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	NRM2007252730
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.259031 Longitude -103.837091
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Los Dos Medanos Tank Battery	Site Type Tank Battery
Date Release Discovered 2/26/2020	API# *(if applicable)* NA

Unit Letter	Section	Township	Range	County
K	36	23S	30E	Eddy

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 28.99	Volume Recovered (bbls) 28.98
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:
Lease Operator reported release of fluid out of pump seal on the LACT at the Los Dos Medanos battery. LACT seal failed releasing 28.99 bbls of crude oil, 28.98 bbls were into a lined containment. Vacuum truck was dispatched and recovered all released crude oil from containment. A third party contractor will be retained to complete remediation activities.

Incident ID	NRM2007252730
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? An unauthorized release of a volume of 25 or more barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Immediate notice was given by Amy Ruth to Mike Bratcher, Rob Hamlet, Victoria Venegas, Jim Griswold, ENMRD, rmann@slo.state.nm.us on Wednesday, February 26, 2020 via email.	

Initial Response

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

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have 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: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 3-10-20

email: Kyle_Littrell@xtoenergy.com Telephone:

OCD Only

Received by: Date:

Incident ID	NRM2007252730
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	> 100 (ft bgs)
Did this release impact groundwater or surface water?	☐ 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	NRM2007252730
District RP	
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 5/26/2020

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NRM2007252730
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☒ Extents of contamination must be fully delineated.

☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 5/26/2020

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:

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

May 26, 2020

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

RE: Deferral Request
Los Dos Medanos Tank Battery
Incident Number NRM2007252730
Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Deferral Request detailing site assessment, soil sampling, and remediation activities at the Los Dos Medanos Tank Battery (Site) in Unit K, Section 36, Township 23 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment soil sampling, and remediation activities was to confirm the presence or absence of impacts to soil following the release of crude oil at the Site. Based on field observations, field screening, and laboratory analytical results from soil sampling activities, XTO is submitting this Deferral Request and requesting no further action (NFA) for Incident Number NRM2007252730 until the Site is reconstructed, and/or the well pad is abandoned.

RELEASE BACKGROUND

On February 26, 2020, a seal on a lease automatic custody transfer (LACT) unit failed resulting in the release of approximately 28.99 barrels (bbls) of crude oil into a lined containment and onto the caliche well pad surrounding the lined containment. A vacuum truck was immediately dispatched to the Site to recover freestanding fluids; approximately 28.98 bbls of crude oil was recovered. The net volume of crude oil released was approximately 0.01 bbls. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on March 10, 2020, and was subsequently assigned Incident Number NRM2007252730.

SITE CHARACTERIZATION

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

321544103515202, located approximately 1.66 miles west of the Site. The groundwater well has a reported depth to groundwater of 418 feet bgs and a total depth of 563 feet bgs. All wells used for depth to groundwater determination are depicted on Figure 1.

The closest continuously flowing water or significant watercourse to the Site is an unnamed tributary, located approximately 2,590 feet southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On March 30, 2020, LTE personnel visited the Site to evaluate the release extent. The release extent was mapped utilizing a handheld Global Positing System (GPS). The release occurred within the LACT unit lined containment and overflowed into the area of the aboveground active production equipment. LTE personnel collected and field screened preliminary soil assessment samples at four locations (SS01 through SS04) within the release extent. The release extent and the preliminary soil sample locations are presented on Figure 2. Visually impacted soil was located in and around aboveground active production equipment surrounding the LACT unit lined containment. Photographic documentation was conducted during the initial site visit and photos are included in a photographic log in Attachment 1.

The preliminary soil samples were collected at a depth of 0.5 feet bgs and were field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. All soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees

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

According to laboratory analytical results, benzene, BTEX, TPH-GRO and TPH-DRO, TPH and chloride were reported at concentrations compliant with the Closure Criteria in the preliminary assessment soil samples SS01 through SS04. Laboratory analytical reports are provided in Attachment 2. Based on visible staining in the release areas, field screening results, and laboratory analytical results, soil delineation and remediation work to address the staining appeared to be warranted for the release area.

DELINEATION SOIL SAMPLING AND REMEDIATION ACTIVITIES

Between April 9, and May 7, 2020, LTE oversaw delineation activities to further assess the presence or absence of impacted soil at depth. Seven boreholes (BH01 through BH07) were advanced to depths ranging from 3.5 feet to 5.5 feet bgs and discrete soil samples were collected from each borehole utilizing hand auger equipment. Delineation soil samples were collected at 1 foot and 3.5 feet bgs in each borehole. An additional sample was collected from BH02 at 5.5 feet bgs. Soil from the boreholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach© chloride QuanTab© test strips, respectively. Field screening results and observations for each borehole were logged on lithologic/soil sampling logs, which are included in Attachment 3. The locations of delineation boreholes (BH01 through BH07) are presented on Figure 3. The discrete delineation soil samples were collected, handled, and analyzed as described above at Xenco in Carlsbad, New Mexico.

In addition, LTE personnel oversaw removal of visibly stained soil via hand shoveling and hydrovac truck, where possible. These areas were limited due to the presence of above ground, active production equipment surrounding the LACT unit lined containment. An estimated total of 1.5 cubic yards of stained soil was removed from limited accessible areas of the release footprint. Removal was restricted to at most 6 inches of surface scraping with shovels. The scraped areas were small and disconnected and field screening indicated impacted soil remained. As such, LTE did not attempt confirmation soil sampling.

ANALYTICAL RESULTS

Laboratory analytical results indicated TPH-GRO + TPH-DRO concentrations exceeded Closure Criteria in soil samples BH01 at 1 foot bgs and BH02A at 3.5 feet bgs. In addition, TPH concentrations exceeded Closure Criteria in soil sample BH01 at 1 foot bgs. Analytical results for the remaining 13 soil samples from the seven boreholes (BH01A, BH02/BH02B, and BH03/BH03A through BH07/BH07A) indicate benzene, BTEX, TPH-GRO, TPH-DRO, TPH, and chloride

concentrations were compliant with Closure Criteria. The laboratory analytical results are summarized in Table 1 and the laboratory data reports are provided in Attachment 2.

DEFERRAL REQUEST

Elevated concentrations of TPH-GRO + TPH-DRO and TPH were observed in the area immediately adjacent to the LACT unit lined containment. The impacted soil was left in place for compliance with the XTO safety policy regarding earth-moving activities within two feet of active production equipment and the inability to access the impacted soil due to aboveground and overhanging infrastructure. Impacted soil between the LACT unit lined containment, the aboveground active production equipment, and the tank battery containment could not be accessed due to these space limitations and safety considerations. The visible staining was addressed via hand shoveling and hydrovac where possible.

The release is laterally delineated by the lined tank battery containment to the north, delineation soil samples BH03 and BH06 to the west, BH07 to the east, and BH04 and BH05 to the south of the LACT unit lined containment (Figure 3). Delineation soil samples BH04 through BH07 identified no impacted soil outside of the release extent. Vertical delineation is achieved by delineation soil samples BH01A at 3 feet bgs and BH02B at 5.5 feet bgs.

A total of approximately 1.5 cubic yards of impacted soil were removed while addressing the surficial staining at the Site. No impacted soil was identified outside of the release extent, and a maximum vertical delineation depth is observed in BH02B at 5.5 feet bgs. Based on this, an estimated 20 cubic yards of impacted soil are being left in place, in between and below the aboveground active equipment surrounding the release.

CONCLUSIONS

Based on soil sample laboratory analytical results, approximately 20 cubic yards of impacted soil remain in place. Due to the presence of equipment, attempts at hand shoveling and hydro-excavation were limited to removal of visible staining at the surface. Delineation soil samples inidcate impacted soil remains in portions of the release footprint under active production equipment and that impacts did not extend outside of the visible release footprint. Impacted soil under the active production equipment is delineated laterally and vertically. As such, LTE and XTO do not believe deferment will result in an imminent risk to human health, the environment, or groundwater.

XTO requests deferral of final remediation for Incident Number NRM2007252730 until any future major construction or final abandonment, whichever occurs first.

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

A proud member of WSP

Sincerely,

LT ENVIRONMENTAL, INC.

Spencer Lo
Staff Geologist

Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD
Ryan Mann, State Land Office

Attachments:

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

FIGURES

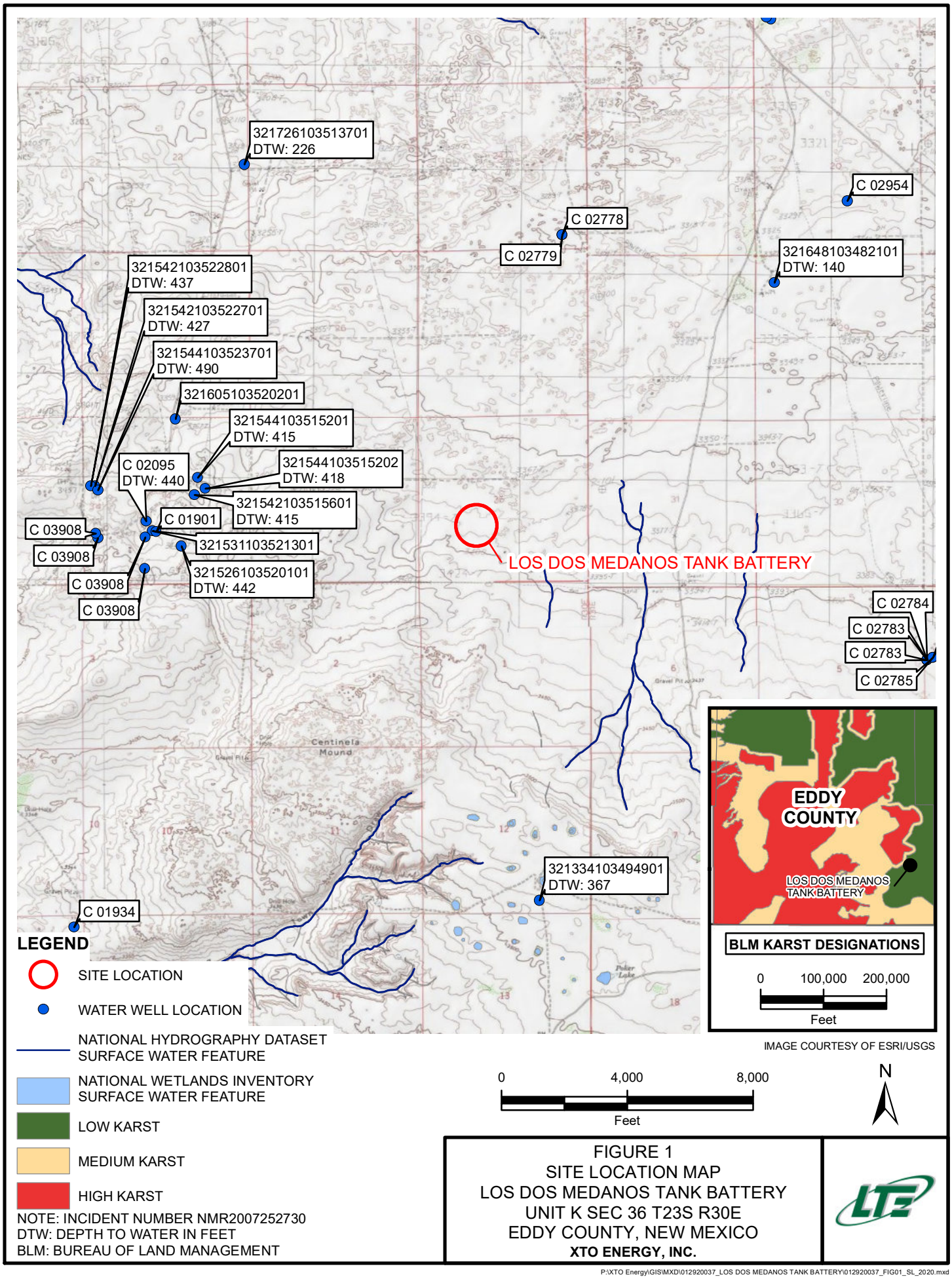
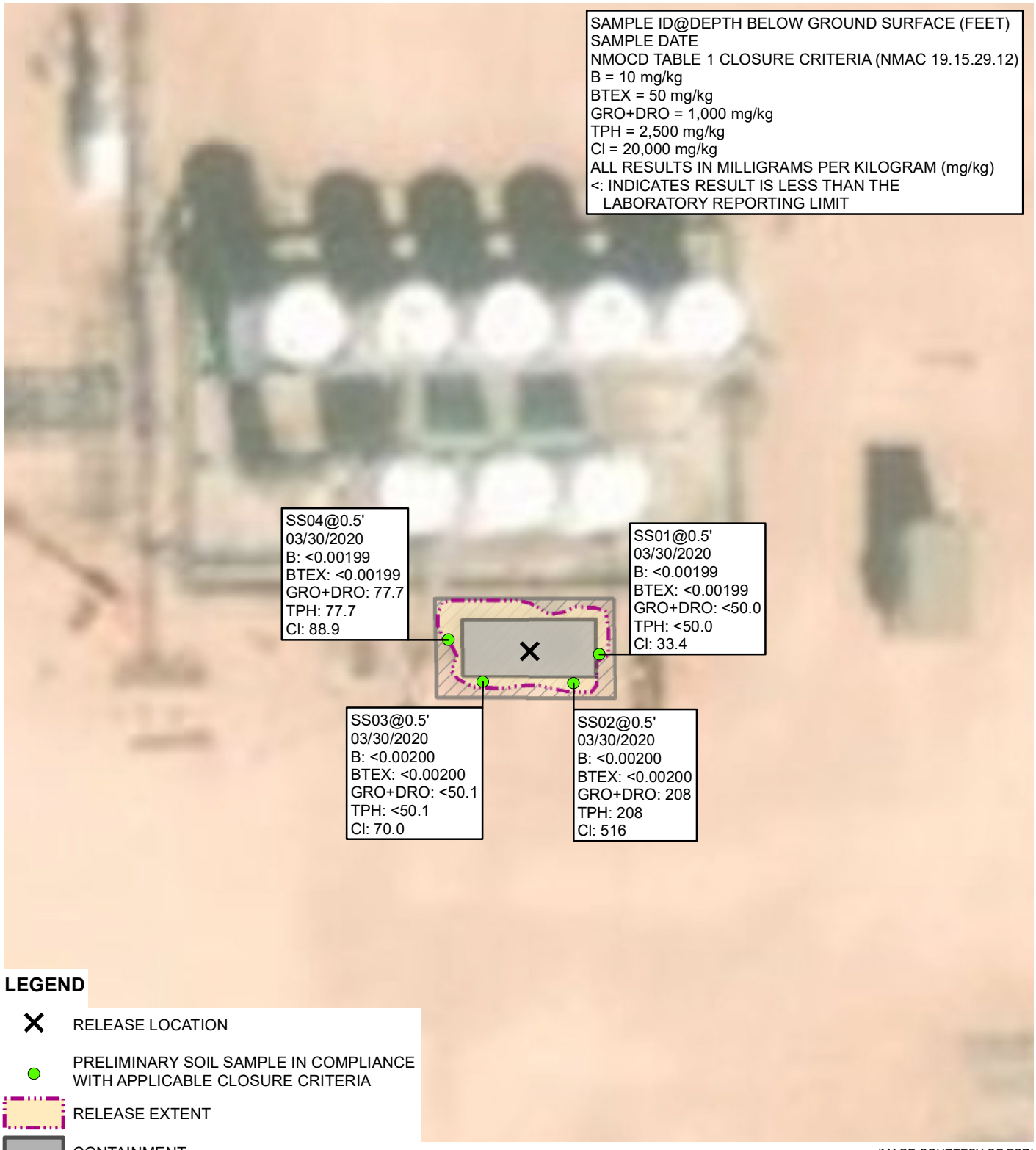


FIGURE 1
SITE LOCATION MAP
LOS DOS MEDANOS TANK BATTERY
UNIT K SEC 36 T23S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920037_LOS DOS MEDANOS TANK BATTERY\012920037_FIG01_SL_2020.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: INCIDENT NUMBER NRM2007252730

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
LOS DOS MEDANOS TANK BATTERY
UNIT K SEC 36 T23S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920037_LOS DOS MEDANOS TANK BATTERY\012920037_FIG02_PRELIMINARY_2020.mxd

LEGEND

- RELEASE LOCATION
- DELINEATION SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING AT INITIAL DEPTHS AND HAS BEEN EXCAVATED
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- RELEASE EXTENT
- CONTAINMENT
- ABOVE GROUND ACTIVE PRODUCTION EQUIPMENT
- DEFERRAL AREA

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
NOTE: INCIDENT NUMBER NRM2007252730

IMAGE COURTESY OF ESRI

0 30 60
Feet

N

FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
LOS DOS MEDANOS TANK BATTERY
UNIT K SEC 36 T23S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920037_LOS DOS MEDANOS TANK BATTERY\012920037_FIG03_DELINEATION_2020.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

LOS DOS MEDANOS TANK BATTERY
INCIDENT NUMBER NRM2007252730
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
SS01	0.5	03/30/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	33.4
SS02	0.5	03/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	208	<50.1	208	208	516
SS03	0.5	03/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	70.0
SS04	0.5	03/30/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	77.7	<50.0	77.7	77.7	88.9
BH01	1	04/09/2020	0.388	6.96	3.69	18.4	29.4	1,030	3,440	249	**4,470**	**4,720**	37.8
BH01A	3	04/09/2020	<0.00200	0.0104	0.00920	0.0274	0.0470	<50.1	61.2	<50.1	61.2	61.2	14.4
BH02	1	04/09/2020	<0.0833	5.74	8.46	20.3	34.5	691	127	<50.0	818	818	32.6
BH02A	3.5	04/09/2020	0.0572	1.87	2.74	10.2	14.9	982	121	<50.2	**1,100**	1,100	44.0
BH02B	5.5	05/07/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	32.0
BH03	1	04/09/2020	<0.00200	<0.00200	<0.00200	0.0719	0.0719	<49.9	183	<49.9	183	183	38.9
BH03A	3.5	04/09/2020	<0.0204	0.121	0.0976	0.561	0.780	51.9	381	<50.1	433	433	18.7
BH04	1	04/09/2020	<0.00200	<0.00200	<0.00200	0.0288	0.0288	<50.2	<50.2	<50.2	<50.2	<50.2	11.3
BH04A	3.5	04/09/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	12.1
BH05	1	04/09/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	79.7
BH05A	3.5	04/09/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	12.8
BH06	1	04/09/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	155
BH06A	3.5	04/09/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	51.8
BH07	1	04/09/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	16.9
BH07A	3.5	04/09/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	31.4

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

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ATTACHMENT 1: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Photograph 1: Western view of visible staining near BH01.

Photograph 2: Western view of staining being addressed near BH01.

Photograph 3: Western view of release after staining is removed.

Photograph 4: Hydro-vac work to address staining near BH02.

Los Dos Medanos Battery
Incident Number 2007252730
Photographs Taken: May 7, 2020

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PHOTOGRAPHIC LOG

Photograph 5: Eastern view of release after staining is removed.

Photograph 6: Hydro-vac work to address staining.

Photograph 7: Western area after hydro-vac work.

Photograph 8: North western view of staining being addressed near BH04.

ATTACHMENT 2: LABORATORY ANALYTICAL REPORTS

Analytical Report 657373

for

LT Environmental, Inc.

Project Manager: Dan Moir

Los Medanos Tank Battery

012920037

07-APR-20

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

07-APR-20

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

Reference: XENCO Report No(s): **657373**
Los Medanos Tank Battery
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) 657373. 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. 657373 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 Manager

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

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

Sample Cross Reference 657373

LT Environmental, Inc., Arvada, CO

Los Medanos Tank Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	03-30-20 12:16	0.5 ft	657373-001
SS02	S	03-30-20 12:22	0.5 ft	657373-002
SS03	S	03-30-20 12:30	0.5 ft	657373-003
SS04	S	03-30-20 12:34	0.5 ft	657373-004

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Los Medanos Tank Battery

Project ID: *012920037*
Work Order Number(s): *657373*

Report Date: *07-APR-20*
Date Received: *03/31/2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3121960 BTEX by EPA 8021B

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

Certificate of Analysis Summary 657373

LT Environmental, Inc., Arvada, CO

Project Name: Los Medanos Tank Battery

Project Id: 012920037
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue Mar-31-20 09:08 am
Report Date: 07-APR-20
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	657373-001		657373-002		657373-003		657373-004					
	Field Id:	SS01		SS02		SS03		SS04					
	Depth:	0.5- ft		0.5- ft		0.5- ft		0.5- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Mar-30-20 12:16		Mar-30-20 12:22		Mar-30-20 12:30		Mar-30-20 12:34					
BTEX by EPA 8021B	***Extracted:***	Apr-04-20 13:40		Apr-04-20 13:40		Apr-04-20 13:40		Apr-04-20 13:40					
	Analyzed:	Apr-04-20 19:33		Apr-04-20 19:54		Apr-04-20 20:14		Apr-04-20 20:35					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199				
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199				
Ethylbenzene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199				
m,p-Xylenes		<0.00398	0.00398	<0.00401	0.00401	<0.00399	0.00399	<0.00398	0.00398				
o-Xylene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199				
Total Xylenes		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199				
Total BTEX		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199				
Chloride by EPA 300	***Extracted:***	Apr-01-20 12:15		Apr-01-20 12:15		Apr-01-20 12:15		Apr-01-20 12:15					
	Analyzed:	Apr-01-20 16:57		Apr-01-20 17:03		Apr-01-20 17:09		Apr-01-20 17:27					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		33.4	9.92	516	9.94	70.0	9.96	88.9	10.0				
TPH by SW8015 Mod	***Extracted:***	Apr-06-20 12:00		Apr-06-20 12:00		Apr-06-20 12:00		Apr-06-20 12:00					
	Analyzed:	Apr-06-20 13:57		Apr-06-20 13:57		Apr-06-20 14:58		Apr-06-20 14:58					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.1	50.1	<50.1	50.1	<50.0	50.0				
Diesel Range Organics (DRO)		<50.0	50.0	208	50.1	<50.1	50.1	77.7	50.0				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.1	50.1	<50.1	50.1	<50.0	50.0				
Total GRO-DRO		<50.0	50.0	208	50.1	<50.1	50.1	77.7	50.0				
Total TPH		<50.0	50.0	208	50.1	<50.1	50.1	77.7	50.0				

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

Version: 1.%

Jessica Kramer
Project Manager

Certificate of Analytical Results 657373

LT Environmental, Inc., Arvada, CO

Los Medanos Tank Battery

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	03.31.20 09.08
Lab Sample Id:	657373-001	Date Collected:	03.30.20 12.16	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.01.20 12.15	Basis:	Wet Weight
Seq Number:	3121701				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**33.4**	9.92	mg/kg	04.01.20 16.57		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.06.20 12.00	Basis:	Wet Weight
Seq Number:	3122096				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.06.20 13.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.06.20 13.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.06.20 13.57	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	04.06.20 13.57	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.06.20 13.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	04.06.20 13.57	
o-Terphenyl	84-15-1	102	%	70-135	04.06.20 13.57	

Certificate of Analytical Results 657373

LT Environmental, Inc., Arvada, CO

Los Medanos Tank Battery

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	03.31.20 09.08
Lab Sample Id:	657373-001	Date Collected:	03.30.20 12.16	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.04.20 13.40	Basis:	Wet Weight
Seq Number:	3121960				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.04.20 19.33	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.04.20 19.33	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.04.20 19.33	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.04.20 19.33	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.04.20 19.33	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.04.20 19.33	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.04.20 19.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	04.04.20 19.33	
1,4-Difluorobenzene	540-36-3	107	%	70-130	04.04.20 19.33	

Certificate of Analytical Results 657373

LT Environmental, Inc., Arvada, CO

Los Medanos Tank Battery

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	03.31.20 09.08
Lab Sample Id:	657373-002	Date Collected:	03.30.20 12.22	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.01.20 12.15	Basis:	Wet Weight
Seq Number:	3121701				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**516**	9.94	mg/kg	04.01.20 17.03		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.06.20 12.00	Basis:	Wet Weight
Seq Number:	3122090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.06.20 13.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	**208**	50.1	mg/kg	04.06.20 13.57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.06.20 13.57	U	1
Total GRO-DRO	PHC628	**208**	50.1	mg/kg	04.06.20 13.57		1
Total TPH	PHC635	**208**	50.1	mg/kg	04.06.20 13.57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	04.06.20 13.57	
o-Terphenyl	84-15-1	106	%	70-135	04.06.20 13.57	

Certificate of Analytical Results 657373

LT Environmental, Inc., Arvada, CO

Los Medanos Tank Battery

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	03.31.20 09.08
Lab Sample Id:	657373-002	Date Collected:	03.30.20 12.22	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.04.20 13.40	Basis:	Wet Weight
Seq Number:	3121960				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.04.20 19.54	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.04.20 19.54	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.04.20 19.54	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.04.20 19.54	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.04.20 19.54	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.04.20 19.54	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.04.20 19.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	04.04.20 19.54	
4-Bromofluorobenzene	460-00-4	90	%	70-130	04.04.20 19.54	

Certificate of Analytical Results 657373

LT Environmental, Inc., Arvada, CO

Los Medanos Tank Battery

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	03.31.20 09.08
Lab Sample Id:	657373-003	Date Collected:	03.30.20 12.30	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.01.20 12.15	Basis:	Wet Weight
Seq Number:	3121701				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**70.0**	9.96	mg/kg	04.01.20 17.09		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.06.20 12.00	Basis:	Wet Weight
Seq Number:	3122096				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.06.20 14.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	04.06.20 14.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.06.20 14.58	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	04.06.20 14.58	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	04.06.20 14.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	04.06.20 14.58	
o-Terphenyl	84-15-1	116	%	70-135	04.06.20 14.58	

Certificate of Analytical Results 657373

LT Environmental, Inc., Arvada, CO

Los Medanos Tank Battery

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	03.31.20 09.08
Lab Sample Id:	657373-003	Date Collected:	03.30.20 12.30	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.04.20 13.40	Basis:	Wet Weight
Seq Number:	3121960				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.04.20 20.14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.04.20 20.14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.04.20 20.14	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.04.20 20.14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.04.20 20.14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.04.20 20.14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.04.20 20.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	04.04.20 20.14	
1,4-Difluorobenzene	540-36-3	108	%	70-130	04.04.20 20.14	

Certificate of Analytical Results 657373

LT Environmental, Inc., Arvada, CO

Los Medanos Tank Battery

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	03.31.20 09.08
Lab Sample Id:	657373-004	Date Collected:	03.30.20 12.34	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.01.20 12.15	Basis:	Wet Weight
Seq Number:	3121701				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**88.9**	10.0	mg/kg	04.01.20 17.27		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.06.20 12.00	Basis:	Wet Weight
Seq Number:	3122090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.06.20 14.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	**77.7**	50.0	mg/kg	04.06.20 14.58		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.06.20 14.58	U	1
Total GRO-DRO	PHC628	**77.7**	50.0	mg/kg	04.06.20 14.58		1
Total TPH	PHC635	**77.7**	50.0	mg/kg	04.06.20 14.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	04.06.20 14.58	
o-Terphenyl	84-15-1	99	%	70-135	04.06.20 14.58	

Certificate of Analytical Results 657373

LT Environmental, Inc., Arvada, CO

Los Medanos Tank Battery

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	03.31.20 09.08
Lab Sample Id:	657373-004	Date Collected:	03.30.20 12.34	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.04.20 13.40	Basis:	Wet Weight
Seq Number:	3121960				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.04.20 20.35	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.04.20 20.35	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.04.20 20.35	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.04.20 20.35	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.04.20 20.35	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.04.20 20.35	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.04.20 20.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.04.20 20.35	
1,4-Difluorobenzene	540-36-3	107	%	70-130	04.04.20 20.35	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

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 657373

LT Environmental, Inc.

Los Medanos Tank Battery

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3121701 — Matrix: Solid — Date Prep: 04.01.20
MB Sample Id: 7700319-1-BLK — LCS Sample Id: 7700319-1-BKS — LCSD Sample Id: 7700319-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	266	106	267	107	90-110	0	20	mg/kg	04.01.20 15:31	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3121701 — Matrix: Soil — Date Prep: 04.01.20
Parent Sample Id: 657373-003 — MS Sample Id: 657373-003 S — MSD Sample Id: 657373-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	70.0	200	282	106	284	107	90-110	1	20	mg/kg	04.01.20 17:15	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3121701 — Matrix: Soil — Date Prep: 04.01.20
Parent Sample Id: 657518-001 — MS Sample Id: 657518-001 S — MSD Sample Id: 657518-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	19.4	200	232	106	233	107	90-110	0	20	mg/kg	04.01.20 15:49	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122090 — Matrix: Solid — Date Prep: 04.06.20
MB Sample Id: 7700605-1-BLK — LCS Sample Id: 7700605-1-BKS — LCSD Sample Id: 7700605-1-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	870	87	861	86	70-135	1	35	mg/kg	04.06.20 13:16	
Diesel Range Organics (DRO)	<50.0	1000	893	89	871	87	70-135	2	35	mg/kg	04.06.20 13:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		116		116		70-135	%	04.06.20 13:16
o-Terphenyl	94		97		95		70-135	%	04.06.20 13:16

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

QC Summary 657373

LT Environmental, Inc.

Los Medanos Tank Battery

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122096 — Matrix: Solid — Date Prep: 04.06.20
MB Sample Id: 7700604-1-BLK — LCS Sample Id: 7700604-1-BKS — LCSD Sample Id: 7700604-1-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	976	98	979	98	70-135	0	35	mg/kg	04.06.20 13:16	
Diesel Range Organics (DRO)	<50.0	1000	1140	114	1140	114	70-135	0	35	mg/kg	04.06.20 13:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		123		123		70-135	%	04.06.20 13:16
o-Terphenyl	118		124		124		70-135	%	04.06.20 13:16

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122090 — Matrix: Solid — Date Prep: 04.06.20
MB Sample Id: 7700605-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.06.20 12:56	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122096 — Matrix: Solid — Date Prep: 04.06.20
MB Sample Id: 7700604-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.06.20 12:56	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122090 — Matrix: Soil — Date Prep: 04.06.20
Parent Sample Id: 657373-002 — MS Sample Id: 657373-002 S — MSD Sample Id: 657373-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	1060	105	940	94	70-135	12	35	mg/kg	04.06.20 14:17	
Diesel Range Organics (DRO)	208	1010	1210	99	1180	97	70-135	3	35	mg/kg	04.06.20 14:17	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		115		70-135	%	04.06.20 14:17
o-Terphenyl	120		110		70-135	%	04.06.20 14:17

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 657373

LT Environmental, Inc.

Los Medanos Tank Battery

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3122096 | Matrix: Soil | Date Prep: 04.06.20
Parent Sample Id: 657373-001 | MS Sample Id: 657373-001 S | MSD Sample Id: 657373-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	976	98	970	97	70-135	1	35	mg/kg	04.06.20 14:17	
Diesel Range Organics (DRO)	<49.9	997	1160	116	1160	116	70-135	0	35	mg/kg	04.06.20 14:17	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		121		70-135	%	04.06.20 14:17
o-Terphenyl	125		122		70-135	%	04.06.20 14:17

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3121960 | Matrix: Solid | Date Prep: 04.04.20
MB Sample Id: 7700538-1-BLK | LCS Sample Id: 7700538-1-BKS | LCSD Sample Id: 7700538-1-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	0.103	103	0.102	102	70-130	1	35	mg/kg	04.04.20 16:50	
Toluene	<0.00200	0.100	0.0971	97	0.0964	96	70-130	1	35	mg/kg	04.04.20 16:50	
Ethylbenzene	<0.00200	0.100	0.0912	91	0.0899	90	71-129	1	35	mg/kg	04.04.20 16:50	
m,p-Xylenes	<0.00400	0.200	0.186	93	0.184	92	70-135	1	35	mg/kg	04.04.20 16:50	
o-Xylene	<0.00200	0.100	0.0949	95	0.0949	95	71-133	0	35	mg/kg	04.04.20 16:50	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		106		104		70-130	%	04.04.20 16:50
4-Bromofluorobenzene	92		93		91		70-130	%	04.04.20 16:50

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3121960 | Matrix: Soil | Date Prep: 04.04.20
Parent Sample Id: 657371-008 | MS Sample Id: 657371-008 S | MSD Sample Id: 657371-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0922	91	0.105	105	70-130	13	35	mg/kg	04.04.20 17:31	
Toluene	<0.00202	0.101	0.0892	88	0.0990	99	70-130	10	35	mg/kg	04.04.20 17:31	
Ethylbenzene	<0.00202	0.101	0.0845	84	0.0920	92	71-129	8	35	mg/kg	04.04.20 17:31	
m,p-Xylenes	<0.00404	0.202	0.174	86	0.188	94	70-135	8	35	mg/kg	04.04.20 17:31	
o-Xylene	<0.00202	0.101	0.0881	87	0.0958	96	71-133	8	35	mg/kg	04.04.20 17:31	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		104		70-130	%	04.04.20 17:31
4-Bromofluorobenzene	93		91		70-130	%	04.04.20 17:31

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: 657373

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:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	atrejo@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:	Los Dos Medanos Tank Battery	Turn Around	
Project Number:	012920037	Routine	X
P.O. Number:		Rush:	
Sampler's Name:	Armando Trejo	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	3.4	Thermometer ID	TNH007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	4

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	t	
SS01	S	3/30/2020	1216	.5'	1	X	X	X		
SS02	S	3/30/2020	1222	.5'	1	X	X	X		
SS03	S	3/30/2020	1230	.5'	1	X	X	X		
SS04	S	3/30/2020	1234	.5'	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		3/31/20 09:08	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: 03.31.2020 09.08.00 AM

Work Order #: 657373

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)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 03.31.2020

Checklist reviewed by: Jessica Kramer Date: 03.31.2020

Jessica Kramer

Analytical Report 658522

for

LT Environmental, Inc.

Project Manager: Dan Moir

Los Medanos

012920037

04.13.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

04.13.2020

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

Reference: XENCO Report No(s): **658522**
Los Medanos
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) 658522. 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. 658522 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 Manager

A Small Business and Minority Company

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

Sample Cross Reference 658522

LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	04.09.2020 10:20	1 ft	658522-001
BH01A	S	04.09.2020 10:35	3 ft	658522-002
BH02	S	04.09.2020 10:45	1 ft	658522-003
BH02A	S	04.09.2020 11:05	3.5 ft	658522-004
BH03	S	04.09.2020 11:10	1 ft	658522-005
BH03A	S	04.09.2020 11:25	3.5 ft	658522-006
BH04	S	04.09.2020 11:35	1 ft	658522-007
BH04A	S	04.09.2020 11:50	3.5 ft	658522-008
BH05	S	04.09.2020 12:10	1 ft	658522-009
BH05A	S	04.09.2020 12:35	3.5 ft	658522-010
BH06	S	04.09.2020 13:10	1 ft	658522-011
BH06A	S	04.09.2020 13:30	3.5 ft	658522-012
BH07	S	04.09.2020 13:40	1 ft	658522-013
BH07A	S	04.09.2020 14:00	3.5 ft	658522-014

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Los Medanos

Project ID: *012920037*
Work Order Number(s): *658522*

Report Date: *04.13.2020*
Date Received: *04.09.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3122755 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3122759 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 658522

LT Environmental, Inc., Arvada, CO

Project Name: Los Medanos

Project Id: 012920037
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu 04.09.2020 16:08
Report Date: 04.13.2020 11:53
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	658522-001		658522-002		658522-003		658522-004		658522-005		658522-006	
	Field Id:	BH01		BH01A		BH02		BH02A		BH03		BH03A	
	Depth:	1- ft		3- ft		1- ft		3.5- ft		1- ft		3.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	04.09.2020 10:20		04.09.2020 10:35		04.09.2020 10:45		04.09.2020 11:05		04.09.2020 11:10		04.09.2020 11:25	
BTEX by EPA 8021B	***Extracted:***	04.09.2020 16:49		04.09.2020 16:49		04.09.2020 16:49		04.09.2020 16:49		04.09.2020 16:49		04.10.2020 10:26	
	Analyzed:	04.10.2020 16:18		04.10.2020 16:38		04.10.2020 16:59		04.10.2020 17:19		04.10.2020 17:40		04.10.2020 13:54	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		0.388	0.0833	<0.00200	0.00200	<0.0833	0.0833	0.0572	0.0208	<0.00200	0.00200	<0.0204	0.0204
Toluene		6.96	0.0833	0.0104	0.00200	5.74	0.0833	1.87	0.0208	<0.00200	0.00200	0.121	0.0204
Ethylbenzene		3.69	0.0833	0.00920	0.00200	8.46	0.0833	2.74	0.0208	<0.00200	0.00200	0.0976	0.0204
m,p-Xylenes		12.8	0.167	0.0148	0.00401	5.95	0.167	6.24	0.0417	0.0403	0.00401	0.398	0.0408
o-Xylene		5.59	0.0833	0.0126	0.00200	14.3	0.0833	3.95	0.0208	0.0316	0.00200	0.163	0.0204
Total Xylenes		18.4	0.0833	0.0274	0.00200	20.3	0.0833	10.2	0.0208	0.0719	0.00200	0.561	0.0204
Total BTEX		29.4	0.0833	0.0470	0.00200	34.5	0.0833	14.9	0.0208	0.0719	0.00200	0.780	0.0204
Chloride by EPA 300	***Extracted:***	04.09.2020 16:19		04.09.2020 16:19		04.09.2020 16:19		04.09.2020 16:19		04.09.2020 16:19		04.09.2020 16:19	
	Analyzed:	04.09.2020 20:30		04.09.2020 20:36		04.09.2020 20:42		04.09.2020 20:48		04.09.2020 20:54		04.09.2020 21:00	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		37.8	9.92	14.4	9.96	32.6	9.98	44.0	9.92	38.9	9.98	18.7	9.96
TPH by SW8015 Mod	***Extracted:***	04.10.2020 15:30		04.10.2020 15:30		04.10.2020 15:30		04.10.2020 15:30		04.10.2020 15:30		04.10.2020 15:30	
	Analyzed:	04.10.2020 19:46		04.10.2020 18:03		04.10.2020 18:24		04.10.2020 18:44		04.10.2020 19:05		04.10.2020 19:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		1030	50.0	<50.1	50.1	691	50.0	982	50.2	<49.9	49.9	51.9	50.1
Diesel Range Organics (DRO)		3440	50.0	61.2	50.1	127	50.0	121	50.2	183	49.9	381	50.1
Motor Oil Range Hydrocarbons (MRO)		249	50.0	<50.1	50.1	<50.0	50.0	<50.2	50.2	<49.9	49.9	<50.1	50.1
Total GRO-DRO		4470	50.0	61.2	50.1	818	50.0	1100	50.2	183	49.9	433	50.1
Total TPH		4720	50.0	61.2	50.1	818	50.0	1100	50.2	183	49.9	433	50.1

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

Jessica Kramer
Project Manager

Certificate of Analysis Summary 658522

LT Environmental, Inc., Arvada, CO

Project Name: Los Medanos

Project Id: 012920037
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu 04.09.2020 16:08
Report Date: 04.13.2020 11:53
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	658522-007		658522-008		658522-009		658522-010		658522-011		658522-012	
	Field Id:	BH04		BH04A		BH05		BH05A		BH06		BH06A	
	Depth:	1- ft		3.5- ft		1- ft		3.5- ft		1- ft		3.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	04.09.2020 11:35		04.09.2020 11:50		04.09.2020 12:10		04.09.2020 12:35		04.09.2020 13:10		04.09.2020 13:30	
BTEX by EPA 8021B	***Extracted:***	04.10.2020 10:26		04.10.2020 10:26		04.10.2020 10:26		04.10.2020 10:26		04.10.2020 10:26		04.10.2020 10:26	
	Analyzed:	04.10.2020 14:15		04.10.2020 13:34		04.10.2020 14:35		04.10.2020 14:55		04.10.2020 15:16		04.10.2020 15:36	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
m,p-Xylenes		<0.00399	0.00399	<0.00401	0.00401	<0.00402	0.00402	<0.00401	0.00401	<0.00403	0.00403	<0.00398	0.00398
o-Xylene		0.0288	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
Total Xylenes		0.0288	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
Total BTEX		0.0288	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
Chloride by EPA 300	***Extracted:***	04.09.2020 17:22		04.09.2020 17:22		04.09.2020 17:22		04.09.2020 17:22		04.09.2020 17:22		04.09.2020 17:22	
	Analyzed:	04.09.2020 21:35		04.09.2020 21:53		04.09.2020 21:59		04.09.2020 22:05		04.09.2020 22:11		04.09.2020 22:29	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		11.3	9.94	12.1	9.98	79.7	10.0	12.8	9.92	155	9.92	51.8	9.98
TPH by SW8015 Mod	***Extracted:***	04.10.2020 15:30		04.10.2020 15:30		04.10.2020 15:30		04.10.2020 15:30		04.10.2020 15:30		04.10.2020 15:30	
	Analyzed:	04.10.2020 16:01		04.10.2020 17:02		04.10.2020 17:23		04.10.2020 17:43		04.10.2020 18:03		04.10.2020 18:24	
	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	<50.2	50.2	<50.3	50.3	<50.1	50.1	<50.2	50.2	<50.2	50.2
Diesel Range Organics (DRO)		<50.2	50.2	<50.2	50.2	<50.3	50.3	<50.1	50.1	<50.2	50.2	<50.2	50.2
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2	<50.2	50.2	<50.3	50.3	<50.1	50.1	<50.2	50.2	<50.2	50.2
Total GRO-DRO		<50.2	50.2	<50.2	50.2	<50.3	50.3	<50.1	50.1	<50.2	50.2	<50.2	50.2
Total TPH		<50.2	50.2	<50.2	50.2	<50.3	50.3	<50.1	50.1	<50.2	50.2	<50.2	50.2

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Jessica Kramer
Project Manager

Certificate of Analysis Summary 658522

LT Environmental, Inc., Arvada, CO

Project Name: Los Medanos

Project Id: 012920037
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu 04.09.2020 16:08
Report Date: 04.13.2020 11:53
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	658522-013		658522-014					
	Field Id:	BH07		BH07A					
	Depth:	1- ft		3.5- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	04.09.2020 13:40		04.09.2020 14:00					
BTEX by EPA 8021B	***Extracted:***	04.10.2020 10:26		04.10.2020 10:26					
	Analyzed:	04.10.2020 15:57		04.10.2020 16:17					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00202	0.00202	<0.00202	0.00202				
Toluene		<0.00202	0.00202	<0.00202	0.00202				
Ethylbenzene		<0.00202	0.00202	<0.00202	0.00202				
m,p-Xylenes		<0.00403	0.00403	<0.00403	0.00403				
o-Xylene		<0.00202	0.00202	<0.00202	0.00202				
Total Xylenes		<0.00202	0.00202	<0.00202	0.00202				
Total BTEX		<0.00202	0.00202	<0.00202	0.00202				
Chloride by EPA 300	***Extracted:***	04.09.2020 17:22		04.09.2020 17:22					
	Analyzed:	04.09.2020 22:35		04.09.2020 22:41					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		16.9	9.94	31.4	9.96				
TPH by SW8015 Mod	***Extracted:***	04.10.2020 15:30		04.10.2020 15:30					
	Analyzed:	04.10.2020 18:44		04.10.2020 19:05					
	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				

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Jessica Kramer
Project Manager

Certificate of Analytical Results 658522

LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-001	Date Collected:	04.09.2020 10:20	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.09.2020 16:19	Basis:	Wet Weight
Seq Number:	3122585				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**37.8**	9.92	mg/kg	04.09.2020 20:30		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.10.2020 15:30	Basis:	Wet Weight
Seq Number:	3122701				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**1030**	50.0	mg/kg	04.10.2020 19:46		1
Diesel Range Organics (DRO)	C10C28DRO	**3440**	50.0	mg/kg	04.10.2020 19:46		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**249**	50.0	mg/kg	04.10.2020 19:46		1
Total GRO-DRO	PHC628	**4470**	50.0	mg/kg	04.10.2020 19:46		1
Total TPH	PHC635	**4720**	50.0	mg/kg	04.10.2020 19:46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	135	%	70-135	04.10.2020 19:46	
o-Terphenyl	84-15-1	128	%	70-135	04.10.2020 19:46	

Certificate of Analytical Results 658522

LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-001	Date Collected:	04.09.2020 10:20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.09.2020 16:49	Basis:	Wet Weight
Seq Number:	3122755				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.388**	0.0833	mg/kg	04.10.2020 16:18		1
Toluene	108-88-3	**6.96**	0.0833	mg/kg	04.10.2020 16:18		1
Ethylbenzene	100-41-4	**3.69**	0.0833	mg/kg	04.10.2020 16:18		1
m,p-Xylenes	179601-23-1	**12.8**	0.167	mg/kg	04.10.2020 16:18		1
o-Xylene	95-47-6	**5.59**	0.0833	mg/kg	04.10.2020 16:18		1
Total Xylenes	1330-20-7	**18.4**	0.0833	mg/kg	04.10.2020 16:18		1
Total BTEX		**29.4**	0.0833	mg/kg	04.10.2020 16:18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	04.10.2020 16:18	
1,4-Difluorobenzene	540-36-3	97	%	70-130	04.10.2020 16:18	

Certificate of Analytical Results 658522

LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-002	Date Collected:	04.09.2020 10:35	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.09.2020 16:19	Basis:	Wet Weight
Seq Number:	3122585				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.4**	9.96	mg/kg	04.09.2020 20:36		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.10.2020 15:30	Basis:	Wet Weight
Seq Number:	3122701				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.10.2020 18:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	**61.2**	50.1	mg/kg	04.10.2020 18:03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.10.2020 18:03	U	1
Total GRO-DRO	PHC628	**61.2**	50.1	mg/kg	04.10.2020 18:03		1
Total TPH	PHC635	**61.2**	50.1	mg/kg	04.10.2020 18:03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	04.10.2020 18:03	
o-Terphenyl	84-15-1	123	%	70-135	04.10.2020 18:03	

Certificate of Analytical Results 658522

LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-002	Date Collected:	04.09.2020 10:35	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.09.2020 16:49	Basis:	Wet Weight
Seq Number:	3122755				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.10.2020 16:38	U	1
Toluene	108-88-3	**0.0104**	0.00200	mg/kg	04.10.2020 16:38		1
Ethylbenzene	100-41-4	**0.00920**	0.00200	mg/kg	04.10.2020 16:38		1
m,p-Xylenes	179601-23-1	**0.0148**	0.00401	mg/kg	04.10.2020 16:38		1
o-Xylene	95-47-6	**0.0126**	0.00200	mg/kg	04.10.2020 16:38		1
Total Xylenes	1330-20-7	**0.0274**	0.00200	mg/kg	04.10.2020 16:38		1
Total BTEX		**0.0470**	0.00200	mg/kg	04.10.2020 16:38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	04.10.2020 16:38	
1,4-Difluorobenzene	540-36-3	102	%	70-130	04.10.2020 16:38	

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LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-003	Date Collected:	04.09.2020 10:45	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.09.2020 16:19	Basis:	Wet Weight
Seq Number:	3122585				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**32.6**	9.98	mg/kg	04.09.2020 20:42		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.10.2020 15:30	Basis:	Wet Weight
Seq Number:	3122701				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**691**	50.0	mg/kg	04.10.2020 18:24		1
Diesel Range Organics (DRO)	C10C28DRO	**127**	50.0	mg/kg	04.10.2020 18:24		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.10.2020 18:24	U	1
Total GRO-DRO	PHC628	**818**	50.0	mg/kg	04.10.2020 18:24		1
Total TPH	PHC635	**818**	50.0	mg/kg	04.10.2020 18:24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	128	%	70-135	04.10.2020 18:24	
o-Terphenyl	84-15-1	123	%	70-135	04.10.2020 18:24	

Certificate of Analytical Results 658522

LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-003	Date Collected:	04.09.2020 10:45	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.09.2020 16:49	Basis:	Wet Weight
Seq Number:	3122755				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0833	0.0833	mg/kg	04.10.2020 16:59	U	1
Toluene	108-88-3	**5.74**	0.0833	mg/kg	04.10.2020 16:59		1
Ethylbenzene	100-41-4	**8.46**	0.0833	mg/kg	04.10.2020 16:59		1
m,p-Xylenes	179601-23-1	**5.95**	0.167	mg/kg	04.10.2020 16:59		1
o-Xylene	95-47-6	**14.3**	0.0833	mg/kg	04.10.2020 16:59		1
Total Xylenes	1330-20-7	**20.3**	0.0833	mg/kg	04.10.2020 16:59		1
Total BTEX		**34.5**	0.0833	mg/kg	04.10.2020 16:59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	76	%	70-130	04.10.2020 16:59	
4-Bromofluorobenzene	460-00-4	112	%	70-130	04.10.2020 16:59	

Certificate of Analytical Results 658522

LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-004	Date Collected:	04.09.2020 11:05	Sample Depth:	3.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.09.2020 16:19	Basis:	Wet Weight
Seq Number:	3122585				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**44.0**	9.92	mg/kg	04.09.2020 20:48		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.10.2020 15:30	Basis:	Wet Weight
Seq Number:	3122701				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**982**	50.2	mg/kg	04.10.2020 18:44		1
Diesel Range Organics (DRO)	C10C28DRO	**121**	50.2	mg/kg	04.10.2020 18:44		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.10.2020 18:44	U	1
Total GRO-DRO	PHC628	**1100**	50.2	mg/kg	04.10.2020 18:44		1
Total TPH	PHC635	**1100**	50.2	mg/kg	04.10.2020 18:44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	130	%	70-135	04.10.2020 18:44	
o-Terphenyl	84-15-1	130	%	70-135	04.10.2020 18:44	

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LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-004	Date Collected:	04.09.2020 11:05	Sample Depth:	3.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.09.2020 16:49	Basis:	Wet Weight
Seq Number:	3122755				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0572**	0.0208	mg/kg	04.10.2020 17:19		1
Toluene	108-88-3	**1.87**	0.0208	mg/kg	04.10.2020 17:19		1
Ethylbenzene	100-41-4	**2.74**	0.0208	mg/kg	04.10.2020 17:19		1
m,p-Xylenes	179601-23-1	**6.24**	0.0417	mg/kg	04.10.2020 17:19		1
o-Xylene	95-47-6	**3.95**	0.0208	mg/kg	04.10.2020 17:19		1
Total Xylenes	1330-20-7	**10.2**	0.0208	mg/kg	04.10.2020 17:19		1
Total BTEX		**14.9**	0.0208	mg/kg	04.10.2020 17:19		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	74	%	70-130	04.10.2020 17:19	
4-Bromofluorobenzene	460-00-4	122	%	70-130	04.10.2020 17:19	

Certificate of Analytical Results 658522

LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-005	Date Collected:	04.09.2020 11:10	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.09.2020 16:19	Basis:	Wet Weight
Seq Number:	3122585				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**38.9**	9.98	mg/kg	04.09.2020 20:54		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.10.2020 15:30	Basis:	Wet Weight
Seq Number:	3122701				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.10.2020 19:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	**183**	49.9	mg/kg	04.10.2020 19:05		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.10.2020 19:05	U	1
Total GRO-DRO	PHC628	**183**	49.9	mg/kg	04.10.2020 19:05		1
Total TPH	PHC635	**183**	49.9	mg/kg	04.10.2020 19:05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	04.10.2020 19:05	
o-Terphenyl	84-15-1	128	%	70-135	04.10.2020 19:05	

Certificate of Analytical Results 658522

LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-005	Date Collected:	04.09.2020 11:10	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.09.2020 16:49	Basis:	Wet Weight
Seq Number:	3122755				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.10.2020 17:40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.10.2020 17:40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.10.2020 17:40	U	1
m,p-Xylenes	179601-23-1	**0.0403**	0.00401	mg/kg	04.10.2020 17:40		1
o-Xylene	95-47-6	**0.0316**	0.00200	mg/kg	04.10.2020 17:40		1
Total Xylenes	1330-20-7	**0.0719**	0.00200	mg/kg	04.10.2020 17:40		1
Total BTEX		**0.0719**	0.00200	mg/kg	04.10.2020 17:40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	04.10.2020 17:40	
1,4-Difluorobenzene	540-36-3	94	%	70-130	04.10.2020 17:40	

Certificate of Analytical Results 658522

LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-006	Date Collected:	04.09.2020 11:25	Sample Depth:	3.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.09.2020 16:19	Basis:	Wet Weight
Seq Number:	3122585				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18.7**	9.96	mg/kg	04.09.2020 21:00		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.10.2020 15:30	Basis:	Wet Weight
Seq Number:	3122701				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**51.9**	50.1	mg/kg	04.10.2020 19:25		1
Diesel Range Organics (DRO)	C10C28DRO	**381**	50.1	mg/kg	04.10.2020 19:25		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.10.2020 19:25	U	1
Total GRO-DRO	PHC628	**433**	50.1	mg/kg	04.10.2020 19:25		1
Total TPH	PHC635	**433**	50.1	mg/kg	04.10.2020 19:25		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	125	%	70-135	04.10.2020 19:25	
o-Terphenyl	84-15-1	131	%	70-135	04.10.2020 19:25	

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Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-006	Date Collected:	04.09.2020 11:25	Sample Depth:	3.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.10.2020 10:26	Basis:	Wet Weight
Seq Number:	3122759				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0204	0.0204	mg/kg	04.10.2020 13:54	U	1
Toluene	108-88-3	**0.121**	0.0204	mg/kg	04.10.2020 13:54		1
Ethylbenzene	100-41-4	**0.0976**	0.0204	mg/kg	04.10.2020 13:54		1
m,p-Xylenes	179601-23-1	**0.398**	0.0408	mg/kg	04.10.2020 13:54		1
o-Xylene	95-47-6	**0.163**	0.0204	mg/kg	04.10.2020 13:54		1
Total Xylenes	1330-20-7	**0.561**	0.0204	mg/kg	04.10.2020 13:54		1
Total BTEX		**0.780**	0.0204	mg/kg	04.10.2020 13:54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	04.10.2020 13:54	
4-Bromofluorobenzene	460-00-4	85	%	70-130	04.10.2020 13:54	

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Sample Id: **BH04** Matrix: Soil Date Received:04.09.2020 16:08
Lab Sample Id: 658522-007 Date Collected: 04.09.2020 11:35 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 04.09.2020 17:22 Basis: Wet Weight
Seq Number: 3122587

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.3**	9.94	mg/kg	04.09.2020 21:35		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 04.10.2020 15:30 Basis: Wet Weight
Seq Number: 3122702

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.10.2020 16:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.10.2020 16:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.10.2020 16:01	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.10.2020 16:01	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.10.2020 16:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	04.10.2020 16:01	
o-Terphenyl	84-15-1	128	%	70-135	04.10.2020 16:01	

Certificate of Analytical Results 658522

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Sample Id:	**BH04**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-007	Date Collected:	04.09.2020 11:35	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.10.2020 10:26	Basis:	Wet Weight
Seq Number:	3122759				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.10.2020 14:15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.10.2020 14:15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.10.2020 14:15	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.10.2020 14:15	U	1
o-Xylene	95-47-6	**0.0288**	0.00200	mg/kg	04.10.2020 14:15		1
Total Xylenes	1330-20-7	**0.0288**	0.00200	mg/kg	04.10.2020 14:15		1
Total BTEX		**0.0288**	0.00200	mg/kg	04.10.2020 14:15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	112	%	70-130	04.10.2020 14:15	
4-Bromofluorobenzene	460-00-4	92	%	70-130	04.10.2020 14:15	

Certificate of Analytical Results 658522

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Los Medanos

Sample Id:	**BH04A**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-008	Date Collected:	04.09.2020 11:50	Sample Depth:	3.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.09.2020 17:22	Basis:	Wet Weight
Seq Number:	3122587				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.1**	9.98	mg/kg	04.09.2020 21:53		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.10.2020 15:30	Basis:	Wet Weight
Seq Number:	3122702				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.10.2020 17:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.10.2020 17:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.10.2020 17:02	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.10.2020 17:02	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.10.2020 17:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	04.10.2020 17:02	
o-Terphenyl	84-15-1	129	%	70-135	04.10.2020 17:02	

Certificate of Analytical Results 658522

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Sample Id:	**BH04A**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-008	Date Collected:	04.09.2020 11:50	Sample Depth:	3.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.10.2020 10:26	Basis:	Wet Weight
Seq Number:	3122759				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.10.2020 13:34	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.10.2020 13:34	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.10.2020 13:34	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.10.2020 13:34	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.10.2020 13:34	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.10.2020 13:34	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.10.2020 13:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	04.10.2020 13:34	
1,4-Difluorobenzene	540-36-3	113	%	70-130	04.10.2020 13:34	

Certificate of Analytical Results 658522

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Los Medanos

Sample Id:	**BH05**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-009	Date Collected:	04.09.2020 12:10	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.09.2020 17:22	Basis:	Wet Weight
Seq Number:	3122587				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**79.7**	10.0	mg/kg	04.09.2020 21:59		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.10.2020 15:30	Basis:	Wet Weight
Seq Number:	3122702				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	04.10.2020 17:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	04.10.2020 17:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	04.10.2020 17:23	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	04.10.2020 17:23	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	04.10.2020 17:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	125	%	70-135	04.10.2020 17:23	
o-Terphenyl	84-15-1	134	%	70-135	04.10.2020 17:23	

Certificate of Analytical Results 658522

LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH05**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-009	Date Collected:	04.09.2020 12:10	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.10.2020 10:26	Basis:	Wet Weight
Seq Number:	3122759				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.10.2020 14:35	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.10.2020 14:35	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.10.2020 14:35	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.10.2020 14:35	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.10.2020 14:35	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.10.2020 14:35	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.10.2020 14:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	04.10.2020 14:35	
1,4-Difluorobenzene	540-36-3	113	%	70-130	04.10.2020 14:35	

Certificate of Analytical Results 658522

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Los Medanos

Sample Id:	**BH05A**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-010	Date Collected:	04.09.2020 12:35	Sample Depth:	3.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.09.2020 17:22	Basis:	Wet Weight
Seq Number:	3122587				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.8**	9.92	mg/kg	04.09.2020 22:05		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.10.2020 15:30	Basis:	Wet Weight
Seq Number:	3122702				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.10.2020 17:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	04.10.2020 17:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.10.2020 17:43	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	04.10.2020 17:43	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	04.10.2020 17:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	04.10.2020 17:43	
o-Terphenyl	84-15-1	128	%	70-135	04.10.2020 17:43	

Certificate of Analytical Results 658522

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Los Medanos

Sample Id:	**BH05A**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-010	Date Collected:	04.09.2020 12:35	Sample Depth:	3.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.10.2020 10:26	Basis:	Wet Weight
Seq Number:	3122759				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.10.2020 14:55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.10.2020 14:55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.10.2020 14:55	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.10.2020 14:55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.10.2020 14:55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.10.2020 14:55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.10.2020 14:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.10.2020 14:55	
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.10.2020 14:55	

Certificate of Analytical Results 658522

LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH06**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-011	Date Collected:	04.09.2020 13:10	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.09.2020 17:22	Basis:	Wet Weight
Seq Number:	3122587				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**155**	9.92	mg/kg	04.09.2020 22:11		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.10.2020 15:30	Basis:	Wet Weight
Seq Number:	3122702				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.10.2020 18:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.10.2020 18:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.10.2020 18:03	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.10.2020 18:03	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.10.2020 18:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	04.10.2020 18:03	
o-Terphenyl	84-15-1	129	%	70-135	04.10.2020 18:03	

Certificate of Analytical Results 658522

LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH06**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-011	Date Collected:	04.09.2020 13:10	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.10.2020 10:26	Basis:	Wet Weight
Seq Number:	3122759				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.10.2020 15:16	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.10.2020 15:16	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.10.2020 15:16	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.10.2020 15:16	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.10.2020 15:16	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.10.2020 15:16	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.10.2020 15:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.10.2020 15:16	
4-Bromofluorobenzene	460-00-4	91	%	70-130	04.10.2020 15:16	

Certificate of Analytical Results 658522

LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH06A**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-012	Date Collected:	04.09.2020 13:30	Sample Depth:	3.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.09.2020 17:22	Basis:	Wet Weight
Seq Number:	3122587				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**51.8**	9.98	mg/kg	04.09.2020 22:29		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.10.2020 15:30	Basis:	Wet Weight
Seq Number:	3122702				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.10.2020 18:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.10.2020 18:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.10.2020 18:24	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.10.2020 18:24	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.10.2020 18:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	04.10.2020 18:24	
o-Terphenyl	84-15-1	130	%	70-135	04.10.2020 18:24	

Certificate of Analytical Results 658522

LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH06A**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-012	Date Collected:	04.09.2020 13:30	Sample Depth:	3.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.10.2020 10:26	Basis:	Wet Weight
Seq Number:	3122759				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.10.2020 15:36	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.10.2020 15:36	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.10.2020 15:36	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.10.2020 15:36	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.10.2020 15:36	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.10.2020 15:36	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.10.2020 15:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	04.10.2020 15:36	
4-Bromofluorobenzene	460-00-4	91	%	70-130	04.10.2020 15:36	

Certificate of Analytical Results 658522

LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH07**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-013	Date Collected:	04.09.2020 13:40	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.09.2020 17:22	Basis:	Wet Weight
Seq Number:	3122587				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16.9**	9.94	mg/kg	04.09.2020 22:35		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.10.2020 15:30	Basis:	Wet Weight
Seq Number:	3122702				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.10.2020 18:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.10.2020 18:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.10.2020 18:44	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	04.10.2020 18:44	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.10.2020 18:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	04.10.2020 18:44	
o-Terphenyl	84-15-1	129	%	70-135	04.10.2020 18:44	

Certificate of Analytical Results 658522

LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH07**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-013	Date Collected:	04.09.2020 13:40	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.10.2020 10:26	Basis:	Wet Weight
Seq Number:	3122759				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.10.2020 15:57	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.10.2020 15:57	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.10.2020 15:57	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.10.2020 15:57	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.10.2020 15:57	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.10.2020 15:57	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.10.2020 15:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	04.10.2020 15:57	
4-Bromofluorobenzene	460-00-4	91	%	70-130	04.10.2020 15:57	

Certificate of Analytical Results 658522

LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH07A**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-014	Date Collected:	04.09.2020 14:00	Sample Depth:	3.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.09.2020 17:22	Basis:	Wet Weight
Seq Number:	3122587				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**31.4**	9.96	mg/kg	04.09.2020 22:41		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.10.2020 15:30	Basis:	Wet Weight
Seq Number:	3122702				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.10.2020 19:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	04.10.2020 19:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.10.2020 19:05	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	04.10.2020 19:05	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	04.10.2020 19:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	04.10.2020 19:05	
o-Terphenyl	84-15-1	132	%	70-135	04.10.2020 19:05	

Certificate of Analytical Results 658522

LT Environmental, Inc., Arvada, CO

Los Medanos

Sample Id:	**BH07A**	Matrix:	Soil	Date Received:	04.09.2020 16:08
Lab Sample Id:	658522-014	Date Collected:	04.09.2020 14:00	Sample Depth:	3.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.10.2020 10:26	Basis:	Wet Weight
Seq Number:	3122759				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.10.2020 16:17	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.10.2020 16:17	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.10.2020 16:17	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.10.2020 16:17	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.10.2020 16:17	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.10.2020 16:17	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.10.2020 16:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.10.2020 16:17	
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.10.2020 16:17	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 658522

LT Environmental, Inc.

Los Medanos

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122585 — Matrix: Solid — Date Prep: 04.09.2020
MB Sample Id: 7701005-1-BLK — LCS Sample Id: 7701005-1-BKS — LCSD Sample Id: 7701005-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	256	102	256	102	90-110	0	20	mg/kg	04.09.2020 18:17	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122587 — Matrix: Solid — Date Prep: 04.09.2020
MB Sample Id: 7701007-1-BLK — LCS Sample Id: 7701007-1-BKS — LCSD Sample Id: 7701007-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	260	104	261	104	90-110	0	20	mg/kg	04.09.2020 21:24	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122585 — Matrix: Soil — Date Prep: 04.09.2020
Parent Sample Id: 658518-001 — MS Sample Id: 658518-001 S — MSD Sample Id: 658518-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	235	200	444	105	444	105	90-110	0	20	mg/kg	04.09.2020 18:33	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122585 — Matrix: Soil — Date Prep: 04.09.2020
Parent Sample Id: 658520-005 — MS Sample Id: 658520-005 S — MSD Sample Id: 658520-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	367	401	776	102	774	102	90-110	0	20	mg/kg	04.09.2020 19:50	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122587 — Matrix: Soil — Date Prep: 04.09.2020
Parent Sample Id: 658522-007 — MS Sample Id: 658522-007 S — MSD Sample Id: 658522-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11.3	199	222	106	223	106	90-110	0	20	mg/kg	04.09.2020 21:41	

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

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
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 658522

LT Environmental, Inc.

Los Medanos

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122701 — Matrix: Solid — Date Prep: 04.10.2020
MB Sample Id: 7701064-1-BLK — LCS Sample Id: 7701064-1-BKS — LCSD Sample Id: 7701064-1-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	950	95	1010	101	70-135	6	35	mg/kg	04.10.2020 15:21	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	1110	111	70-135	7	35	mg/kg	04.10.2020 15:21	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		124		130		70-135	%	04.10.2020 15:21
o-Terphenyl	98		120		127		70-135	%	04.10.2020 15:21

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122702 — Matrix: Solid — Date Prep: 04.10.2020
MB Sample Id: 7701065-1-BLK — LCS Sample Id: 7701065-1-BKS — LCSD Sample Id: 7701065-1-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	957	96	980	98	70-135	2	35	mg/kg	04.10.2020 15:21	
Diesel Range Organics (DRO)	<50.0	1000	1110	111	1130	113	70-135	2	35	mg/kg	04.10.2020 15:21	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		128		122		70-135	%	04.10.2020 15:21
o-Terphenyl	122		129		129		70-135	%	04.10.2020 15:21

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122701 — Matrix: Solid — Date Prep: 04.10.2020
MB Sample Id: 7701064-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.10.2020 15:00	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122702 — Matrix: Solid — Date Prep: 04.10.2020
MB Sample Id: 7701065-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.10.2020 15:00	

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 658522

LT Environmental, Inc.

Los Medanos

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122701 — Matrix: Soil — Date Prep: 04.10.2020
Parent Sample Id: 658521-003 — MS Sample Id: 658521-003 S — MSD Sample Id: 658521-003 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	1040	104	1040	104	70-135	0	35	mg/kg	04.10.2020 16:22	
Diesel Range Organics (DRO)	60.2	999	1160	110	1140	108	70-135	2	35	mg/kg	04.10.2020 16:22	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		130		70-135	%	04.10.2020 16:22
o-Terphenyl	132		129		70-135	%	04.10.2020 16:22

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122702 — Matrix: Soil — Date Prep: 04.10.2020
Parent Sample Id: 658522-007 — MS Sample Id: 658522-007 S — MSD Sample Id: 658522-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	995	1020	103	1040	104	70-135	2	35	mg/kg	04.10.2020 16:22	
Diesel Range Organics (DRO)	<49.8	995	1180	119	1200	120	70-135	2	35	mg/kg	04.10.2020 16:22	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	135		134		70-135	%	04.10.2020 16:22
o-Terphenyl	120		132		70-135	%	04.10.2020 16:22

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3122755 — Matrix: Solid — Date Prep: 04.09.2020
MB Sample Id: 7700968-1-BLK — LCS Sample Id: 7700968-1-BKS — LCSD Sample Id: 7700968-1-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	0.104	104	0.107	107	70-130	3	35	mg/kg	04.10.2020 08:49	
Toluene	<0.00200	0.100	0.0983	98	0.101	101	70-130	3	35	mg/kg	04.10.2020 08:49	
Ethylbenzene	<0.00200	0.100	0.0921	92	0.0943	94	71-129	2	35	mg/kg	04.10.2020 08:49	
m,p-Xylenes	<0.00400	0.200	0.189	95	0.194	97	70-135	3	35	mg/kg	04.10.2020 08:49	
o-Xylene	<0.00200	0.100	0.0965	97	0.0990	99	71-133	3	35	mg/kg	04.10.2020 08:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		105		104		70-130	%	04.10.2020 08:49
4-Bromofluorobenzene	94		93		93		70-130	%	04.10.2020 08:49

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 658522

LT Environmental, Inc.

Los Medanos

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3122759 — Matrix: Solid — Date Prep: 04.10.2020
MB Sample Id: 7701008-1-BLK — LCS Sample Id: 7701008-1-BKS — LCSD Sample Id: 7701008-1-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	0.124	124	0.125	125	70-130	1	35	mg/kg	04.10.2020 11:31	
Toluene	<0.00200	0.100	0.113	113	0.114	114	70-130	1	35	mg/kg	04.10.2020 11:31	
Ethylbenzene	<0.00200	0.100	0.104	104	0.105	105	71-129	1	35	mg/kg	04.10.2020 11:31	
m,p-Xylenes	<0.00400	0.200	0.202	101	0.205	103	70-135	1	35	mg/kg	04.10.2020 11:31	
o-Xylene	<0.00200	0.100	0.103	103	0.104	104	71-133	1	35	mg/kg	04.10.2020 11:31	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	113		108		109		70-130	%	04.10.2020 11:31
4-Bromofluorobenzene	89		83		86		70-130	%	04.10.2020 11:31

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3122755 — Matrix: Soil — Date Prep: 04.09.2020
Parent Sample Id: 658383-004 — MS Sample Id: 658383-004 S — MSD Sample Id: 658383-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0834	83	0.0890	89	70-130	6	35	mg/kg	04.10.2020 09:30	
Toluene	<0.00201	0.100	0.0766	77	0.0811	81	70-130	6	35	mg/kg	04.10.2020 09:30	
Ethylbenzene	<0.00201	0.100	0.0740	74	0.0780	78	71-129	5	35	mg/kg	04.10.2020 09:30	
m,p-Xylenes	<0.00402	0.201	0.155	77	0.164	82	70-135	6	35	mg/kg	04.10.2020 09:30	
o-Xylene	<0.00201	0.100	0.0788	79	0.0837	84	71-133	6	35	mg/kg	04.10.2020 09:30	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		105		70-130	%	04.10.2020 09:30
4-Bromofluorobenzene	95		94		70-130	%	04.10.2020 09:30

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3122759 — Matrix: Soil — Date Prep: 04.10.2020
Parent Sample Id: 658522-008 — MS Sample Id: 658522-008 S — MSD Sample Id: 658522-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.109	109	0.105	105	70-130	4	35	mg/kg	04.10.2020 12:12	
Toluene	<0.00201	0.100	0.100	100	0.0930	93	70-130	7	35	mg/kg	04.10.2020 12:12	
Ethylbenzene	<0.00201	0.100	0.0959	96	0.0836	84	71-129	14	35	mg/kg	04.10.2020 12:12	
m,p-Xylenes	<0.00402	0.201	0.188	94	0.161	81	70-135	15	35	mg/kg	04.10.2020 12:12	
o-Xylene	<0.00201	0.100	0.0964	96	0.0848	85	71-133	13	35	mg/kg	04.10.2020 12:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		108		70-130	%	04.10.2020 12:12
4-Bromofluorobenzene	88		89		70-130	%	04.10.2020 12:12

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: 658522

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

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849 Email:	slo@ltenv.com, dmoir@ltenv.com	

Work Order Comments

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

Project Name:	Los Medanos	Turn Around	
Project Number:	01292037	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	4.0	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:	14	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BH01	S	4.9.20	1020	1'	1	X	X	X
BH01A			1035	3'				
BH02			1045	1'				
BH02A			1105	3.5'				
BH03			1110	1'				
BH03A			1125	3.5'				
BH04			1135	1'				
BH04A			1150	3.5'				
BH05			1210	1'				
BH05A			1235	3.5'				

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			4/9/20 1550	2		4/9/20 16:08
				4		
				6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

Work Order No: 658522

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)

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Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	slo@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	Los Medanos	Turn Around	
Project Number:	01292037	Routine	☐
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	4.0	Thermometer ID		
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BH06	S	4.9.20	1310	1'	1	X	X	X
BH06A			1330	3.5'				
BH07			1340	1'				
BH07A			1400	3.5'				

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
		4/9/20 1350	2		4/9/20 16:08
			4		
			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04.09.2020 04.08.00 PM

Work Order #: 658522

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 04.10.2020

Checklist reviewed by: Jessica Kramer Date: 04.13.2020

Jessica Kramer

Certificate of Analysis Summary 660971

LT Environmental, Inc., Arvada, CO

Project Name: Los Medanos Battery

Project Id: 012920037
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu 05.07.2020 15:24
Report Date: 05.11.2020 13:09
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	660971-001					
	Field Id:	BH02B					
	Depth:	5.5- ft					
	Matrix:	SOIL					
	Sampled:	05.07.2020 10:50					
BTEX by EPA 8021B	***Extracted:***	05.08.2020 17:07					
	Analyzed:	05.09.2020 09:55					
	Units/RL:	mg/kg RL					
Benzene		<0.00200 0.00200					
Toluene		<0.00200 0.00200					
Ethylbenzene		<0.00200 0.00200					
m,p-Xylenes		<0.00400 0.00400					
o-Xylene		<0.00200 0.00200					
Total Xylenes		<0.00200 0.00200					
Total BTEX		<0.00200 0.00200					
Chloride by EPA 300	***Extracted:***	05.07.2020 16:42					
	Analyzed:	05.07.2020 21:13					
	Units/RL:	mg/kg RL					
Chloride		32.0 9.98					
TPH by SW8015 Mod	***Extracted:***	05.08.2020 17:30					
	Analyzed:	05.08.2020 23:07					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0					
Diesel Range Organics (DRO)		<50.0 50.0					
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0					
Total GRO-DRO		<50.0 50.0					
Total TPH		<50.0 50.0					

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

Jessica Kramer
Project Manager

Analytical Report 660971

for

LT Environmental, Inc.

Project Manager: Dan Moir

Los Medanos Battery

012920037

05.11.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
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)

05.11.2020

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

Reference: XENCO Report No(s): **660971**
Los Medanos Battery
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) 660971. 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. 660971 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 Manager

A Small Business and Minority Company

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

Sample Cross Reference 660971

LT Environmental, Inc., Arvada, CO

Los Medanos Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH02B	S	05.07.2020 10:50	5.5 ft	660971-001

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Los Medanos Battery

Project ID: *012920037*
Work Order Number(s): *660971*

Report Date: *05.11.2020*
Date Received: *05.07.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 660971

LT Environmental, Inc., Arvada, CO

Los Medanos Battery

Sample Id:	**BH02B**	Matrix:	Soil	Date Received:	05.07.2020 15:24
Lab Sample Id:	660971-001	Date Collected:	05.07.2020 10:50	Sample Depth:	5.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.07.2020 16:42	Basis:	Wet Weight
Seq Number:	3125427				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**32.0**	9.98	mg/kg	05.07.2020 21:13		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	05.08.2020 17:30	Basis:	Wet Weight
Seq Number:	3125528				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.08.2020 23:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.08.2020 23:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.08.2020 23:07	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.08.2020 23:07	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.08.2020 23:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	05.08.2020 23:07	
o-Terphenyl	84-15-1	76	%	70-135	05.08.2020 23:07	

Certificate of Analytical Results 660971

LT Environmental, Inc., Arvada, CO

Los Medanos Battery

Sample Id:	**BH02B**	Matrix:	Soil	Date Received:	05.07.2020 15:24
Lab Sample Id:	660971-001	Date Collected:	05.07.2020 10:50	Sample Depth:	5.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.08.2020 17:07	Basis:	Wet Weight
Seq Number:	3125536				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.09.2020 09:55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.09.2020 09:55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.09.2020 09:55	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.09.2020 09:55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.09.2020 09:55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.09.2020 09:55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.09.2020 09:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.09.2020 09:55	
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.09.2020 09:55	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 660971

LT Environmental, Inc.

Los Medanos Battery

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3125427 — Matrix: Solid — Date Prep: 05.07.2020
MB Sample Id: 7702952-1-BLK — LCS Sample Id: 7702952-1-BKS — LCSD Sample Id: 7702952-1-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	253	101	252	101	90-110	0	20	mg/kg	05.07.2020 18:52	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3125427 — Matrix: Soil — Date Prep: 05.07.2020
Parent Sample Id: 660927-007 — MS Sample Id: 660927-007 S — MSD Sample Id: 660927-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	106	200	320	107	322	108	90-110	1	20	mg/kg	05.07.2020 19:10	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3125427 — Matrix: Soil — Date Prep: 05.07.2020
Parent Sample Id: 660930-001 — MS Sample Id: 660930-001 S — MSD Sample Id: 660930-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	220	201	422	100	423	101	90-110	0	20	mg/kg	05.07.2020 20:26	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3125528 — Matrix: Solid — Date Prep: 05.08.2020
MB Sample Id: 7703005-1-BLK — LCS Sample Id: 7703005-1-BKS — LCSD Sample Id: 7703005-1-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	1120	112	1090	109	70-135	3	35	mg/kg	05.08.2020 19:04	
Diesel Range Organics (DRO)	<50.0	1000	1200	120	1120	112	70-135	7	35	mg/kg	05.08.2020 19:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	73		116		127		70-135	%	05.08.2020 19:04
o-Terphenyl	71		103		99		70-135	%	05.08.2020 19:04

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3125528 — Matrix: Solid — Date Prep: 05.08.2020
MB Sample Id: 7703005-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.08.2020 18:43	

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 660971

LT Environmental, Inc.

Los Medanos Battery

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3125528 Matrix: Soil Date Prep: 05.08.2020
Parent Sample Id: 660927-012 MS Sample Id: 660927-012 S MSD Sample Id: 660927-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	1300	129	1250	125	70-135	4	35	mg/kg	05.08.2020 20:05	
Diesel Range Organics (DRO)	<50.3	1010	1230	122	1180	118	70-135	4	35	mg/kg	05.08.2020 20:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		105		70-135	%	05.08.2020 20:05
o-Terphenyl	90		90		70-135	%	05.08.2020 20:05

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3125536 Matrix: Solid Date Prep: 05.08.2020
MB Sample Id: 7703029-1-BLK LCS Sample Id: 7703029-1-BKS LCSD Sample Id: 7703029-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.115	115	0.113	113	70-130	2	35	mg/kg	05.09.2020 02:04	
Toluene	<0.00200	0.100	0.104	104	0.101	101	70-130	3	35	mg/kg	05.09.2020 02:04	
Ethylbenzene	<0.00200	0.100	0.0970	97	0.0944	94	71-129	3	35	mg/kg	05.09.2020 02:04	
m,p-Xylenes	<0.00400	0.200	0.186	93	0.182	91	70-135	2	35	mg/kg	05.09.2020 02:04	
o-Xylene	<0.00200	0.100	0.0965	97	0.0940	94	71-133	3	35	mg/kg	05.09.2020 02:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	117		108		108		70-130	%	05.09.2020 02:04
4-Bromofluorobenzene	108		98		99		70-130	%	05.09.2020 02:04

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3125536 Matrix: Soil Date Prep: 05.08.2020
Parent Sample Id: 660927-015 MS Sample Id: 660927-015 S MSD Sample Id: 660927-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.104	104	0.109	109	70-130	5	35	mg/kg	05.09.2020 02:47	
Toluene	<0.00200	0.100	0.0928	93	0.0972	97	70-130	5	35	mg/kg	05.09.2020 02:47	
Ethylbenzene	<0.00200	0.100	0.0861	86	0.0900	90	71-129	4	35	mg/kg	05.09.2020 02:47	
m,p-Xylenes	<0.00400	0.200	0.164	82	0.172	86	70-135	5	35	mg/kg	05.09.2020 02:47	
o-Xylene	<0.00200	0.100	0.0845	85	0.0887	89	71-133	5	35	mg/kg	05.09.2020 02:47	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		107		70-130	%	05.09.2020 02:47
4-Bromofluorobenzene	102		98		70-130	%	05.09.2020 02:47

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: 6020971

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)
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Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	slo@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	Los Medanos Battery	Turn Around	
Project Number:	012926037	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	5.0	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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BH02B	S	5.7.20	1050	5.5'	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
		5/7/20 15:24	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 05.07.2020 03.24.00 PM

Work Order #: 660971

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)?	5	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	Samples received in bulk containers
#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: 05.07.2020

Checklist reviewed by: Jessica Kramer Date: 05.08.2020

Jessica Kramer

ATTACHMENT 3: LITHOLOGIC / SOIL SAMPLING LOG

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

A proud member of WSP

BH or PH Name: BH01	Date: 4.9.20
Site Name: Los Medanos	
RP or Incident Number:	
LTE Job Number:	
Logged By: SL	Method: Hand Auger
Hole Diameter: 2.5"	Total Depth: 3'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: Chloride, PID

Comments: TD @ 3' - Refusal

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	<186	4283	N	BH01	1	0–1	SP SM	Sandy clay, odor, no stain, moist, m-f, poorly graded, Brown, some caliche gravel, tan, low cohesion, low plasticity 0-1
M	<186	701	N			2	SP SC	1-3 Sandy clay, odor, no stain, moist, m-f, poorly graded, Brown, low cohesion, low plasticity
M	<186	601	N	BH01A	3	3		
						4–12		TD @ 3 - Refusal

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BH or PH Name: BH02	Date: 4.9.20
Site Name: Los Medanos	
RP or Incident Number:	
LTE Job Number:	
Logged By: SL	Method: Hand Auger
Hole Diameter: 2.5"	Total Depth: 3.5'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: Chloride, PID

Comments: TD @ 3.5' - Refusal

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	<186	2697	N	BH02	1	0 - 1	SP SM	0-1 Sandy clay, odor, no stain, moist, m-f, poorly graded, Brown, some caliche gravel, tan low cohesion, low plasticity
M	<186	2740	N			1 - 3.5	SP SC	1-3.5 Sandy clay, odor, no stain, moist, m-f, poorly graded: Brown, low cohesion, low plasticity
M	<186	2167	N	BH02A	3.5			
								TD @ 3.5' Refusal

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Carlsbad, New Mexico 88220

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BH or PH Name: BH02	Date: 5.7.20
Site Name: Los Dos Medanos Battery	
RP or Incident Number:	
LTE Job Number: 01292037	
Logged By: SL	Method: Hydrovac
Lat/Long:	Field Screening: Chloride, PID
Hole Diameter: —	Total Depth: 5.5'

Comments: TD @ 5.5'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		0-3.5
						1		Refer to previous log
						2		
						3		
						4		3.5-5.5
D	4186	1.6	N	BH02B	5.5	5	CCHE	Caliche, tan, odor, no stain
						6		TD @ 5.5'
						7		
						8		
						9		
						10		
						11		
						12		

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BH or PH Name: BH03	Date: 4.9.20
Site Name: Los Medanos	
RP or Incident Number:	
LTE Job Number:	
Logged By: SL	Method: Hand Auger
Lat/Long:	Field Screening: Chloride, PID
Hole Diameter: 2.5"	Total Depth: 3.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: TD @ 3.5' -Refusal

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	<186	956.1	N	BH03	1	0	SP	0-1 Sandy clay, odor, no stain, moist, m-f, poorly graded, Brown, some caliche gravel, tan, low cohesion low plasticity
						1	SM	
						2	SP	1-3 Sandy, clay, odor, no stain, moist, m-f, poorly graded, Brown, low cohesion, low plasticity
M	<186	934.2	N	BH03A	3.5	3	SC	
						4		TD @ 3.5' -Refusal
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

LT Environmental, Inc.
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Carlsbad, New Mexico 88220

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BH or PH Name: BH04	Date: 4.9.20
Site Name: Los Medanos	
RP or Incident Number:	
LTE Job Number:	
Logged By: SL	Method: Hand Auger
Hole Diameter: 2.5"	Total Depth: 3.5'
Lat/Long:	Field Screening: Chloride, PID

Comments: TD @ 3.5', Refusal

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	<186	67.7	N	BH04	1	0–1	SP SM	0-1 Sandy clay, odor, no stain, moist, m-f, poorly graded, Brown, some caliche gravel, tan, low cohesion, low plasticity
M	<186	234	N	BH04A	3.5	1–3	SP SC	1-3 Sandy clay, odor, no stain, moist, m-f, poorly graded, Brown, low cohesion, low plasticity
						3–4		TD @ 3.5'
						4–5		
						5–6		
						6–7		
						7–8		
						8–9		
						9–10		
						10–11		
						11–12		

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BH or PH Name: BH05	Date: 4.9.20
Site Name: Los Medanos	
RP or Incident Number:	
LTE Job Number:	
Logged By: SL	Method: Hand Auger
Hole Diameter: 2.5"	Total Depth: 3.5'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: Chloride, PID

Comments: TD @ 3.5'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	<186	3.2	N	BH05	1	0-1	SP SM	Sandy clay, odor, no stain, moist, m-f, poorly graded, Brown, some caliche gravel, tan low cohesion, low plasticity
M	<186	1.9	N	BH05A	3.5	1-3	SP SC	Sandy clay, odor, no stain, moist, m-f, poorly graded, Brown, low cohesion, low plasticity
						4		TD @ 3.5'
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

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BH or PH Name: BH06	Date: 4.9.20
Site Name: Los Medanos	
RP or Incident Number:	
LTE Job Number:	
Logged By: SL	Method: Hand Auger
Hole Diameter: 2.5"	Total Depth: 3.5'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: Chloride, PID

Comments: TD @ 3.5', Refusal

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	<186	2.6	N	BH06	1	0	SP	0-3.5
						1	SM	Sandy Clay, no odor, no stain, m-f, poorly graded, moist, trace caliche, low cohesion, low plasticity
						2		
						3		
M	<186	2.2	N	BH06A	3.5			
						4		TD @ 3.5 - Refusal
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

LT Environmental, Inc.
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BH or PH Name: BH07	Date: 4.9.20
Site Name: Los Medanos	
RP or Incident Number:	
LTE Job Number:	
Logged By: SL	Method: Hand Auger
Lat/Long:	Field Screening: Chloride, PID
Hole Diameter: 2.5"	Total Depth: 3.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: TD @ 3.5' - Refusal

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	<186	1.8	N	BH07	1	0-1	SP SM	0-1 Sandy clay, no odor, no stain, moist, m-f, poorly graded, low cohesion, low plasticity, trace caliche
M	<186	0.1	N	BH07A	3.5	1-3	SP SC	1-3 Sandy clay, no odor, no stain, moist, m-f, poorly graded, low cohesion, low plasticity
						4		TD @ 3.5'
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		