<50.0	50.0
Total TPH		<50.3	50.3	<50.0	50.0	<50.0	50.0	<50.3	50.3	<49.9	49.9	<50.0	50.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 641907

LT Environmental, Inc., Arvada, CO

Project Name: AJ Adkins

Project Id:

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Nov-04-19 08:01 am

Report Date: 06-NOV-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	641907-013		641907-014		641907-015		641907-016		641907-017		641907-018	
	Field Id:	FS25		FS26		FS27		FS28		FS29		FS30	
	Depth:	0-.5 ft		0-.5 ft		0-.5 ft		0-1 ft		1.5-2.5 ft		1.5-2.5 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-31-19 14:05		Oct-31-19 14:10		Oct-31-19 14:15		Oct-31-19 14:20		Oct-31-19 15:00		Oct-31-19 12:05	
BTEX by EPA 8021B	*Extracted:*	Nov-04-19 09:00		Nov-04-19 09:00		Nov-04-19 09:00		Nov-04-19 09:00		Nov-04-19 09:00		Nov-04-19 10:11	
	Analyzed:	Nov-04-19 17:46		Nov-04-19 18:05		Nov-04-19 18:24		Nov-04-19 18:43		Nov-04-19 19:02		Nov-04-19 13:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.000998	0.000998	<0.00101	0.00101	<0.00101	0.00101	<0.000994	0.000994	<0.0994	0.0994	<0.0102	0.0102
Toluene		<0.000998	0.000998	<0.00101	0.00101	<0.00101	0.00101	<0.000994	0.000994	<0.0994	0.0994	<0.0102	0.0102
Ethylbenzene		0.00113	0.000998	<0.00101	0.00101	0.00104	0.00101	<0.000994	0.000994	0.220	0.0994	<0.0102	0.0102
m,p-Xylenes		<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	0.0173	0.00199	0.392	0.199	0.0355	0.0204
o-Xylene		0.00215	0.000998	<0.00101	0.00101	<0.00101	0.00101	0.0154	0.000994	1.20	0.0994	<0.0102	0.0102
Total Xylenes		0.00215	0.000998	<0.00101	0.00101	<0.00101	0.00101	0.0327	0.000994	1.59	0.0994	0.0355	0.0102
Total BTEX		0.00328	0.000998	<0.00101	0.00101	0.00104	0.00101	0.0327	0.000994	1.81	0.0994	0.0355	0.0102
Chloride by EPA 300	*Extracted:*	Nov-04-19 15:11		Nov-04-19 15:11		Nov-04-19 15:11		Nov-04-19 15:11		Nov-04-19 15:11		Nov-04-19 15:11	
	Analyzed:	Nov-04-19 20:15		Nov-04-19 20:35		Nov-04-19 20:42		Nov-04-19 20:49		Nov-04-19 20:55		Nov-04-19 21:02	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		11.5	10.1	<10.1	10.1	18.5	10.1	19.8	10.0	713	49.9	1140	49.7
TPH by SW8015 Mod	*Extracted:*	Nov-04-19 14:00		Nov-04-19 14:00		Nov-04-19 14:00		Nov-04-19 14:00		Nov-04-19 14:00		Nov-04-19 17:00	
	Analyzed:	Nov-04-19 22:10		Nov-04-19 22:31		Nov-04-19 22:51		Nov-04-19 23:11		Nov-05-19 11:28		Nov-04-19 17:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.3	50.3	<50.3	50.3	<50.1	50.1	305	50.2	<50.2	50.2
Diesel Range Organics (DRO)		<50.0	50.0	<50.3	50.3	<50.3	50.3	<50.1	50.1	2340	50.2	<50.2	50.2
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.3	50.3	<50.3	50.3	<50.1	50.1	171	50.2	<50.2	50.2
Total GRO-DRO		<50.0	50.0	<50.3	50.3	<50.3	50.3	<50.1	50.1	2650	50.2	<50.2	50.2
Total TPH		<50.0	50.0	<50.3	50.3	<50.3	50.3	<50.1	50.1	2820	50.2	<50.2	50.2

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 641907

LT Environmental, Inc., Arvada, CO

Project Name: AJ Adkins

Project Id:

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Nov-04-19 08:01 am

Report Date: 06-NOV-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	641907-019		641907-020		641907-021		641907-022		641907-023		641907-024	
	Field Id:	FS31		FS32		FS33		FS34		FS35		FS36	
	Depth:	1-2 ft		2- ft		1-3 ft		1-2 ft		0-1 ft		0-1.5 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-01-19 12:10		Nov-01-19 12:10		Nov-01-19 12:15		Nov-01-19 12:20		Nov-01-19 12:40		Nov-01-19 12:45	
BTEX by EPA 8021B	***Extracted:***	Nov-04-19 10:11		Nov-04-19 10:11		Nov-04-19 10:11		Nov-04-19 10:11		Nov-04-19 10:11		Nov-04-19 10:11	
	Analyzed:	Nov-04-19 12:31		Nov-04-19 12:51		Nov-04-19 13:32		Nov-04-19 13:53		Nov-04-19 14:13		Nov-04-19 14:33	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00100	0.00100	<0.000998	0.000998	<0.000992	0.000992	<0.00100	0.00100	<0.000990	0.000990	<0.00101	0.00101
Toluene		<0.00100	0.00100	<0.000998	0.000998	<0.000992	0.000992	<0.00100	0.00100	<0.000990	0.000990	<0.00101	0.00101
Ethylbenzene		<0.00100	0.00100	<0.000998	0.000998	<0.000992	0.000992	<0.00100	0.00100	<0.000990	0.000990	<0.00101	0.00101
m,p-Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00198	0.00198	<0.00202	0.00202
o-Xylene		<0.00100	0.00100	<0.000998	0.000998	0.00660	0.000992	0.00326	0.00100	<0.000990	0.000990	0.00589	0.00101
Total Xylenes		<0.00100	0.00100	<0.000998	0.000998	0.00660	0.000992	0.00326	0.00100	<0.000990	0.000990	0.00589	0.00101
Total BTEX		<0.00100	0.00100	<0.000998	0.000998	0.00660	0.000992	0.00326	0.00100	<0.000990	0.000990	0.00589	0.00101
Chloride by EPA 300	***Extracted:***	Nov-04-19 15:11		Nov-04-19 15:11		Nov-04-19 15:11		Nov-04-19 15:11		Nov-04-19 15:11		Nov-04-19 15:11	
	Analyzed:	Nov-04-19 21:08		Nov-04-19 21:15		Nov-04-19 21:53		Nov-04-19 22:13		Nov-04-19 22:19		Nov-04-19 22:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1440	99.6	769	49.9	166	10.0	802	101	460	49.9	416	49.6
TPH by SW8015 Mod	***Extracted:***	Nov-04-19 17:00		Nov-04-19 17:00		Nov-04-19 17:00		Nov-04-19 17:00		Nov-04-19 17:00		Nov-04-19 17:00	
	Analyzed:	** ** ** **		Nov-04-19 17:26		Nov-04-19 17:46		Nov-04-19 18:07		Nov-04-19 18:27		Nov-04-19 18:47	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.2	50.2	<50.0	50.0	<50.2	50.2	<50.2	50.2	<50.0	50.0	<50.1	50.1
Diesel Range Organics (DRO)		<50.2	50.2	<50.0	50.0	379	50.2	278	50.2	<50.0	50.0	<50.1	50.1
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2	<50.0	50.0	<50.2	50.2	<50.2	50.2	<50.0	50.0	<50.1	50.1
Total GRO-DRO		<50.2	50.2	<50.0	50.0	379	50.2	278	50.2	<50.0	50.0	<50.1	50.1
Total TPH		<50.2	50.2	<50.0	50.0	379	50.2	278	50.2	<50.0	50.0	<50.1	50.1

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 641907

LT Environmental, Inc., Arvada, CO

Project Name: AJ Adkins

Project Id:

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Nov-04-19 08:01 am

Report Date: 06-NOV-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	641907-025		641907-026		641907-027		641907-028					
	Field Id:	SW09		SW10		SW11		SW12					
	Depth:	0-2.5 ft		0-2.5 ft		0-2.5 ft		0-2.5 ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Nov-01-19 14:30		Nov-01-19 13:25		Nov-01-19 13:30		Nov-01-19 13:40					
BTEX by EPA 8021B	***Extracted:***	Nov-04-19 10:11		Nov-04-19 10:11		Nov-04-19 10:11		Nov-04-19 10:11					
	Analyzed:	Nov-04-19 14:54		Nov-04-19 19:27		Nov-04-19 19:53		Nov-04-19 15:14					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.000992	0.000992	<0.101	0.101	<0.0996	0.0996	<0.000994	0.000994				
Toluene		<0.000992	0.000992	<0.101	0.101	<0.0996	0.0996	<0.000994	0.000994				
Ethylbenzene		<0.000992	0.000992	0.708	0.101	<0.0996	0.0996	<0.000994	0.000994				
m,p-Xylenes		<0.00198	0.00198	0.817	0.201	<0.199	0.199	<0.00199	0.00199				
o-Xylene		<0.000992	0.000992	0.350	0.101	0.336	0.0996	<0.000994	0.000994				
Total Xylenes		<0.000992	0.000992	1.17	0.101	0.336	0.0996	<0.000994	0.000994				
Total BTEX		<0.000992	0.000992	1.88	0.101	0.336	0.0996	<0.000994	0.000994				
Chloride by EPA 300	***Extracted:***	Nov-04-19 15:11		Nov-04-19 15:11		Nov-04-19 15:11		Nov-04-19 15:11					
	Analyzed:	Nov-04-19 22:32		Nov-04-19 22:52		Nov-04-19 22:58		Nov-04-19 23:05					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		264	10.0	208	10.0	907	49.6	340	9.90				
TPH by SW8015 Mod	***Extracted:***	Nov-04-19 17:00		Nov-04-19 17:00		Nov-04-19 17:00		Nov-04-19 17:00					
	Analyzed:	Nov-04-19 19:08		Nov-04-19 19:28		Nov-05-19 14:19		Nov-04-19 20:29					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.2	50.2	137	50.2	368	251	<50.3	50.3				
Diesel Range Organics (DRO)		<50.2	50.2	2710	50.2	6250	251	<50.3	50.3				
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2	291	50.2	572	251	<50.3	50.3				
Total GRO-DRO		<50.2	50.2	2850	50.2	6620	251	<50.3	50.3				
Total TPH		<50.2	50.2	3140	50.2	7190	251	<50.3	50.3				

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS13**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-001	Date Collected:	10.31.19 11.25	Sample Depth:	0 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**313**	19.8	mg/kg	11.04.19 18.18		2

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.04.19 17.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.04.19 17.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.04.19 17.46	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.04.19 17.46	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.04.19 17.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	138	%	70-135	11.04.19 17.46	**
o-Terphenyl	84-15-1	149	%	70-135	11.04.19 17.46	**

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS13**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-001	Date Collected:	10.31.19 11.25	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	11.04.19 13.11	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	11.04.19 13.11	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	11.04.19 13.11	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	11.04.19 13.11	U	1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	11.04.19 13.11	U	1
Total Xylenes	1330-20-7	<0.000994	0.000994	mg/kg	11.04.19 13.11	U	1
Total BTEX		<0.000994	0.000994	mg/kg	11.04.19 13.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.04.19 13.11	
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.04.19 13.11	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS14**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-002	Date Collected:	10.31.19 11.30	Sample Depth:	0 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**69.3**	9.98	mg/kg	11.04.19 18.36		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.04.19 18.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.04.19 18.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.04.19 18.07	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.04.19 18.07	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.04.19 18.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	11.04.19 18.07	
o-Terphenyl	84-15-1	126	%	70-135	11.04.19 18.07	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS14**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-002	Date Collected:	10.31.19 11.30	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.04.19 13.30	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.04.19 13.30	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.04.19 13.30	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.04.19 13.30	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	11.04.19 13.30	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	11.04.19 13.30	U	1
Total BTEX		<0.00100	0.00100	mg/kg	11.04.19 13.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	11.04.19 13.30	
1,4-Difluorobenzene	540-36-3	107	%	70-130	11.04.19 13.30	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS15**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-003	Date Collected:	10.31.19 11.35	Sample Depth:	0 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**160**	10.1	mg/kg	11.04.19 18.42		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.04.19 18.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.04.19 18.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.04.19 18.27	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.04.19 18.27	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.04.19 18.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	11.04.19 18.27	
o-Terphenyl	84-15-1	129	%	70-135	11.04.19 18.27	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS15**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-003	Date Collected:	10.31.19 11.35	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	11.04.19 13.49	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	11.04.19 13.49	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	11.04.19 13.49	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	11.04.19 13.49	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	11.04.19 13.49	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	11.04.19 13.49	U	1
Total BTEX		<0.00101	0.00101	mg/kg	11.04.19 13.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.04.19 13.49	
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.04.19 13.49	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS16**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-004	Date Collected:	10.31.19 11.40	Sample Depth:	.5 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**86.5**	10.1	mg/kg	11.04.19 18.48		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.04.19 18.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.04.19 18.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.04.19 18.47	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.04.19 18.47	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.04.19 18.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	132	%	70-135	11.04.19 18.47	
o-Terphenyl	84-15-1	142	%	70-135	11.04.19 18.47	**

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LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS16**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-004	Date Collected:	10.31.19 11.40	Sample Depth:	.5 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.04.19 14.08	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.04.19 14.08	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.04.19 14.08	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.04.19 14.08	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	11.04.19 14.08	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	11.04.19 14.08	U	1
Total BTEX		<0.00100	0.00100	mg/kg	11.04.19 14.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	11.04.19 14.08	
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.04.19 14.08	

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AJ Adkins

Sample Id:	**FS17**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-005	Date Collected:	10.31.19 12.20	Sample Depth:	0 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**38.5**	9.94	mg/kg	11.04.19 18.54		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.04.19 19.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.04.19 19.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.04.19 19.08	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.04.19 19.08	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.04.19 19.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	11.04.19 19.08	
o-Terphenyl	84-15-1	119	%	70-135	11.04.19 19.08	

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LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS17**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-005	Date Collected:	10.31.19 12.20	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	11.04.19 14.27	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	11.04.19 14.27	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	11.04.19 14.27	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	11.04.19 14.27	U	1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	11.04.19 14.27	U	1
Total Xylenes	1330-20-7	<0.000994	0.000994	mg/kg	11.04.19 14.27	U	1
Total BTEX		<0.000994	0.000994	mg/kg	11.04.19 14.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	11.04.19 14.27	
4-Bromofluorobenzene	460-00-4	114	%	70-130	11.04.19 14.27	

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LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS18**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-006	Date Collected:	10.31.19 12.25	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**19.2**	10.1	mg/kg	11.04.19 19.13		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.04.19 19.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.04.19 19.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.04.19 19.28	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.04.19 19.28	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.04.19 19.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	11.04.19 19.28	
o-Terphenyl	84-15-1	103	%	70-135	11.04.19 19.28	

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AJ Adkins

Sample Id:	**FS18**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-006	Date Collected:	10.31.19 12.25	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	11.04.19 14.47	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	11.04.19 14.47	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	11.04.19 14.47	U	1
m,p-Xylenes	179601-23-1	**0.00326**	0.00199	mg/kg	11.04.19 14.47		1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	11.04.19 14.47	U	1
Total Xylenes	1330-20-7	**0.00326**	0.000994	mg/kg	11.04.19 14.47		1
Total BTEX		**0.00326**	0.000994	mg/kg	11.04.19 14.47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.04.19 14.47	
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.04.19 14.47	

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AJ Adkins

Sample Id:	**FS19**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-007	Date Collected:	10.31.19 12.30	Sample Depth:	.5 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16.3**	10.1	mg/kg	11.04.19 19.20		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.04.19 19.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.04.19 19.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.04.19 19.48	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.04.19 19.48	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.04.19 19.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	134	%	70-135	11.04.19 19.48	
o-Terphenyl	84-15-1	143	%	70-135	11.04.19 19.48	**

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AJ Adkins

Sample Id:	**FS19**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-007	Date Collected:	10.31.19 12.30	Sample Depth:	.5 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.04.19 15.06	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.04.19 15.06	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.04.19 15.06	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.04.19 15.06	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	11.04.19 15.06	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	11.04.19 15.06	U	1
Total BTEX		<0.00100	0.00100	mg/kg	11.04.19 15.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	11.04.19 15.06	
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.04.19 15.06	

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LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS20**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-008	Date Collected:	10.31.19 12.35	Sample Depth:	0 - .5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**28.5**	10.0	mg/kg	11.04.19 19.27		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.04.19 20.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.04.19 20.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.04.19 20.29	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.04.19 20.29	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.04.19 20.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	11.04.19 20.29	
o-Terphenyl	84-15-1	127	%	70-135	11.04.19 20.29	

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AJ Adkins

Sample Id:	**FS20**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-008	Date Collected:	10.31.19 12.35	Sample Depth:	0 - .5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	11.04.19 16.10	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	11.04.19 16.10	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	11.04.19 16.10	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	11.04.19 16.10	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	11.04.19 16.10	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	11.04.19 16.10	U	1
Total BTEX		<0.00101	0.00101	mg/kg	11.04.19 16.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	11.04.19 16.10	
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.04.19 16.10	

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LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS21**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-009	Date Collected:	10.31.19 13.20	Sample Depth:	.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**17.1**	9.96	mg/kg	11.04.19 19.33		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.04.19 20.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.04.19 20.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.04.19 20.49	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.04.19 20.49	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.04.19 20.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	11.04.19 20.49	
o-Terphenyl	84-15-1	128	%	70-135	11.04.19 20.49	

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AJ Adkins

Sample Id:	**FS21**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-009	Date Collected:	10.31.19 13.20	Sample Depth:	.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.04.19 16.29	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.04.19 16.29	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.04.19 16.29	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.04.19 16.29	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	11.04.19 16.29	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	11.04.19 16.29	U	1
Total BTEX		<0.00100	0.00100	mg/kg	11.04.19 16.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.04.19 16.29	
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.04.19 16.29	

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AJ Adkins

Sample Id:	**FS22**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-010	Date Collected:	10.31.19 13.25	Sample Depth:	.5 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**15.7**	9.90	mg/kg	11.04.19 19.40		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.04.19 21.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.04.19 21.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.04.19 21.09	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.04.19 21.09	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.04.19 21.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	11.04.19 21.09	
o-Terphenyl	84-15-1	100	%	70-135	11.04.19 21.09	

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Sample Id:	**FS22**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-010	Date Collected:	10.31.19 13.25	Sample Depth:	.5 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	11.04.19 16.48	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	11.04.19 16.48	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	11.04.19 16.48	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	11.04.19 16.48	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	11.04.19 16.48	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	11.04.19 16.48	U	1
Total BTEX		<0.00101	0.00101	mg/kg	11.04.19 16.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.04.19 16.48	
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.04.19 16.48	

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LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS23**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-011	Date Collected:	10.31.19 13.30	Sample Depth:	.5 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**41.0**	9.94	mg/kg	11.04.19 20.01		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.04.19 21.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.04.19 21.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.04.19 21.30	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.04.19 21.30	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.04.19 21.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	11.04.19 21.30	
o-Terphenyl	84-15-1	111	%	70-135	11.04.19 21.30	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS23**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-011	Date Collected:	10.31.19 13.30	Sample Depth:	.5 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.04.19 17.07	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.04.19 17.07	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.04.19 17.07	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.04.19 17.07	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	11.04.19 17.07	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	11.04.19 17.07	U	1
Total BTEX		<0.00100	0.00100	mg/kg	11.04.19 17.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.04.19 17.07	
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.04.19 17.07	

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LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS24**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-012	Date Collected:	10.31.19 13.40	Sample Depth:	.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**27.1**	10.0	mg/kg	11.04.19 20.08		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.04.19 21.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.04.19 21.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.04.19 21.50	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.04.19 21.50	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.04.19 21.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	126	%	70-135	11.04.19 21.50	
o-Terphenyl	84-15-1	135	%	70-135	11.04.19 21.50	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS24**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-012	Date Collected:	10.31.19 13.40	Sample Depth:	.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000992	0.000992	mg/kg	11.04.19 17.27	U	1
Toluene	108-88-3	<0.000992	0.000992	mg/kg	11.04.19 17.27	U	1
Ethylbenzene	100-41-4	<0.000992	0.000992	mg/kg	11.04.19 17.27	U	1
m,p-Xylenes	179601-23-1	<0.00198	0.00198	mg/kg	11.04.19 17.27	U	1
o-Xylene	95-47-6	**0.00207**	0.000992	mg/kg	11.04.19 17.27		1
Total Xylenes	1330-20-7	**0.00207**	0.000992	mg/kg	11.04.19 17.27		1
Total BTEX		**0.00207**	0.000992	mg/kg	11.04.19 17.27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.04.19 17.27	
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.04.19 17.27	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS25**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-013	Date Collected:	10.31.19 14.05	Sample Depth:	0 - .5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.5**	10.1	mg/kg	11.04.19 20.15		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.04.19 22.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.04.19 22.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.04.19 22.10	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.04.19 22.10	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.04.19 22.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	11.04.19 22.10	
o-Terphenyl	84-15-1	125	%	70-135	11.04.19 22.10	

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LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS25**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-013	Date Collected:	10.31.19 14.05	Sample Depth:	0 - .5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000998	0.000998	mg/kg	11.04.19 17.46	U	1
Toluene	108-88-3	<0.000998	0.000998	mg/kg	11.04.19 17.46	U	1
Ethylbenzene	100-41-4	**0.00113**	0.000998	mg/kg	11.04.19 17.46		1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.04.19 17.46	U	1
o-Xylene	95-47-6	**0.00215**	0.000998	mg/kg	11.04.19 17.46		1
Total Xylenes	1330-20-7	**0.00215**	0.000998	mg/kg	11.04.19 17.46		1
Total BTEX		**0.00328**	0.000998	mg/kg	11.04.19 17.46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.04.19 17.46	
4-Bromofluorobenzene	460-00-4	118	%	70-130	11.04.19 17.46	

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AJ Adkins

Sample Id:	**FS26**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-014	Date Collected:	10.31.19 14.10	Sample Depth:	0 - .5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	11.04.19 20.35	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.04.19 22.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.04.19 22.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.04.19 22.31	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.04.19 22.31	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.04.19 22.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	11.04.19 22.31	
o-Terphenyl	84-15-1	119	%	70-135	11.04.19 22.31	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS26**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-014	Date Collected:	10.31.19 14.10	Sample Depth:	0 - .5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	11.04.19 18.05	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	11.04.19 18.05	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	11.04.19 18.05	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	11.04.19 18.05	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	11.04.19 18.05	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	11.04.19 18.05	U	1
Total BTEX		<0.00101	0.00101	mg/kg	11.04.19 18.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	70-130	11.04.19 18.05	
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.04.19 18.05	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS27**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-015	Date Collected:	10.31.19 14.15	Sample Depth:	0 - .5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18.5**	10.1	mg/kg	11.04.19 20.42		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.04.19 22.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.04.19 22.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.04.19 22.51	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.04.19 22.51	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.04.19 22.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	11.04.19 22.51	
o-Terphenyl	84-15-1	110	%	70-135	11.04.19 22.51	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS27**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-015	Date Collected:	10.31.19 14.15	Sample Depth:	0 - .5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	11.04.19 18.24	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	11.04.19 18.24	U	1
Ethylbenzene	100-41-4	**0.00104**	0.00101	mg/kg	11.04.19 18.24		1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.04.19 18.24	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	11.04.19 18.24	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	11.04.19 18.24	U	1
Total BTEX		**0.00104**	0.00101	mg/kg	11.04.19 18.24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.04.19 18.24	
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.04.19 18.24	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS28**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-016	Date Collected:	10.31.19 14.20	Sample Depth:	0 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**19.8**	10.0	mg/kg	11.04.19 20.49		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.04.19 23.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.04.19 23.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.04.19 23.11	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.04.19 23.11	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.04.19 23.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	150	%	70-135	11.04.19 23.11	**
o-Terphenyl	84-15-1	161	%	70-135	11.04.19 23.11	**

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS28**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-016	Date Collected:	10.31.19 14.20	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	11.04.19 18.43	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	11.04.19 18.43	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	11.04.19 18.43	U	1
m,p-Xylenes	179601-23-1	**0.0173**	0.00199	mg/kg	11.04.19 18.43		1
o-Xylene	95-47-6	**0.0154**	0.000994	mg/kg	11.04.19 18.43		1
Total Xylenes	1330-20-7	**0.0327**	0.000994	mg/kg	11.04.19 18.43		1
Total BTEX		**0.0327**	0.000994	mg/kg	11.04.19 18.43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.04.19 18.43	
4-Bromofluorobenzene	460-00-4	121	%	70-130	11.04.19 18.43	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS29**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-017	Date Collected:	10.31.19 15.00	Sample Depth:	1.5 - 2.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**713**	49.9	mg/kg	11.04.19 20.55		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**305**	50.2	mg/kg	11.05.19 11.28		1
Diesel Range Organics (DRO)	C10C28DRO	**2340**	50.2	mg/kg	11.05.19 11.28		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**171**	50.2	mg/kg	11.05.19 11.28		1
Total GRO-DRO	PHC628	**2650**	50.2	mg/kg	11.05.19 11.28		1
Total TPH	PHC635	**2820**	50.2	mg/kg	11.05.19 11.28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	11.05.19 11.28	
o-Terphenyl	84-15-1	111	%	70-135	11.05.19 11.28	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS29**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-017	Date Collected:	10.31.19 15.00	Sample Depth:	1.5 - 2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0994	0.0994	mg/kg	11.04.19 19.02	U	100
Toluene	108-88-3	<0.0994	0.0994	mg/kg	11.04.19 19.02	U	100
Ethylbenzene	100-41-4	**0.220**	0.0994	mg/kg	11.04.19 19.02		100
m,p-Xylenes	179601-23-1	**0.392**	0.199	mg/kg	11.04.19 19.02		100
o-Xylene	95-47-6	**1.20**	0.0994	mg/kg	11.04.19 19.02		100
Total Xylenes	1330-20-7	**1.59**	0.0994	mg/kg	11.04.19 19.02		100
Total BTEX		**1.81**	0.0994	mg/kg	11.04.19 19.02		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.04.19 19.02	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.04.19 19.02	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS30**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-018	Date Collected:	10.31.19 12.05	Sample Depth:	1.5 - 2.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1140**	49.7	mg/kg	11.04.19 21.02		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 17.00	Basis:	Wet Weight
Seq Number:	3106525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.04.19 17.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.04.19 17.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.04.19 17.05	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.04.19 17.05	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.04.19 17.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	11.04.19 17.05	
o-Terphenyl	84-15-1	121	%	70-135	11.04.19 17.05	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS30**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-018	Date Collected:	10.31.19 12.05	Sample Depth:	1.5 - 2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 10.11	Basis:	Wet Weight
Seq Number:	3106433				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0102	0.0102	mg/kg	11.04.19 13.12	U	1
Toluene	108-88-3	<0.0102	0.0102	mg/kg	11.04.19 13.12	U	1
Ethylbenzene	100-41-4	<0.0102	0.0102	mg/kg	11.04.19 13.12	U	1
m,p-Xylenes	179601-23-1	**0.0355**	0.0204	mg/kg	11.04.19 13.12		1
o-Xylene	95-47-6	<0.0102	0.0102	mg/kg	11.04.19 13.12	U	1
Total Xylenes	1330-20-7	**0.0355**	0.0102	mg/kg	11.04.19 13.12		1
Total BTEX		**0.0355**	0.0102	mg/kg	11.04.19 13.12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.04.19 13.12	
1,4-Difluorobenzene	540-36-3	97	%	70-130	11.04.19 13.12	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS31**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-019	Date Collected:	11.01.19 12.10	Sample Depth:	1 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1440**	99.6	mg/kg	11.04.19 21.08		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 17.00	Basis:	Wet Weight
Seq Number:	3106525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.04.19 15.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.04.19 15.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.04.19 15.58	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.04.19 15.58	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.04.19 15.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	11.04.19 15.58	
o-Terphenyl	84-15-1	87	%	70-135	11.04.19 15.58	

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LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS31**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-019	Date Collected:	11.01.19 12.10	Sample Depth:	1 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 10.11	Basis:	Wet Weight
Seq Number:	3106433				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.04.19 12.31	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.04.19 12.31	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.04.19 12.31	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.04.19 12.31	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	11.04.19 12.31	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	11.04.19 12.31	U	1
Total BTEX		<0.00100	0.00100	mg/kg	11.04.19 12.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	11.04.19 12.31	
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.04.19 12.31	

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LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS32**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-020	Date Collected:	11.01.19 12.10	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**769**	49.9	mg/kg	11.04.19 21.15		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 17.00	Basis:	Wet Weight
Seq Number:	3106525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.04.19 17.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.04.19 17.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.04.19 17.26	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.04.19 17.26	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.04.19 17.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	11.04.19 17.26	
o-Terphenyl	84-15-1	111	%	70-135	11.04.19 17.26	

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LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS32**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-020	Date Collected:	11.01.19 12.10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 10.11	Basis:	Wet Weight
Seq Number:	3106433				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000998	0.000998	mg/kg	11.04.19 12.51	U	1
Toluene	108-88-3	<0.000998	0.000998	mg/kg	11.04.19 12.51	U	1
Ethylbenzene	100-41-4	<0.000998	0.000998	mg/kg	11.04.19 12.51	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.04.19 12.51	U	1
o-Xylene	95-47-6	<0.000998	0.000998	mg/kg	11.04.19 12.51	U	1
Total Xylenes	1330-20-7	<0.000998	0.000998	mg/kg	11.04.19 12.51	U	1
Total BTEX		<0.000998	0.000998	mg/kg	11.04.19 12.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.04.19 12.51	
4-Bromofluorobenzene	460-00-4	109	%	70-130	11.04.19 12.51	

Certificate of Analytical Results 641907

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AJ Adkins

Sample Id:	**FS33**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-021	Date Collected:	11.01.19 12.15	Sample Depth:	1 - 3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106430				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**166**	10.0	mg/kg	11.04.19 21.53		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 17.00	Basis:	Wet Weight
Seq Number:	3106525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.04.19 17.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	**379**	50.2	mg/kg	11.04.19 17.46		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.04.19 17.46	U	1
Total GRO-DRO	PHC628	**379**	50.2	mg/kg	11.04.19 17.46		1
Total TPH	PHC635	**379**	50.2	mg/kg	11.04.19 17.46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	11.04.19 17.46	
o-Terphenyl	84-15-1	115	%	70-135	11.04.19 17.46	

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AJ Adkins

Sample Id:	**FS33**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-021	Date Collected:	11.01.19 12.15	Sample Depth:	1 - 3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 10.11	Basis:	Wet Weight
Seq Number:	3106433				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000992	0.000992	mg/kg	11.04.19 13.32	U	1
Toluene	108-88-3	<0.000992	0.000992	mg/kg	11.04.19 13.32	U	1
Ethylbenzene	100-41-4	<0.000992	0.000992	mg/kg	11.04.19 13.32	U	1
m,p-Xylenes	179601-23-1	<0.00198	0.00198	mg/kg	11.04.19 13.32	U	1
o-Xylene	95-47-6	**0.00660**	0.000992	mg/kg	11.04.19 13.32		1
Total Xylenes	1330-20-7	**0.00660**	0.000992	mg/kg	11.04.19 13.32		1
Total BTEX		**0.00660**	0.000992	mg/kg	11.04.19 13.32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.04.19 13.32	
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.04.19 13.32	

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AJ Adkins

Sample Id:	**FS34**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-022	Date Collected:	11.01.19 12.20	Sample Depth:	1 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106430				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**802**	101	mg/kg	11.04.19 22.13		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 17.00	Basis:	Wet Weight
Seq Number:	3106525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.04.19 18.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	**278**	50.2	mg/kg	11.04.19 18.07		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.04.19 18.07	U	1
Total GRO-DRO	PHC628	**278**	50.2	mg/kg	11.04.19 18.07		1
Total TPH	PHC635	**278**	50.2	mg/kg	11.04.19 18.07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.04.19 18.07	
o-Terphenyl	84-15-1	115	%	70-135	11.04.19 18.07	

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LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS34**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-022	Date Collected:	11.01.19 12.20	Sample Depth:	1 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 10.11	Basis:	Wet Weight
Seq Number:	3106433				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.04.19 13.53	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.04.19 13.53	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.04.19 13.53	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.04.19 13.53	U	1
o-Xylene	95-47-6	**0.00326**	0.00100	mg/kg	11.04.19 13.53		1
Total Xylenes	1330-20-7	**0.00326**	0.00100	mg/kg	11.04.19 13.53		1
Total BTEX		**0.00326**	0.00100	mg/kg	11.04.19 13.53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	11.04.19 13.53	
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.04.19 13.53	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS35**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-023	Date Collected:	11.01.19 12.40	Sample Depth:	0 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106430				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**460**	49.9	mg/kg	11.04.19 22.19		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 17.00	Basis:	Wet Weight
Seq Number:	3106525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.04.19 18.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.04.19 18.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.04.19 18.27	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.04.19 18.27	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.04.19 18.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	11.04.19 18.27	
o-Terphenyl	84-15-1	115	%	70-135	11.04.19 18.27	

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LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS35**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-023	Date Collected:	11.01.19 12.40	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 10.11	Basis:	Wet Weight
Seq Number:	3106433				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000990	0.000990	mg/kg	11.04.19 14.13	U	1
Toluene	108-88-3	<0.000990	0.000990	mg/kg	11.04.19 14.13	U	1
Ethylbenzene	100-41-4	<0.000990	0.000990	mg/kg	11.04.19 14.13	U	1
m,p-Xylenes	179601-23-1	<0.00198	0.00198	mg/kg	11.04.19 14.13	U	1
o-Xylene	95-47-6	<0.000990	0.000990	mg/kg	11.04.19 14.13	U	1
Total Xylenes	1330-20-7	<0.000990	0.000990	mg/kg	11.04.19 14.13	U	1
Total BTEX		<0.000990	0.000990	mg/kg	11.04.19 14.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.04.19 14.13	
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.04.19 14.13	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS36**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-024	Date Collected:	11.01.19 12.45	Sample Depth:	0 - 1.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106430				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**416**	49.6	mg/kg	11.04.19 22.25		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 17.00	Basis:	Wet Weight
Seq Number:	3106525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.04.19 18.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.04.19 18.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.04.19 18.47	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.04.19 18.47	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.04.19 18.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.04.19 18.47	
o-Terphenyl	84-15-1	117	%	70-135	11.04.19 18.47	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**FS36**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-024	Date Collected:	11.01.19 12.45	Sample Depth:	0 - 1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 10.11	Basis:	Wet Weight
Seq Number:	3106433				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	11.04.19 14.33	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	11.04.19 14.33	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	11.04.19 14.33	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	11.04.19 14.33	U	1
o-Xylene	95-47-6	**0.00589**	0.00101	mg/kg	11.04.19 14.33		1
Total Xylenes	1330-20-7	**0.00589**	0.00101	mg/kg	11.04.19 14.33		1
Total BTEX		**0.00589**	0.00101	mg/kg	11.04.19 14.33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.04.19 14.33	
4-Bromofluorobenzene	460-00-4	109	%	70-130	11.04.19 14.33	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-025	Date Collected:	11.01.19 14.30	Sample Depth:	0 - 2.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106430				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**264**	10.0	mg/kg	11.04.19 22.32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 17.00	Basis:	Wet Weight
Seq Number:	3106525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.04.19 19.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.04.19 19.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.04.19 19.08	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.04.19 19.08	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.04.19 19.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	11.04.19 19.08	
o-Terphenyl	84-15-1	97	%	70-135	11.04.19 19.08	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-025	Date Collected:	11.01.19 14.30	Sample Depth:	0 - 2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 10.11	Basis:	Wet Weight
Seq Number:	3106433				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000992	0.000992	mg/kg	11.04.19 14.54	U	1
Toluene	108-88-3	<0.000992	0.000992	mg/kg	11.04.19 14.54	U	1
Ethylbenzene	100-41-4	<0.000992	0.000992	mg/kg	11.04.19 14.54	U	1
m,p-Xylenes	179601-23-1	<0.00198	0.00198	mg/kg	11.04.19 14.54	U	1
o-Xylene	95-47-6	<0.000992	0.000992	mg/kg	11.04.19 14.54	U	1
Total Xylenes	1330-20-7	<0.000992	0.000992	mg/kg	11.04.19 14.54	U	1
Total BTEX		<0.000992	0.000992	mg/kg	11.04.19 14.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.04.19 14.54	
4-Bromofluorobenzene	460-00-4	109	%	70-130	11.04.19 14.54	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW10**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-026	Date Collected:	11.01.19 13.25	Sample Depth:	0 - 2.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106430				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**208**	10.0	mg/kg	11.04.19 22.52		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 17.00	Basis:	Wet Weight
Seq Number:	3106525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**137**	50.2	mg/kg	11.04.19 19.28		1
Diesel Range Organics (DRO)	C10C28DRO	**2710**	50.2	mg/kg	11.04.19 19.28		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**291**	50.2	mg/kg	11.04.19 19.28		1
Total GRO-DRO	PHC628	**2850**	50.2	mg/kg	11.04.19 19.28		1
Total TPH	PHC635	**3140**	50.2	mg/kg	11.04.19 19.28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	11.04.19 19.28	
o-Terphenyl	84-15-1	129	%	70-135	11.04.19 19.28	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW10**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-026	Date Collected:	11.01.19 13.25	Sample Depth:	0 - 2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 10.11	Basis:	Wet Weight
Seq Number:	3106433				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.101	0.101	mg/kg	11.04.19 19.27	U	100
Toluene	108-88-3	<0.101	0.101	mg/kg	11.04.19 19.27	U	100
Ethylbenzene	100-41-4	**0.708**	0.101	mg/kg	11.04.19 19.27		100
m,p-Xylenes	179601-23-1	**0.817**	0.201	mg/kg	11.04.19 19.27		100
o-Xylene	95-47-6	**0.350**	0.101	mg/kg	11.04.19 19.27		100
Total Xylenes	1330-20-7	**1.17**	0.101	mg/kg	11.04.19 19.27		100
Total BTEX		**1.88**	0.101	mg/kg	11.04.19 19.27		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.04.19 19.27	
4-Bromofluorobenzene	460-00-4	112	%	70-130	11.04.19 19.27	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW11**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-027	Date Collected:	11.01.19 13.30	Sample Depth:	0 - 2.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106430				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**907**	49.6	mg/kg	11.04.19 22.58		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 17.00	Basis:	Wet Weight
Seq Number:	3106525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**368**	251	mg/kg	11.05.19 14.19		5
Diesel Range Organics (DRO)	C10C28DRO	**6250**	251	mg/kg	11.05.19 14.19		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**572**	251	mg/kg	11.05.19 14.19		5
Total GRO-DRO	PHC628	**6620**	251	mg/kg	11.05.19 14.19		5
Total TPH	PHC635	**7190**	251	mg/kg	11.05.19 14.19		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	11.05.19 14.19	
o-Terphenyl	84-15-1	207	%	70-135	11.05.19 14.19	**

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW11**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-027	Date Collected:	11.01.19 13.30	Sample Depth:	0 - 2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 10.11	Basis:	Wet Weight
Seq Number:	3106433				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0996	0.0996	mg/kg	11.04.19 19.53	U	100
Toluene	108-88-3	<0.0996	0.0996	mg/kg	11.04.19 19.53	U	100
Ethylbenzene	100-41-4	<0.0996	0.0996	mg/kg	11.04.19 19.53	U	100
m,p-Xylenes	179601-23-1	<0.199	0.199	mg/kg	11.04.19 19.53	U	100
o-Xylene	95-47-6	**0.336**	0.0996	mg/kg	11.04.19 19.53		100
Total Xylenes	1330-20-7	**0.336**	0.0996	mg/kg	11.04.19 19.53		100
Total BTEX		**0.336**	0.0996	mg/kg	11.04.19 19.53		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.04.19 19.53	
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.04.19 19.53	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW12**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-028	Date Collected:	11.01.19 13.40	Sample Depth:	0 - 2.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106430				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**340**	9.90	mg/kg	11.04.19 23.05		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 17.00	Basis:	Wet Weight
Seq Number:	3106525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.04.19 20.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.04.19 20.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.04.19 20.29	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.04.19 20.29	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.04.19 20.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	11.04.19 20.29	
o-Terphenyl	84-15-1	107	%	70-135	11.04.19 20.29	

Certificate of Analytical Results 641907

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**SW12**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641907-028	Date Collected:	11.01.19 13.40	Sample Depth:	0 - 2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 10.11	Basis:	Wet Weight
Seq Number:	3106433				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	11.04.19 15.14	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	11.04.19 15.14	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	11.04.19 15.14	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	11.04.19 15.14	U	1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	11.04.19 15.14	U	1
Total Xylenes	1330-20-7	<0.000994	0.000994	mg/kg	11.04.19 15.14	U	1
Total BTEX		<0.000994	0.000994	mg/kg	11.04.19 15.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.04.19 15.14	
4-Bromofluorobenzene	460-00-4	114	%	70-130	11.04.19 15.14	

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

QC Summary 641907

LT Environmental, Inc.

AJ Adkins

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3106428 — Matrix: Solid — Date Prep: 11.04.19
MB Sample Id: 7689549-1-BLK — LCS Sample Id: 7689549-1-BKS — LCSD Sample Id: 7689549-1-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	234	94	232	93	90-110	1	20	mg/kg	11.04.19 18:06	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3106430 — Matrix: Solid — Date Prep: 11.04.19
MB Sample Id: 7689551-1-BLK — LCS Sample Id: 7689551-1-BKS — LCSD Sample Id: 7689551-1-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	235	94	234	94	90-110	0	20	mg/kg	11.04.19 21:40	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3106428 — Matrix: Soil — Date Prep: 11.04.19
Parent Sample Id: 641907-001 — MS Sample Id: 641907-001 S — MSD Sample Id: 641907-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	313	398	786	119	785	119	90-110	0	20	mg/kg	11.04.19 18:24	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3106428 — Matrix: Soil — Date Prep: 11.04.19
Parent Sample Id: 641907-011 — MS Sample Id: 641907-011 S — MSD Sample Id: 641907-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	41.0	200	265	112	264	112	90-110	0	20	mg/kg	11.04.19 19:54	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3106430 — Matrix: Soil — Date Prep: 11.04.19
Parent Sample Id: 641907-021 — MS Sample Id: 641907-021 S — MSD Sample Id: 641907-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	166	2020	2090	95	2050	94	90-110	2	20	mg/kg	11.04.19 22:00	

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

QC Summary 641907

LT Environmental, Inc.

AJ Adkins

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Seq Number: 3106430 Matrix: Soil Date Prep: 11.04.19
Parent Sample Id: 641909-003 MS Sample Id: 641909-003 S MSD Sample Id: 641909-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	415	201	669	126	670	126	90-110	0	20	mg/kg	11.04.19 23:30	X

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Seq Number: 3106450 Matrix: Solid Date Prep: 11.04.19
MB Sample Id: 7689590-1-BLK LCS Sample Id: 7689590-1-BKS LCSD Sample Id: 7689590-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	941	94	934	93	70-135	1	35	mg/kg	11.04.19 15:09	
Diesel Range Organics (DRO)	<11.5	1000	1040	104	1040	104	70-135	0	35	mg/kg	11.04.19 15:09	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		130		113		70-135	%	11.04.19 15:09
o-Terphenyl	106		114		112		70-135	%	11.04.19 15:09

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Seq Number: 3106525 Matrix: Solid Date Prep: 11.04.19
MB Sample Id: 7689591-1-BLK LCS Sample Id: 7689591-1-BKS LCSD Sample Id: 7689591-1-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	878	88	807	81	70-135	8	35	mg/kg	11.04.19 15:09	
Diesel Range Organics (DRO)	<50.0	1000	1070	107	938	94	70-135	13	35	mg/kg	11.04.19 15:09	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		106		96		70-135	%	11.04.19 15:09
o-Terphenyl	103		108		97		70-135	%	11.04.19 15:09

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Seq Number: 3106450 Matrix: Solid Date Prep: 11.04.19
MB Sample Id: 7689590-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.04.19 14:48	

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

QC Summary 641907

LT Environmental, Inc.

AJ Adkins

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3106525 Matrix: Solid Date Prep: 11.04.19
MB Sample Id: 7689591-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.04.19 14:48	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3106450 Matrix: Soil Date Prep: 11.04.19
Parent Sample Id: 641909-001 MS Sample Id: 641909-001 S MSD Sample Id: 641909-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	742	74	884	88	70-135	17	35	mg/kg	11.04.19 16:20	
Diesel Range Organics (DRO)	<50.0	999	810	81	980	98	70-135	19	35	mg/kg	11.04.19 16:20	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		161	**	70-135	%	11.04.19 16:20
o-Terphenyl	122		161	**	70-135	%	11.04.19 16:20

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3106525 Matrix: Soil Date Prep: 11.04.19
Parent Sample Id: 641907-019 MS Sample Id: 641907-019 S MSD Sample Id: 641907-019 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	1150	115	1010	101	70-135	13	35	mg/kg	11.04.19 16:20	
Diesel Range Organics (DRO)	21.8	1000	1350	133	1180	116	70-135	13	35	mg/kg	11.04.19 16:20	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	134		136	**	70-135	%	11.04.19 16:20
o-Terphenyl	123		131		70-135	%	11.04.19 16:20

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

QC Summary 641907

LT Environmental, Inc.

AJ Adkins

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3106431 | Matrix: Solid | Date Prep: 11.04.19
MB Sample Id: 7689596-1-BLK | LCS Sample Id: 7689596-1-BKS | LCSD Sample Id: 7689596-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.0963	96	0.0920	92	70-130	5	35	mg/kg	11.04.19 10:31	
Toluene	<0.00100	0.100	0.0958	96	0.0913	91	70-130	5	35	mg/kg	11.04.19 10:31	
Ethylbenzene	<0.00100	0.100	0.0957	96	0.0908	91	71-129	5	35	mg/kg	11.04.19 10:31	
m,p-Xylenes	<0.00200	0.200	0.205	103	0.194	97	70-135	6	35	mg/kg	11.04.19 10:31	
o-Xylene	<0.00100	0.100	0.103	103	0.0977	98	71-133	5	35	mg/kg	11.04.19 10:31	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		102		100		70-130	%	11.04.19 10:31
4-Bromofluorobenzene	109		112		111		70-130	%	11.04.19 10:31

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3106433 | Matrix: Solid | Date Prep: 11.04.19
MB Sample Id: 7689602-1-BLK | LCS Sample Id: 7689602-1-BKS | LCSD Sample Id: 7689602-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.0984	98	0.0972	97	70-130	1	35	mg/kg	11.04.19 10:35	
Toluene	<0.00100	0.100	0.0974	97	0.0973	97	70-130	0	35	mg/kg	11.04.19 10:35	
Ethylbenzene	<0.00100	0.100	0.101	101	0.101	101	71-129	0	35	mg/kg	11.04.19 10:35	
m,p-Xylenes	<0.00200	0.200	0.204	102	0.205	103	70-135	0	35	mg/kg	11.04.19 10:35	
o-Xylene	<0.00100	0.100	0.0998	100	0.101	101	71-133	1	35	mg/kg	11.04.19 10:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		100		98		70-130	%	11.04.19 10:35
4-Bromofluorobenzene	106		101		103		70-130	%	11.04.19 10:35

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3106431 | Matrix: Soil | Date Prep: 11.04.19
Parent Sample Id: 641909-001 | MS Sample Id: 641909-001 S | MSD Sample Id: 641909-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00101	0.101	0.0983	97	0.0911	91	70-130	8	35	mg/kg	11.04.19 11:10	
Toluene	<0.00101	0.101	0.0954	94	0.0883	88	70-130	8	35	mg/kg	11.04.19 11:10	
Ethylbenzene	<0.00101	0.101	0.0934	92	0.0860	86	71-129	8	35	mg/kg	11.04.19 11:10	
m,p-Xylenes	<0.00202	0.202	0.198	98	0.182	91	70-135	8	35	mg/kg	11.04.19 11:10	
o-Xylene	<0.00101	0.101	0.0996	99	0.0915	92	71-133	8	35	mg/kg	11.04.19 11:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		104		70-130	%	11.04.19 11:10
4-Bromofluorobenzene	116		114		70-130	%	11.04.19 11:10

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
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

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

QC Summary 641907

LT Environmental, Inc.

AJ Adkins

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3106433 Matrix: Soil Date Prep: 11.04.19

Parent Sample Id: 641907-019 MS Sample Id: 641907-019 S MSD Sample Id: 641907-019 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.0993	99	0.0905	91	70-130	9	35	mg/kg	11.04.19 11:16	
Toluene	<0.00100	0.100	0.0986	99	0.0897	90	70-130	9	35	mg/kg	11.04.19 11:16	
Ethylbenzene	<0.00100	0.100	0.101	101	0.0915	92	71-129	10	35	mg/kg	11.04.19 11:16	
m,p-Xylenes	<0.00200	0.200	0.205	103	0.185	92	70-135	10	35	mg/kg	11.04.19 11:16	
o-Xylene	<0.00100	0.100	0.102	102	0.0926	93	71-133	10	35	mg/kg	11.04.19 11:16	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		101		70-130	%	11.04.19 11:16
4-Bromofluorobenzene	113		109		70-130	%	11.04.19 11:16

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike

Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added

LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec

Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

Chain of Custody

XENCO LABORATORIES

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: 641907

www.xenco.com Page 1 of 3

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Midland, Tx 79705
Phone:	432.704.5178	Email:	ggreen@ltenv.com ; dmoir@ltenv.com

Work Order Comments

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

Project Name:	AJ Adkins	Turn Around	
Project Number:		Routine ☐	
P.O. Number:	~~X~~ 1RP-5638	Rush: 48Hr	
Sampler's Name:	Garrett Green	Due Date:	

SAMPLE RECEIPT

Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	2.4	Thermometer ID	T-NM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	~~28~~ ~~28~~ 8 GU 11/4/19

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS13	S	10/31/19	1125	0'-1'	1	X	X	X	
FS14	↓	↓	1130	0'-1'	1	↓	↓	↓	
FS15			1135	0'-1'	1				
FS16			1140	.5'-1'	1				
FS17			1220	0'-1'	1				
FS18			1225	1'	1				
FS19			1230	.5'-1'	1				
FS20			1235	0'-.5'	1				
FS21			1320	.5'	1				
FS22	↓	↓	1325	.5-1'	1	↓	↓	↓	

Work Order Notes

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

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 Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Scott Green	[signature]	11/4/19 08:01	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

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)
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Work Order No: 441907

Page 2 of 3

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Midland, Tx 79705
Phone:	432.704.5178	Email:	ggreen@ltenv.com ; dmoir@ltenv.com

Work Order Comments

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

Project Name:		Turn Around	
Project Number:		Routine ☐	
P.O. Number:		Rush: 48Hr	
Sampler's Name:	Garrett Green	Due Date:	

SAMPLE RECEIPT

Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	2.00 NP	Thermometer ID	
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS23	S	10/31/19	1330	.5~1'	1	X	X	X
FS24			1340	.5'	1			
FS25			1405	0'-.5'	1			
FS26			1410	0'-.5'	1			
FS27			1415	0'-.5'	1			
FS28			1420	0'~1'	1			
FS29			1500	1.5'-2.5'	1			
FS30			1505	1.5'-2.5'	1			
FS31		11/01/19	1205	1'-2'	1			
FS32	↓	11/01/19	1210	2'	1	↓	↓	↓

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11/4/19 08:01	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

XENCO LABORATORIES

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: 641907

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Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Midland, Tx 79705
Phone:	432.704.5178	Email:	ggreen@ltenv.com ; dmoir@ltenv.com

Work Order Comments

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

Project Name:	AJ Adkins	Turn Around	
Project Number:		Routine ☐	
P.O. Number:	IRP-5638	Rush: 24hr	
Sampler's Name:	Garrett Green	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:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS33	S	11/01/19	1215	1'-3'	1	X	X	X
FS34			1220	1'-2'	1			
FS35			1240	0'-1'	1			
FS36			1245	0'-1.5'	1			
SW09			1430	0'-2.5'	1			
SW10			1325	0'-2.5'	1			
SW11			1330	0'-2.5'	1			
SW12			1340	0'-2.5'	1			

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			2		
		11/4/19 08:01	4		
			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11.04.2019 08.01.00 AM

Work Order #: 641907

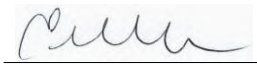
Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.4
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by:  Date: 11.04.2019
Elizabeth McClellan

Checklist reviewed by:  Date: 11.05.2019
Martha Castro

Analytical Report 641909

for

LT Environmental, Inc.

Project Manager: Dan Moir

AJ Adkins

05-NOV-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

05-NOV-19

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

Reference: XENCO Report No(s): **641909**
AJ Adkins
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) 641909. 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. 641909 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,

Jessica Kramer

Jessica Kramer
Project Assistant

Sample Cross Reference 641909

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH02	S	11-01-19 10:05	1 ft	641909-001
PH02A	S	11-01-19 10:20	4 ft	641909-002
PH02B	S	11-01-19 10:45	8 ft	641909-003

CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: AJ Adkins

Project ID:
Work Order Number(s): *641909*

Report Date: *05-NOV-19*
Date Received: *11/04/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3106430 Chloride by EPA 300
Lab Sample ID 641909-003 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 641909-001, -002, -003.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3106431 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3106450 TPH by SW8015 Mod
Surrogate 1-Chlorooctane, Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 641909-001 SD,641909-002.

Certificate of Analysis Summary 641909

LT Environmental, Inc., Arvada, CO

Project Name: AJ Adkins

Project Id:

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Nov-04-19 08:01 am

Report Date: 05-NOV-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	641909-001		641909-002		641909-003							
	Field Id:	PH02		PH02A		PH02B							
	Depth:	1- ft		4- ft		8- ft							
	Matrix:	SOIL		SOIL		SOIL							
	Sampled:	Nov-01-19 10:05		Nov-01-19 10:20		Nov-01-19 10:45							
BTEX by EPA 8021B	***Extracted:***	Nov-04-19 09:00		Nov-04-19 09:00		Nov-04-19 09:00							
	Analyzed:	Nov-04-19 12:14		Nov-04-19 12:33		Nov-04-19 12:52							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Benzene		<0.00100	0.00100	<0.000998	0.000998	<0.000996	0.000996						
Toluene		<0.00100	0.00100	<0.000998	0.000998	<0.000996	0.000996						
Ethylbenzene		<0.00100	0.00100	<0.000998	0.000998	<0.000996	0.000996						
m,p-Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199						
o-Xylene		<0.00100	0.00100	<0.000998	0.000998	<0.000996	0.000996						
Total Xylenes		<0.00100	0.00100	<0.000998	0.000998	<0.000996	0.000996						
Total BTEX		<0.00100	0.00100	<0.000998	0.000998	<0.000996	0.000996						
Chloride by EPA 300	***Extracted:***	Nov-04-19 15:11		Nov-04-19 15:11		Nov-04-19 15:11							
	Analyzed:	Nov-04-19 23:11		Nov-04-19 23:17		Nov-04-19 23:24							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Chloride		29.4	10.0	412	50.2	415	10.0						
TPH by SW8015 Mod	***Extracted:***	Nov-04-19 14:00		Nov-04-19 14:00		Nov-04-19 14:00							
	Analyzed:	Nov-04-19 15:58		Nov-04-19 17:05		Nov-05-19 11:08							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.2	50.2	<49.8	49.8						
Diesel Range Organics (DRO)		<50.0	50.0	<50.2	50.2	<49.8	49.8						
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.2	50.2	<49.8	49.8						
Total GRO-DRO		<50.0	50.0	<50.2	50.2	<49.8	49.8						
Total TPH		<50.0	50.0	<50.2	50.2	<49.8	49.8						

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 641909

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641909-001	Date Collected:	11.01.19 10.05	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106430				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**29.4**	10.0	mg/kg	11.04.19 23.11		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.04.19 15.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.04.19 15.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.04.19 15.58	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.04.19 15.58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.04.19 15.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	11.04.19 15.58	
o-Terphenyl	84-15-1	110	%	70-135	11.04.19 15.58	

Certificate of Analytical Results 641909

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641909-001	Date Collected:	11.01.19 10.05	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	11.04.19 12.14	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	11.04.19 12.14	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	11.04.19 12.14	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.04.19 12.14	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	11.04.19 12.14	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	11.04.19 12.14	U	1
Total BTEX		<0.00100	0.00100	mg/kg	11.04.19 12.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.04.19 12.14	
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.04.19 12.14	

Certificate of Analytical Results 641909

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641909-002	Date Collected:	11.01.19 10.20	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106430				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**412**	50.2	mg/kg	11.04.19 23.17		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.04.19 17.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.04.19 17.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.04.19 17.05	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.04.19 17.05	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.04.19 17.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	175	%	70-135	11.04.19 17.05	**
o-Terphenyl	84-15-1	194	%	70-135	11.04.19 17.05	**

Certificate of Analytical Results 641909

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641909-002	Date Collected:	11.01.19 10.20	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000998	0.000998	mg/kg	11.04.19 12.33	U	1
Toluene	108-88-3	<0.000998	0.000998	mg/kg	11.04.19 12.33	U	1
Ethylbenzene	100-41-4	<0.000998	0.000998	mg/kg	11.04.19 12.33	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.04.19 12.33	U	1
o-Xylene	95-47-6	<0.000998	0.000998	mg/kg	11.04.19 12.33	U	1
Total Xylenes	1330-20-7	<0.000998	0.000998	mg/kg	11.04.19 12.33	U	1
Total BTEX		<0.000998	0.000998	mg/kg	11.04.19 12.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	70-130	11.04.19 12.33	
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.04.19 12.33	

Certificate of Analytical Results 641909

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**PH02B**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641909-003	Date Collected:	11.01.19 10.45	Sample Depth:	8 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 15.11	Basis:	Wet Weight
Seq Number:	3106430				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**415**	10.0	mg/kg	11.04.19 23.24		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	11.04.19 14.00	Basis:	Wet Weight
Seq Number:	3106450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.05.19 11.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.05.19 11.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.05.19 11.08	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.05.19 11.08	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.05.19 11.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	11.05.19 11.08	
o-Terphenyl	84-15-1	113	%	70-135	11.05.19 11.08	

Certificate of Analytical Results 641909

LT Environmental, Inc., Arvada, CO

AJ Adkins

Sample Id:	**PH02B**	Matrix:	Soil	Date Received:	11.04.19 08.01
Lab Sample Id:	641909-003	Date Collected:	11.01.19 10.45	Sample Depth:	8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	11.04.19 09.00	Basis:	Wet Weight
Seq Number:	3106431				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000996	0.000996	mg/kg	11.04.19 12.52	U	1
Toluene	108-88-3	<0.000996	0.000996	mg/kg	11.04.19 12.52	U	1
Ethylbenzene	100-41-4	<0.000996	0.000996	mg/kg	11.04.19 12.52	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	11.04.19 12.52	U	1
o-Xylene	95-47-6	<0.000996	0.000996	mg/kg	11.04.19 12.52	U	1
Total Xylenes	1330-20-7	<0.000996	0.000996	mg/kg	11.04.19 12.52	U	1
Total BTEX		<0.000996	0.000996	mg/kg	11.04.19 12.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.04.19 12.52	
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.04.19 12.52	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 641909

LT Environmental, Inc.

AJ Adkins

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3106430 — Matrix: Solid — Date Prep: 11.04.19
MB Sample Id: 7689551-1-BLK — LCS Sample Id: 7689551-1-BKS — LCSD Sample Id: 7689551-1-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	235	94	234	94	90-110	0	20	mg/kg	11.04.19 21:40	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3106430 — Matrix: Soil — Date Prep: 11.04.19
Parent Sample Id: 641907-021 — MS Sample Id: 641907-021 S — MSD Sample Id: 641907-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	166	2020	2090	95	2050	94	90-110	2	20	mg/kg	11.04.19 22:00	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3106430 — Matrix: Soil — Date Prep: 11.04.19
Parent Sample Id: 641909-003 — MS Sample Id: 641909-003 S — MSD Sample Id: 641909-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	415	201	669	126	670	126	90-110	0	20	mg/kg	11.04.19 23:30	X

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3106450 — Matrix: Solid — Date Prep: 11.04.19
MB Sample Id: 7689590-1-BLK — LCS Sample Id: 7689590-1-BKS — LCSD Sample Id: 7689590-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	941	94	934	93	70-135	1	35	mg/kg	11.04.19 15:09	
Diesel Range Organics (DRO)	<11.5	1000	1040	104	1040	104	70-135	0	35	mg/kg	11.04.19 15:09	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		130		113		70-135	%	11.04.19 15:09
o-Terphenyl	106		114		112		70-135	%	11.04.19 15:09

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3106450 — Matrix: Solid — Date Prep: 11.04.19
MB Sample Id: 7689590-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.04.19 14:48	

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

QC Summary 641909

LT Environmental, Inc.

AJ Adkins

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3106450 — Matrix: Soil — Date Prep: 11.04.19
Parent Sample Id: 641909-001 — MS Sample Id: 641909-001 S — MSD Sample Id: 641909-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	742	74	884	88	70-135	17	35	mg/kg	11.04.19 16:20	
Diesel Range Organics (DRO)	<50.0	999	810	81	980	98	70-135	19	35	mg/kg	11.04.19 16:20	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		161	**	70-135	%	11.04.19 16:20
o-Terphenyl	122		161	**	70-135	%	11.04.19 16:20

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3106431 — Matrix: Solid — Date Prep: 11.04.19
MB Sample Id: 7689596-1-BLK — LCS Sample Id: 7689596-1-BKS — LCSD Sample Id: 7689596-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.0963	96	0.0920	92	70-130	5	35	mg/kg	11.04.19 10:31	
Toluene	<0.00100	0.100	0.0958	96	0.0913	91	70-130	5	35	mg/kg	11.04.19 10:31	
Ethylbenzene	<0.00100	0.100	0.0957	96	0.0908	91	71-129	5	35	mg/kg	11.04.19 10:31	
m,p-Xylenes	<0.00200	0.200	0.205	103	0.194	97	70-135	6	35	mg/kg	11.04.19 10:31	
o-Xylene	<0.00100	0.100	0.103	103	0.0977	98	71-133	5	35	mg/kg	11.04.19 10:31	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		102		100		70-130	%	11.04.19 10:31
4-Bromofluorobenzene	109		112		111		70-130	%	11.04.19 10:31

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3106431 — Matrix: Soil — Date Prep: 11.04.19
Parent Sample Id: 641909-001 — MS Sample Id: 641909-001 S — MSD Sample Id: 641909-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00101	0.101	0.0983	97	0.0911	91	70-130	8	35	mg/kg	11.04.19 11:10	
Toluene	<0.00101	0.101	0.0954	94	0.0883	88	70-130	8	35	mg/kg	11.04.19 11:10	
Ethylbenzene	<0.00101	0.101	0.0934	92	0.0860	86	71-129	8	35	mg/kg	11.04.19 11:10	
m,p-Xylenes	<0.00202	0.202	0.198	98	0.182	91	70-135	8	35	mg/kg	11.04.19 11:10	
o-Xylene	<0.00101	0.101	0.0996	99	0.0915	92	71-133	8	35	mg/kg	11.04.19 11:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		104		70-130	%	11.04.19 11:10
4-Bromofluorobenzene	116		114		70-130	%	11.04.19 11:10

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

Chain of Custody

XENCO LABORATORIES

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: 441909

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Midland, Tx 79705
Phone:	432.704.5178	Email:	ggreen@ltenv.com ; dmoir@ltenv.com

Work Order Comments

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

Project Name:	AJ Adkins	Turn Around	
Project Number:		Routine	☐
P.O. Number:	IRP-5638	Rush:	48hr
Sampler's Name:	Garrett Green	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	2.4	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	3	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH02	S	11/1/19	1005	1'	1	X	X	X
PH02A	S		1020	4'	1	X	X	X
PH02B	S		1045	8'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
	Carter P	11/4/19 08:01	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1