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	NRM2014558079
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 32.248088 Longitude -103.910562
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Poker Lake Unit 167	Site Type Flowline
Date Release Discovered 5-10-2020	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
E	5	24S	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) 8.79	Volume Recovered (bbls) 4.5
☒ Produced Water	Volume Released (bbls) 0.97	Volume Recovered (bbls) 0.5
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release A release of fluid was discovered coming from an underground flow line due to corrosion. Flow line was isolated and repaired. A third-party contractor has been retained for remediation activities,

State of New Mexico
Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? N/A

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
N/A

Initial Response

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

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

If all the actions described above have not been undertaken, explain why:
N/A

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Kyle Littrell
Title: SH&E Supervisor
Signature: 
Date: 5-22-20
email: Kyle_Littrell@xtoenergy.com
Telephone: 432-221-7331

OCD Only

Received by: Ramona Marcus
Date: 5/24/2020

NRM2014558079

Location:	PLU 167	
Spill Date:	5/10/2020	
Area 1		
Approximate Area =	1061.00	sq. ft.
Average Saturation (or depth) of spill =	2.00	inches
Average Porosity Factor =	0.15	
VOLUME OF LEAK		
Total Crude Oil =	8.75	bbls
Total Produced Water =	0.97	bbls
Area 2		
Approximate Area =	176.00	sq. ft.
Average Saturation (or depth) of spill =	0.50	inches

Average Porosity Factor =	0.03	

VOLUME OF LEAK		
Total Crude Oil =	0.04	bbls
Total Produced Water =	0.00	bbls

TOTAL VOLUME OF LEAK		
Total Crude Oil =	**8.79**	**bbls**
Total Produced Water =	**0.97**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**4.50**	**bbls**
Total Produced Water =	**0.50**	**bbls**

State of New Mexico
Oil Conservation Division

Incident ID	NRM2014558079
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.

State of New Mexico
Oil Conservation Division

Incident ID	NRM2014558079
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Facility ID	
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 8-6-2020

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

OCD Only

Received by: Date:

Incident ID	NRM2014558079
District RP	
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 8-6-2020

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

OCD Only

Received by: Date:

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

Closure Approved by: Date:

Printed Name: Title:

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

August 6, 2020

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

RE: Closure Request
Poker Lake Unit 167
Incident Number NRM2014558079
Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), is pleased to present the following Closure Request detailing site assessment, soil sampling, and remediation activities at the Poker Lake Unit 167 (Site) in Unit E, Section 5, Township 24 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to confirm the presence or absence of impact to soil by a release of crude oil and produced water at the Site. Based on field observations, field screening, and soil sample laboratory analytical results documented in this Closure Request, XTO respectfully requests no further action (NFA) for Incident Number NRM2014558079.

RELEASE BACKGROUND

On May 10, 2020, an underground flowline was discovered to be leaking in two different locations due to corrosion, resulting in the release of 8.79 barrels (bbls) of crude oil and 0.97 bbls of produced water. A vacuum truck was immediately dispatched to the Site to recover freestanding fluids; approximately 4.5 bbls of crude oil and 0.5 bbls of produced water were recovered. The net volume of fluids released was approximately 4.76 bbls. The release created two distinct release areas; one on the well pad near the wellhead with an estimated spill extent of approximately 2,700 square feet and one near the pad entrance along the lease road with an estimated spill extent of 1,000 square feet, totaling an estimated spill area of 3,700 square feet. XTO reported the release on May 22, 2020 to the New Mexico Oil Conservation Division (NMOCD) on a Form C-141 and was subsequently assigned Incident Number NRM2014558079.

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 New Mexico Office of the State Engineer (NMOSE) well C-02108, located approximately 1.2 miles south of the Site. The groundwater well has a reported depth to groundwater of 186 feet bgs and a total depth of 200 feet bgs. All wells used for depth to groundwater determination are depicted on Figure 1. The referenced well records are included in Attachment 1.

The closest continuously flowing or significant watercourse to the Site is an unnamed dry wash, located approximately 990 feet north 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 (medium 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

Additionally, the reclamation of the affected pasture area must be comprised of non-waste containing earthen material exhibiting chloride concentrations below 600 mg/kg, which was applied per NMAC 19.15.29.13.D (1) to the top 4 feet.

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On May 20, 2020, LTE personnel visited the Site to evaluate the release extent. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positing System (GPS). The spill resulted in two distinct release areas; one at the entrance of the well pad along the lease road and into the pasture, and a second on the well pad near the wellhead. Ground cover in both locations is caliche.

LTE personnel collected and field screened preliminary soil assessment samples at nine locations (SS01 through SS09) within the release extent. The nine soil samples were collected at a depth of 0.5 feet below grade surface (bgs). Preliminary soil samples were field screened for volatile

aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Two soil samples collected in areas with the most staining 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. Locations of the two preliminary soil samples submitted to Xenco are presented on Figure 2.

According to laboratory analytical results, TPH was reported at concentrations exceeding the reclamation standard for soil in the top 4 feet bgs in the preliminary assessment soil sample SS01, located in the pasture area, adjacent to the caliche road. Concentrations of TPH-GRO, TPH-DRO, and TPH were exceeding Closure Criteria in soil from preliminary soil sample SS02, located south of the equipment on the caliche pad. Based on visible staining in the release areas, elevated field screening results, and laboratory analytical results, soil delineation and excavation appeared to be warranted for both release areas.

EXCAVATION SOIL SAMPLING ACTIVITIES

LTE oversaw the excavation to remediate impacted soil as indicated by visual observations, field screening results, and preliminary soil sample results. Excavation activities were performed using track-mounted backhoe in both release extents, resulting in two excavations. The excavations were located near the wellhead and in the pasture area and the caliche road entrance to the well pad. In addition to the excavations the stained area of the road was scraped to a depth of 0.5 feet bgs. Photographic documentation is included in Attachment 2.

Following removal of impacted soil, LTE collected 5-point composite soil samples at least every 200 square feet from the sidewalls and floor of the excavations and scraped area of the road. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. A total of 23 composite floor soil samples (FS01 through FS23) and 20 composite sidewall samples (SW01 through SW20) were collected from the excavations. Floor samples were collected at a depth of 4 feet bgs from the excavation in pasture area, from depths ranging from 1 foot bgs to 4 feet bgs in the on pad excavation, and from a depth of 0.5 feet in the scraped area of the road. Sidewall samples were collected from depths ranging from of ground surface to 4 feet bgs. The excavation soil samples were collected, handled, and analyzed following the same procedures as described above. The locations of the final aerial extent of each excavation and confirmation soil samples are presented on Figure 3.

The two excavation areas totaled approximately 4,700 square feet. A total of approximately 440 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was

transported and properly disposed of at the R360 Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation areas were secured with fencing.

SOIL ANALYTICAL RESULTS

Excavation sidewall sample SW06 collected on the well pad initially exceeded TPH-GRO, TPH-DRO Closure Criteria. Following additional soil removal another sidewall sample was collected. Laboratory analytical results for sidewall sample SW20 collected from the final excavation extent, indicated benzene, BTEX, TPH-GRO, TPH-DRO, TPH, and chloride were compliant with the Closure Criteria. Laboratory analytical results for all final excavation soil samples indicated that benzene, BTEX, TPH-GRO, TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. In addition, confirmation samples collected in the top 4 feet in pasture areas were compliant with the reclamation standard. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Attachment 3.

BACKFILL ACTIVITIES

Following a review of all the analytical data, the excavation fencing was removed, and the excavations were backfilled with sourced backfill materials and recontoured to match Site conditions. The pasture excavation will be re-seeded with an approved BLM seed mixture in the fall. Photographic documentation was conducted after the backfill was complete. Photos are included in the photolog in Attachment 2.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the May 10, 2020 release of crude oil and produced water. Laboratory analytical results for excavation soil samples, collected from the final excavation extent, indicated that benzene, BTEX, TPH-GRO, TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, soil samples collected in the pasture from the top four feet of the subsurface are compliant with the reclamation standard requiring no waste containing material in the top 4 feet. Based on a review of the excavation and delineation soil sample analytical results, no further remediation was required.

Initial response efforts which included removal of freestanding fluids via hydrovac and excavation of impacted soil have mitigated impacts at this Site. Depth to groundwater has been determined to be greater than 100 feet bgs and no other sensitive receptors are near the release extents. LTE and XTO believe these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests no further action for Incident Number NRM2014558079.

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

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
Jim Amos, Bureau of Land Management

Attachments:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Referenced Well Record
Attachment 2	Photographic Log
Attachment 3	Laboratory Analytical Reports

FIGURES

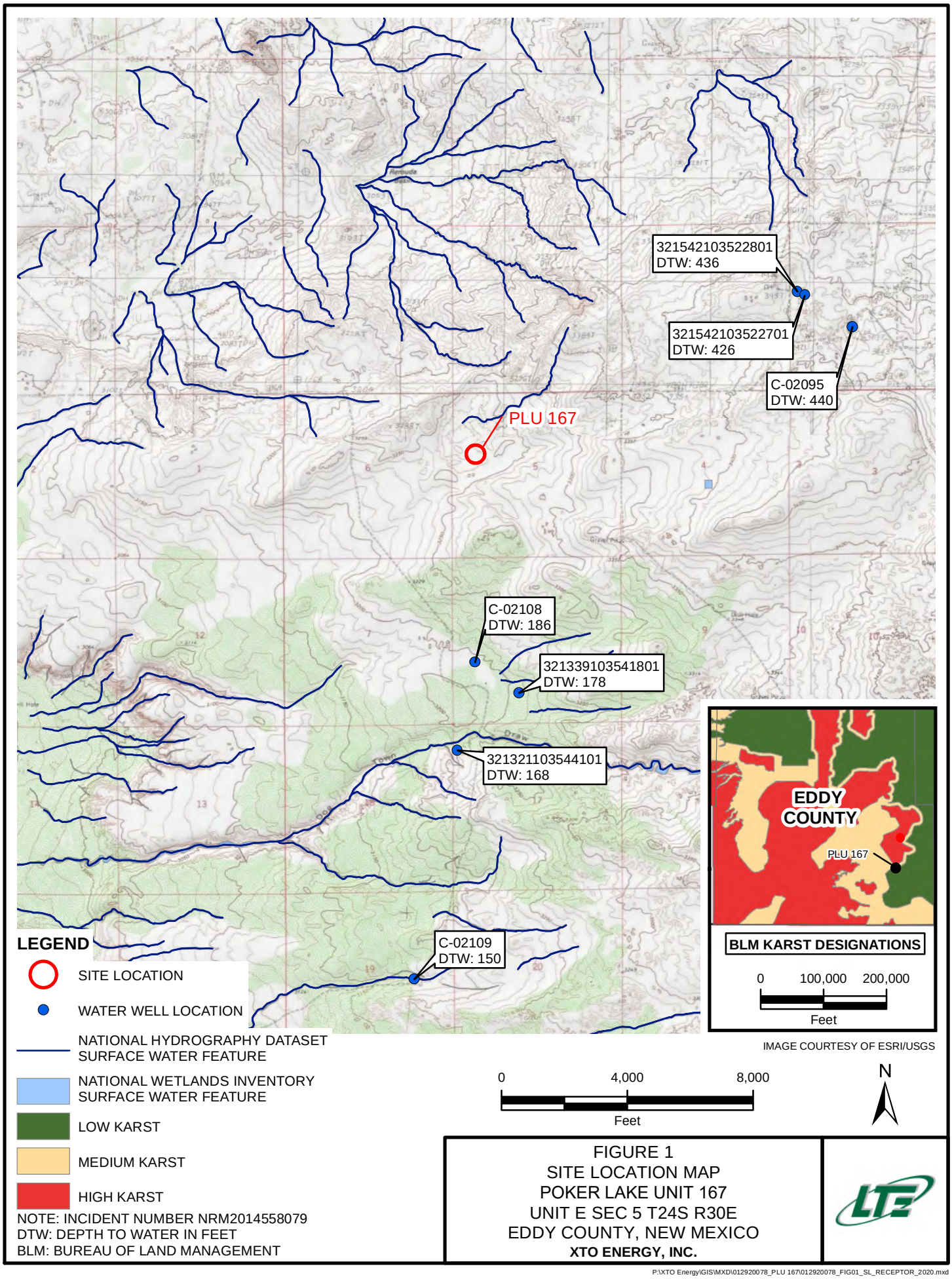

FIGURE 1
SITE LOCATION MAP
POKER LAKE UNIT 167
UNIT E SEC 5 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920078_PLU 167\012920078_FIG01_SL_RECEPTOR_2020.mxd

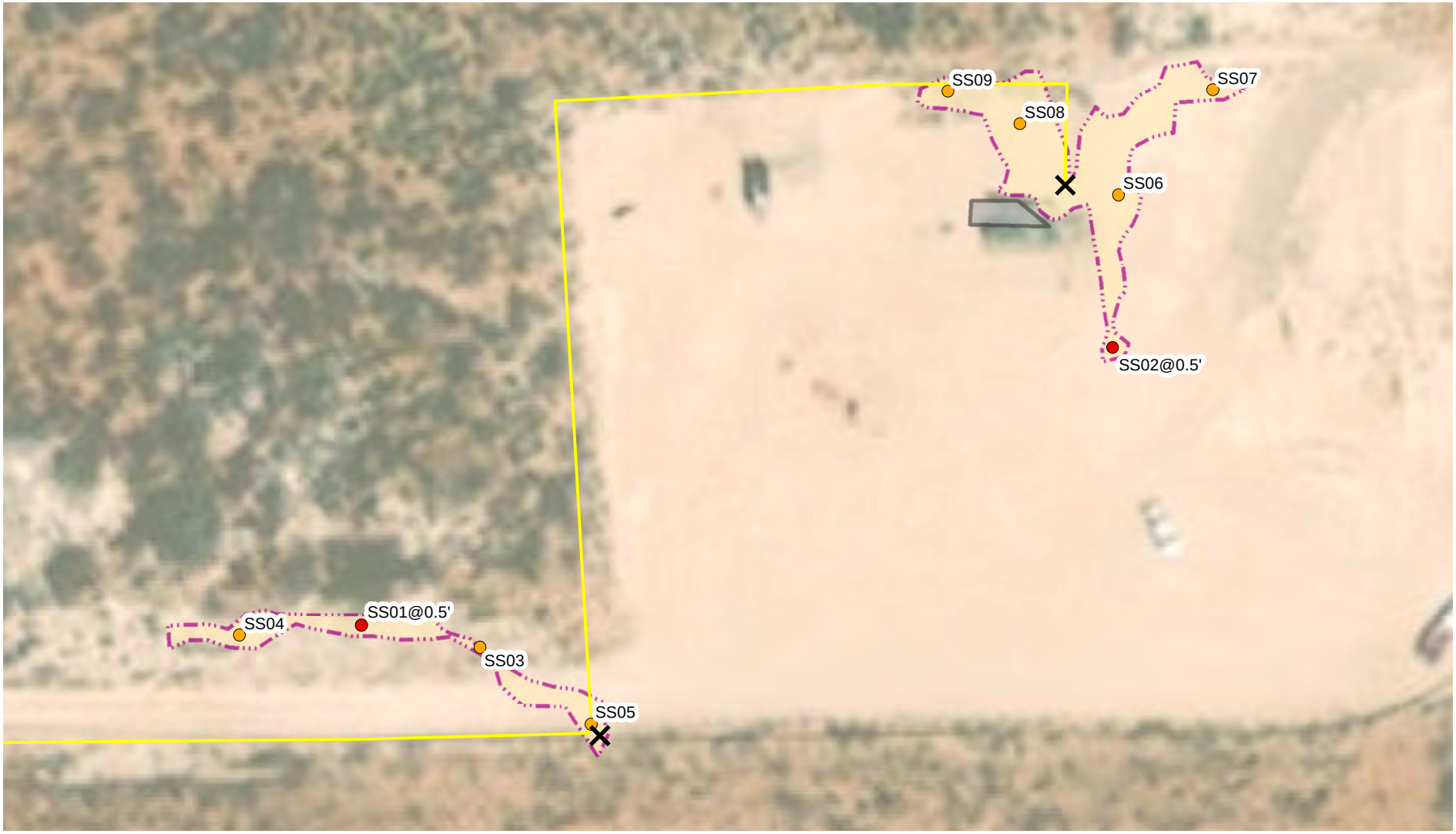

IMAGE COURTESY OF ESRI

LEGEND

- RELEASE LOCATION
- PRELIMINARY SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- SOIL SAMPLE
- GAS LINE
- RELEASE EXTENT
- INFRASTRUCTURE

0 50 100
Feet

N

NOTE: INCIDENT NUMBER NRM2014558079
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
POKER LAKE UNIT 167
UNIT E SEC 5 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920078_PLU 167\012920078_FIG02_PRELIMINARY_080320_2020.mxd

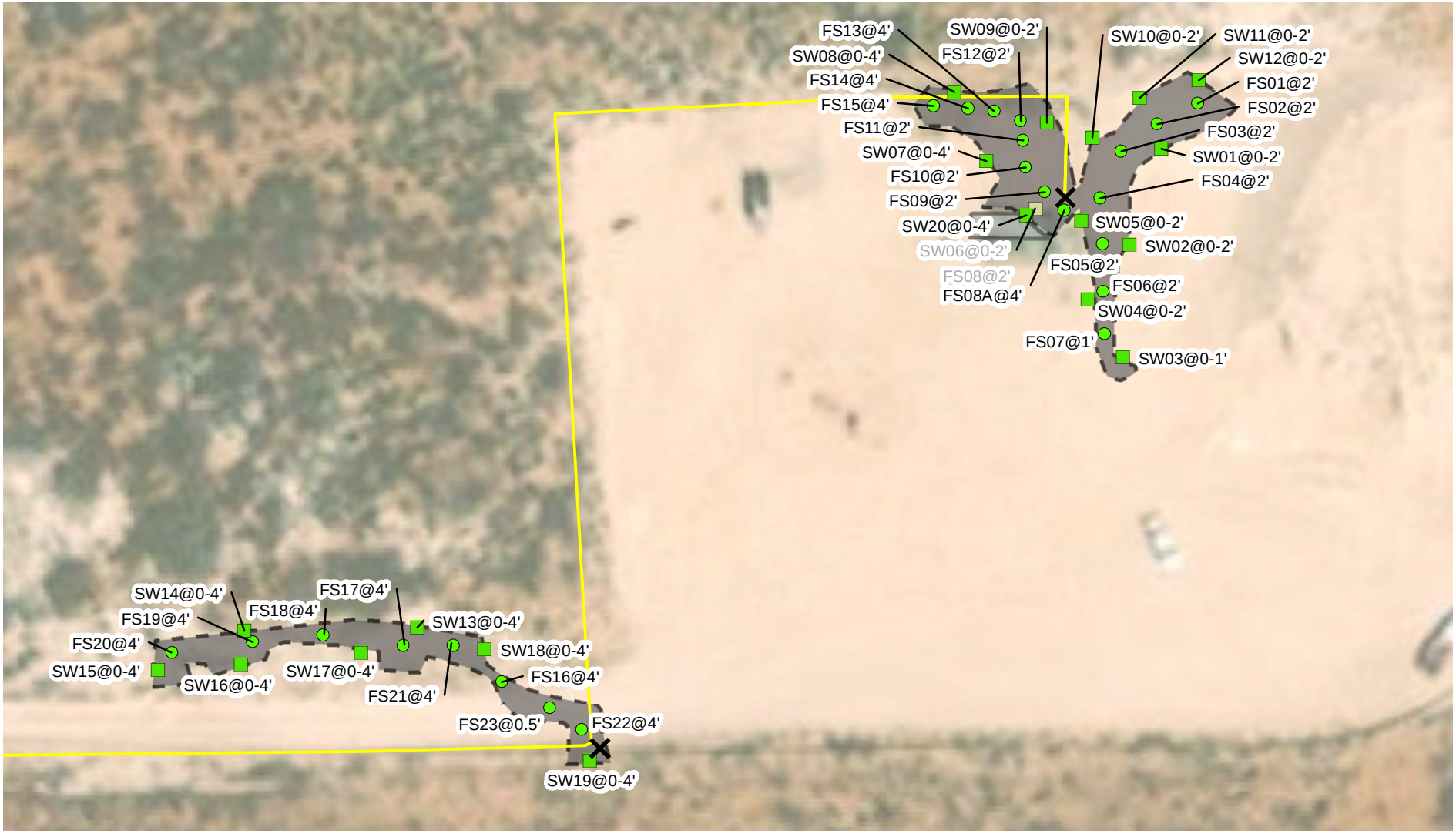

IMAGE COURTESY OF ESRI

LEGEND

- RELEASE LOCATION
- SIDEWALL SAMPLE WITH CONCENTRATIONS PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA AND HAS BEEN EXCAVATED
- SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- GAS LINE
- INFRASTRUCTURE

0 50 100
Feet

N

NOTE: INCIDENT NUMBER NRM2014558079
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
TEXT: INDICATES SOIL REPRESENTED BY SAMPLE THAT WAS REMOVED

FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
POKER LAKE UNIT 167
UNIT E SEC 5 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920078_PLU 167\012920078_FIG03_EXCAVATION_2020.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

POKER LAKE UNIT 167
INCIDENT NUMBER NRM2014558079
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	05/20/2020	<0.00198	0.121	0.118	0.449	0.688	78.5	655	56.9	734	790	<10.0
SS02	0.5	05/20/2020	0.0262	0.379	0.385	1.12	1.91	1,160	4,450	373	**5,610**	**5,980**	<10.0
SW01	0 - 2	06/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	<9.90
SW02	0 - 2	06/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	34.6
SW03	0 - 1	06/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	50.7
SW04	0 - 2	06/17/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	55.7	<50.2	55.7	55.7	235
SW05	0 - 2	06/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	644
SW06	0 - 2	06/17/2020	<0.0101	<0.0101	<0.0101	<0.0101	<0.0101	<75.3	1,490	<251	**1,490**	1,490	1,300
SW07	0 - 4	06/17/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	33.6
SW08	0 - 4	06/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	20.4
SW09	0 - 2	06/17/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.3	<50.3	<50.3	<50.3	<50.3	15.9
SW10	0 - 2	06/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	38.5
SW11	0 - 2	06/17/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	15.1
SW12	0 - 2	06/17/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	<10.1
SW13	0 - 4	06/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	10.3
SW14	0 - 4	06/18/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	11.2
SW15	0 - 4	06/18/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	<10.1
SW16	0 - 4	06/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	73.9	<50.1	73.9	73.9	18.6
SW17	0 - 4	06/18/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	10.2
SW18	0 - 4	06/18/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.3	<50.3	<50.3	<50.3	<50.3	<10.1
SW19	0 - 4	06/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	29.7
SW20	0 - 4	06/22/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	98.9	<50.2	98.9	98.9	1,100

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TABLE 1
SOIL ANALYTICAL RESULTS

POKER LAKE UNIT 167
INCIDENT NUMBER NRM2014558079
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**
FS01	2	06/16/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	<10.1
FS02	2	06/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	18.1
FS03	2	06/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	10.6
FS04	2	06/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	39.4
FS05	2	06/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	59.2
FS06	2	06/16/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	57.6	<50.0	57.6	57.6	309
FS07	1	06/16/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	25.8
FS08	2	06/17/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	122	<49.9	122	122	699
FS08A	4	06/22/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	549
FS09	2	06/17/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	168
FS10	2	06/17/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	55.1
FS11	2	06/17/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	121	<49.8	121	121	25.3
FS12	2	06/17/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	62.3	<50.0	62.3	62.3	96.3
FS13	4	06/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	96.9	<50.3	96.9	96.9	10.8
FS14	4	06/17/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	78.1	<49.8	78.1	78.1	<9.96
FS15	4	06/17/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	15.8
FS16	4	06/18/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	14.0
FS17	4	06/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	12.1
FS18	4	06/18/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	11.2
FS19	4	06/18/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	14.6
FS20	4	06/18/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	13.2
FS21	4	06/18/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	<9.96

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TABLE 1
SOIL ANALYTICAL RESULTS

POKER LAKE UNIT 167
INCIDENT NUMBER NRM2014558079
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**
FS22	4	06/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	120	<50.1	120	120	342
FS23	0.5	08/03/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	11.4

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
TEXT - indicates soil removed during excavation activities

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ATTACHMENT 1: REFERENCED WELL RECORD

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 02108		1	3	08	24S	30E	602702	3566487*

x

Driller License: **Driller Company:**

Driller Name: UNKNOWN

Drill Start Date: **Drill Finish Date:** 12/31/1963 **Plug Date:**

Log File Date: **PCW Rcv Date:** **Source:**

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 16 GPM

Casing Size: 7.00 **Depth Well:** 200 feet **Depth Water:** 186 feet

x

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 02095		2	3	34	23S	30E	606337	3569759*

x

Driller License: **Driller Company:**

Driller Name: DEPT. OF ENGERY

Drill Start Date: **Drill Finish Date:** 08/31/1960 **Plug Date:**

Log File Date: **PCW Rcv Date:** **Source:**

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 100 GPM

Casing Size: 12.75 **Depth Well:** 554 feet **Depth Water:** 440 feet

x

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 02109	1	2	4	19	24S	30E	602130	3563412

x

Driller License: **Driller Company:**

Driller Name: UNKNOWN

Drill Start Date: **Drill Finish Date:** 12/31/1963 **Plug Date:**

Log File Date: **PCW Rcv Date:** **Source:**

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 40 GPM

Casing Size: 7.00 **Depth Well:** 130 feet **Depth Water:** 150 feet

x

USGS 321321103544101 24S.30E.18.22144

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°13'21", Longitude 103°54'41" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: not determined.
Land surface altitude: 3,192 feet above NAVD88.

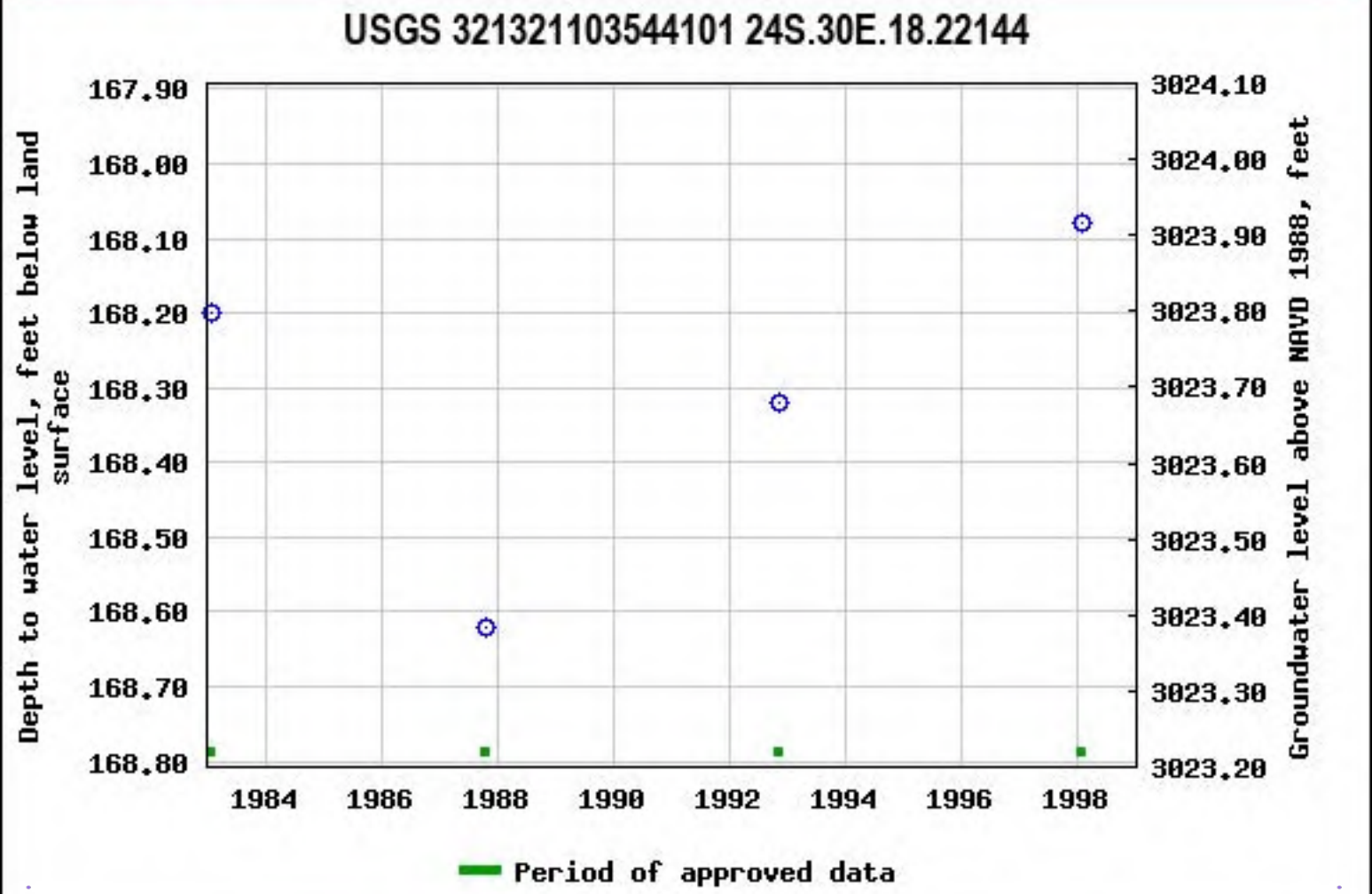
AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1983-02-01	1998-01-27	4
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries

USGS


USGS 321321103544101 24S.30E.18.22144
Depth to water level, feet below land surface
167.90
168.00
168.10
168.20
168.30
168.40
168.50
168.60
168.70
168.80
Groundwater level above NAVD 1988, feet
3024.10
3024.00
3023.90
3023.80
3023.70
3023.60
3023.50
3023.40
3023.30
3023.20
1984
1986
1988
1990
1992
1994
1996
1998
Period of approved data

USGS 321339103541801 24S.30E.08.33222

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°13'39", Longitude 103°54'18" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 192 feet
Land surface altitude: 3,207 feet above NAVD88.
Well completed in "Rustler Formation" (312RSLR) local aquifer

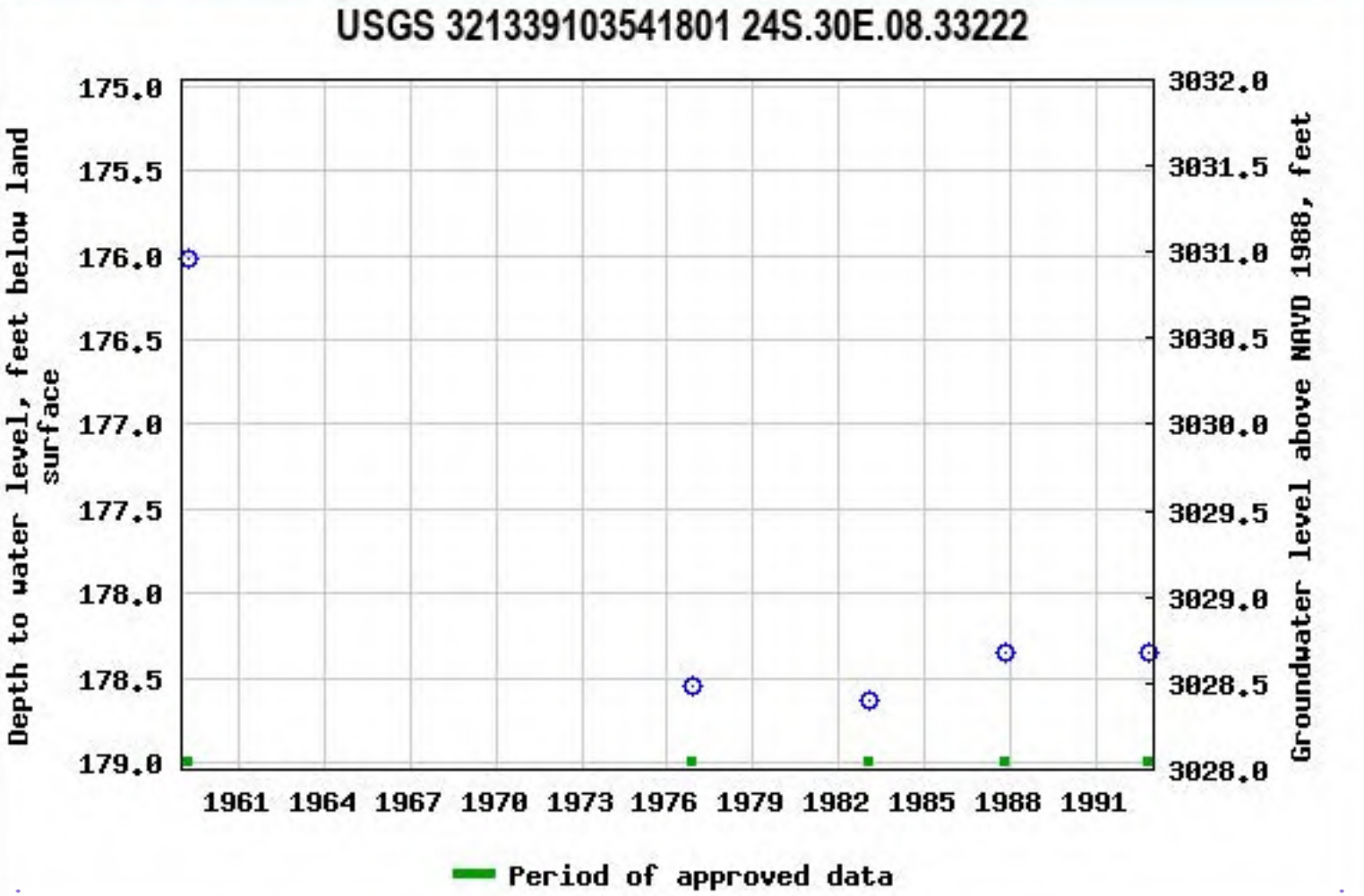
AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1959-03-23	1992-11-04	5
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries

USGS


USGS 321339103541801 24S.30E.08.33222
Depth to water level, feet below land surface
175.0
175.5
176.0
176.5
177.0
177.5
178.0
178.5
179.0
Groundwater level above NAVD 1988, feet
3032.0
3031.5
3031.0
3030.5
3030.0
3029.5
3029.0
3028.5
3028.0
1961
1964
1967
1970
1973
1976
1979
1982
1985
1988
1991
Period of approved data

USGS 321542103522701 23S.30E.34.13323 USGS-8

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°15'45.4", Longitude 103°52'34.64" NAD83
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: not determined.
Land surface altitude: 3,411 feet above NAVD88.
Well completed in "Rustler Formation" (312RSLR) local aquifer

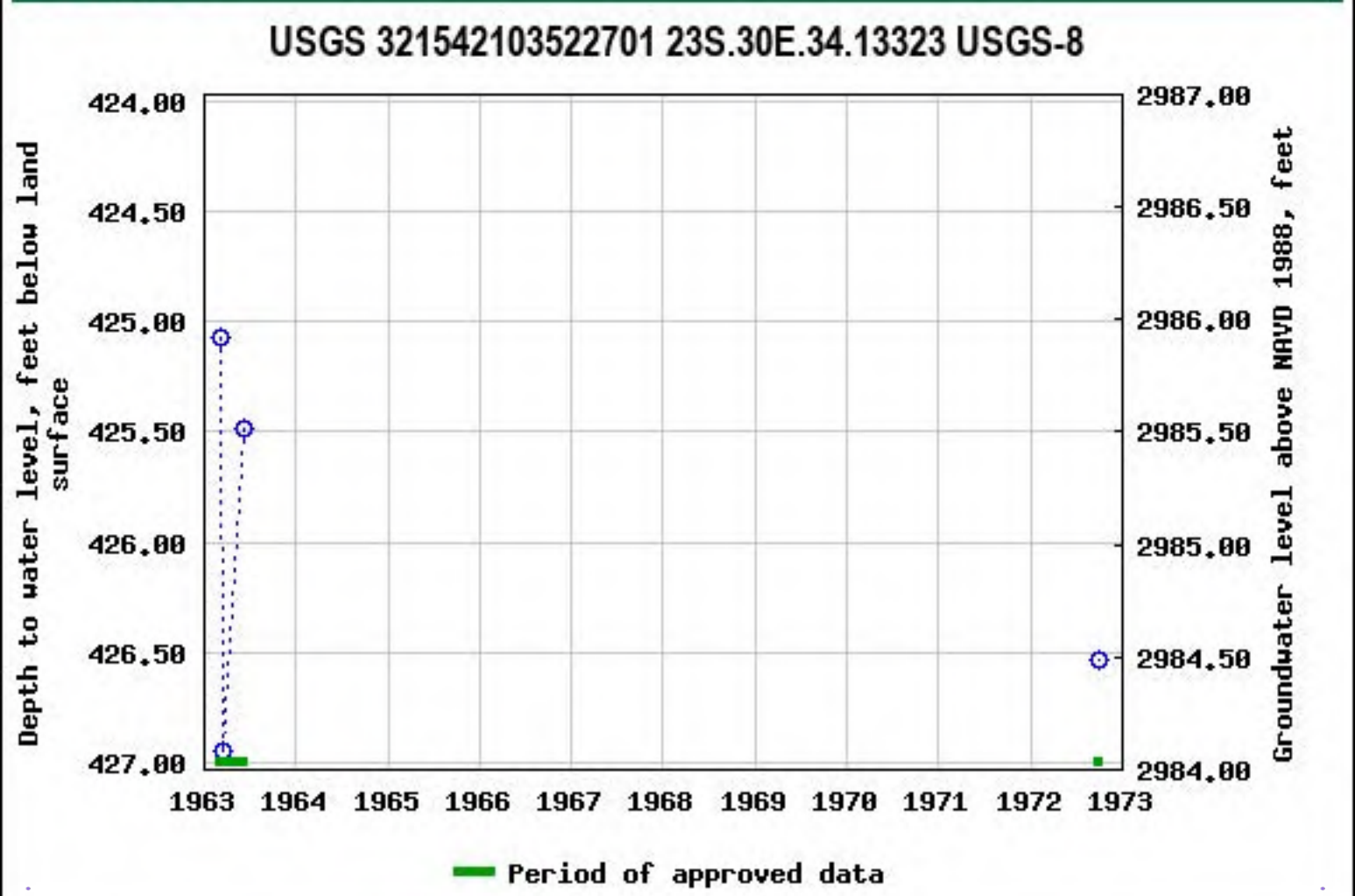
AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1963-03-10	1972-09-25	4
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries

USGS


USGS 321542103522701 23S.30E.34.13323 USGS-8
Depth to water level, feet below land surface
424.00
424.50
425.00
425.50
426.00
426.50
427.00
Groundwater level above NAVD 1988, feet
2987.00
2986.50
2986.00
2985.50
2985.00
2984.50
2984.00
1963
1964
1965
1966
1967
1968
1969
1970
1971
1972
1973
Period of approved data

USGS 321542103522801 23S.30E.34.133144 USGS-4

Available data for this site

Well Site

DESCRIPTION:

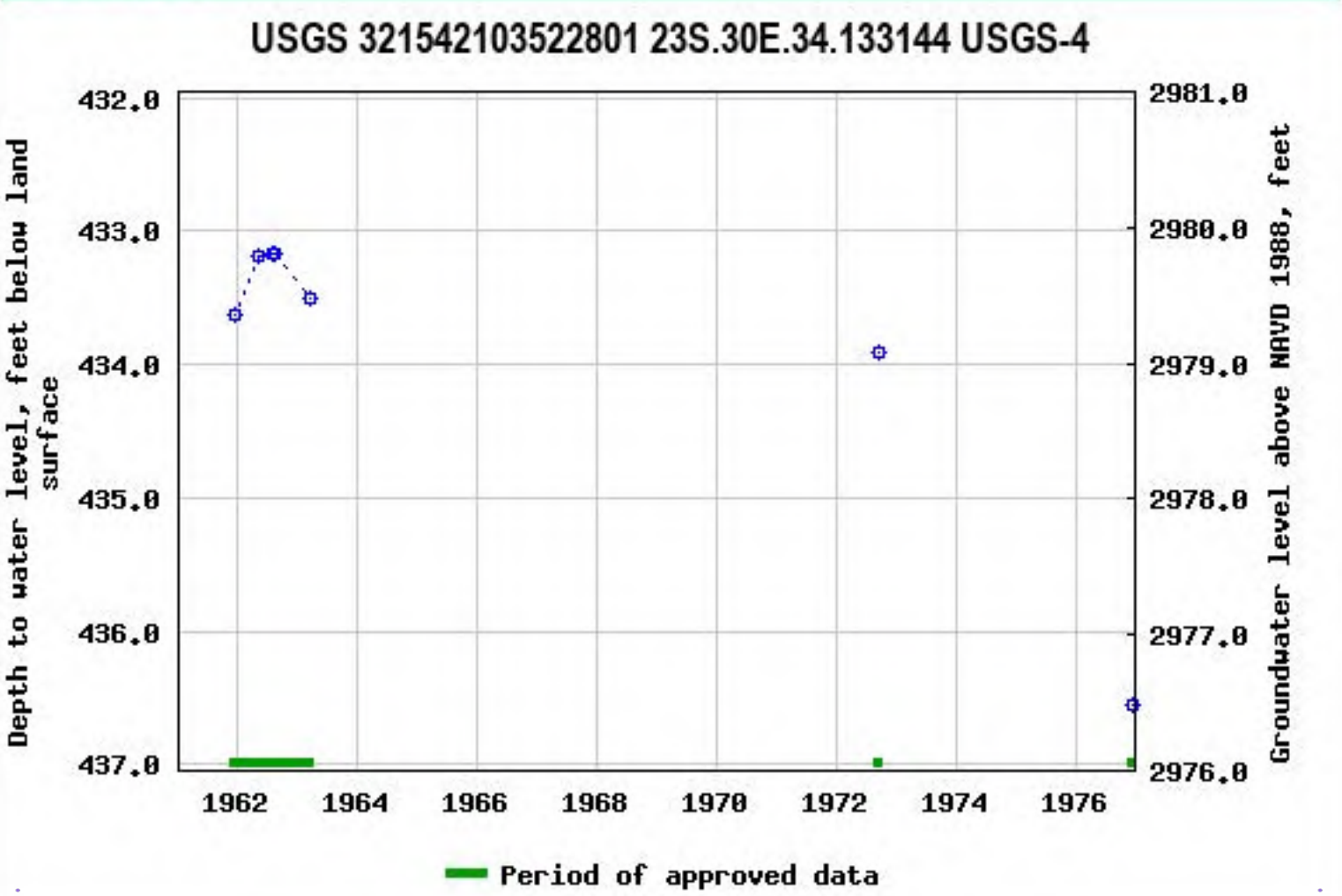
Latitude 32°15'45.42", Longitude 103°52'36.09" NAD83
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 518 feet
Land surface altitude: 3,413 feet above NAVD88.
Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1961-12-12	1976-12-14	7
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries


USGS 321542103522801 23S.30E.34.133144 USGS-4
Depth to water level, feet below land surface
Groundwater level above NAVD 1988, feet
432.0
433.0
434.0
435.0
436.0
437.0
2981.0
2980.0
2979.0
2978.0
2977.0
2976.0
1962
1964
1966
1968
1970
1972
1974
1976
Period of approved data

ATTACHMENT 2: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Photograph 1: Western view of road staining.

Photograph 2: Western view of stained area in pasture.

Photograph 3: Northern view of release location in pasture.

Photograph 4: Western view of road scrape near release point in pasture.

Poker Lake Unit 167
Incident Number NRM2014558079
Photographs Taken: May 20, 2020 - June 18, 2020

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PHOTOGRAPHIC LOG

Photograph 5: Northern view of excavation near release point in pasture.

Photograph 6: Western view of excavation in pasture.

Photograph 7: Northern view of release location on pad.

Photograph 8: Western view of stained area on pad.

PHOTOGRAPHIC LOG

Photograph 9: Northern view of stained area on pad.

Photograph 10: Western view of excavation on pad.

Photograph 11: Northern view of excavation on pad.

Photograph 12: Southern view of pad excavation.

PHOTOGRAPHIC LOG

Photograph 1: View of completed backfill on pad.

Photograph 2: View of completed backfill along lease road.

Photograph 3: View of completed backfill along lease road.

ATTACHMENT 3: LABORATORY ANALYTICAL RESULTS

Certificate of Analysis Summary 662291

LT Environmental, Inc., Arvada, CO

Project Name: PLU 167H

Project Id: 012920078
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu 05.21.2020 13:50
Report Date: 05.29.2020 10:05
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	662291-001		662291-002					
	Field Id:	SS03		SS05					
	Depth:	0.5- ft		0.5- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	05.20.2020 14:15		05.20.2020 14:55					
BTEX by EPA 8021B	***Extracted:***	05.21.2020 17:28		05.21.2020 17:28					
	Analyzed:	05.21.2020 23:12		05.21.2020 23:32					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00198	0.00198	0.0262	0.00198				
Toluene		0.121	0.00198	0.379	0.00198				
Ethylbenzene		0.118	0.00198	0.385	0.00198				
m,p-Xylenes		0.300	0.00397	0.762	0.00397				
o-Xylene		0.149	0.00198	0.355	0.00198				
Total Xylenes		0.449	0.00198	1.12	0.00198				
Total BTEX		0.688	0.00198	1.91	0.00198				
Chloride by EPA 300	***Extracted:***	05.21.2020 17:43		05.21.2020 17:43					
	Analyzed:	05.22.2020 01:08		05.22.2020 01:14					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		<10.0	10.0	<10.0	10.0				
TPH by SW8015 Mod	***Extracted:***	05.22.2020 16:00		05.22.2020 16:00					
	Analyzed:	05.22.2020 20:11		05.22.2020 19:30					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		78.5	50.0	1160	50.2				
Diesel Range Organics (DRO)		655	50.0	4450	50.2				
Motor Oil Range Hydrocarbons (MRO)		56.9	50.0	373	50.2				
Total GRO-DRO		734	50.0	5610	50.2				
Total TPH		790	50.0	5980	50.2				

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

Holly Taylor
Project Manager

Analytical Report 662291

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 167H

012920078

05.29.2020

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 (20-035-0)

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 (T104704534-20-6)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

05.29.2020

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

Reference: XENCO Report No(s): **662291**
PLU 167H
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) 662291. 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. 662291 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,

Holly Taylor

Holly Taylor
Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 662291

LT Environmental, Inc., Arvada, CO

PLU 167H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS03	S	05.20.2020 14:15	0.5 ft	662291-001
SS05	S	05.20.2020 14:55	0.5 ft	662291-002

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 167H

Project ID: *012920078*
Work Order Number(s): *662291*

Report Date: *05.29.2020*
Date Received: *05.21.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 662291

LT Environmental, Inc., Arvada, CO

PLU 167H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	05.21.2020 13:50
Lab Sample Id:	662291-001	Date Collected:	05.20.2020 14:15	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.21.2020 17:43	Basis:	Wet Weight
Seq Number:	3126735				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	05.22.2020 01:08	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	05.22.2020 16:00	Basis:	Wet Weight
Seq Number:	3126899				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**78.5**	50.0	mg/kg	05.22.2020 20:11		1
Diesel Range Organics (DRO)	C10C28DRO	**655**	50.0	mg/kg	05.22.2020 20:11		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**56.9**	50.0	mg/kg	05.22.2020 20:11		1
Total GRO-DRO	PHC628	**734**	50.0	mg/kg	05.22.2020 20:11		1
Total TPH	PHC635	**790**	50.0	mg/kg	05.22.2020 20:11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	05.22.2020 20:11	
o-Terphenyl	84-15-1	98	%	70-135	05.22.2020 20:11	

Certificate of Analytical Results 662291

LT Environmental, Inc., Arvada, CO

PLU 167H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	05.21.2020 13:50
Lab Sample Id:	662291-001	Date Collected:	05.20.2020 14:15	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MRB	Date Prep:	05.21.2020 17:28	Basis:	Wet Weight
Seq Number:	3126744				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.21.2020 23:12	U	1
Toluene	108-88-3	**0.121**	0.00198	mg/kg	05.21.2020 23:12		1
Ethylbenzene	100-41-4	**0.118**	0.00198	mg/kg	05.21.2020 23:12		1
m,p-Xylenes	179601-23-1	**0.300**	0.00397	mg/kg	05.21.2020 23:12		1
o-Xylene	95-47-6	**0.149**	0.00198	mg/kg	05.21.2020 23:12		1
Total Xylenes	1330-20-7	**0.449**	0.00198	mg/kg	05.21.2020 23:12		1
Total BTEX		**0.688**	0.00198	mg/kg	05.21.2020 23:12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	05.21.2020 23:12	
1,4-Difluorobenzene	540-36-3	95	%	70-130	05.21.2020 23:12	

Certificate of Analytical Results 662291

LT Environmental, Inc., Arvada, CO

PLU 167H

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	05.21.2020 13:50
Lab Sample Id:	662291-002	Date Collected:	05.20.2020 14:55	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.21.2020 17:43	Basis:	Wet Weight
Seq Number:	3126735				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	05.22.2020 01:14	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	05.22.2020 16:00	Basis:	Wet Weight
Seq Number:	3126904				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**1160**	50.2	mg/kg	05.22.2020 19:30		1
Diesel Range Organics (DRO)	C10C28DRO	**4450**	50.2	mg/kg	05.22.2020 19:30		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**373**	50.2	mg/kg	05.22.2020 19:30		1
Total GRO-DRO	PHC628	**5610**	50.2	mg/kg	05.22.2020 19:30		1
Total TPH	PHC635	**5980**	50.2	mg/kg	05.22.2020 19:30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	05.22.2020 19:30	
o-Terphenyl	84-15-1	98	%	70-135	05.22.2020 19:30	

Certificate of Analytical Results 662291

LT Environmental, Inc., Arvada, CO

PLU 167H

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	05.21.2020 13:50
Lab Sample Id:	662291-002	Date Collected:	05.20.2020 14:55	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MRB	Date Prep:	05.21.2020 17:28	Basis:	Wet Weight
Seq Number:	3126744				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0262**	0.00198	mg/kg	05.21.2020 23:32		1
Toluene	108-88-3	**0.379**	0.00198	mg/kg	05.21.2020 23:32		1
Ethylbenzene	100-41-4	**0.385**	0.00198	mg/kg	05.21.2020 23:32		1
m,p-Xylenes	179601-23-1	**0.762**	0.00397	mg/kg	05.21.2020 23:32		1
o-Xylene	95-47-6	**0.355**	0.00198	mg/kg	05.21.2020 23:32		1
Total Xylenes	1330-20-7	**1.12**	0.00198	mg/kg	05.21.2020 23:32		1
Total BTEX		**1.91**	0.00198	mg/kg	05.21.2020 23:32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.21.2020 23:32	
1,4-Difluorobenzene	540-36-3	78	%	70-130	05.21.2020 23:32	

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 662291

LT Environmental, Inc.

PLU 167H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3126735 — Matrix: Solid — Date Prep: 05.21.2020
MB Sample Id: 7703898-1-BLK — LCS Sample Id: 7703898-1-BKS — LCSD Sample Id: 7703898-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<50.0	1250	1240	99	1240	99	90-110	0	20	mg/kg	05.22.2020 00:33	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3126735 — Matrix: Soil — Date Prep: 05.21.2020
Parent Sample Id: 662289-001 — MS Sample Id: 662289-001 S — MSD Sample Id: 662289-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	385	198	603	110	571	93	90-110	5	20	mg/kg	05.22.2020 00:50	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3126735 — Matrix: Soil — Date Prep: 05.21.2020
Parent Sample Id: 662292-008 — MS Sample Id: 662292-008 S — MSD Sample Id: 662292-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	129	201	308	89	307	89	90-110	0	20	mg/kg	05.22.2020 02:19	X

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3126899 — Matrix: Solid — Date Prep: 05.22.2020
MB Sample Id: 7704012-1-BLK — LCS Sample Id: 7704012-1-BKS — LCSD Sample Id: 7704012-1-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	980	98	982	98	70-135	0	35	mg/kg	05.22.2020 16:45	
Diesel Range Organics (DRO)	<50.0	1000	1130	113	1130	113	70-135	0	35	mg/kg	05.22.2020 16:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		134		132		70-135	%	05.22.2020 16:45
o-Terphenyl	130		132		130		70-135	%	05.22.2020 16:45

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3126904 — Matrix: Solid — Date Prep: 05.22.2020
MB Sample Id: 7704016-1-BLK — LCS Sample Id: 7704016-1-BKS — LCSD Sample Id: 7704016-1-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	1030	103	1060	106	70-135	3	35	mg/kg	05.22.2020 16:45	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	951	95	70-135	10	35	mg/kg	05.22.2020 16:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	132		122		118		70-135	%	05.22.2020 16:45
o-Terphenyl	132		108		114		70-135	%	05.22.2020 16:45

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 662291

LT Environmental, Inc.

PLU 167H

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3126899 Matrix: Solid Date Prep: 05.22.2020
MB Sample Id: 7704012-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.22.2020 16:25	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3126904 Matrix: Solid Date Prep: 05.22.2020
MB Sample Id: 7704016-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.22.2020 16:25	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3126899 Matrix: Soil Date Prep: 05.22.2020
Parent Sample Id: 662329-001 MS Sample Id: 662329-001 S MSD Sample Id: 662329-001 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)	<49.8	996	913	92	930	93	70-135	2	35	mg/kg	05.22.2020 17:47	
Diesel Range Organics (DRO)	2830	996	3780	95	3630	80	70-135	4	35	mg/kg	05.22.2020 17:47	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		107		70-135	%	05.22.2020 17:47
o-Terphenyl	117		118		70-135	%	05.22.2020 17:47

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3126904 Matrix: Soil Date Prep: 05.22.2020
Parent Sample Id: 662292-021 MS Sample Id: 662292-021 S MSD Sample Id: 662292-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1050	105	1040	104	70-135	1	35	mg/kg	05.22.2020 17:47	
Diesel Range Organics (DRO)	<50.2	1000	1120	112	1110	111	70-135	1	35	mg/kg	05.22.2020 17:47	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		113		70-135	%	05.22.2020 17:47
o-Terphenyl	104		105		70-135	%	05.22.2020 17:47

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

QC Summary 662291

LT Environmental, Inc.

PLU 167H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3126744 Matrix: Solid Date Prep: 05.21.2020
MB Sample Id: 7703835-1-BLK LCS Sample Id: 7703835-1-BKS LCSD Sample Id: 7703835-1-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	0.114	114	0.114	114	70-130	0	35	mg/kg	05.21.2020 14:58	
Toluene	<0.00200	0.100	0.109	109	0.110	110	70-130	1	35	mg/kg	05.21.2020 14:58	
Ethylbenzene	<0.00200	0.100	0.104	104	0.103	103	71-129	1	35	mg/kg	05.21.2020 14:58	
m,p-Xylenes	<0.00400	0.200	0.214	107	0.214	107	70-135	0	35	mg/kg	05.21.2020 14:58	
o-Xylene	<0.00200	0.100	0.107	107	0.107	107	71-133	0	35	mg/kg	05.21.2020 14:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		105		105		70-130	%	05.21.2020 14:58
4-Bromofluorobenzene	95		91		89		70-130	%	05.21.2020 14:58

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3126744 Matrix: Soil Date Prep: 05.21.2020
Parent Sample Id: 662199-021 MS Sample Id: 662199-021 S MSD Sample Id: 662199-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.113	113	0.117	116	70-130	3	35	mg/kg	05.21.2020 20:08	
Toluene	<0.00200	0.100	0.109	109	0.127	126	70-130	15	35	mg/kg	05.21.2020 20:08	
Ethylbenzene	<0.00200	0.100	0.101	101	0.0987	98	71-129	2	35	mg/kg	05.21.2020 20:08	
m,p-Xylenes	<0.00401	0.200	0.209	105	0.204	101	70-135	2	35	mg/kg	05.21.2020 20:08	
o-Xylene	<0.00200	0.100	0.102	102	0.100	99	71-133	2	35	mg/kg	05.21.2020 20:08	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		108		70-130	%	05.21.2020 20:08
4-Bromofluorobenzene	94		94		70-130	%	05.21.2020 20:08

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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

Chain of Custody

Work Order No: 1e1e2291

XENCO LABORATORIES

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

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO 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:	emoreno@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	PLU 167H	Turn Around	
Project Number:	0129200 78	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Ezequiel Moreno	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.6	Thermometer ID	TNM007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	2

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SS03	S	5/20/20	1415	0.5'	1	X	X	X
SS05	S	5/20/20	1455	0.5'	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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			5/21/20 13:50	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: 05.21.2020 01.50.00 PM

Work Order #: 662291

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.6	
#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: 05.21.2020

Checklist reviewed by: Jessica Kramer Date: 05.22.2020

Jessica Kramer

Certificate of Analysis Summary 664900

LT Environmental, Inc., Arvada, CO

Project Name: PLU 167

Project Id: 012920078
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri 06.19.2020 08:30
Report Date: 06.22.2020 12:47
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	664900-001					
	Field Id:	FS22					
	Depth:	4- ft					
	Matrix:	SOIL					
	Sampled:	06.18.2020 14:10					
BTEX by EPA 8021B	***Extracted:***	06.19.2020 10:39					
	Analyzed:	06.19.2020 14:26					
	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:***	06.19.2020 12:43					
	Analyzed:	06.19.2020 15:08					
	Units/RL:	mg/kg	RL				
Chloride		342	9.94				
TPH by SW8015 Mod	***Extracted:***	06.19.2020 13:30					
	Analyzed:	06.19.2020 13:49					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1				
Diesel Range Organics (DRO)		120	50.1				
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1				
Total GRO-DRO		120	50.1				
Total TPH		120	50.1				

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

Jessica Kramer
Project Manager

Analytical Report 664900

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 167

012920078

06.22.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-34), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
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 (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

06.22.2020

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

Reference: XENCO Report No(s): **664900**
PLU 167
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) 664900. 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. 664900 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 664900

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS22	S	06.18.2020 14:10	4 ft	664900-001

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 167

Project ID: *012920078*
Work Order Number(s): *664900*

Report Date: *06.22.2020*
Date Received: *06.19.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 664900

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS22**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664900-001	Date Collected:	06.18.2020 14:10	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 12:43	Basis:	Wet Weight
Seq Number:	3129569				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**342**	9.94	mg/kg	06.19.2020 15:08		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 13:30	Basis:	Wet Weight
Seq Number:	3129581				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	06.19.2020 13:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	**120**	50.1	mg/kg	06.19.2020 13:49		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	06.19.2020 13:49	U	1
Total GRO-DRO	PHC628	**120**	50.1	mg/kg	06.19.2020 13:49		1
Total TPH	PHC635	**120**	50.1	mg/kg	06.19.2020 13:49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	06.19.2020 13:49	
o-Terphenyl	84-15-1	105	%	70-135	06.19.2020 13:49	

Certificate of Analytical Results 664900

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS22**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664900-001	Date Collected:	06.18.2020 14:10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:39	Basis:	Wet Weight
Seq Number:	3129552				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.19.2020 14:26	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.19.2020 14:26	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.19.2020 14:26	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	06.19.2020 14:26	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.19.2020 14:26	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.19.2020 14:26	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.19.2020 14:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	06.19.2020 14:26	
1,4-Difluorobenzene	540-36-3	97	%	70-130	06.19.2020 14:26	

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 664900

LT Environmental, Inc.

PLU 167

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129569 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705814-1-BLK — LCS Sample Id: 7705814-1-BKS — LCSD Sample Id: 7705814-1-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	263	105	90-110	4	20	mg/kg	06.19.2020 14:15	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129569 — Matrix: Soil — Date Prep: 06.19.2020
Parent Sample Id: 664898-001 — MS Sample Id: 664898-001 S — MSD Sample Id: 664898-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10.1	200	198	94	199	94	90-110	1	20	mg/kg	06.19.2020 14:33	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129569 — Matrix: Soil — Date Prep: 06.19.2020
Parent Sample Id: 664903-004 — MS Sample Id: 664903-004 S — MSD Sample Id: 664903-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	18.6	200	208	95	210	96	90-110	1	20	mg/kg	06.19.2020 15:55	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129581 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705889-1-BLK — LCS Sample Id: 7705889-1-BKS — LCSD Sample Id: 7705889-1-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	974	97	974	97	70-135	0	35	mg/kg	06.19.2020 13:08	
Diesel Range Organics (DRO)	<50.0	1000	1020	102	1000	100	70-135	2	35	mg/kg	06.19.2020 13:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		91		90		70-135	%	06.19.2020 13:08
o-Terphenyl	101		80		77		70-135	%	06.19.2020 13:08

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129581 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705889-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.19.2020 12:47	

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

QC Summary 664900

LT Environmental, Inc.

PLU 167

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3129581 Matrix: Soil Date Prep: 06.19.2020
Parent Sample Id: 664900-001 MS Sample Id: 664900-001 S MSD Sample Id: 664900-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1140	114	1150	115	70-135	1	35	mg/kg	06.19.2020 14:09	
Diesel Range Organics (DRO)	120	1000	1300	118	1230	111	70-135	6	35	mg/kg	06.19.2020 14:09	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		126		70-135	%	06.19.2020 14:09
o-Terphenyl	95		95		70-135	%	06.19.2020 14:09

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3129552 Matrix: Solid Date Prep: 06.19.2020
MB Sample Id: 7705817-1-BLK LCS Sample Id: 7705817-1-BKS LCSD Sample Id: 7705817-1-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	0.0878	88	0.0981	98	70-130	11	35	mg/kg	06.19.2020 12:29	
Toluene	<0.00200	0.100	0.0887	89	0.0983	98	70-130	10	35	mg/kg	06.19.2020 12:29	
Ethylbenzene	<0.00200	0.100	0.0950	95	0.105	105	71-129	10	35	mg/kg	06.19.2020 12:29	
m,p-Xylenes	<0.00400	0.200	0.195	98	0.216	108	70-135	10	35	mg/kg	06.19.2020 12:29	
o-Xylene	<0.00200	0.100	0.0953	95	0.106	106	71-133	11	35	mg/kg	06.19.2020 12:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		98		98		70-130	%	06.19.2020 12:29
4-Bromofluorobenzene	108		102		98		70-130	%	06.19.2020 12:29

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3129552 Matrix: Soil Date Prep: 06.19.2020
Parent Sample Id: 664900-001 MS Sample Id: 664900-001 S MSD Sample Id: 664900-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.105	105	0.0990	98	70-130	6	35	mg/kg	06.19.2020 13:10	
Toluene	<0.00200	0.100	0.105	105	0.0989	98	70-130	6	35	mg/kg	06.19.2020 13:10	
Ethylbenzene	<0.00200	0.100	0.111	111	0.103	102	71-129	7	35	mg/kg	06.19.2020 13:10	
m,p-Xylenes	<0.00401	0.200	0.224	112	0.207	102	70-135	8	35	mg/kg	06.19.2020 13:10	
o-Xylene	<0.00200	0.100	0.109	109	0.0990	98	71-133	10	35	mg/kg	06.19.2020 13:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		70-130	%	06.19.2020 13:10
4-Bromofluorobenzene	101		101		70-130	%	06.19.2020 13:10

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

Chain of Custody

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

Work Order No: 660490

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:	PLU 167	Turn Around	
Project Number:	012920078	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temperature (°C):	2.1/1.9	Temp Blank:	(Yes) No
Received Intact:	(Yes) No	Wet Ice:	(Yes) No
Cooler Custody Seals:	Yes (No) N/A	Thermometer ID	NM007
Sample Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
		Total Containers:	1

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS22	S	6-18-2020	1410	4'	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			6/19/20 0830	2			6/19/20 0830
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: 06.19.2020 08.30.00 AM

Work Order #: 664900

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.9	
#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: 06.19.2020

Checklist reviewed by: Jessica Kramer Date: 06.19.2020

Jessica Kramer

Certificate of Analysis Summary 664902

LT Environmental, Inc., Arvada, CO

Project Name: PLU 167

Project Id: 012920078
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri 06.19.2020 08:30
Report Date: 06.22.2020 12:46
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	664902-001					
	Field Id:	SW19					
	Depth:	0-4 ft					
	Matrix:	SOIL					
	Sampled:	06.18.2020 14:24					
BTEX by EPA 8021B	***Extracted:***	06.19.2020 10:39					
	Analyzed:	06.19.2020 14:46					
	Units/RL:	mg/kg	RL				
Benzene		<0.00200	0.00200				
Toluene		<0.00200	0.00200				
Ethylbenzene		<0.00200	0.00200				
m,p-Xylenes		<0.00399	0.00399				
o-Xylene		<0.00200	0.00200				
Total Xylenes		<0.00200	0.00200				
Total BTEX		<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	06.19.2020 12:43					
	Analyzed:	06.19.2020 15:26					
	Units/RL:	mg/kg	RL				
Chloride		29.7	10.1				
TPH by SW8015 Mod	***Extracted:***	06.19.2020 13:30					
	Analyzed:	06.19.2020 14:50					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.2	50.2				
Diesel Range Organics (DRO)		<50.2	50.2				
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2				
Total GRO-DRO		<50.2	50.2				
Total TPH		<50.2	50.2				

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

Jessica Kramer
Project Manager

Analytical Report 664902

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 167

012920078

06.22.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

06.22.2020

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

Reference: XENCO Report No(s): **664902**
PLU 167
Project Address:

Dan Moir:

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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 664902

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW19	S	06.18.2020 14:24	0 - 4 ft	664902-001

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 167

Project ID: *012920078*
Work Order Number(s): *664902*

Report Date: *06.22.2020*
Date Received: *06.19.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 664902

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW19**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664902-001	Date Collected:	06.18.2020 14:24	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 12:43	Basis:	Wet Weight
Seq Number:	3129569				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**29.7**	10.1	mg/kg	06.19.2020 15:26		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 13:30	Basis:	Wet Weight
Seq Number:	3129581				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	06.19.2020 14:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	06.19.2020 14:50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	06.19.2020 14:50	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	06.19.2020 14:50	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	06.19.2020 14:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	06.19.2020 14:50	
o-Terphenyl	84-15-1	104	%	70-135	06.19.2020 14:50	

Certificate of Analytical Results 664902

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW19**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664902-001	Date Collected:	06.18.2020 14:24	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:39	Basis:	Wet Weight
Seq Number:	3129552				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.19.2020 14:46	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.19.2020 14:46	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.19.2020 14:46	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.19.2020 14:46	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.19.2020 14:46	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.19.2020 14:46	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.19.2020 14:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	06.19.2020 14:46	
1,4-Difluorobenzene	540-36-3	101	%	70-130	06.19.2020 14:46	

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 664902

LT Environmental, Inc.

PLU 167

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129569 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705814-1-BLK — LCS Sample Id: 7705814-1-BKS — LCSD Sample Id: 7705814-1-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	263	105	90-110	4	20	mg/kg	06.19.2020 14:15	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129569 — Matrix: Soil — Date Prep: 06.19.2020
Parent Sample Id: 664898-001 — MS Sample Id: 664898-001 S — MSD Sample Id: 664898-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10.1	200	198	94	199	94	90-110	1	20	mg/kg	06.19.2020 14:33	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129569 — Matrix: Soil — Date Prep: 06.19.2020
Parent Sample Id: 664903-004 — MS Sample Id: 664903-004 S — MSD Sample Id: 664903-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	18.6	200	208	95	210	96	90-110	1	20	mg/kg	06.19.2020 15:55	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129581 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705889-1-BLK — LCS Sample Id: 7705889-1-BKS — LCSD Sample Id: 7705889-1-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	974	97	974	97	70-135	0	35	mg/kg	06.19.2020 13:08	
Diesel Range Organics (DRO)	<50.0	1000	1020	102	1000	100	70-135	2	35	mg/kg	06.19.2020 13:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		91		90		70-135	%	06.19.2020 13:08
o-Terphenyl	101		80		77		70-135	%	06.19.2020 13:08

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129581 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705889-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.19.2020 12:47	

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

QC Summary 664902

LT Environmental, Inc.

PLU 167

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3129581 Matrix: Soil Date Prep: 06.19.2020
Parent Sample Id: 664900-001 MS Sample Id: 664900-001 S MSD Sample Id: 664900-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1140	114	1150	115	70-135	1	35	mg/kg	06.19.2020 14:09	
Diesel Range Organics (DRO)	120	1000	1300	118	1230	111	70-135	6	35	mg/kg	06.19.2020 14:09	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		126		70-135	%	06.19.2020 14:09
o-Terphenyl	95		95		70-135	%	06.19.2020 14:09

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3129552 Matrix: Solid Date Prep: 06.19.2020
MB Sample Id: 7705817-1-BLK LCS Sample Id: 7705817-1-BKS LCSD Sample Id: 7705817-1-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	0.0878	88	0.0981	98	70-130	11	35	mg/kg	06.19.2020 12:29	
Toluene	<0.00200	0.100	0.0887	89	0.0983	98	70-130	10	35	mg/kg	06.19.2020 12:29	
Ethylbenzene	<0.00200	0.100	0.0950	95	0.105	105	71-129	10	35	mg/kg	06.19.2020 12:29	
m,p-Xylenes	<0.00400	0.200	0.195	98	0.216	108	70-135	10	35	mg/kg	06.19.2020 12:29	
o-Xylene	<0.00200	0.100	0.0953	95	0.106	106	71-133	11	35	mg/kg	06.19.2020 12:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		98		98		70-130	%	06.19.2020 12:29
4-Bromofluorobenzene	108		102		98		70-130	%	06.19.2020 12:29

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3129552 Matrix: Soil Date Prep: 06.19.2020
Parent Sample Id: 664900-001 MS Sample Id: 664900-001 S MSD Sample Id: 664900-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.105	105	0.0990	98	70-130	6	35	mg/kg	06.19.2020 13:10	
Toluene	<0.00200	0.100	0.105	105	0.0989	98	70-130	6	35	mg/kg	06.19.2020 13:10	
Ethylbenzene	<0.00200	0.100	0.111	111	0.103	102	71-129	7	35	mg/kg	06.19.2020 13:10	
m,p-Xylenes	<0.00401	0.200	0.224	112	0.207	102	70-135	8	35	mg/kg	06.19.2020 13:10	
o-Xylene	<0.00200	0.100	0.109	109	0.0990	98	71-133	10	35	mg/kg	06.19.2020 13:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		70-130	%	06.19.2020 13:10
4-Bromofluorobenzene	101		101		70-130	%	06.19.2020 13:10

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

Chain of Custody

XENCO LABORATORIES

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

Work Order No: 6e64902

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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:	PLU 167	Turn Around	
Project Number:	012920078	Routine	☐
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	2.1 / 1.9	Thermometer ID	TH1007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	1

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SW19	S	6-18-2020	1420	0-4'	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			6/19/20 0830	2		6/19/20 0835
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: 06.19.2020 08.30.00 AM

Work Order #: 664902

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.9	
#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**	Sample recieved in bulk container.
#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: 06.19.2020

Checklist reviewed by: Jessica Kramer Date: 06.19.2020

Jessica Kramer

Certificate of Analysis Summary 664903

LT Environmental, Inc., Arvada, CO

Project Name: PLU 167

Project Id: 012920078
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri 06.19.2020 08:30
Report Date: 06.22.2020 12:45
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	664903-001		664903-002		664903-003		664903-004		664903-005		664903-006	
	Field Id:	SW13		SW14		SW15		SW16		SW17		SW18	
	Depth:	0-4 ft		0-4 ft		0-4 ft		0-4 ft		0-4 ft		0-4 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	06.18.2020 13:50		06.18.2020 13:40		06.18.2020 13:30		06.18.2020 13:20		06.18.2020 13:10		06.18.2020 13:00	
BTEX by EPA 8021	***Extracted:***	06.19.2020 10:39		06.19.2020 10:39		06.19.2020 10:39		06.19.2020 10:39		06.19.2020 10:39		06.19.2020 10:39	
	Analyzed:	06.19.2020 15:07		06.19.2020 15:27		06.19.2020 15:47		06.19.2020 16:08		06.19.2020 16:28		06.19.2020 16:49	
	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	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Toluene		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Ethylbenzene		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
m,p-Xylenes		<0.00400	0.00400	<0.00404	0.00404	<0.00398	0.00398	<0.00401	0.00401	<0.00398	0.00398	<0.00398	0.00398
o-Xylene		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Total Xylenes		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Total BTEX		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Chloride by EPA 300	***Extracted:***	06.19.2020 12:43		06.19.2020 12:43		06.19.2020 12:43		06.19.2020 12:43		06.19.2020 12:43		06.19.2020 12:43	
	Analyzed:	06.19.2020 15:32		06.19.2020 15:38		06.19.2020 15:44		06.19.2020 15:50		06.19.2020 16:07		06.19.2020 16:13	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		10.3	10.0	11.2	10.1	<10.1	10.1	18.6	9.98	10.2	9.90	<10.1	10.1
TPH by SW8015 Mod	***Extracted:***	06.19.2020 13:30		06.19.2020 13:30		06.19.2020 13:30		06.19.2020 13:30		06.19.2020 13:30		06.19.2020 13:30	
	Analyzed:	06.19.2020 15:11		06.19.2020 15:32		06.19.2020 15:52		06.19.2020 16:13		06.19.2020 16:34		06.19.2020 16:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.3	50.3	<50.3	50.3	<50.0	50.0	<50.1	50.1	<50.2	50.2	<50.3	50.3
Diesel Range Organics (DRO)		<50.3	50.3	<50.3	50.3	<50.0	50.0	73.9	50.1	<50.2	50.2	<50.3	50.3
Motor Oil Range Hydrocarbons (MRO)		<50.3	50.3	<50.3	50.3	<50.0	50.0	<50.1	50.1	<50.2	50.2	<50.3	50.3
Total GRO-DRO		<50.3	50.3	<50.3	50.3	<50.0	50.0	73.9	50.1	<50.2	50.2	<50.3	50.3
Total TPH		<50.3	50.3	<50.3	50.3	<50.0	50.0	73.9	50.1	<50.2	50.2	<50.3	50.3

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

Jessica Kramer
Project Manager

Analytical Report 664903

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 167

012920078

06.22.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-34), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
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 (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

06.22.2020

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

Reference: XENCO Report No(s): **664903**
PLU 167
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) 664903. 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. 664903 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 664903

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW13	S	06.18.2020 13:50	0 - 4 ft	664903-001
SW14	S	06.18.2020 13:40	0 - 4 ft	664903-002
SW15	S	06.18.2020 13:30	0 - 4 ft	664903-003
SW16	S	06.18.2020 13:20	0 - 4 ft	664903-004
SW17	S	06.18.2020 13:10	0 - 4 ft	664903-005
SW18	S	06.18.2020 13:00	0 - 4 ft	664903-006

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 167

Project ID: *012920078*
Work Order Number(s): *664903*

Report Date: *06.22.2020*
Date Received: *06.19.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 664903

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW13**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664903-001	Date Collected:	06.18.2020 13:50	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 12:43	Basis:	Wet Weight
Seq Number:	3129569				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.3**	10.0	mg/kg	06.19.2020 15:32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 13:30	Basis:	Wet Weight
Seq Number:	3129581				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	06.19.2020 15:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	06.19.2020 15:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	06.19.2020 15:11	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	06.19.2020 15:11	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	06.19.2020 15:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	06.19.2020 15:11	
o-Terphenyl	84-15-1	100	%	70-135	06.19.2020 15:11	

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LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW13**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664903-001	Date Collected:	06.18.2020 13:50	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:39	Basis:	Wet Weight
Seq Number:	3129552				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.19.2020 15:07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.19.2020 15:07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.19.2020 15:07	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	06.19.2020 15:07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.19.2020 15:07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.19.2020 15:07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.19.2020 15:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	06.19.2020 15:07	
1,4-Difluorobenzene	540-36-3	102	%	70-130	06.19.2020 15:07	

Certificate of Analytical Results 664903

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW14**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664903-002	Date Collected:	06.18.2020 13:40	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 12:43	Basis:	Wet Weight
Seq Number:	3129569				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.2**	10.1	mg/kg	06.19.2020 15:38		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 13:30	Basis:	Wet Weight
Seq Number:	3129581				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	06.19.2020 15:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	06.19.2020 15:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	06.19.2020 15:32	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	06.19.2020 15:32	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	06.19.2020 15:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	06.19.2020 15:32	
o-Terphenyl	84-15-1	100	%	70-135	06.19.2020 15:32	

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LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW14**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664903-002	Date Collected:	06.18.2020 13:40	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:39	Basis:	Wet Weight
Seq Number:	3129552				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.19.2020 15:27	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.19.2020 15:27	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.19.2020 15:27	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.19.2020 15:27	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.19.2020 15:27	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.19.2020 15:27	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.19.2020 15:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	06.19.2020 15:27	
1,4-Difluorobenzene	540-36-3	102	%	70-130	06.19.2020 15:27	

Certificate of Analytical Results 664903

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW15**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664903-003	Date Collected:	06.18.2020 13:30	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 12:43	Basis:	Wet Weight
Seq Number:	3129569				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	06.19.2020 15:44	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 13:30	Basis:	Wet Weight
Seq Number:	3129581				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.19.2020 15:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.19.2020 15:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.19.2020 15:52	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	06.19.2020 15:52	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.19.2020 15:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	06.19.2020 15:52	
o-Terphenyl	84-15-1	102	%	70-135	06.19.2020 15:52	

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LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW15**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664903-003	Date Collected:	06.18.2020 13:30	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:39	Basis:	Wet Weight
Seq Number:	3129552				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.19.2020 15:47	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.19.2020 15:47	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.19.2020 15:47	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.19.2020 15:47	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.19.2020 15:47	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.19.2020 15:47	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.19.2020 15:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	06.19.2020 15:47	
4-Bromofluorobenzene	460-00-4	103	%	70-130	06.19.2020 15:47	

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LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW16**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664903-004	Date Collected:	06.18.2020 13:20	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 12:43	Basis:	Wet Weight
Seq Number:	3129569				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18.6**	9.98	mg/kg	06.19.2020 15:50		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 13:30	Basis:	Wet Weight
Seq Number:	3129581				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	06.19.2020 16:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	**73.9**	50.1	mg/kg	06.19.2020 16:13		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	06.19.2020 16:13	U	1
Total GRO-DRO	PHC628	**73.9**	50.1	mg/kg	06.19.2020 16:13		1
Total TPH	PHC635	**73.9**	50.1	mg/kg	06.19.2020 16:13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	06.19.2020 16:13	
o-Terphenyl	84-15-1	107	%	70-135	06.19.2020 16:13	

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LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW16**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664903-004	Date Collected:	06.18.2020 13:20	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:39	Basis:	Wet Weight
Seq Number:	3129552				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.19.2020 16:08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.19.2020 16:08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.19.2020 16:08	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.19.2020 16:08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.19.2020 16:08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.19.2020 16:08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.19.2020 16:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	06.19.2020 16:08	
1,4-Difluorobenzene	540-36-3	103	%	70-130	06.19.2020 16:08	

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LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW17**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664903-005	Date Collected:	06.18.2020 13:10	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 12:43	Basis:	Wet Weight
Seq Number:	3129569				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.2**	9.90	mg/kg	06.19.2020 16:07		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 13:30	Basis:	Wet Weight
Seq Number:	3129581				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	06.19.2020 16:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	06.19.2020 16:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	06.19.2020 16:34	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	06.19.2020 16:34	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	06.19.2020 16:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	06.19.2020 16:34	
o-Terphenyl	84-15-1	101	%	70-135	06.19.2020 16:34	

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LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW17**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664903-005	Date Collected:	06.18.2020 13:10	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:39	Basis:	Wet Weight
Seq Number:	3129552				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.19.2020 16:28	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.19.2020 16:28	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.19.2020 16:28	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.19.2020 16:28	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.19.2020 16:28	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.19.2020 16:28	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.19.2020 16:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	06.19.2020 16:28	
4-Bromofluorobenzene	460-00-4	103	%	70-130	06.19.2020 16:28	

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LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW18**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664903-006	Date Collected:	06.18.2020 13:00	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 12:43	Basis:	Wet Weight
Seq Number:	3129569				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	06.19.2020 16:13	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 13:30	Basis:	Wet Weight
Seq Number:	3129581				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	06.19.2020 16:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	06.19.2020 16:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	06.19.2020 16:55	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	06.19.2020 16:55	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	06.19.2020 16:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	06.19.2020 16:55	
o-Terphenyl	84-15-1	104	%	70-135	06.19.2020 16:55	

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LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW18**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664903-006	Date Collected:	06.18.2020 13:00	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:39	Basis:	Wet Weight
Seq Number:	3129552				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.19.2020 16:49	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.19.2020 16:49	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.19.2020 16:49	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.19.2020 16:49	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.19.2020 16:49	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.19.2020 16:49	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.19.2020 16:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	06.19.2020 16:49	
4-Bromofluorobenzene	460-00-4	107	%	70-130	06.19.2020 16:49	

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 664903

LT Environmental, Inc.

PLU 167

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129569 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705814-1-BLK — LCS Sample Id: 7705814-1-BKS — LCSD Sample Id: 7705814-1-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	263	105	90-110	4	20	mg/kg	06.19.2020 14:15	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129569 — Matrix: Soil — Date Prep: 06.19.2020
Parent Sample Id: 664898-001 — MS Sample Id: 664898-001 S — MSD Sample Id: 664898-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10.1	200	198	94	199	94	90-110	1	20	mg/kg	06.19.2020 14:33	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129569 — Matrix: Soil — Date Prep: 06.19.2020
Parent Sample Id: 664903-004 — MS Sample Id: 664903-004 S — MSD Sample Id: 664903-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	18.6	200	208	95	210	96	90-110	1	20	mg/kg	06.19.2020 15:55	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129581 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705889-1-BLK — LCS Sample Id: 7705889-1-BKS — LCSD Sample Id: 7705889-1-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	974	97	974	97	70-135	0	35	mg/kg	06.19.2020 13:08	
Diesel Range Organics (DRO)	<50.0	1000	1020	102	1000	100	70-135	2	35	mg/kg	06.19.2020 13:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		91		90		70-135	%	06.19.2020 13:08
o-Terphenyl	101		80		77		70-135	%	06.19.2020 13:08

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129581 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705889-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.19.2020 12:47	

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

QC Summary 664903

LT Environmental, Inc.

PLU 167

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3129581 Matrix: Soil Date Prep: 06.19.2020
Parent Sample Id: 664900-001 MS Sample Id: 664900-001 S MSD Sample Id: 664900-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1140	114	1150	115	70-135	1	35	mg/kg	06.19.2020 14:09	
Diesel Range Organics (DRO)	120	1000	1300	118	1230	111	70-135	6	35	mg/kg	06.19.2020 14:09	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		126		70-135	%	06.19.2020 14:09
o-Terphenyl	95		95		70-135	%	06.19.2020 14:09

Analytical Method: **BTEX by EPA 8021** Prep Method: SW5035A
Seq Number: 3129552 Matrix: Solid Date Prep: 06.19.2020
MB Sample Id: 7705817-1-BLK LCS Sample Id: 7705817-1-BKS LCSD Sample Id: 7705817-1-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	0.0878	88	0.0981	98	70-130	11	35	mg/kg	06.19.2020 12:29	
Toluene	<0.00200	0.100	0.0887	89	0.0983	98	70-130	10	35	mg/kg	06.19.2020 12:29	
Ethylbenzene	<0.00200	0.100	0.0950	95	0.105	105	71-129	10	35	mg/kg	06.19.2020 12:29	
m,p-Xylenes	<0.00400	0.200	0.195	98	0.216	108	70-135	10	35	mg/kg	06.19.2020 12:29	
o-Xylene	<0.00200	0.100	0.0953	95	0.106	106	71-133	11	35	mg/kg	06.19.2020 12:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		98		98		70-130	%	06.19.2020 12:29
4-Bromofluorobenzene	108		102		98		70-130	%	06.19.2020 12:29

Analytical Method: **BTEX by EPA 8021** Prep Method: SW5035A
Seq Number: 3129552 Matrix: Soil Date Prep: 06.19.2020
Parent Sample Id: 664900-001 MS Sample Id: 664900-001 S MSD Sample Id: 664900-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.105	105	0.0990	98	70-130	6	35	mg/kg	06.19.2020 13:10	
Toluene	<0.00200	0.100	0.105	105	0.0989	98	70-130	6	35	mg/kg	06.19.2020 13:10	
Ethylbenzene	<0.00200	0.100	0.111	111	0.103	102	71-129	7	35	mg/kg	06.19.2020 13:10	
m,p-Xylenes	<0.00401	0.200	0.224	112	0.207	102	70-135	8	35	mg/kg	06.19.2020 13:10	
o-Xylene	<0.00200	0.100	0.109	109	0.0990	98	71-133	10	35	mg/kg	06.19.2020 13:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		70-130	%	06.19.2020 13:10
4-Bromofluorobenzene	101		101		70-130	%	06.19.2020 13:10

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

Chain of Custody

XENCO LABORATORIES

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

Work Order No: 420903

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO 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:	PLU 167	Turn Around	
Project Number:	012920078	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	2.1/1.9	Thermometer ID	TM007
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	6

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SW13	S	6-18-2020	1350	0-4'	1	X	X	X
SW14	S	6-18-2020	1340	0-4'	1	X	X	X
SW15	S	6-18-2020	1330	0-4'	1	X	X	X
SW16	S	6-18-2020	1320	0-4'	1	X	X	X
SW17	S	6-18-2020	1310	0-4'	1	X	X	X
SW18	S	6-18-2020	1300	0-4'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			6/19/20 0814	2		06/19/20 08:30
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: 06.19.2020 08.30.00 AM

Work Order #: 664903

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.9	
#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: 06.19.2020

Checklist reviewed by: Jessica Kramer Date: 06.19.2020

Jessica Kramer

Certificate of Analysis Summary 664910

LT Environmental, Inc., Arvada, CO

Project Name: PLU 167

Project Id: 012920078
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri 06.19.2020 08:30
Report Date: 06.23.2020 08:05
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	664910-001		664910-002		664910-003		664910-004		664910-005		664910-006	
	Field Id:	FS16		FS17		FS18		FS19		FS20		FS21	
	Depth:	4- ft		4- ft		4- ft		4- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	06.18.2020 11:10		06.18.2020 11:20		06.18.2020 11:30		06.18.2020 11:40		06.18.2020 11:50		06.18.2020 14:00	
BTEX by EPA 8021B	***Extracted:***	06.19.2020 14:00		06.19.2020 14:00		06.19.2020 14:00		06.19.2020 14:00		06.19.2020 14:00		06.19.2020 14:00	
	Analyzed:	06.19.2020 22:39		06.19.2020 23:01		06.19.2020 23:22		06.19.2020 23:44		06.20.2020 01:00		06.20.2020 01:21	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199	<0.00198	0.00198
Toluene		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199	<0.00198	0.00198
Ethylbenzene		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199	<0.00198	0.00198
m,p-Xylenes		<0.00404	0.00404	<0.00401	0.00401	<0.00398	0.00398	<0.00395	0.00395	<0.00398	0.00398	<0.00396	0.00396
o-Xylene		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199	<0.00198	0.00198
Total Xylenes		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199	<0.00198	0.00198
Total BTEX		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199	<0.00198	0.00198
Chloride by EPA 300	***Extracted:***	** ** ** **		** ** ** **		** ** ** **		** ** ** **		** ** ** **		** ** ** **	
	Analyzed:	06.19.2020 19:21		06.19.2020 19:27		06.19.2020 19:45		06.19.2020 19:51		06.19.2020 19:57		06.19.2020 20:02	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		14.0	10.0	12.1	10.0	11.2	9.98	14.6	9.98	13.2	9.94	<9.96	9.96
TPH by SW8015 Mod	***Extracted:***	06.19.2020 13:30		06.19.2020 13:30		06.19.2020 13:30		06.19.2020 13:30		06.19.2020 13:30		06.19.2020 13:30	
	Analyzed:	06.19.2020 16:34		06.19.2020 16:55		06.19.2020 17:15		06.19.2020 17:36		06.19.2020 18:21		06.19.2020 18:42	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9
Diesel Range Organics (DRO)		<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9
Total GRO-DRO		<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9
Total TPH		<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9

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

Jessica Kramer
Project Manager

Analytical Report 664910

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 167

012920078

06.23.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-34), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
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 (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

06.23.2020

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

Reference: XENCO Report No(s): **664910**
PLU 167
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) 664910. 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. 664910 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 664910

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS16	S	06.18.2020 11:10	4 ft	664910-001
FS17	S	06.18.2020 11:20	4 ft	664910-002
FS18	S	06.18.2020 11:30	4 ft	664910-003
FS19	S	06.18.2020 11:40	4 ft	664910-004
FS20	S	06.18.2020 11:50	4 ft	664910-005
FS21	S	06.18.2020 14:00	4 ft	664910-006

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 167

Project ID: *012920078*
Work Order Number(s): *664910*

Report Date: *06.23.2020*
Date Received: *06.19.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 664910

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS16**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664910-001	Date Collected:	06.18.2020 11:10	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.18.2020 14:46	Basis:	Wet Weight
Seq Number:	3129571				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.0**	10.0	mg/kg	06.19.2020 19:21		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 13:30	Basis:	Wet Weight
Seq Number:	3129595				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.19.2020 16:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.19.2020 16:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.19.2020 16:34	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	06.19.2020 16:34	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.19.2020 16:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	06.19.2020 16:34	
o-Terphenyl	84-15-1	102	%	70-135	06.19.2020 16:34	

Certificate of Analytical Results 664910

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS16**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664910-001	Date Collected:	06.18.2020 11:10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 14:00	Basis:	Wet Weight
Seq Number:	3129616				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.19.2020 22:39	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.19.2020 22:39	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.19.2020 22:39	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.19.2020 22:39	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.19.2020 22:39	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.19.2020 22:39	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.19.2020 22:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	06.19.2020 22:39	
1,4-Difluorobenzene	540-36-3	100	%	70-130	06.19.2020 22:39	

Certificate of Analytical Results 664910

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS17**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664910-002	Date Collected:	06.18.2020 11:20	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.18.2020 14:46	Basis:	Wet Weight
Seq Number:	3129571				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.1**	10.0	mg/kg	06.19.2020 19:27		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 13:30	Basis:	Wet Weight
Seq Number:	3129595				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.19.2020 16:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.19.2020 16:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.19.2020 16:55	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	06.19.2020 16:55	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.19.2020 16:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	06.19.2020 16:55	
o-Terphenyl	84-15-1	104	%	70-135	06.19.2020 16:55	

Certificate of Analytical Results 664910

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS17**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664910-002	Date Collected:	06.18.2020 11:20	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 14:00	Basis:	Wet Weight
Seq Number:	3129616				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.19.2020 23:01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.19.2020 23:01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.19.2020 23:01	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.19.2020 23:01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.19.2020 23:01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.19.2020 23:01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.19.2020 23:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	06.19.2020 23:01	
1,4-Difluorobenzene	540-36-3	101	%	70-130	06.19.2020 23:01	

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LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS18**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664910-003	Date Collected:	06.18.2020 11:30	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.18.2020 14:46	Basis:	Wet Weight
Seq Number:	3129571				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.2**	9.98	mg/kg	06.19.2020 19:45		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 13:30	Basis:	Wet Weight
Seq Number:	3129595				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.19.2020 17:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.19.2020 17:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.19.2020 17:15	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	06.19.2020 17:15	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.19.2020 17:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	06.19.2020 17:15	
o-Terphenyl	84-15-1	109	%	70-135	06.19.2020 17:15	

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LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS18**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664910-003	Date Collected:	06.18.2020 11:30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 14:00	Basis:	Wet Weight
Seq Number:	3129616				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.19.2020 23:22	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.19.2020 23:22	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.19.2020 23:22	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.19.2020 23:22	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.19.2020 23:22	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.19.2020 23:22	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.19.2020 23:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	06.19.2020 23:22	
1,4-Difluorobenzene	540-36-3	88	%	70-130	06.19.2020 23:22	

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LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS19**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664910-004	Date Collected:	06.18.2020 11:40	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.18.2020 14:46	Basis:	Wet Weight
Seq Number:	3129571				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.6**	9.98	mg/kg	06.19.2020 19:51		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 13:30	Basis:	Wet Weight
Seq Number:	3129595				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	06.19.2020 17:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	06.19.2020 17:36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	06.19.2020 17:36	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	06.19.2020 17:36	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	06.19.2020 17:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	06.19.2020 17:36	
o-Terphenyl	84-15-1	104	%	70-135	06.19.2020 17:36	

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LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS19**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664910-004	Date Collected:	06.18.2020 11:40	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 14:00	Basis:	Wet Weight
Seq Number:	3129616				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	06.19.2020 23:44	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	06.19.2020 23:44	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	06.19.2020 23:44	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	06.19.2020 23:44	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	06.19.2020 23:44	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	06.19.2020 23:44	U	1
Total BTEX		<0.00198	0.00198	mg/kg	06.19.2020 23:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	06.19.2020 23:44	
1,4-Difluorobenzene	540-36-3	99	%	70-130	06.19.2020 23:44	

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LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS20**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664910-005	Date Collected:	06.18.2020 11:50	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.18.2020 14:46	Basis:	Wet Weight
Seq Number:	3129571				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13.2**	9.94	mg/kg	06.19.2020 19:57		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 13:30	Basis:	Wet Weight
Seq Number:	3129595				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.19.2020 18:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.19.2020 18:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.19.2020 18:21	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	06.19.2020 18:21	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.19.2020 18:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	06.19.2020 18:21	
o-Terphenyl	84-15-1	103	%	70-135	06.19.2020 18:21	

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LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS20**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664910-005	Date Collected:	06.18.2020 11:50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 14:00	Basis:	Wet Weight
Seq Number:	3129616				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.20.2020 01:00	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.20.2020 01:00	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.20.2020 01:00	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.20.2020 01:00	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.20.2020 01:00	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.20.2020 01:00	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.20.2020 01:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	06.20.2020 01:00	
1,4-Difluorobenzene	540-36-3	99	%	70-130	06.20.2020 01:00	

Certificate of Analytical Results 664910

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS21**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664910-006	Date Collected:	06.18.2020 14:00	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.18.2020 14:46	Basis:	Wet Weight
Seq Number:	3129571				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.96	9.96	mg/kg	06.19.2020 20:02	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 13:30	Basis:	Wet Weight
Seq Number:	3129595				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.19.2020 18:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.19.2020 18:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.19.2020 18:42	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	06.19.2020 18:42	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.19.2020 18:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	06.19.2020 18:42	
o-Terphenyl	84-15-1	104	%	70-135	06.19.2020 18:42	

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LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS21**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664910-006	Date Collected:	06.18.2020 14:00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 14:00	Basis:	Wet Weight
Seq Number:	3129616				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	06.20.2020 01:21	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	06.20.2020 01:21	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	06.20.2020 01:21	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	06.20.2020 01:21	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	06.20.2020 01:21	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	06.20.2020 01:21	U	1
Total BTEX		<0.00198	0.00198	mg/kg	06.20.2020 01:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	06.20.2020 01:21	
4-Bromofluorobenzene	460-00-4	98	%	70-130	06.20.2020 01:21	

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 664910

LT Environmental, Inc.

PLU 167

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129571 — Matrix: Solid — Date Prep: 06.18.2020
MB Sample Id: 7705816-1-BLK — LCS Sample Id: 7705816-1-BKS — LCSD Sample Id: 7705816-1-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	263	105	90-110	4	20	mg/kg	06.19.2020 17:29	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129571 — Matrix: Soil — Date Prep: 06.18.2020
Parent Sample Id: 664908-008 — MS Sample Id: 664908-008 S — MSD Sample Id: 664908-008 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	261	96	259	95	90-110	1	20	mg/kg	06.19.2020 17:47	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129571 — Matrix: Soil — Date Prep: 06.18.2020
Parent Sample Id: 664908-018 — MS Sample Id: 664908-018 S — MSD Sample Id: 664908-018 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	212	201	405	96	403	95	90-110	0	20	mg/kg	06.19.2020 19:10	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129595 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705892-1-BLK — LCS Sample Id: 7705892-1-BKS — LCSD Sample Id: 7705892-1-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	1100	110	1070	107	70-135	3	35	mg/kg	06.19.2020 13:08	
Diesel Range Organics (DRO)	<50.0	1000	1170	117	1120	112	70-135	4	35	mg/kg	06.19.2020 13:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		123		118		70-135	%	06.19.2020 13:08
o-Terphenyl	102		102		97		70-135	%	06.19.2020 13:08

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129595 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705892-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.19.2020 12:47	

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

QC Summary 664910

LT Environmental, Inc.

PLU 167

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3129595 Matrix: Soil Date Prep: 06.19.2020
Parent Sample Id: 664908-013 MS Sample Id: 664908-013 S MSD Sample Id: 664908-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1060	106	1080	108	70-135	2	35	mg/kg	06.19.2020 14:09	
Diesel Range Organics (DRO)	<50.2	1000	920	92	975	98	70-135	6	35	mg/kg	06.19.2020 14:09	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		102		70-135	%	06.19.2020 14:09
o-Terphenyl	86		86		70-135	%	06.19.2020 14:09

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3129616 Matrix: Solid Date Prep: 06.19.2020
MB Sample Id: 7705818-1-BLK LCS Sample Id: 7705818-1-BKS LCSD Sample Id: 7705818-1-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	0.107	107	0.108	108	70-130	1	35	mg/kg	06.19.2020 18:32	
Toluene	<0.00200	0.100	0.0998	100	0.107	107	70-130	7	35	mg/kg	06.19.2020 18:32	
Ethylbenzene	<0.00200	0.100	0.0929	93	0.102	102	71-129	9	35	mg/kg	06.19.2020 18:32	
m,p-Xylenes	<0.00400	0.200	0.189	95	0.208	104	70-135	10	35	mg/kg	06.19.2020 18:32	
o-Xylene	<0.00200	0.100	0.0941	94	0.103	103	71-133	9	35	mg/kg	06.19.2020 18:32	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		100		101		70-130	%	06.19.2020 18:32
4-Bromofluorobenzene	95		103		100		70-130	%	06.19.2020 18:32

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3129616 Matrix: Soil Date Prep: 06.19.2020
Parent Sample Id: 664908-013 MS Sample Id: 664908-013 S MSD Sample Id: 664908-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.116	117	0.111	111	70-130	4	35	mg/kg	06.19.2020 19:15	
Toluene	<0.00199	0.0994	0.114	115	0.109	109	70-130	4	35	mg/kg	06.19.2020 19:15	
Ethylbenzene	<0.00199	0.0994	0.110	111	0.106	106	71-129	4	35	mg/kg	06.19.2020 19:15	
m,p-Xylenes	<0.00398	0.199	0.226	114	0.216	108	70-135	5	35	mg/kg	06.19.2020 19:15	
o-Xylene	<0.00199	0.0994	0.111	112	0.106	106	71-133	5	35	mg/kg	06.19.2020 19:15	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		70-130	%	06.19.2020 19:15
4-Bromofluorobenzene	105		104		70-130	%	06.19.2020 19:15

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

Chain of Custody

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

Work Order No: 620910

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A 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:	PLU 167	Turn Around	
Project Number:	012920078	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT				
Temperature (°C):	2.1/1.9	Temp Blank:	Yes No	Wet Ice: Yes No
Received Intact:	Yes No	Thermometer ID	NM007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:	6	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
FS16	S	6-18-2020	1110	4'	1	X	X	X
FS17	S	6-18-2020	1120	4'	1	X	X	X
FS18	S	6-18-2020	1130	4'	1	X	X	X
FS19	S	6-18-2020	1140	4'	1	X	X	X
FS20	S	6-18-2020	1150	4'	1	X	X	X
FS21	S	6-18-2020	1400	4'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			6/19/20 0817	2		6/20/20 08:30
3				4		6/19/20
5				6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 06.19.2020 08.30.00 AM

Work Order #: 664910

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.9	
#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 recieved 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: 06.19.2020

Checklist reviewed by: Jessica Kramer Date: 06.19.2020

Jessica Kramer

Certificate of Analysis Summary 664913

LT Environmental, Inc., Arvada, CO

Project Name: PLU 167

Project Id: 012920078
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri 06.19.2020 08:30
Report Date: 06.23.2020 08:03
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	664913-001		664913-002		664913-003		664913-004		664913-005		664913-006	
	Field Id:	FS01		FS02		FS03		FS04		FS05		FS06	
	Depth:	2- ft		2- ft		2- ft		2- ft		2- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	06.16.2020 13:30		06.16.2020 13:40		06.16.2020 13:50		06.16.2020 14:00		06.16.2020 14:10		06.16.2020 14:20	
BTEX by EPA 8021B	*Extracted:*	06.19.2020 16:07		06.19.2020 16:07		06.19.2020 16:07		06.19.2020 16:07		06.19.2020 16:07		06.19.2020 16:07	
	Analyzed:	06.20.2020 14:40		06.20.2020 15:01		06.20.2020 16:16		06.20.2020 16:37		06.20.2020 16:57		06.20.2020 17:18	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198
m,p-Xylenes		<0.00402	0.00402	<0.00400	0.00400	<0.00399	0.00399	<0.00400	0.00400	<0.00401	0.00401	<0.00397	0.00397
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198
Chloride by EPA 300	*Extracted:*	06.19.2020 17:15		06.19.2020 17:15		06.19.2020 17:15		06.19.2020 17:15		06.19.2020 17:15		06.19.2020 17:15	
	Analyzed:	06.19.2020 22:59		06.19.2020 23:04		06.19.2020 23:10		06.19.2020 23:16		06.19.2020 23:22		06.19.2020 23:28	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<10.1	10.1	18.1	10.0	10.6	10.1	39.4	10.0	59.2	9.92	309	9.96
TPH by SW8015 Mod	*Extracted:*	06.19.2020 18:25		06.19.2020 18:25		06.19.2020 18:25		06.19.2020 18:25		06.19.2020 18:25		06.19.2020 18:25	
	Analyzed:	06.20.2020 03:14		06.20.2020 03:34		06.20.2020 04:15		06.20.2020 04:35		06.20.2020 04:56		06.20.2020 05:16	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.8	49.8	<50.0	50.0
Diesel Range Organics (DRO)		<50.1	50.1	<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.8	49.8	57.6	50.0
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.8	49.8	<50.0	50.0
Total GRO-DRO		<50.1	50.1	<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.8	49.8	57.6	50.0
Total TPH		<50.1	50.1	<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.8	49.8	57.6	50.0

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

Jessica Kramer
Project Manager

Certificate of Analysis Summary 664913

LT Environmental, Inc., Arvada, CO

Project Name: PLU 167

Project Id: 012920078
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri 06.19.2020 08:30
Report Date: 06.23.2020 08:03
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	664913-007		664913-008		664913-009		664913-010		664913-011		664913-012	
	Field Id:	FS07		FS08		FS09		FS10		FS11		FS12	
	Depth:	1- ft		2- ft		2- ft		2- ft		2- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	06.16.2020 14:30		06.17.2020 12:05		06.17.2020 12:15		06.17.2020 12:25		06.17.2020 13:30		06.17.2020 13:40	
BTEX by EPA 8021B	*Extracted:*	06.19.2020 16:07		06.19.2020 16:07		06.19.2020 16:07		06.19.2020 16:07		06.19.2020 16:07		06.19.2020 16:07	
	Analyzed:	06.20.2020 17:38		06.20.2020 17:59		06.20.2020 18:19		06.20.2020 18:39		06.20.2020 19:00		06.20.2020 19:20	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198
Toluene		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198
Ethylbenzene		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198
m,p-Xylenes		<0.00398	0.00398	<0.00398	0.00398	<0.00400	0.00400	<0.00401	0.00401	<0.00398	0.00398	<0.00396	0.00396
o-Xylene		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198
Total Xylenes		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198
Total BTEX		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198
Chloride by EPA 300	*Extracted:*	06.19.2020 17:15		06.19.2020 10:18		06.19.2020 10:18		06.19.2020 10:18		06.19.2020 10:18		06.19.2020 10:18	
	Analyzed:	06.19.2020 23:34		06.20.2020 00:09		06.20.2020 00:27		06.20.2020 00:32		06.20.2020 00:38		06.20.2020 00:44	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		25.8	9.98	699	9.92	168	10.0	55.1	10.1	25.3	10.1	96.3	10.0
TPH by SW8015 Mod	*Extracted:*	06.19.2020 18:25		06.19.2020 18:25		06.19.2020 18:25		06.19.2020 18:25		06.19.2020 18:25		06.19.2020 18:25	
	Analyzed:	06.20.2020 05:37		06.20.2020 05:57		06.20.2020 06:18		06.20.2020 06:38		06.20.2020 06:59		06.20.2020 07:19	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.9	49.9	<49.9	49.9	<49.8	49.8	<49.8	49.8	<50.0	50.0
Diesel Range Organics (DRO)		<50.0	50.0	122	49.9	<49.9	49.9	<49.8	49.8	121	49.8	62.3	50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<49.9	49.9	<49.8	49.8	<49.8	49.8	<50.0	50.0
Total GRO-DRO		<50.0	50.0	122	49.9	<49.9	49.9	<49.8	49.8	121	49.8	62.3	50.0
Total TPH		<50.0	50.0	122	49.9	<49.9	49.9	<49.8	49.8	121	49.8	62.3	50.0

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Jessica Kramer
Project Manager

Certificate of Analysis Summary 664913

LT Environmental, Inc., Arvada, CO

Project Name: PLU 167

Project Id: 012920078
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri 06.19.2020 08:30
Report Date: 06.23.2020 08:03
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	664913-013		664913-014		664913-015				
	Field Id:	FS13		FS14		FS15				
	Depth:	4- ft		4- ft		4- ft				
	Matrix:	SOIL		SOIL		SOIL				
	Sampled:	06.17.2020 13:50		06.17.2020 14:00		06.17.2020 14:10				
BTEX by EPA 8021B	***Extracted:***	06.19.2020 17:10		06.19.2020 17:10		06.19.2020 17:10				
	Analyzed:	06.20.2020 01:21		06.20.2020 03:03		06.20.2020 03:24				
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Benzene		<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201			
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201			
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201			
m,p-Xylenes		<0.00402	0.00402	<0.00400	0.00400	<0.00402	0.00402			
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201			
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201			
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201			
Chloride by EPA 300	***Extracted:***	06.19.2020 10:18		06.19.2020 10:18		06.19.2020 10:18				
	Analyzed:	06.20.2020 01:02		06.20.2020 01:08		06.20.2020 01:14				
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Chloride		10.8	9.98	<9.96	9.96	15.8	9.94			
TPH by SW8015 Mod	***Extracted:***	06.19.2020 18:35		06.19.2020 18:35		06.19.2020 18:35				
	Analyzed:	06.19.2020 23:50		06.20.2020 00:51		06.20.2020 01:11				
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Gasoline Range Hydrocarbons (GRO)		<50.3	50.3	<49.8	49.8	<50.0	50.0			
Diesel Range Organics (DRO)		96.9	50.3	78.1	49.8	<50.0	50.0			
Motor Oil Range Hydrocarbons (MRO)		<50.3	50.3	<49.8	49.8	<50.0	50.0			
Total GRO-DRO		96.9	50.3	78.1	49.8	<50.0	50.0			
Total TPH		96.9	50.3	78.1	49.8	<50.0	50.0			

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

Jessica Kramer
Project Manager

Analytical Report 664913

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 167

012920078

06.23.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-34), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
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 (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

06.23.2020

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

Reference: XENCO Report No(s): **664913**
PLU 167
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) 664913. 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. 664913 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 664913

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	06.16.2020 13:30	2 ft	664913-001
FS02	S	06.16.2020 13:40	2 ft	664913-002
FS03	S	06.16.2020 13:50	2 ft	664913-003
FS04	S	06.16.2020 14:00	2 ft	664913-004
FS05	S	06.16.2020 14:10	2 ft	664913-005
FS06	S	06.16.2020 14:20	2 ft	664913-006
FS07	S	06.16.2020 14:30	1 ft	664913-007
FS08	S	06.17.2020 12:05	2 ft	664913-008
FS09	S	06.17.2020 12:15	2 ft	664913-009
FS10	S	06.17.2020 12:25	2 ft	664913-010
FS11	S	06.17.2020 13:30	2 ft	664913-011
FS12	S	06.17.2020 13:40	2 ft	664913-012
FS13	S	06.17.2020 13:50	4 ft	664913-013
FS14	S	06.17.2020 14:00	4 ft	664913-014
FS15	S	06.17.2020 14:10	4 ft	664913-015

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 167

Project ID: *012920078*
Work Order Number(s): *664913*

Report Date: *06.23.2020*
Date Received: *06.19.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**FS01**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-001	Date Collected:	06.16.2020 13:30	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:15	Basis:	Wet Weight
Seq Number:	3129576				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	06.19.2020 22:59	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:25	Basis:	Wet Weight
Seq Number:	3129586				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	06.20.2020 03:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	06.20.2020 03:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	06.20.2020 03:14	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	06.20.2020 03:14	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	06.20.2020 03:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	06.20.2020 03:14	
o-Terphenyl	84-15-1	86	%	70-135	06.20.2020 03:14	

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Sample Id:	**FS01**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-001	Date Collected:	06.16.2020 13:30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 16:07	Basis:	Wet Weight
Seq Number:	3129555				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.20.2020 14:40	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.20.2020 14:40	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.20.2020 14:40	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.20.2020 14:40	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.20.2020 14:40	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.20.2020 14:40	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.20.2020 14:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	06.20.2020 14:40	
4-Bromofluorobenzene	460-00-4	93	%	70-130	06.20.2020 14:40	

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Sample Id:	**FS02**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-002	Date Collected:	06.16.2020 13:40	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:15	Basis:	Wet Weight
Seq Number:	3129576				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18.1**	10.0	mg/kg	06.19.2020 23:04		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:25	Basis:	Wet Weight
Seq Number:	3129586				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.20.2020 03:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.20.2020 03:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.20.2020 03:34	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	06.20.2020 03:34	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.20.2020 03:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	06.20.2020 03:34	
o-Terphenyl	84-15-1	108	%	70-135	06.20.2020 03:34	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**FS02**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-002	Date Collected:	06.16.2020 13:40	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 16:07	Basis:	Wet Weight
Seq Number:	3129555				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.20.2020 15:01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.20.2020 15:01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.20.2020 15:01	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	06.20.2020 15:01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.20.2020 15:01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.20.2020 15:01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.20.2020 15:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	06.20.2020 15:01	
1,4-Difluorobenzene	540-36-3	102	%	70-130	06.20.2020 15:01	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**FS03**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-003	Date Collected:	06.16.2020 13:50	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:15	Basis:	Wet Weight
Seq Number:	3129576				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.6**	10.1	mg/kg	06.19.2020 23:10		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:25	Basis:	Wet Weight
Seq Number:	3129586				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.20.2020 04:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.20.2020 04:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.20.2020 04:15	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	06.20.2020 04:15	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.20.2020 04:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	06.20.2020 04:15	
o-Terphenyl	84-15-1	108	%	70-135	06.20.2020 04:15	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**FS03**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-003	Date Collected:	06.16.2020 13:50	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 16:07	Basis:	Wet Weight
Seq Number:	3129555				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.20.2020 16:16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.20.2020 16:16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.20.2020 16:16	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.20.2020 16:16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.20.2020 16:16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.20.2020 16:16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.20.2020 16:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	06.20.2020 16:16	
4-Bromofluorobenzene	460-00-4	99	%	70-130	06.20.2020 16:16	

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Sample Id:	**FS04**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-004	Date Collected:	06.16.2020 14:00	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:15	Basis:	Wet Weight
Seq Number:	3129576				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**39.4**	10.0	mg/kg	06.19.2020 23:16		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:25	Basis:	Wet Weight
Seq Number:	3129586				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	06.20.2020 04:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	06.20.2020 04:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	06.20.2020 04:35	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	06.20.2020 04:35	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	06.20.2020 04:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	06.20.2020 04:35	
o-Terphenyl	84-15-1	108	%	70-135	06.20.2020 04:35	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**FS04**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-004	Date Collected:	06.16.2020 14:00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 16:07	Basis:	Wet Weight
Seq Number:	3129555				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.20.2020 16:37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.20.2020 16:37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.20.2020 16:37	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	06.20.2020 16:37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.20.2020 16:37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.20.2020 16:37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.20.2020 16:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	06.20.2020 16:37	
1,4-Difluorobenzene	540-36-3	97	%	70-130	06.20.2020 16:37	

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Sample Id:	**FS05**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-005	Date Collected:	06.16.2020 14:10	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:15	Basis:	Wet Weight
Seq Number:	3129576				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**59.2**	9.92	mg/kg	06.19.2020 23:22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:25	Basis:	Wet Weight
Seq Number:	3129586				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	06.20.2020 04:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	06.20.2020 04:56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	06.20.2020 04:56	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	06.20.2020 04:56	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	06.20.2020 04:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	06.20.2020 04:56	
o-Terphenyl	84-15-1	109	%	70-135	06.20.2020 04:56	

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Sample Id:	**FS05**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-005	Date Collected:	06.16.2020 14:10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 16:07	Basis:	Wet Weight
Seq Number:	3129555				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.20.2020 16:57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.20.2020 16:57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.20.2020 16:57	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.20.2020 16:57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.20.2020 16:57	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.20.2020 16:57	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.20.2020 16:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	06.20.2020 16:57	
1,4-Difluorobenzene	540-36-3	99	%	70-130	06.20.2020 16:57	

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Sample Id:	**FS06**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-006	Date Collected:	06.16.2020 14:20	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:15	Basis:	Wet Weight
Seq Number:	3129576				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**309**	9.96	mg/kg	06.19.2020 23:28		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:25	Basis:	Wet Weight
Seq Number:	3129586				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.20.2020 05:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	**57.6**	50.0	mg/kg	06.20.2020 05:16		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.20.2020 05:16	U	1
Total GRO-DRO	PHC628	**57.6**	50.0	mg/kg	06.20.2020 05:16		1
Total TPH	PHC635	**57.6**	50.0	mg/kg	06.20.2020 05:16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	06.20.2020 05:16	
o-Terphenyl	84-15-1	110	%	70-135	06.20.2020 05:16	

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Sample Id:	**FS06**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-006	Date Collected:	06.16.2020 14:20	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 16:07	Basis:	Wet Weight
Seq Number:	3129555				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	06.20.2020 17:18	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	06.20.2020 17:18	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	06.20.2020 17:18	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	06.20.2020 17:18	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	06.20.2020 17:18	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	06.20.2020 17:18	U	1
Total BTEX		<0.00198	0.00198	mg/kg	06.20.2020 17:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	06.20.2020 17:18	
1,4-Difluorobenzene	540-36-3	99	%	70-130	06.20.2020 17:18	

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Sample Id:	**FS07**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-007	Date Collected:	06.16.2020 14:30	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:15	Basis:	Wet Weight
Seq Number:	3129576				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**25.8**	9.98	mg/kg	06.19.2020 23:34		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:25	Basis:	Wet Weight
Seq Number:	3129586				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.20.2020 05:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.20.2020 05:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.20.2020 05:37	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	06.20.2020 05:37	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.20.2020 05:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	06.20.2020 05:37	
o-Terphenyl	84-15-1	105	%	70-135	06.20.2020 05:37	

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LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-007	Date Collected:	06.16.2020 14:30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 16:07	Basis:	Wet Weight
Seq Number:	3129555				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.20.2020 17:38	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.20.2020 17:38	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.20.2020 17:38	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.20.2020 17:38	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.20.2020 17:38	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.20.2020 17:38	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.20.2020 17:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	06.20.2020 17:38	
4-Bromofluorobenzene	460-00-4	105	%	70-130	06.20.2020 17:38	

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Sample Id:	**FS08**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-008	Date Collected:	06.17.2020 12:05	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**699**	9.92	mg/kg	06.20.2020 00:09		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:25	Basis:	Wet Weight
Seq Number:	3129586				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.20.2020 05:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	**122**	49.9	mg/kg	06.20.2020 05:57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.20.2020 05:57	U	1
Total GRO-DRO	PHC628	**122**	49.9	mg/kg	06.20.2020 05:57		1
Total TPH	PHC635	**122**	49.9	mg/kg	06.20.2020 05:57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	06.20.2020 05:57	
o-Terphenyl	84-15-1	105	%	70-135	06.20.2020 05:57	

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Sample Id:	**FS08**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-008	Date Collected:	06.17.2020 12:05	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 16:07	Basis:	Wet Weight
Seq Number:	3129555				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.20.2020 17:59	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.20.2020 17:59	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.20.2020 17:59	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.20.2020 17:59	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.20.2020 17:59	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.20.2020 17:59	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.20.2020 17:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	06.20.2020 17:59	
1,4-Difluorobenzene	540-36-3	101	%	70-130	06.20.2020 17:59	

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Sample Id:	**FS09**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-009	Date Collected:	06.17.2020 12:15	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**168**	10.0	mg/kg	06.20.2020 00:27		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:25	Basis:	Wet Weight
Seq Number:	3129586				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.20.2020 06:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.20.2020 06:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.20.2020 06:18	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	06.20.2020 06:18	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.20.2020 06:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	06.20.2020 06:18	
o-Terphenyl	84-15-1	85	%	70-135	06.20.2020 06:18	

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Sample Id:	**FS09**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-009	Date Collected:	06.17.2020 12:15	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 16:07	Basis:	Wet Weight
Seq Number:	3129555				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.20.2020 18:19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.20.2020 18:19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.20.2020 18:19	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	06.20.2020 18:19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.20.2020 18:19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.20.2020 18:19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.20.2020 18:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	06.20.2020 18:19	
1,4-Difluorobenzene	540-36-3	100	%	70-130	06.20.2020 18:19	

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Sample Id:	**FS10**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-010	Date Collected:	06.17.2020 12:25	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**55.1**	10.1	mg/kg	06.20.2020 00:32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:25	Basis:	Wet Weight
Seq Number:	3129586				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	06.20.2020 06:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	06.20.2020 06:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	06.20.2020 06:38	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	06.20.2020 06:38	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	06.20.2020 06:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	06.20.2020 06:38	
o-Terphenyl	84-15-1	70	%	70-135	06.20.2020 06:38	

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Sample Id:	**FS10**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-010	Date Collected:	06.17.2020 12:25	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 16:07	Basis:	Wet Weight
Seq Number:	3129555				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.20.2020 18:39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.20.2020 18:39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.20.2020 18:39	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.20.2020 18:39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.20.2020 18:39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.20.2020 18:39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.20.2020 18:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	06.20.2020 18:39	
1,4-Difluorobenzene	540-36-3	96	%	70-130	06.20.2020 18:39	

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Sample Id:	**FS11**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-011	Date Collected:	06.17.2020 13:30	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**25.3**	10.1	mg/kg	06.20.2020 00:38		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:25	Basis:	Wet Weight
Seq Number:	3129586				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	06.20.2020 06:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	**121**	49.8	mg/kg	06.20.2020 06:59		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	06.20.2020 06:59	U	1
Total GRO-DRO	PHC628	**121**	49.8	mg/kg	06.20.2020 06:59		1
Total TPH	PHC635	**121**	49.8	mg/kg	06.20.2020 06:59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	06.20.2020 06:59	
o-Terphenyl	84-15-1	71	%	70-135	06.20.2020 06:59	

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Sample Id:	**FS11**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-011	Date Collected:	06.17.2020 13:30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 16:07	Basis:	Wet Weight
Seq Number:	3129555				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.20.2020 19:00	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.20.2020 19:00	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.20.2020 19:00	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.20.2020 19:00	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.20.2020 19:00	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.20.2020 19:00	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.20.2020 19:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	06.20.2020 19:00	
1,4-Difluorobenzene	540-36-3	104	%	70-130	06.20.2020 19:00	

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Sample Id:	**FS12**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-012	Date Collected:	06.17.2020 13:40	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**96.3**	10.0	mg/kg	06.20.2020 00:44		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:25	Basis:	Wet Weight
Seq Number:	3129586				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.20.2020 07:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	**62.3**	50.0	mg/kg	06.20.2020 07:19		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.20.2020 07:19	U	1
Total GRO-DRO	PHC628	**62.3**	50.0	mg/kg	06.20.2020 07:19		1
Total TPH	PHC635	**62.3**	50.0	mg/kg	06.20.2020 07:19		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	06.20.2020 07:19	
o-Terphenyl	84-15-1	72	%	70-135	06.20.2020 07:19	

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Sample Id:	**FS12**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-012	Date Collected:	06.17.2020 13:40	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 16:07	Basis:	Wet Weight
Seq Number:	3129555				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	06.20.2020 19:20	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	06.20.2020 19:20	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	06.20.2020 19:20	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	06.20.2020 19:20	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	06.20.2020 19:20	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	06.20.2020 19:20	U	1
Total BTEX		<0.00198	0.00198	mg/kg	06.20.2020 19:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	06.20.2020 19:20	
1,4-Difluorobenzene	540-36-3	94	%	70-130	06.20.2020 19:20	

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Sample Id:	**FS13**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-013	Date Collected:	06.17.2020 13:50	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.8**	9.98	mg/kg	06.20.2020 01:02		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:35	Basis:	Wet Weight
Seq Number:	3129596				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	06.19.2020 23:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	**96.9**	50.3	mg/kg	06.19.2020 23:50		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	06.19.2020 23:50	U	1
Total GRO-DRO	PHC628	**96.9**	50.3	mg/kg	06.19.2020 23:50		1
Total TPH	PHC635	**96.9**	50.3	mg/kg	06.19.2020 23:50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	06.19.2020 23:50	
o-Terphenyl	84-15-1	103	%	70-135	06.19.2020 23:50	

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Sample Id:	**FS13**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-013	Date Collected:	06.17.2020 13:50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129562				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.20.2020 01:21	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.20.2020 01:21	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.20.2020 01:21	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.20.2020 01:21	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.20.2020 01:21	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.20.2020 01:21	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.20.2020 01:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	06.20.2020 01:21	
4-Bromofluorobenzene	460-00-4	103	%	70-130	06.20.2020 01:21	

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Sample Id:	**FS14**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-014	Date Collected:	06.17.2020 14:00	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.96	9.96	mg/kg	06.20.2020 01:08	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:35	Basis:	Wet Weight
Seq Number:	3129596				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	06.20.2020 00:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	**78.1**	49.8	mg/kg	06.20.2020 00:51		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	06.20.2020 00:51	U	1
Total GRO-DRO	PHC628	**78.1**	49.8	mg/kg	06.20.2020 00:51		1
Total TPH	PHC635	**78.1**	49.8	mg/kg	06.20.2020 00:51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	06.20.2020 00:51	
o-Terphenyl	84-15-1	83	%	70-135	06.20.2020 00:51	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**FS14**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-014	Date Collected:	06.17.2020 14:00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129562				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.20.2020 03:03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.20.2020 03:03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.20.2020 03:03	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	06.20.2020 03:03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.20.2020 03:03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.20.2020 03:03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.20.2020 03:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	06.20.2020 03:03	
1,4-Difluorobenzene	540-36-3	99	%	70-130	06.20.2020 03:03	

Certificate of Analytical Results 664913

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS15**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-015	Date Collected:	06.17.2020 14:10	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**15.8**	9.94	mg/kg	06.20.2020 01:14		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:35	Basis:	Wet Weight
Seq Number:	3129596				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.20.2020 01:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.20.2020 01:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.20.2020 01:11	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	06.20.2020 01:11	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.20.2020 01:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	06.20.2020 01:11	
o-Terphenyl	84-15-1	100	%	70-135	06.20.2020 01:11	

Certificate of Analytical Results 664913

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS15**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664913-015	Date Collected:	06.17.2020 14:10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129562				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.20.2020 03:24	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.20.2020 03:24	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.20.2020 03:24	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.20.2020 03:24	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.20.2020 03:24	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.20.2020 03:24	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.20.2020 03:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	06.20.2020 03:24	
1,4-Difluorobenzene	540-36-3	94	%	70-130	06.20.2020 03:24	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **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 664913

LT Environmental, Inc.

PLU 167

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129577 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705888-1-BLK — LCS Sample Id: 7705888-1-BKS — LCSD Sample Id: 7705888-1-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	263	105	90-110	4	20	mg/kg	06.19.2020 23:57	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129576 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705887-1-BLK — LCS Sample Id: 7705887-1-BKS — LCSD Sample Id: 7705887-1-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	263	105	90-110	4	20	mg/kg	06.19.2020 20:44	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129577 — Matrix: Soil — Date Prep: 06.19.2020
Parent Sample Id: 664913-008 — MS Sample Id: 664913-008 S — MSD Sample Id: 664913-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	699	199	885	93	883	92	90-110	0	20	mg/kg	06.20.2020 00:15	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129577 — Matrix: Soil — Date Prep: 06.19.2020
Parent Sample Id: 664914-004 — MS Sample Id: 664914-004 S — MSD Sample Id: 664914-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	235	201	430	97	431	98	90-110	0	20	mg/kg	06.20.2020 01:43	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129576 — Matrix: Soil — Date Prep: 06.19.2020
Parent Sample Id: 664911-004 — MS Sample Id: 664911-004 S — MSD Sample Id: 664911-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.98	200	198	99	198	99	90-110	0	20	mg/kg	06.19.2020 21:01	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129576 — Matrix: Soil — Date Prep: 06.19.2020
Parent Sample Id: 664911-014 — MS Sample Id: 664911-014 S — MSD Sample Id: 664911-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.96	199	194	97	194	97	90-110	0	20	mg/kg	06.19.2020 22:23	

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 664913

LT Environmental, Inc.

PLU 167

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129586 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705893-1-BLK — LCS Sample Id: 7705893-1-BKS — LCSD Sample Id: 7705893-1-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	1000	100	1050	105	70-135	5	35	mg/kg	06.19.2020 23:09	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	1130	113	70-135	4	35	mg/kg	06.19.2020 23:09	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		96		100		70-135	%	06.19.2020 23:09
o-Terphenyl	106		85		85		70-135	%	06.19.2020 23:09

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129596 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705894-1-BLK — LCS Sample Id: 7705894-1-BKS — LCSD Sample Id: 7705894-1-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	917	92	951	95	70-135	4	35	mg/kg	06.19.2020 23:09	
Diesel Range Organics (DRO)	<50.0	1000	839	84	832	83	70-135	1	35	mg/kg	06.19.2020 23:09	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		98		101		70-135	%	06.19.2020 23:09
o-Terphenyl	108		81		77		70-135	%	06.19.2020 23:09

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129586 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705893-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.19.2020 22:48	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129596 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705894-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.19.2020 22:48	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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

QC Summary 664913

LT Environmental, Inc.

PLU 167

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129586 — Matrix: Soil — Date Prep: 06.19.2020
Parent Sample Id: 664911-009 — MS Sample Id: 664911-009 S — MSD Sample Id: 664911-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1180	118	1180	118	70-135	0	35	mg/kg	06.20.2020 00:10	
Diesel Range Organics (DRO)	<50.1	1000	1280	128	1290	129	70-135	1	35	mg/kg	06.20.2020 00:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		115		70-135	%	06.20.2020 00:10
o-Terphenyl	98		98		70-135	%	06.20.2020 00:10

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129596 — Matrix: Soil — Date Prep: 06.19.2020
Parent Sample Id: 664913-013 — MS Sample Id: 664913-013 S — MSD Sample Id: 664913-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1040	104	950	95	70-135	9	35	mg/kg	06.20.2020 00:10	
Diesel Range Organics (DRO)	96.9	1000	1050	95	958	86	70-135	9	35	mg/kg	06.20.2020 00:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		117		70-135	%	06.20.2020 00:10
o-Terphenyl	94		86		70-135	%	06.20.2020 00:10

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3129555 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705883-1-BLK — LCS Sample Id: 7705883-1-BKS — LCSD Sample Id: 7705883-1-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	0.108	108	0.0976	98	70-130	10	35	mg/kg	06.20.2020 10:00	
Toluene	<0.00200	0.100	0.107	107	0.0908	91	70-130	16	35	mg/kg	06.20.2020 10:00	
Ethylbenzene	<0.00200	0.100	0.113	113	0.0930	93	71-129	19	35	mg/kg	06.20.2020 10:00	
m,p-Xylenes	<0.00400	0.200	0.229	115	0.189	95	70-135	19	35	mg/kg	06.20.2020 10:00	
o-Xylene	<0.00200	0.100	0.114	114	0.0945	95	71-133	19	35	mg/kg	06.20.2020 10:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		97		99		70-130	%	06.20.2020 10:00
4-Bromofluorobenzene	107		95		99		70-130	%	06.20.2020 10:00

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 664913

LT Environmental, Inc.

PLU 167

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5035A
Seq Number: 3129562 | Matrix: Solid | Date Prep: 06.19.2020
MB Sample Id: 7705885-1-BLK | LCS Sample Id: 7705885-1-BKS | LCSD Sample Id: 7705885-1-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	0.0938	94	0.0885	89	70-130	6	35	mg/kg	06.19.2020 23:25	
Toluene	<0.00200	0.100	0.0932	93	0.0893	89	70-130	4	35	mg/kg	06.19.2020 23:25	
Ethylbenzene	<0.00200	0.100	0.0969	97	0.0930	93	71-129	4	35	mg/kg	06.19.2020 23:25	
m,p-Xylenes	<0.00400	0.200	0.197	99	0.191	96	70-135	3	35	mg/kg	06.19.2020 23:25	
o-Xylene	<0.00200	0.100	0.0994	99	0.0962	96	71-133	3	35	mg/kg	06.19.2020 23:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		98		100		70-130	%	06.19.2020 23:25
4-Bromofluorobenzene	101		93		102		70-130	%	06.19.2020 23:25

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5035A
Seq Number: 3129555 | Matrix: Soil | Date Prep: 06.19.2020
Parent Sample Id: 664911-009 | MS Sample Id: 664911-009 S | MSD Sample Id: 664911-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0798	80	0.0851	85	70-130	6	35	mg/kg	06.20.2020 10:41	
Toluene	<0.00199	0.0996	0.0753	76	0.0808	81	70-130	7	35	mg/kg	06.20.2020 10:41	
Ethylbenzene	<0.00199	0.0996	0.0776	78	0.0837	84	71-129	8	35	mg/kg	06.20.2020 10:41	
m,p-Xylenes	<0.00398	0.199	0.158	79	0.172	86	70-135	8	35	mg/kg	06.20.2020 10:41	
o-Xylene	<0.00199	0.0996	0.0816	82	0.0878	88	71-133	7	35	mg/kg	06.20.2020 10:41	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		98		70-130	%	06.20.2020 10:41
4-Bromofluorobenzene	100		105		70-130	%	06.20.2020 10:41

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5035A
Seq Number: 3129562 | Matrix: Soil | Date Prep: 06.19.2020
Parent Sample Id: 664913-013 | MS Sample Id: 664913-013 S | MSD Sample Id: 664913-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.106	107	0.102	102	70-130	4	35	mg/kg	06.20.2020 00:06	
Toluene	<0.00199	0.0994	0.101	102	0.0953	95	70-130	6	35	mg/kg	06.20.2020 00:06	
Ethylbenzene	<0.00199	0.0994	0.102	103	0.0920	92	71-129	10	35	mg/kg	06.20.2020 00:06	
m,p-Xylenes	<0.00398	0.199	0.209	105	0.188	94	70-135	11	35	mg/kg	06.20.2020 00:06	
o-Xylene	<0.00199	0.0994	0.103	104	0.0916	92	71-133	12	35	mg/kg	06.20.2020 00:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		99		70-130	%	06.20.2020 00:06
4-Bromofluorobenzene	100		102		70-130	%	06.20.2020 00:06

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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

Chain of Custody

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

Work Order No: 620915

Page 1 of 2

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:	PLU 167	Turn Around	
Project Number:	012920078	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temperature (°C):	2.1/1.9	Temp Blank: Yes No	Wet Ice: Yes No
Received Intact:	Yes No	Thermometer ID	TNM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	15

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
FS01	S	6-16-2020	1330	2'	1	X	X	X
FS02	S	6-16-2020	1340	2'	1	X	X	X
FS03	S	6-16-2020	1350	2'	1	X	X	X
FS04	S	6-16-2020	1400	2'	1	X	X	X
FS05	S	6-16-2020	1410	2'	1	X	X	X
FS06	S	6-16-2020	1420	2'	1	X	X	X
FS07	S	6-16-2020	1430	1'	1	X	X	X
FS08	S	6-17-2020	1205	2	1	X	X	X
FS09	S	6-17-2020	1215	2	1	X	X	X
FS10	S	6-17-2020	1225	2	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			6/19/20 0819	2			6/20/20 0830
3				4			6/19/20
5				6			

Revised Date 051418 Rev. 2018.1

Chain of Custody

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

Work Order No: 1604913

Page 2 of 2

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:	PLU 167	Turn Around	
Project Number:	012920078	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	2.1/1.9	Thermometer ID		
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Total Containers:	5	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS11	S	6-17-2020	1330	2'	1	X	X	X
FS12	S	6-17-2020	1340	2'	1	X	X	X
FS13	S	6-17-2020	1350	4'	1	X	X	X
FS14	S	6-17-2020	1400	4'	1	X	X	X
FS15	S	6-17-2020	1410	4'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			6/19/20 0918	2		6/20/20 0830
3				4		6/19/20
5				6		CC

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 06.19.2020 08.30.00 AM

Work Order #: 664913

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.9	
#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: 06.19.2020

Checklist reviewed by: Jessica Kramer Date: 06.22.2020

Jessica Kramer

Certificate of Analysis Summary 664914

LT Environmental, Inc., Arvada, CO

Project Name: PLU 167

Project Id: 012920078
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri 06.19.2020 08:30
Report Date: 06.23.2020 08:02
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	664914-001		664914-002		664914-003		664914-004		664914-005		664914-006	
	Field Id:	SW01		SW02		SW03		SW04		SW05		SW06	
	Depth:	0-2 ft		0-2 ft		0-1 ft		0-2 ft		0-2 ft		0-2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	06.17.2020 13:45		06.17.2020 13:55		06.17.2020 14:05		06.17.2020 14:15		06.17.2020 14:25		06.17.2020 14:35	
BTEX by EPA 8021B	***Extracted:***	06.19.2020 17:10		06.19.2020 17:10		06.19.2020 17:10		06.19.2020 17:10		06.19.2020 17:10		06.19.2020 17:10	
	Analyzed:	06.20.2020 03:44		06.20.2020 04:04		06.20.2020 04:25		06.20.2020 05:12		06.20.2020 06:01		06.20.2020 06:21	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.0101	0.0101
Toluene		<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.0101	0.0101
Ethylbenzene		<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.0101	0.0101
m,p-Xylenes		<0.00402	0.00402	<0.00402	0.00402	<0.00402	0.00402	<0.00401	0.00401	<0.00402	0.00402	<0.0202	0.0202
o-Xylene		<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.0101	0.0101
Total Xylenes		<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.0101	0.0101
Total BTEX		<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.0101	0.0101
Chloride by EPA 300	***Extracted:***	06.19.2020 10:18		06.19.2020 10:18		06.19.2020 10:18		06.19.2020 10:18		06.19.2020 10:18		06.19.2020 10:18	
	Analyzed:	06.20.2020 01:19		06.20.2020 01:25		06.20.2020 01:31		06.20.2020 01:37		06.20.2020 01:55		06.20.2020 02:01	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<9.90	9.90	34.6	10.0	50.7	10.0	235	10.0	644	9.92	1300	9.94
TPH by SW8015 Mod	***Extracted:***	06.19.2020 18:35		06.19.2020 18:35		06.19.2020 18:35		06.19.2020 18:35		06.19.2020 18:35		06.19.2020 18:35	
	Analyzed:	06.20.2020 01:31		06.20.2020 01:52		06.20.2020 02:13		06.20.2020 02:33		06.20.2020 02:53		06.20.2020 06:59	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<49.9	49.9	<50.1	50.1	<50.2	50.2	<50.2	50.2	<75.3	75.3
Diesel Range Organics (DRO)		<50.1	50.1	<49.9	49.9	<50.1	50.1	55.7	50.2	<50.2	50.2	1490	251
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<49.9	49.9	<50.1	50.1	<50.2	50.2	<50.2	50.2	<251	251
Total GRO-DRO		<50.1	50.1	<49.9	49.9	<50.1	50.1	55.7	50.2	<50.2	50.2	1490	75.3
Total TPH		<50.1	50.1	<49.9	49.9	<50.1	50.1	55.7	50.2	<50.2	50.2	1490	75.3

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

Jessica Kramer
Project Manager

Certificate of Analysis Summary 664914

LT Environmental, Inc., Arvada, CO

Project Name: PLU 167

Project Id: 012920078
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri 06.19.2020 08:30
Report Date: 06.23.2020 08:02
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	664914-007		664914-008		664914-009		664914-010		664914-011		664914-012	
	Field Id:	SW07		SW08		SW09		SW10		SW11		SW12	
	Depth:	0-4 ft		0-4 ft		0-2 ft		0-2 ft		0-2 ft		0-2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	06.17.2020 14:45		06.17.2020 14:55		06.17.2020 15:05		06.17.2020 15:15		06.17.2020 15:25		06.17.2020 15:35	
BTEX by EPA 8021B	***Extracted:***	06.19.2020 17:10		06.19.2020 17:10		06.19.2020 17:10		06.19.2020 17:10		06.19.2020 17:10		06.19.2020 17:10	
	Analyzed:	06.20.2020 06:42		06.20.2020 07:02		06.20.2020 07:23		06.20.2020 07:43		06.20.2020 08:03		06.20.2020 08:24	
	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	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199
Toluene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199
m,p-Xylenes		<0.00399	0.00399	<0.00402	0.00402	<0.00398	0.00398	<0.00402	0.00402	<0.00404	0.00404	<0.00398	0.00398
o-Xylene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199
Total Xylenes		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199
Total BTEX		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199
Chloride by EPA 300	***Extracted:***	06.19.2020 10:18		06.19.2020 10:18		06.19.2020 10:18		06.19.2020 10:18		06.19.2020 10:18		06.19.2020 10:18	
	Analyzed:	06.20.2020 02:18		06.20.2020 02:24		06.20.2020 02:30		06.20.2020 02:36		06.20.2020 02:42		06.20.2020 02:48	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		33.6	9.96	20.4	9.98	15.9	10.0	38.5	10.0	15.1	10.1	<10.1	10.1
TPH by SW8015 Mod	***Extracted:***	06.19.2020 18:35		06.19.2020 18:35		06.19.2020 18:35		06.19.2020 18:35		06.19.2020 18:35		06.19.2020 18:35	
	Analyzed:	06.20.2020 03:14		06.20.2020 03:34		06.20.2020 04:15		06.20.2020 04:35		06.20.2020 04:56		06.20.2020 05:16	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<50.0	50.0	<50.3	50.3	<50.0	50.0	<50.1	50.1	<49.8	49.8
Diesel Range Organics (DRO)		<49.8	49.8	<50.0	50.0	<50.3	50.3	<50.0	50.0	<50.1	50.1	<49.8	49.8
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<50.0	50.0	<50.3	50.3	<50.0	50.0	<50.1	50.1	<49.8	49.8
Total GRO-DRO		<49.8	49.8	<50.0	50.0	<50.3	50.3	<50.0	50.0	<50.1	50.1	<49.8	49.8
Total TPH		<49.8	49.8	<50.0	50.0	<50.3	50.3	<50.0	50.0	<50.1	50.1	<49.8	49.8

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

Jessica Kramer
Project Manager

Analytical Report 664914

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 167

012920078

06.23.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-34), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
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 (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

06.23.2020

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

Reference: XENCO Report No(s): **664914**
PLU 167
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) 664914. 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. 664914 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 664914

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW01	S	06.17.2020 13:45	0 - 2 ft	664914-001
SW02	S	06.17.2020 13:55	0 - 2 ft	664914-002
SW03	S	06.17.2020 14:05	0 - 1 ft	664914-003
SW04	S	06.17.2020 14:15	0 - 2 ft	664914-004
SW05	S	06.17.2020 14:25	0 - 2 ft	664914-005
SW06	S	06.17.2020 14:35	0 - 2 ft	664914-006
SW07	S	06.17.2020 14:45	0 - 4 ft	664914-007
SW08	S	06.17.2020 14:55	0 - 4 ft	664914-008
SW09	S	06.17.2020 15:05	0 - 2 ft	664914-009
SW10	S	06.17.2020 15:15	0 - 2 ft	664914-010
SW11	S	06.17.2020 15:25	0 - 2 ft	664914-011
SW12	S	06.17.2020 15:35	0 - 2 ft	664914-012

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 167

Project ID: *012920078*
Work Order Number(s): *664914*

Report Date: *06.23.2020*
Date Received: *06.19.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 664914

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-001	Date Collected:	06.17.2020 13:45	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.90	9.90	mg/kg	06.20.2020 01:19	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:35	Basis:	Wet Weight
Seq Number:	3129596				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	06.20.2020 01:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	06.20.2020 01:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	06.20.2020 01:31	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	06.20.2020 01:31	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	06.20.2020 01:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	06.20.2020 01:31	
o-Terphenyl	84-15-1	103	%	70-135	06.20.2020 01:31	

Certificate of Analytical Results 664914

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-001	Date Collected:	06.17.2020 13:45	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129562				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.20.2020 03:44	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.20.2020 03:44	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.20.2020 03:44	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.20.2020 03:44	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.20.2020 03:44	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.20.2020 03:44	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.20.2020 03:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	06.20.2020 03:44	
1,4-Difluorobenzene	540-36-3	101	%	70-130	06.20.2020 03:44	

Certificate of Analytical Results 664914

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-002	Date Collected:	06.17.2020 13:55	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**34.6**	10.0	mg/kg	06.20.2020 01:25		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:35	Basis:	Wet Weight
Seq Number:	3129596				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.20.2020 01:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.20.2020 01:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.20.2020 01:52	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	06.20.2020 01:52	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.20.2020 01:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	06.20.2020 01:52	
o-Terphenyl	84-15-1	109	%	70-135	06.20.2020 01:52	

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Sample Id:	**SW02**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-002	Date Collected:	06.17.2020 13:55	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129562				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.20.2020 04:04	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.20.2020 04:04	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.20.2020 04:04	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.20.2020 04:04	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.20.2020 04:04	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.20.2020 04:04	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.20.2020 04:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	06.20.2020 04:04	
4-Bromofluorobenzene	460-00-4	91	%	70-130	06.20.2020 04:04	

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Sample Id:	**SW03**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-003	Date Collected:	06.17.2020 14:05	Sample Depth:	0 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**50.7**	10.0	mg/kg	06.20.2020 01:31		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:35	Basis:	Wet Weight
Seq Number:	3129596				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	06.20.2020 02:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	06.20.2020 02:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	06.20.2020 02:13	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	06.20.2020 02:13	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	06.20.2020 02:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	06.20.2020 02:13	
o-Terphenyl	84-15-1	103	%	70-135	06.20.2020 02:13	

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Sample Id:	**SW03**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-003	Date Collected:	06.17.2020 14:05	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129562				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.20.2020 04:25	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.20.2020 04:25	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.20.2020 04:25	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.20.2020 04:25	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.20.2020 04:25	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.20.2020 04:25	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.20.2020 04:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	06.20.2020 04:25	
4-Bromofluorobenzene	460-00-4	104	%	70-130	06.20.2020 04:25	

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Sample Id:	**SW04**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-004	Date Collected:	06.17.2020 14:15	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**235**	10.0	mg/kg	06.20.2020 01:37		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:35	Basis:	Wet Weight
Seq Number:	3129596				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	06.20.2020 02:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	**55.7**	50.2	mg/kg	06.20.2020 02:33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	06.20.2020 02:33	U	1
Total GRO-DRO	PHC628	**55.7**	50.2	mg/kg	06.20.2020 02:33		1
Total TPH	PHC635	**55.7**	50.2	mg/kg	06.20.2020 02:33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	06.20.2020 02:33	
o-Terphenyl	84-15-1	96	%	70-135	06.20.2020 02:33	

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Sample Id:	**SW04**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-004	Date Collected:	06.17.2020 14:15	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129562				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.20.2020 05:12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.20.2020 05:12	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.20.2020 05:12	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.20.2020 05:12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.20.2020 05:12	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.20.2020 05:12	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.20.2020 05:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	06.20.2020 05:12	
4-Bromofluorobenzene	460-00-4	99	%	70-130	06.20.2020 05:12	

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Sample Id:	**SW05**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-005	Date Collected:	06.17.2020 14:25	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**644**	9.92	mg/kg	06.20.2020 01:55		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:35	Basis:	Wet Weight
Seq Number:	3129596				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	06.20.2020 02:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	06.20.2020 02:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	06.20.2020 02:53	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	06.20.2020 02:53	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	06.20.2020 02:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	06.20.2020 02:53	
o-Terphenyl	84-15-1	102	%	70-135	06.20.2020 02:53	

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Sample Id:	**SW05**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-005	Date Collected:	06.17.2020 14:25	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129562				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.20.2020 06:01	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.20.2020 06:01	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.20.2020 06:01	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.20.2020 06:01	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.20.2020 06:01	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.20.2020 06:01	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.20.2020 06:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	06.20.2020 06:01	
1,4-Difluorobenzene	540-36-3	103	%	70-130	06.20.2020 06:01	

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Sample Id:	**SW06**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-006	Date Collected:	06.17.2020 14:35	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1300**	9.94	mg/kg	06.20.2020 02:01		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:35	Basis:	Wet Weight
Seq Number:	3129596				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<75.3	75.3	mg/kg	06.20.2020 06:59	U	5
Diesel Range Organics (DRO)	C10C28DRO	**1490**	251	mg/kg	06.20.2020 06:59		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<251	251	mg/kg	06.20.2020 06:59	U	5
Total GRO-DRO	PHC628	**1490**	75.3	mg/kg	06.20.2020 06:59		5
Total TPH	PHC635	**1490**	75.3	mg/kg	06.20.2020 06:59		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	06.20.2020 06:59	
o-Terphenyl	84-15-1	129	%	70-135	06.20.2020 06:59	

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Sample Id:	**SW06**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-006	Date Collected:	06.17.2020 14:35	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129562				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0101	0.0101	mg/kg	06.20.2020 06:21	U	1
Toluene	108-88-3	<0.0101	0.0101	mg/kg	06.20.2020 06:21	U	1
Ethylbenzene	100-41-4	<0.0101	0.0101	mg/kg	06.20.2020 06:21	U	1
m,p-Xylenes	179601-23-1	<0.0202	0.0202	mg/kg	06.20.2020 06:21	U	1
o-Xylene	95-47-6	<0.0101	0.0101	mg/kg	06.20.2020 06:21	U	1
Total Xylenes	1330-20-7	<0.0101	0.0101	mg/kg	06.20.2020 06:21	U	1
Total BTEX		<0.0101	0.0101	mg/kg	06.20.2020 06:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	06.20.2020 06:21	
4-Bromofluorobenzene	460-00-4	98	%	70-130	06.20.2020 06:21	

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Sample Id:	**SW07**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-007	Date Collected:	06.17.2020 14:45	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**33.6**	9.96	mg/kg	06.20.2020 02:18		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:35	Basis:	Wet Weight
Seq Number:	3129596				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	06.20.2020 03:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	06.20.2020 03:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	06.20.2020 03:14	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	06.20.2020 03:14	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	06.20.2020 03:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	06.20.2020 03:14	
o-Terphenyl	84-15-1	107	%	70-135	06.20.2020 03:14	

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Sample Id:	**SW07**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-007	Date Collected:	06.17.2020 14:45	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129562				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.20.2020 06:42	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.20.2020 06:42	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.20.2020 06:42	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.20.2020 06:42	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.20.2020 06:42	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.20.2020 06:42	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.20.2020 06:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	06.20.2020 06:42	
4-Bromofluorobenzene	460-00-4	105	%	70-130	06.20.2020 06:42	

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Sample Id:	**SW08**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-008	Date Collected:	06.17.2020 14:55	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**20.4**	9.98	mg/kg	06.20.2020 02:24		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:35	Basis:	Wet Weight
Seq Number:	3129596				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.20.2020 03:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.20.2020 03:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.20.2020 03:34	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	06.20.2020 03:34	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.20.2020 03:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	06.20.2020 03:34	
o-Terphenyl	84-15-1	109	%	70-135	06.20.2020 03:34	

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Sample Id:	**SW08**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-008	Date Collected:	06.17.2020 14:55	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129562				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.20.2020 07:02	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.20.2020 07:02	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.20.2020 07:02	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.20.2020 07:02	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.20.2020 07:02	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.20.2020 07:02	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.20.2020 07:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	06.20.2020 07:02	
4-Bromofluorobenzene	460-00-4	106	%	70-130	06.20.2020 07:02	

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PLU 167

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-009	Date Collected:	06.17.2020 15:05	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**15.9**	10.0	mg/kg	06.20.2020 02:30		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:35	Basis:	Wet Weight
Seq Number:	3129596				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	06.20.2020 04:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	06.20.2020 04:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	06.20.2020 04:15	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	06.20.2020 04:15	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	06.20.2020 04:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	06.20.2020 04:15	
o-Terphenyl	84-15-1	101	%	70-135	06.20.2020 04:15	

Certificate of Analytical Results 664914

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-009	Date Collected:	06.17.2020 15:05	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129562				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.20.2020 07:23	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.20.2020 07:23	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.20.2020 07:23	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.20.2020 07:23	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.20.2020 07:23	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.20.2020 07:23	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.20.2020 07:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	06.20.2020 07:23	
4-Bromofluorobenzene	460-00-4	105	%	70-130	06.20.2020 07:23	

Certificate of Analytical Results 664914

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW10**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-010	Date Collected:	06.17.2020 15:15	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**38.5**	10.0	mg/kg	06.20.2020 02:36		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:35	Basis:	Wet Weight
Seq Number:	3129596				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.20.2020 04:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.20.2020 04:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.20.2020 04:35	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	06.20.2020 04:35	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.20.2020 04:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	06.20.2020 04:35	
o-Terphenyl	84-15-1	104	%	70-135	06.20.2020 04:35	

Certificate of Analytical Results 664914

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW10**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-010	Date Collected:	06.17.2020 15:15	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129562				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.20.2020 07:43	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.20.2020 07:43	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.20.2020 07:43	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.20.2020 07:43	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.20.2020 07:43	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.20.2020 07:43	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.20.2020 07:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	06.20.2020 07:43	
4-Bromofluorobenzene	460-00-4	107	%	70-130	06.20.2020 07:43	

Certificate of Analytical Results 664914

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW11**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-011	Date Collected:	06.17.2020 15:25	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**15.1**	10.1	mg/kg	06.20.2020 02:42		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:35	Basis:	Wet Weight
Seq Number:	3129596				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	06.20.2020 04:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	06.20.2020 04:56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	06.20.2020 04:56	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	06.20.2020 04:56	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	06.20.2020 04:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	06.20.2020 04:56	
o-Terphenyl	84-15-1	99	%	70-135	06.20.2020 04:56	

Certificate of Analytical Results 664914

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW11**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-011	Date Collected:	06.17.2020 15:25	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129562				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.20.2020 08:03	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.20.2020 08:03	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.20.2020 08:03	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.20.2020 08:03	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.20.2020 08:03	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.20.2020 08:03	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.20.2020 08:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	06.20.2020 08:03	
4-Bromofluorobenzene	460-00-4	108	%	70-130	06.20.2020 08:03	

Certificate of Analytical Results 664914

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW12**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-012	Date Collected:	06.17.2020 15:35	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 10:18	Basis:	Wet Weight
Seq Number:	3129577				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	06.20.2020 02:48	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.19.2020 18:35	Basis:	Wet Weight
Seq Number:	3129596				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	06.20.2020 05:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	06.20.2020 05:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	06.20.2020 05:16	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	06.20.2020 05:16	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	06.20.2020 05:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	06.20.2020 05:16	
o-Terphenyl	84-15-1	94	%	70-135	06.20.2020 05:16	

Certificate of Analytical Results 664914

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW12**	Matrix:	Soil	Date Received:	06.19.2020 08:30
Lab Sample Id:	664914-012	Date Collected:	06.17.2020 15:35	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.19.2020 17:10	Basis:	Wet Weight
Seq Number:	3129562				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.20.2020 08:24	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.20.2020 08:24	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.20.2020 08:24	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.20.2020 08:24	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.20.2020 08:24	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.20.2020 08:24	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.20.2020 08:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	06.20.2020 08:24	
1,4-Difluorobenzene	540-36-3	102	%	70-130	06.20.2020 08:24	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **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 664914

LT Environmental, Inc.

PLU 167

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129577 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705888-1-BLK — LCS Sample Id: 7705888-1-BKS — LCSD Sample Id: 7705888-1-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	263	105	90-110	4	20	mg/kg	06.19.2020 23:57	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129577 — Matrix: Soil — Date Prep: 06.19.2020
Parent Sample Id: 664913-008 — MS Sample Id: 664913-008 S — MSD Sample Id: 664913-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	699	199	885	93	883	92	90-110	0	20	mg/kg	06.20.2020 00:15	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129577 — Matrix: Soil — Date Prep: 06.19.2020
Parent Sample Id: 664914-004 — MS Sample Id: 664914-004 S — MSD Sample Id: 664914-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	235	201	430	97	431	98	90-110	0	20	mg/kg	06.20.2020 01:43	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129596 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705894-1-BLK — LCS Sample Id: 7705894-1-BKS — LCSD Sample Id: 7705894-1-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	917	92	951	95	70-135	4	35	mg/kg	06.19.2020 23:09	
Diesel Range Organics (DRO)	<50.0	1000	839	84	832	83	70-135	1	35	mg/kg	06.19.2020 23:09	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		98		101		70-135	%	06.19.2020 23:09
o-Terphenyl	108		81		77		70-135	%	06.19.2020 23:09

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129596 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705894-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.19.2020 22:48	

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

QC Summary 664914

LT Environmental, Inc.

PLU 167

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3129596 Matrix: Soil Date Prep: 06.19.2020
Parent Sample Id: 664913-013 MS Sample Id: 664913-013 S MSD Sample Id: 664913-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1040	104	950	95	70-135	9	35	mg/kg	06.20.2020 00:10	
Diesel Range Organics (DRO)	96.9	1000	1050	95	958	86	70-135	9	35	mg/kg	06.20.2020 00:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		117		70-135	%	06.20.2020 00:10
o-Terphenyl	94		86		70-135	%	06.20.2020 00:10

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3129562 Matrix: Solid Date Prep: 06.19.2020
MB Sample Id: 7705885-1-BLK LCS Sample Id: 7705885-1-BKS LCSD Sample Id: 7705885-1-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	0.0938	94	0.0885	89	70-130	6	35	mg/kg	06.19.2020 23:25	
Toluene	<0.00200	0.100	0.0932	93	0.0893	89	70-130	4	35	mg/kg	06.19.2020 23:25	
Ethylbenzene	<0.00200	0.100	0.0969	97	0.0930	93	71-129	4	35	mg/kg	06.19.2020 23:25	
m,p-Xylenes	<0.00400	0.200	0.197	99	0.191	96	70-135	3	35	mg/kg	06.19.2020 23:25	
o-Xylene	<0.00200	0.100	0.0994	99	0.0962	96	71-133	3	35	mg/kg	06.19.2020 23:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		98		100		70-130	%	06.19.2020 23:25
4-Bromofluorobenzene	101		93		102		70-130	%	06.19.2020 23:25

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3129562 Matrix: Soil Date Prep: 06.19.2020
Parent Sample Id: 664913-013 MS Sample Id: 664913-013 S MSD Sample Id: 664913-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.106	107	0.102	102	70-130	4	35	mg/kg	06.20.2020 00:06	
Toluene	<0.00199	0.0994	0.101	102	0.0953	95	70-130	6	35	mg/kg	06.20.2020 00:06	
Ethylbenzene	<0.00199	0.0994	0.102	103	0.0920	92	71-129	10	35	mg/kg	06.20.2020 00:06	
m,p-Xylenes	<0.00398	0.199	0.209	105	0.188	94	70-135	11	35	mg/kg	06.20.2020 00:06	
o-Xylene	<0.00199	0.0994	0.103	104	0.0916	92	71-133	12	35	mg/kg	06.20.2020 00:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		99		70-130	%	06.20.2020 00:06
4-Bromofluorobenzene	100		102		70-130	%	06.20.2020 00:06

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

Chain of Custody

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

Work Order No: 20C4914

Page 1 of 2

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:	PLU 167	Turn Around	
Project Number:	012920078	Routine	☐
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT				
Temperature (°C):	8.1 / 1.9	Temp Blank:	(Yes) No	Wet Ice: (Yes) No
Received Intact:	(Yes) No	Thermometer ID	NM007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	12	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SW01	S	6-17-2020	1345	0-2'	1	X	X	X
SW02	S	6-17-2020	1355	0-2'	1	X	X	X
SW03	S	6-17-2020	1405	0-1'	1	X	X	X
SW04	S	6-17-2020	1415	0-2'	1	X	X	X
SW05	S	6-17-2020	1425	0-2'	1	X	X	X
SW06	S	6-17-2020	1435	0-2'	1	X	X	X
SW07	S	6-17-2020	1445	0-4'	1	X	X	X
SW08	S	6-17-2020	1455	0-4'	1	X	X	X
SW09	S	6-17-2020	1505	0-2'	1	X	X	X
SW10	S	6-17-2020	1515	0-2'	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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			6/19/20 0830	2		6/19/20 0830
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

XENCO LABORATORIES

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

Work Order No: 620914

www.xenco.com Page 2 of 2

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:	PLU 167	Turn Around	
Project Number:	012920078	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SW11	S	6-17-2020	1525	0-2'	1	X	X	X
SW12	S	6-17-2020	1535	0-2'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			6/19/20 0800	2			6/20/20 0830
3				4			6/19/20
5				6			

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 06.19.2020 08.30.00 AM

Work Order #: 664914

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.9	
#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: 06.19.2020

Checklist reviewed by: Jessica Kramer Date: 06.22.2020

Jessica Kramer

Certificate of Analysis Summary 665077

LT Environmental, Inc., Arvada, CO

Project Name: PLU 167

Project Id: 012920078
Contact: Dan Moir
Project Location:

Date Received in Lab: Mon 06.22.2020 15:30
Report Date: 06.24.2020 14:21
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	665077-001		665077-002					
	Field Id:	FS08A		SW20					
	Depth:	4- ft		0-4 ft					
	Matrix:	SOIL		SOIL					
	Sampled:	06.22.2020 14:10		06.22.2020 14:25					
BTEX by EPA 8021B	***Extracted:***	06.23.2020 14:19		06.23.2020 14:19					
	Analyzed:	06.23.2020 17:41		06.23.2020 18:03					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00199	0.00199				
Toluene		<0.00200	0.00200	<0.00199	0.00199				
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199				
m,p-Xylenes		<0.00400	0.00400	<0.00398	0.00398				
o-Xylene		<0.00200	0.00200	<0.00199	0.00199				
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199				
Total BTEX		<0.00200	0.00200	<0.00199	0.00199				
Chloride by EPA 300	***Extracted:***	06.23.2020 17:11		06.23.2020 17:11					
	Analyzed:	06.23.2020 18:59		06.23.2020 19:17					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		549	10.0	1100	10.0				
TPH by SW8015 Mod	***Extracted:***	06.23.2020 12:00		06.23.2020 12:00					
	Analyzed:	** ** ** **		06.23.2020 14:20					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<50.2	50.2				
Diesel Range Organics (DRO)		<50.1	50.1	98.9	50.2				
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<50.2	50.2				
Total GRO-DRO		<50.1	50.1	98.9	50.2				
Total TPH		<50.1	50.1	98.9	50.2				

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

Jessica Kramer
Project Manager

Analytical Report 665077

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 167

012920078

06.24.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-34), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
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 (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

06.24.2020

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

Reference: XENCO Report No(s): **665077**
PLU 167
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) 665077. 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. 665077 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 665077

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS08A	S	06.22.2020 14:10	4 ft	665077-001
SW20	S	06.22.2020 14:25	0 - 4 ft	665077-002

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 167

Project ID: *012920078*
Work Order Number(s): *665077*

Report Date: *06.24.2020*
Date Received: *06.22.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 665077

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS08A**	Matrix:	Soil	Date Received:	06.22.2020 15:30
Lab Sample Id:	665077-001	Date Collected:	06.22.2020 14:10	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.23.2020 17:11	Basis:	Wet Weight
Seq Number:	3129782				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**549**	10.0	mg/kg	06.23.2020 18:59		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.23.2020 12:00	Basis:	Wet Weight
Seq Number:	3129754				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	06.23.2020 11:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	06.23.2020 11:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	06.23.2020 11:42	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	06.23.2020 11:42	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	06.23.2020 11:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	06.23.2020 11:42	
o-Terphenyl	84-15-1	125	%	70-135	06.23.2020 11:42	

Certificate of Analytical Results 665077

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS08A**	Matrix:	Soil	Date Received:	06.22.2020 15:30
Lab Sample Id:	665077-001	Date Collected:	06.22.2020 14:10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.23.2020 14:19	Basis:	Wet Weight
Seq Number:	3129773				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.23.2020 17:41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.23.2020 17:41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.23.2020 17:41	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	06.23.2020 17:41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.23.2020 17:41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.23.2020 17:41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.23.2020 17:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	06.23.2020 17:41	
4-Bromofluorobenzene	460-00-4	95	%	70-130	06.23.2020 17:41	

Certificate of Analytical Results 665077

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW20**	Matrix:	Soil	Date Received:	06.22.2020 15:30
Lab Sample Id:	665077-002	Date Collected:	06.22.2020 14:25	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.23.2020 17:11	Basis:	Wet Weight
Seq Number:	3129782				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1100**	10.0	mg/kg	06.23.2020 19:17		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.23.2020 12:00	Basis:	Wet Weight
Seq Number:	3129754				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	06.23.2020 14:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	**98.9**	50.2	mg/kg	06.23.2020 14:20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	06.23.2020 14:20	U	1
Total GRO-DRO	PHC628	**98.9**	50.2	mg/kg	06.23.2020 14:20		1
Total TPH	PHC635	**98.9**	50.2	mg/kg	06.23.2020 14:20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	125	%	70-135	06.23.2020 14:20	
o-Terphenyl	84-15-1	127	%	70-135	06.23.2020 14:20	

Certificate of Analytical Results 665077

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**SW20**	Matrix:	Soil	Date Received:	06.22.2020 15:30
Lab Sample Id:	665077-002	Date Collected:	06.22.2020 14:25	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.23.2020 14:19	Basis:	Wet Weight
Seq Number:	3129773				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.23.2020 18:03	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.23.2020 18:03	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.23.2020 18:03	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.23.2020 18:03	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.23.2020 18:03	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.23.2020 18:03	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.23.2020 18:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	06.23.2020 18:03	
1,4-Difluorobenzene	540-36-3	102	%	70-130	06.23.2020 18:03	

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 665077

LT Environmental, Inc.

PLU 167

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129782 — Matrix: Solid — Date Prep: 06.23.2020
MB Sample Id: 7706049-1-BLK — LCS Sample Id: 7706049-1-BKS — LCSD Sample Id: 7706049-1-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	267	107	90-110	4	20	mg/kg	06.23.2020 18:47	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129782 — Matrix: Soil — Date Prep: 06.23.2020
Parent Sample Id: 665077-001 — MS Sample Id: 665077-001 S — MSD Sample Id: 665077-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	549	202	760	104	754	103	90-110	1	20	mg/kg	06.23.2020 19:05	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129782 — Matrix: Soil — Date Prep: 06.23.2020
Parent Sample Id: 665201-003 — MS Sample Id: 665201-003 S — MSD Sample Id: 665201-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	318	202	485	83	487	84	90-110	0	20	mg/kg	06.23.2020 20:27	X

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129754 — Matrix: Solid — Date Prep: 06.23.2020
MB Sample Id: 7706014-1-BLK — LCS Sample Id: 7706014-1-BKS — LCSD Sample Id: 7706014-1-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	943	94	916	92	70-135	3	35	mg/kg	06.23.2020 11:00	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	1050	105	70-135	4	35	mg/kg	06.23.2020 11:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	120		133		128		70-135	%	06.23.2020 11:00
o-Terphenyl	125		129		123		70-135	%	06.23.2020 11:00

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129754 — Matrix: Solid — Date Prep: 06.23.2020
MB Sample Id: 7706014-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.23.2020 10:40	

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 665077

LT Environmental, Inc.

PLU 167

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3129754 Matrix: Soil Date Prep: 06.23.2020
Parent Sample Id: 665077-001 MS Sample Id: 665077-001 S MSD Sample Id: 665077-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	933	93	970	97	70-135	4	35	mg/kg	06.23.2020 12:22	
Diesel Range Organics (DRO)	<50.2	1000	1100	110	1120	112	70-135	2	35	mg/kg	06.23.2020 12:22	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		134		70-135	%	06.23.2020 12:22
o-Terphenyl	133		133		70-135	%	06.23.2020 12:22

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3129773 Matrix: Solid Date Prep: 06.23.2020
MB Sample Id: 7706053-1-BLK LCS Sample Id: 7706053-1-BKS LCSD Sample Id: 7706053-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.106	106	0.107	107	70-130	1	35	mg/kg	06.23.2020 15:42	
Toluene	<0.00200	0.100	0.104	104	0.106	106	70-130	2	35	mg/kg	06.23.2020 15:42	
Ethylbenzene	<0.00200	0.100	0.0990	99	0.100	100	71-129	1	35	mg/kg	06.23.2020 15:42	
m,p-Xylenes	<0.00400	0.200	0.199	100	0.203	102	70-135	2	35	mg/kg	06.23.2020 15:42	
o-Xylene	<0.00200	0.100	0.0985	99	0.102	102	71-133	3	35	mg/kg	06.23.2020 15:42	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		101		70-130	%	06.23.2020 15:42
4-Bromofluorobenzene	94		96		104		70-130	%	06.23.2020 15:42

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3129773 Matrix: Soil Date Prep: 06.23.2020
Parent Sample Id: 665077-001 MS Sample Id: 665077-001 S MSD Sample Id: 665077-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.109	109	0.112	112	70-130	3	35	mg/kg	06.24.2020 01:44	
Toluene	<0.00200	0.100	0.101	101	0.111	111	70-130	9	35	mg/kg	06.24.2020 01:44	
Ethylbenzene	<0.00200	0.100	0.0934	93	0.108	108	71-129	14	35	mg/kg	06.24.2020 01:44	
m,p-Xylenes	<0.00401	0.200	0.188	94	0.220	111	70-135	16	35	mg/kg	06.24.2020 01:44	
o-Xylene	<0.00200	0.100	0.0948	95	0.107	107	71-133	12	35	mg/kg	06.24.2020 01:44	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		70-130	%	06.24.2020 01:44
4-Bromofluorobenzene	103		102		70-130	%	06.24.2020 01:44

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: 1W5077

XENCO LABORATORIES
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO 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:	PLU 167	Turn Around	
Project Number:	01292007B	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temperature (°C):	3.2 / 3.0	Temp Blank:	(Yes) No
Received Intact:	(Yes) No	Wet Ice:	(Yes) No
Cooler Custody Seals:	Yes No (N/A)	Thermometer ID	T-NM-007
Sample Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
		Total Containers:	2

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS03A	S	6.22.20	1410	4'	1	X	X	X
SW20	S	6.22.20	1425	0-4'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		6/22/20 15:30	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: 06.22.2020 03.30.00 PM

Work Order #: 665077

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)?	3.6	
#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 recieved 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: 06.22.2020

Checklist reviewed by: Jessica Kramer Date: 06.24.2020

Jessica Kramer

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Certificate of Analysis Summary 668971

LT Environmental, Inc., Arvada, CO

Project Name: PLU 167

Project Id: 012920078
Contact: Dan Moir
Project Location:

Date Received in Lab: Mon 08.03.2020 16:00
Report Date: 08.04.2020 11:26
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	668971-001					
	Field Id:	FS23					
	Depth:	0.5- ft					
	Matrix:	SOIL					
	Sampled:	08.03.2020 10:50					
BTEX by EPA 8021B	***Extracted:***	08.03.2020 16:34					
	Analyzed:	08.03.2020 18:10					
	Units/RL:	mg/kg	RL				
Benzene		<0.00200	0.00200				
Toluene		<0.00200	0.00200				
Ethylbenzene		<0.00200	0.00200				
m,p-Xylenes		<0.00401	0.00401				
o-Xylene		<0.00200	0.00200				
Total Xylenes		<0.00200	0.00200				
Total BTEX		<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	08.03.2020 17:01					
	Analyzed:	08.03.2020 18:15					
	Units/RL:	mg/kg	RL				
Chloride		11.4	9.92				
TPH by SW8015 Mod	***Extracted:***	08.03.2020 16:11					
	Analyzed:	08.03.2020 16:55					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1				
Diesel Range Organics (DRO)		<50.1	50.1				
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1				
Total GRO-DRO		<50.1	50.1				
Total TPH		<50.1	50.1				

BRL - Below Reporting Limit

Jessica Kramer

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Analytical Report 668971

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 167

012920078

08.04.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
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 (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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08.04.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **668971**
PLU 167
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 Eurofins Xenco, LLC Report Number(s) 668971. 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 Eurofins Xenco, LLC. 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. 668971 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 Eurofins Xenco, LLC 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

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Sample Cross Reference 668971

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS23	S	08.03.2020 10:50	0.5 ft	668971-001

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CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 167

Project ID: *012920078*
Work Order Number(s): *668971*

Report Date: *08.04.2020*
Date Received: *08.03.2020*

Sample receipt non conformances and comments:

V1.001 Revision (client email) Changed sample name to read FS23

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 668971

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id: **FS23** Matrix: Soil Date Received:08.03.2020 16:00
Lab Sample Id: 668971-001 Date Collected: 08.03.2020 10:50 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 08.03.2020 17:01 Basis: Wet Weight
Seq Number: 3133430

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.4**	9.92	mg/kg	08.03.2020 18:15		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 08.03.2020 16:11 Basis: Wet Weight
Seq Number: 3133363

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	08.03.2020 16:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	08.03.2020 16:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	08.03.2020 16:55	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	08.03.2020 16:55	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	08.03.2020 16:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	08.03.2020 16:55	
o-Terphenyl	84-15-1	95	%	70-135	08.03.2020 16:55	

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Certificate of Analytical Results 668971

LT Environmental, Inc., Arvada, CO

PLU 167

Sample Id:	**FS23**	Matrix:	Soil	Date Received:	08.03.2020 16:00
Lab Sample Id:	668971-001	Date Collected:	08.03.2020 10:50	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	08.03.2020 16:34	Basis:	Wet Weight
Seq Number:	3133428				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.03.2020 18:10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.03.2020 18:10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.03.2020 18:10	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.03.2020 18:10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.03.2020 18:10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.03.2020 18:10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.03.2020 18:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.03.2020 18:10	
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.03.2020 18:10	

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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 668971

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LT Environmental, Inc.

PLU 167

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3133430 — Matrix: Solid — Date Prep: 08.03.2020
MB Sample Id: 7708638-1-BLK — LCS Sample Id: 7708638-1-BKS — LCSD Sample Id: 7708638-1-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	268	107	267	107	90-110	0	20	mg/kg	08.03.2020 16:56	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3133430 — Matrix: Soil — Date Prep: 08.03.2020
Parent Sample Id: 668916-001 — MS Sample Id: 668916-001 S — MSD Sample Id: 668916-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	243	200	448	103	449	103	90-110	0	20	mg/kg	08.03.2020 17:13	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3133430 — Matrix: Soil — Date Prep: 08.03.2020
Parent Sample Id: 668975-004 — MS Sample Id: 668975-004 S — MSD Sample Id: 668975-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	61.3	200	271	105	269	104	90-110	1	20	mg/kg	08.03.2020 19:06	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3133363 — Matrix: Solid — Date Prep: 08.03.2020
MB Sample Id: 7708598-1-BLK — LCS Sample Id: 7708598-1-BKS — LCSD Sample Id: 7708598-1-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	893	89	900	90	70-135	1	35	mg/kg	08.03.2020 12:24	
Diesel Range Organics (DRO)	<50.0	1000	950	95	962	96	70-135	1	35	mg/kg	08.03.2020 12:24	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	89		107		108		70-135	%	08.03.2020 12:24
o-Terphenyl	93		100		102		70-135	%	08.03.2020 12:24

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3133363 — Matrix: Solid — Date Prep: 08.03.2020
MB Sample Id: 7708598-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.03.2020 12:04	

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

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QC Summary 668971

LT Environmental, Inc.

PLU 167

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3133363 Matrix: Soil Date Prep: 08.03.2020
Parent Sample Id: 668916-001 MS Sample Id: 668916-001 S MSD Sample Id: 668916-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	869	87	884	88	70-135	2	35	mg/kg	08.03.2020 13:25	
Diesel Range Organics (DRO)	<50.1	1000	956	96	978	98	70-135	2	35	mg/kg	08.03.2020 13:25	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		106		70-135	%	08.03.2020 13:25
o-Terphenyl	101		102		70-135	%	08.03.2020 13:25

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3133428 Matrix: Solid Date Prep: 08.03.2020
MB Sample Id: 7708618-1-BLK LCS Sample Id: 7708618-1-BKS LCSD Sample Id: 7708618-1-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	0.105	105	0.113	113	70-130	7	35	mg/kg	08.03.2020 15:45	
Toluene	<0.00200	0.100	0.0997	100	0.108	108	70-130	8	35	mg/kg	08.03.2020 15:45	
Ethylbenzene	<0.00200	0.100	0.0930	93	0.100	100	71-129	7	35	mg/kg	08.03.2020 15:45	
m,p-Xylenes	<0.00400	0.200	0.189	95	0.204	102	70-135	8	35	mg/kg	08.03.2020 15:45	
o-Xylene	<0.00200	0.100	0.0928	93	0.100	100	71-133	7	35	mg/kg	08.03.2020 15:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		98		70-130	%	08.03.2020 15:45
4-Bromofluorobenzene	94		101		100		70-130	%	08.03.2020 15:45

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3133428 Matrix: Soil Date Prep: 08.03.2020
Parent Sample Id: 668916-001 MS Sample Id: 668916-001 S MSD Sample Id: 668916-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.129	129	0.130	129	70-130	1	35	mg/kg	08.03.2020 16:30	
Toluene	<0.00201	0.100	0.122	122	0.123	122	70-130	1	35	mg/kg	08.03.2020 16:30	
Ethylbenzene	<0.00201	0.100	0.114	114	0.113	112	71-129	1	35	mg/kg	08.03.2020 16:30	
m,p-Xylenes	<0.00402	0.201	0.231	115	0.228	113	70-135	1	35	mg/kg	08.03.2020 16:30	
o-Xylene	<0.00201	0.100	0.113	113	0.112	111	71-133	1	35	mg/kg	08.03.2020 16:30	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		70-130	%	08.03.2020 16:30
4-Bromofluorobenzene	103		104		70-130	%	08.03.2020 16:30

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

Chain of Custody

Work Order No: 1eK8971

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:	PLU 167	Turn Around	
Project Number:	01292078	Routine ☐	
P.O. Number:		Rush: 24H	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	4.4 / 4.2	Thermometer ID	
Received Intact:	(Yes) No	TNM007	
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)
FS25	S	8.3.20	1050	0.5'	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

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
		8/3/20 16:00	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08.03.2020 04.00.00 PM

Work Order #: 668971

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	
#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**	Sample received in bulk container.
#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: 08.03.2020

Checklist reviewed by: Jessica Kramer Date: 08.04.2020

Jessica Kramer