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	NAB1927639983
District RP	2RP-5645
Facility ID	
Application ID	pAB1927639713

IEXLN-190913-C-1410

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)* NAB1927639983
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.690276° Longitude -104.125030°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Palmillo State #1	Site Type Production Well Facility flow line
Date Release Discovered 9/7/2019	API# *(if applicable)* 30-015-23164

Unit Letter	Section	Township	Range	County
H	1	19S	28E	Eddy

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

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) 2.47	Volume Recovered (bbls) 0
☒ Produced Water	Volume Released (bbls) 9.87	Volume Recovered (bbls) 0
	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 from the surface flow line due to external corrosion. Fluids were released to the pasture. Additional third party resources have been retained to assist with remediation.

State of New Mexico
Oil Conservation Division

Incident ID	NAB1927639083
District RP	2RP-5645
Facility ID	
Application ID	pAB1927639713

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:

No secondary containment.
No free fluids remained to be removed.

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: [signature] Date: 9/13/2019

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

OCD Only

Received by: Amalia Bustamante Date: 10/3/2019

Incident ID	NAB1927639983
District RP	2RP-5645
Facility ID	
Application ID	pAB1927639713

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAB1927639983
District RP	2RP-5645
Facility ID	
Application ID	pAB1927639713

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 Coordinator_____

Signature:_____ _____ Date: ____05/09/2020_____

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

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAB1927639983
District RP	2RP-5645
Facility ID	
Application ID	pAB1927639713

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: _____

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: _____

A proud member of WSP

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

May 8, 2020

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

RE: Closure Request
Palmillo State #1
Remediation Permit Number 2RP-5645
Incident Number NAB1927639983
Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment, soil sampling, and remediation activities at the Palmillo State #1 (Site) in Unit H, Section 1, Township 19 South, Range 28 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, soil sampling, and remediation activities was to confirm the presence or absence of impacts to soil from a release of crude oil and produced water at the Site. Based on the results of the remediation activities, XTO is submitting this Closure Request for final remediation and respectfully requesting no further action (NFA) for Incident Number NAB1927639983.

RELEASE BACKGROUND

On September 7, 2019, external corrosion on a surface line resulted in the release of approximately 2.47 barrels (bbls) of crude oil and approximately 9.87 bbls of produced water onto the surrounding pasture. No fluids were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on September 13, 2019, and the release event was subsequently assigned Remediation Permit (RP) Number 2RP-5645 and Incident Number NAB1927639983.

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 CP 00646, located approximately 1.3 miles southeast of the Site. The groundwater well has a reported depth to groundwater of approximately 150 feet bgs and a total depth of approximately

199 feet bgs. NMOSE well CP 01036, located 0.63 miles north-northwest of the Site, is closer to the Site but has no depth to groundwater or total well depth data available. In addition to NMOSE well CP 00646, there are five United States Geological Survey (USGS) wells within 1.7 miles that indicate regional depth to water is greater than 100 feet bgs. USGS well 324000104073601, located 1.7 miles south of the Site, was most recently sampled in December 2015 and has a reported depth to water of 145 feet bgs.

The closest continuously flowing water or significant watercourse to the Site is an intermittent stream, located approximately 71 feet south of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, or church. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is located within 300 feet of a wetland. The Site is not underlain by unstable geology (low potential karst designation area).

CLOSURE CRITERIA

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

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH): 100 mg/kg
- Chloride: 600 mg/kg

SITE ASSESSMENT ACTIVITIES

On September 17, 2019, 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). LTE personnel collected and field screened preliminary soil assessment samples at four locations (SS01 through SS04) within the release extent. The locations of the preliminary soil samples are presented on Figure 2. Photographic documentation was conducted during the Site visit and is included in Attachment 1.

The preliminary soil samples were collected at a depth of approximately 0.5 feet bgs. Preliminary soil samples were field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. All soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States

Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results indicated BTEX, TPH, and/or chloride concentrations exceeded the Closure Criteria in all four preliminary soil samples, with the greatest concentrations reported in samples SS01 and SS02, located at the point of release and along the pipeline right-of-way, respectively. Based on visible staining within the release extent, field screening results, and laboratory analytical results, soil delineation and excavation appeared to be warranted in the release extent.

Remediation activities at the Site were postponed pending approval to disturb the pasture. XTO submitted a Right of Entry permit (ROE) to the New Mexico State Land Office (SLO) on October 2, 2019. Per 19.15.29.12.B.(1) NMAC, an extension for submission of a Remediation Plan or Closure Request until March 6, 2020 was granted. The extension was requested and approved on November 15, 2019. The executed permit from SLO granting access in the pasture was received November 20, 2019.

DELINEATION AND EXCAVATION SOIL SAMPLING ACTIVITIES

On February 13, 2020, LTE personnel returned to the Site and advanced three boreholes (BH01 through BH03) via stainless steel hand-auger within the release extent to depths ranging from approximately 2.5 feet to 12 feet bgs. Two to three discrete soil samples were collected from each borehole at depths ranging from approximately 1 foot to 12 feet bgs. Field screening results and observations for each borehole were logged on lithologic/soil sampling logs, which are included in Attachment 2. The locations of delineation boreholes are presented on Figure 3. The discrete delineation soil samples were collected, handled, and analyzed as described above at Xenco in Carlsbad, New Mexico.

On February 18, 2020, LTE oversaw excavation activities to remediate impacted soil as indicated by visual observations, field screening results, and preliminary and delineation soil sample laboratory analytical results. Excavation activities were performed using a track-mounted backhoe and associated transport vehicles throughout the release extent. Two excavations were completed, one to the north-northwest of the surface line in the vicinity of preliminary soil sample SS03, and one to the south-southeast of the surface line in the vicinity of preliminary soil samples SS01, SS02, and SS04.

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. 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 six composite floor soil samples (FS01 through FS06) and eight composite sidewall samples (SW01 through SW08) were collected

from the excavations. Floor samples were collected at depths ranging from approximately 3 feet to 8 feet bgs and sidewall samples were collected at ground surface to the maximum depth of approximately 8 feet bgs. The excavation soil samples were collected, handled, and analyzed as described above.

The two excavation extents totaled approximately 1,100 square feet. A total of approximately 250 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 landfill facility located in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing.

Further excavation at the Site was required underneath the XTO surface flowline. Safety policy required that the line be flushed with fresh water and an XTO representative be on Site while excavation proceeded. Per 19.15.29.12.B.(1) NMAC, an extension for submission of a Remediation Plan or Closure Request until July 6, 2020 was approved on March 13, 2020.

On March 23, 2020, after discussing site safety with an XTO representative, LTE conducted further excavation to remediate impacted soils beneath the surface flowline. Excavation activities were performed using a track-mounted backhoe and associated transport vehicles in the vicinity of failing sidewall samples SW03, SW04, SW07, and SW08. Two new floor samples were recollected (FS07A and FS08A) at approximately 13 feet bgs. The final excavation extent totaled approximately 1,240 square feet. A total of approximately 400 cubic yards of impacted soil were removed during excavation activities. The locations of final excavation confirmation samples are presented on Figure 3.

ANALYTICAL RESULTS

Laboratory analytical results indicated BTEX, TPH, and/or chloride concentrations exceeded the Closure Criteria in preliminary soil samples SS01 through SS04. Delineation boreholes were advanced within the release extent to define the vertical extent of soil impacts, specifically in areas that could prove prohibitive to be excavated due to the proximity of active pipelines. Laboratory analytical results indicated benzene, BTEX, TPH, and chloride concentrations were below the Closure Criteria in delineation soil samples BH01, BH01A, BH03A, and BH03B, collected at depths at depths ranging from approximately 1 foot to 12 feet bgs. Laboratory analytical results indicated BTEX, TPH, and/or chloride concentrations exceeded the Closure Criteria in delineation soil samples BH02, BH02A, and BH03, collected at depths ranging from approximately 1 foot to 2.5 feet bgs; however, soil in the vicinity of these exceedances were excavated and properly disposed of offsite during remedial activities. Laboratory analytical results indicated benzene, BTEX, TPH, and chloride concentrations were below the Closure Criteria in excavation soil samples FS01 through FS06 and SW01, SW02, SW05, and SW06, collected at depths at depths ranging from the ground surface to approximately 8 feet bgs.

Laboratory analytical results indicated BTEX, TPH, and/or chloride concentrations exceeded the Closure Criteria in excavation soil samples SW03, SW04, SW07, and SW08. After further excavation at the Site underneath the aboveground pipeline, the remaining impacted soil was removed. Laboratory analytical results indicated benzene, BTEX, TPH, and chloride concentrations were below the Closure Criteria in confirmation floor soil samples FS07A and FS08A, collected at a depth of approximately 13 feet bgs. Laboratory analytical results are summarized in Table 1 and the laboratory analytical reports are included in Attachment 3.

BACKFILL ACTIVITIES

On April 7, 2020, after reviewing laboratory analytical results to confirm all impacted soil had been removed, the excavation was backfilled with clean backfill material. Photographic documentation was conducted during backfill activities and a photographic log is included in Attachment 1.

CONCLUSIONS

Initial and follow-up response efforts following the release of crude oil and produced water included collection of initial and delineation soil samples and removal of impacted soil. Laboratory analytical results for final confirmation soil samples indicated benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. A total of approximately 400 cubic yards of impacted soil was excavated, and laboratory analytical results for the delineation and confirmation soil samples collected from within and around the final excavation extent indicated benzene, BTEX, TPH, and chloride concentrations were compliant with the NMOCD Closure Criteria. As a result, XTO respectfully requests NFA and Closure for Incident Number NAB1927639983.

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

LT ENVIRONMENTAL, INC.

Fatima Smith
Staff Geologist

Ashley L. Ager, P.G.
Senior Geologist

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

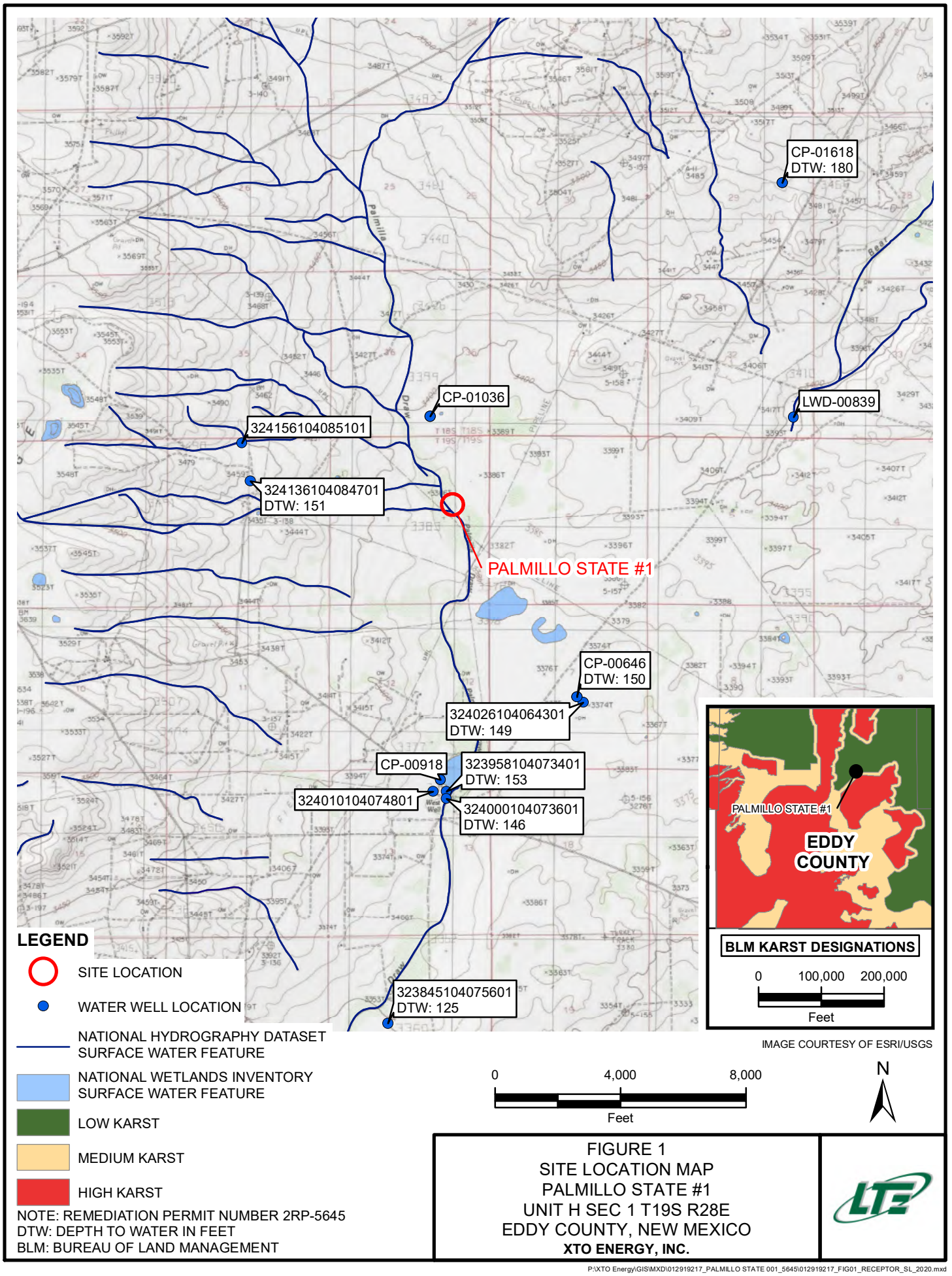
A proud member of WSP

Victoria Venegas, NMOCD

Appendices:

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

FIGURES



NOTE: REMEDIATION PERMIT NUMBER 2RP-5645
DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT

FIGURE 1
SITE LOCATION MAP
PALMILLO STATE #1
UNIT H SEC 1 T19S R28E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919217_PALMILLO STATE 001_5645\012919217_FIG01_RECEPTOR_SL_2020.mxd

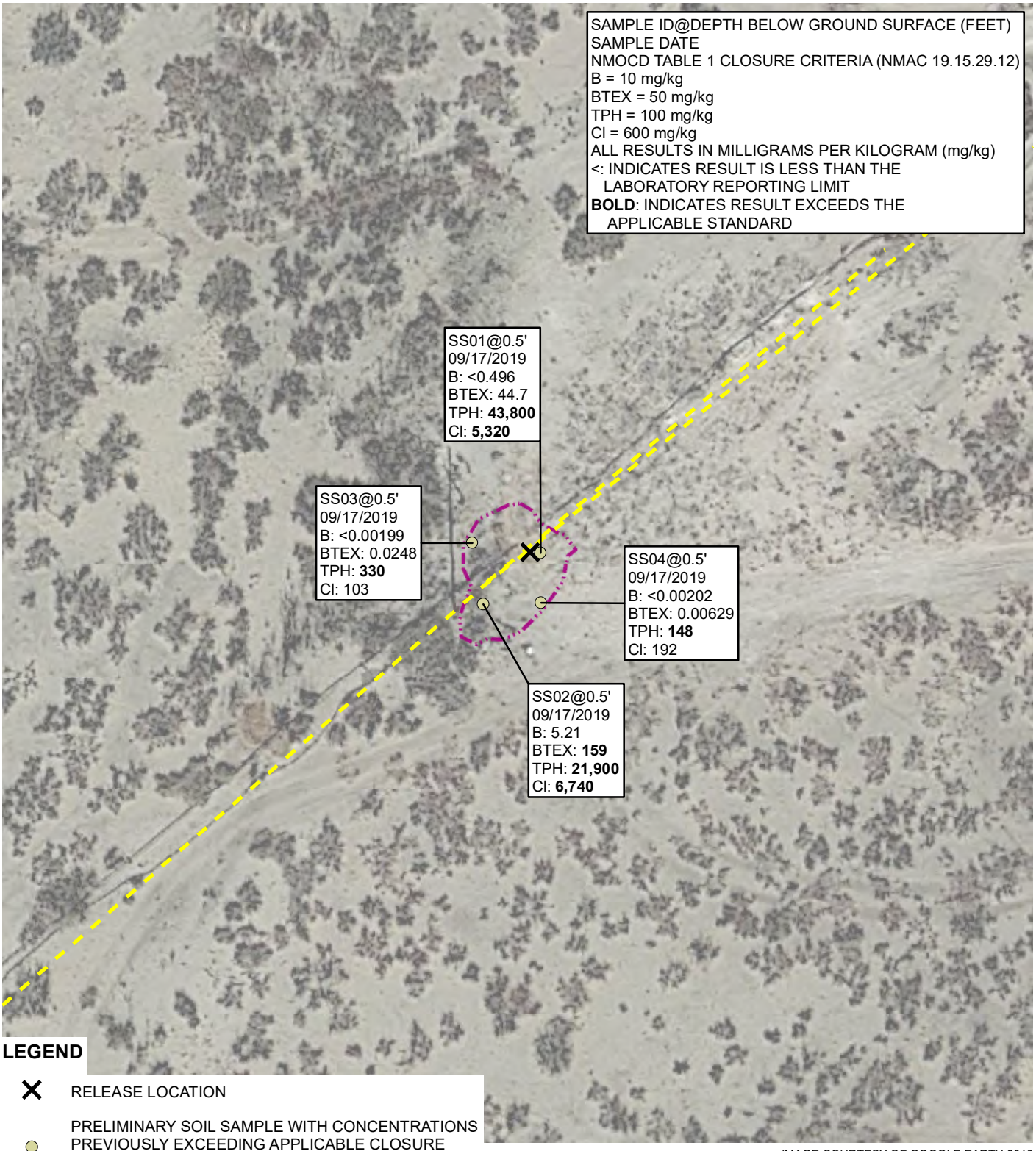
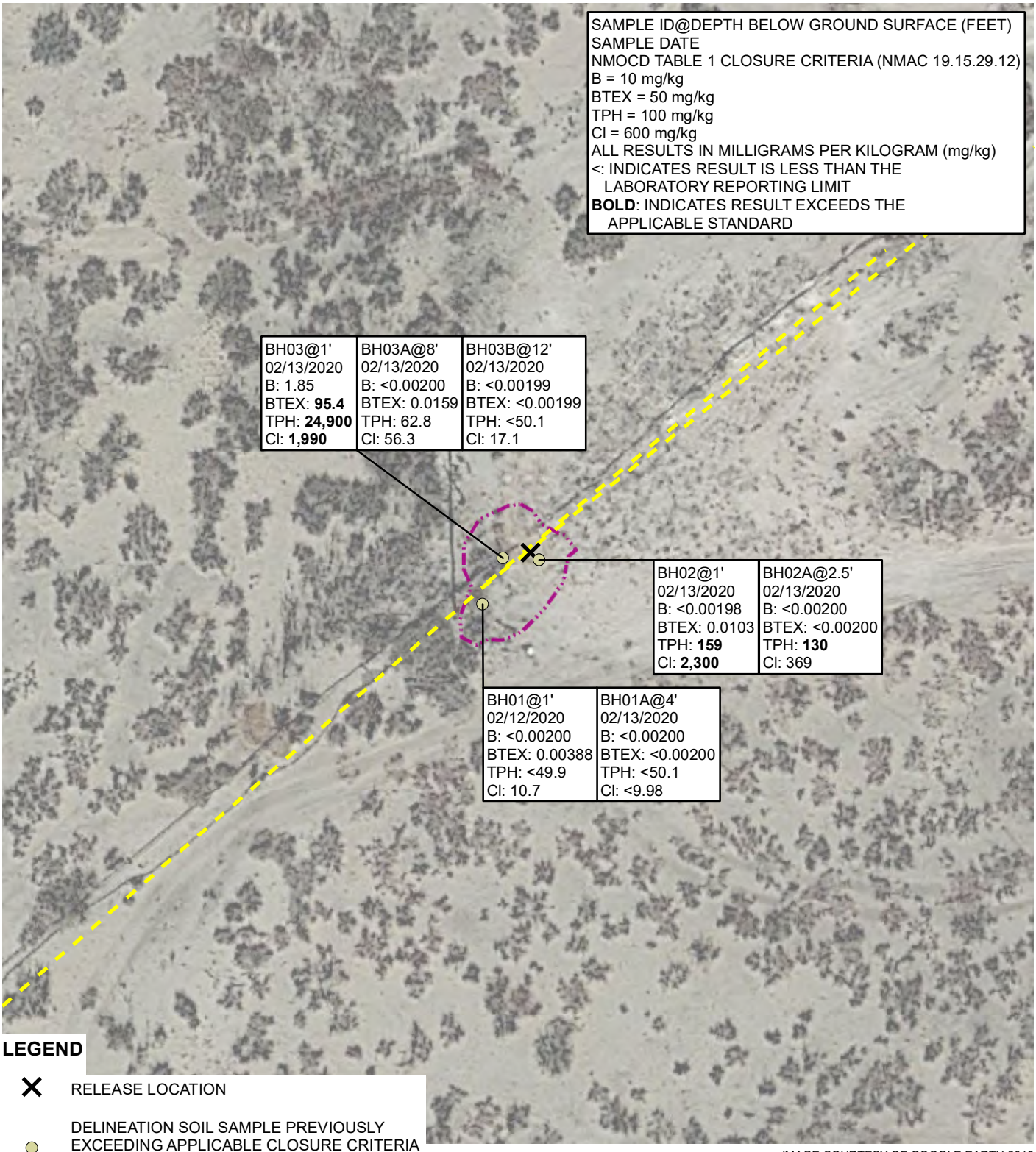


FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
PALMILLO STATE #1
UNIT H SEC 1 T19S R28E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

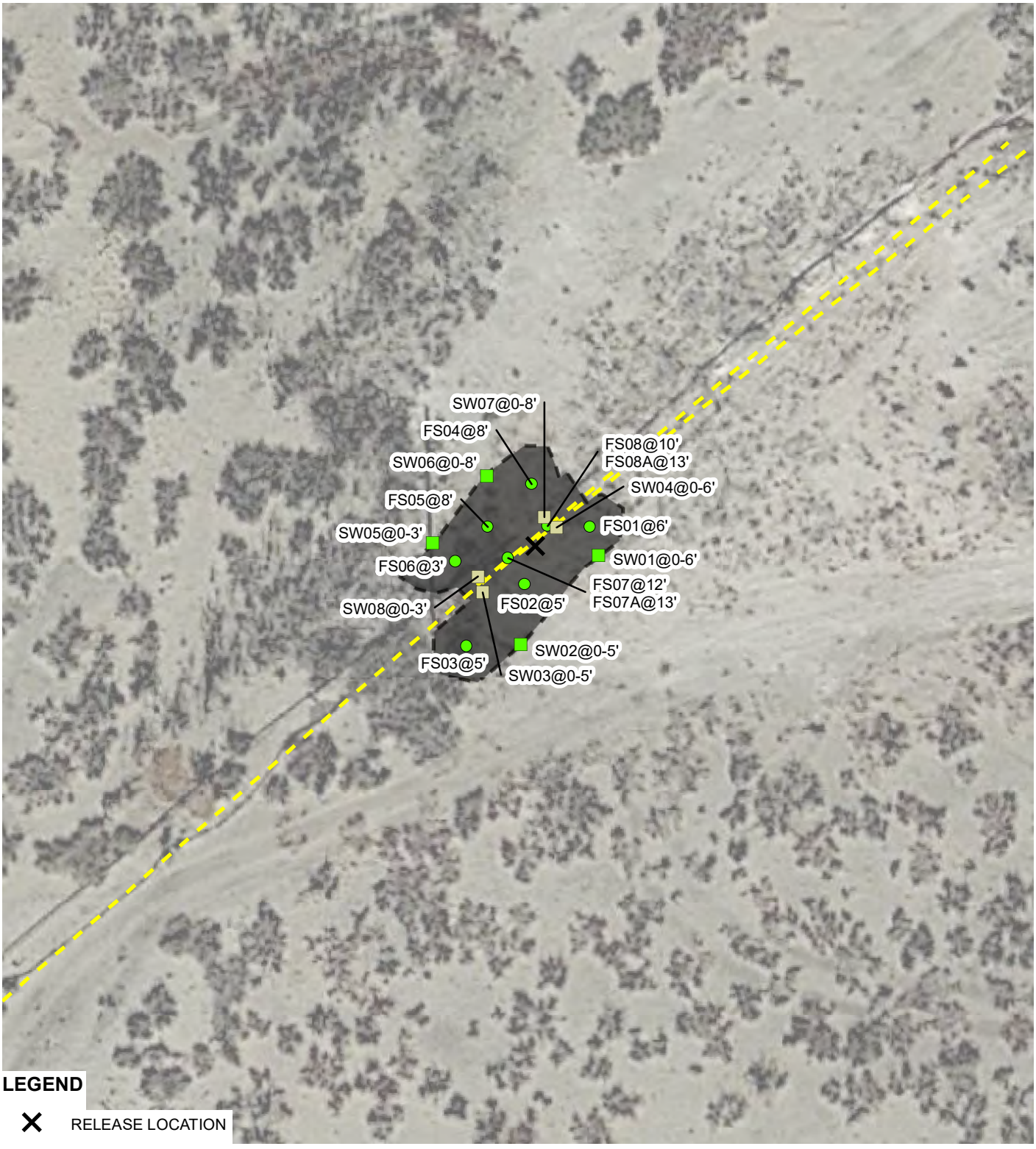
P:\XTO Energy\GIS\MXD\012919217_PALMILLO STATE 001_5645\012919217_FIG02_PRELIMINARY SS_2020.mxd



B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
TPH: TOTAL PETROLEUM HYDROCARBONS
Cl: CHLORIDE
NMAC: NEW MEXICO ADMINISTRATIVE CODE
NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
NOTE: REMEDIATION PERMIT NUMBER 2RP-5645

FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
PALMILLO STATE #1
UNIT H SEC 1 T19S R28E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919217_PALMILLO STATE 001_5645\012919217_FIG03_DELINEATION SS_2020.mxd



LEGEND

- RELEASE LOCATION
- SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE WITH CONCENTRATIONS PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA AND HAS BEEN EXCAVATED
- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- FLOWLINE
- EXCAVATION EXTENT

NOTE: REMEDIATION PERMIT NUMBER 2RP-5645

IMAGE COURTESY OF GOOGLE EARTH 2019

0 30 60
Feet

N

FIGURE 4
EXCAVATION SOIL SAMPLE LOCATIONS
PALMILLO STATE #1
UNIT H SEC 1 T19S R28E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919217_PALMILLO STATE 001_5645\012919217_FIG04_EXCAVATION_5645.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

PALMILLO STATE #1
REMEDIATION PERMIT NUMBER 2RP-5645
INCIDENT ID NAB1927639983
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	NE	**100**	**600**
SS01	0.5	09/17/2020	<0.496	8.44	4.92	31.4	44.7	3,870	17,100	<2,500	21,000	**43,800**	**5,320**
SS02	0.5	09/17/2020	5.21	44.3	15.0	94.3	**159**	7,230	13,700	921	20,900	**21,900**	**6,740**
SS03	0.5	09/17/2020	<0.00199	0.00820	<0.00199	0.0166	0.0248	<50.0	175	155	175	**330**	103
SS04	0.5	09/17/2020	<0.00202	0.00629	<0.00202	<0.00202	0.00629	<49.9	69.4	78.8	69.4	**148**	192
BH01	1	02/13/2020	<0.00200	<0.00200	<0.00200	0.00388	0.00388	<49.9	<49.9	<49.9	<49.9	<49.9	10.7
BH01A	4	02/13/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	<9.98
BH02	1	02/13/2020	<0.00198	<0.00198	<0.00198	0.0103	0.0103	<50.1	159	<50.1	159	**159**	**2,300**
BH02A	2.5	02/13/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	130	<50.3	130	**130**	369
BH03	1	02/13/2020	1.85	16.6	7.28	69.7	**95.4**	6,670	17,100	1,150	23,800	**24,900**	**1,990**
BH03A	8	02/13/2020	<0.00200	<0.00200	<0.00200	0.0159	0.0159	<49.9	62.8	<49.9	62.8	62.8	56.3
BH03B	12	02/13/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	17.1
FS01	6	02/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	65.9	<50.1	65.9	65.9	240
FS02	5	02/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	138
FS03	5	02/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	13.0
FS04	8	02/19/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	27.0
FS05	8	02/19/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	33.3
FS06	3	02/19/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	10.4
FS07	12	03/24/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	**688**
FS07A	13	03/30/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	<10.0
FS08	10	03/24/2020	<0.00199	<0.00199	<0.00199	0.0308	0.0308	<49.8	728	68.4	728	**796**	**1,500**
FS08A	13	03/30/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	105
SW01	0 - 6	02/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	37.6

A proud member of WSP

TABLE 1
SOIL ANALYTICAL RESULTS

PALMILLO STATE #1
REMEDIATION PERMIT NUMBER 2RP-5645
INCIDENT ID NAB1927639983
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	NE	**100**	**600**
SW02	0 - 5	02/18/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	37.1
SW03	0 - 5	02/18/2020	0.339	11.7	5.81	37.1	**54.9**	2,150	4,890	340	7,040	**7,380**	**1,090**
SW04	0 - 6	02/18/2020	0.0168	0.0740	0.943	12.1	13.1	450	3,420	225	3,870	**4,100**	**2,600**
SW05	0 - 3	02/19/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	<10.0
SW06	0 - 8	02/19/2020	<0.00198	<0.00198	<0.00198	0.00394	0.00394	<50.1	<50.1	<50.1	<50.1	<50.1	103
SW07	0 - 8	02/19/2020	<0.0167	0.0220	0.154	1.66	1.83	127	927	68.2	1,050	**1,120**	**972**
SW08	0 - 3	02/19/2020	0.0594	0.402	1.74	18.1	20.3	2,980	10,400	616	13,400	**14,000**	<9.98

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 removal of impacted soil

A proud member of WSP

ATTACHMENT 1: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Photograph 1: View of release extent and staining surrounding flowline facing south.

Photograph 2: View of the lateral extent of staining surrounding flowline.

Photograph 3: View of initial two excavations on either side of the surface flowline.

Photograph 4: View of excavation beneath surface flowline.

Photograph 5: View of final backfill.

Photograph 6: View of final backfill.

ATTACHMENT 2: LITHOLOGIC SOIL SAMPLING LOGS

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

Identifier:	Date:
BH01	02/13/2020
Project Name: Palmillo State #1	RP Number: 2RP-5645

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: FS	Method: hydro-vacuum

Lat/Long:	Field Screening: PID/HACH	Hole Diameter: NA	Total Depth: 8'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	<168	32.2	no	BH01	1	1'	ML	sandy SILT, poorly sorted, dark brown
dry	<168	38.0	no	BH01A	2	2'	ML	sandy SILT, poorly sorted, dark brown
dry	<168	13.6	no	BH01B	4	4'	ML	sandy SILT, poorly sorted, dark brown
dry	<168	2.3	no	BH01C	5	5'	CL	sandy CLAY, poorly sorted, dark brown, low plasticity
dry	<168	0.9	no	BH01D	6	6'	CL	sandy CLAY, poorly sorted, dark brown, low plasticity
dry	<168	0.8	no	BH01E	8	8'	CL	sandy CLAY, poorly sorted, dark brown, low plasticity
								Total Depth 8 foot bgs

0 3 7 9 10 11 12

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

Identifier:	Date:
BH02	02/13/2020
Project Name: Palmillo State #1	RP Number: 2RP-5645

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: FS	Method: hand-auger

Lat/Long:	Field Screening: PID/HACH	Hole Diameter: NA	Total Depth: 2.5'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	1,848	14.8	no	BH02	1	1'	ML	sandy SILT, poorly sorted, dark brown
dry	392	10.6	no	BH02A	2	2'	ML	sandy SILT, poorly sorted, dark brown
dry	308	11.4	no	BH02B		2.5'	ML	sandy SILT, poorly sorted, dark brown
					3			Total Depth 2.5 feet bgs

0 4 5 6 7 8 9 10 11 12

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

Identifier:	Date:
BH03	02/13/2020
Project Name: Palmillo State #1	RP Number: 2RP-5645

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: FS	Method: hydro-vacuum

Lat/Long:	Field Screening: PID/HACH	Hole Diameter: NA	Total Depth: 12'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	2,128	1,208	no	BH03	1	1'	ML	sandy SILT, poorly sorted, dark brown
dry	>3,505	1,198	no	BH03A	2	2'	ML	sandy SILT, poorly sorted, dark brown
dry	1,719	1,477	no	BH03B	4	4'	ML	sandy SILT, poorly sorted, dark brown
dry	1,187	368.0	no	BH03C	6	6'	CL	sandy CLAY, poorly sorted, dark brown, low plasticity
dry	<168	80.2	no	BH03D	8	8'	CL	sandy CLAY, poorly sorted, dark brown, low plasticity
dry	<168	11.0	no	BH03E	9	9'	CL	sandy CLAY, poorly sorted, dark brown, low plasticity
dry	<168	171.2	no	BH03F	10	10'	CL	sandy CLAY, poorly sorted, dark brown, low plasticity
dry	<168	55.2	no	BH03G	11	11'	CL	sandy CLAY, poorly sorted, dark brown, low plasticity
dry	<168	45.2	no	BH03H	12	12'	CL	sandy CLAY, poorly sorted, dark brown, low plasticity
								Total Depth 12 feet bgs

ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS

Analytical Report 637439

for

LT Environmental, Inc.

Project Manager: Dan Moir

Palmillo State 001

012919217

27-SEP-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-21), Arizona (AZ0809), Arkansas (17-063-0)

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

27-SEP-19

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

Reference: XENCO Report No(s): **637439**
Palmillo State 001
Project Address: Eddy County

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) 637439. 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. 637439 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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

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

Sample Cross Reference 637439

LT Environmental, Inc., Arvada, CO

Palmillo State 001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	09-17-19 13:27	0.5 ft	637439-001
SS02	S	09-17-19 13:28	0.5 ft	637439-002
SS03	S	09-17-19 13:29	0.5 ft	637439-003
SS04	S	09-17-19 13:30	0.5 ft	637439-004

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Palmillo State 001

Project ID: *012919217*
Work Order Number(s): *637439*

Report Date: *27-SEP-19*
Date Received: *09/19/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3102200 BTEX by EPA 8021B
Lab Sample ID 637439-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). o-Xylene recovered below QC limits in the Matrix Spike. Toluene recovered below QC limits in the Matrix Spike Duplicate. Benzene, Ethylbenzene, m,p-Xylenes recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. o-Xylene recovered above QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 637439-001, -002.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 637439-001 S,637439-001 SD,637439-002,637439-001.
Surrogate 1,4-Difluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 637439-002.

Toluene, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.
Samples in the analytical batch are: 637439-001, -002

Batch: LBA-3102246 TPH by SW8015 Mod
Surrogate 1-Chlorooctane, Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected;
Samples affected are: 637439-001.

Batch: LBA-3102247 TPH by SW8015 Mod
Surrogate 1-Chlorooctane, Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 637439-004,637439-002.

Certificate of Analysis Summary 637439

LT Environmental, Inc., Arvada, CO

Project Name: Palmillo State 001

Project Id: 012919217
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Thu Sep-19-19 10:50 am
Report Date: 27-SEP-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	637439-001		637439-002		637439-003		637439-004					
	Field Id:	SS01		SS02		SS03		SS04					
	Depth:	0.5- ft		0.5- ft		0.5- ft		0.5- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Sep-17-19 13:27		Sep-17-19 13:28		Sep-17-19 13:29		Sep-17-19 13:30					
BTEX by EPA 8021B SUB: T104704400-18-18	***Extracted:***	Sep-20-19 11:45		Sep-20-19 11:45		Sep-23-19 17:00		Sep-23-19 17:00					
	Analyzed:	Sep-20-19 21:51		Sep-20-19 22:12		Sep-24-19 17:01		Sep-24-19 17:21					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.496	0.496	5.21 D	0.498	<0.00199	0.00199	<0.00202	0.00202				
Toluene		8.44 D	0.496	44.3 D	0.498	0.00820	0.00199	0.00629	0.00202				
Ethylbenzene		4.92 D	0.496	15.0 D	0.498	<0.00199	0.00199	<0.00202	0.00202				
m,p-Xylenes		23.0 D	0.992	72.2 D	0.996	0.0103	0.00398	<0.00403	0.00403				
o-Xylene		8.36 D	0.496	22.1 D	0.498	0.00629	0.00199	<0.00202	0.00202				
Total Xylenes		31.4	0.496	94.3	0.498	0.0166	0.00199	<0.00202	0.00202				
Total BTEX		44.7	0.496	159	0.498	0.0248	0.00199	0.00629	0.00202				
Chloride by EPA 300 SUB: T104704400-18-18	***Extracted:***	Sep-20-19 13:30		Sep-20-19 13:30		Sep-20-19 13:30		Sep-20-19 13:30					
	Analyzed:	Sep-20-19 17:16		Sep-20-19 17:23		Sep-20-19 17:29		Sep-20-19 17:36					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		5320	24.8	6740	49.9	103	4.95	192	5.04				
TPH by SW8015 Mod SUB: T104704400-18-18	***Extracted:***	Sep-20-19 13:00		Sep-20-19 08:30		Sep-20-19 08:30		Sep-20-19 08:30					
	Analyzed:	Sep-24-19 11:04		Sep-24-19 10:01		Sep-20-19 18:10		Sep-20-19 18:31					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		3870	2500	10600	2500	<50.0	50.0	<49.9	49.9				
Diesel Range Organics (DRO)		17100	2500	17900	2500	175	50.0	69.4	49.9				
Motor Oil Range Hydrocarbons (MRO)		<2500	2500	<2500	2500	155	50.0	78.8	49.9				
Total GRO-DRO		21000	2500	28500	2500	175	50.0	69.4	49.9				
Total TPH		43800	2500	57000	2500	330	50.0	148	49.9				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 637439

LT Environmental, Inc., Arvada, CO

Palmillo State 001

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637439-001	Date Collected:	09.17.19 13.27	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	09.20.19 13.30	Basis:	Wet Weight
Seq Number:	3102110			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5320**	24.8	mg/kg	09.20.19 17.16		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	09.20.19 13.00	Basis:	Wet Weight
Seq Number:	3102246			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**3870**	2500	mg/kg	09.24.19 11.04		50
Diesel Range Organics (DRO)	C10C28DRO	**17100**	2500	mg/kg	09.24.19 11.04		50
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<2500	2500	mg/kg	09.24.19 11.04	U	50
Total GRO-DRO	PHC628	**21000**	2500	mg/kg	09.24.19 11.04		50
Total TPH	PHC635	**43800**	2500	mg/kg	09.24.19 11.04		50

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	353	%	70-135	09.24.19 11.04	**
o-Terphenyl	84-15-1	396	%	70-135	09.24.19 11.04	**

Certificate of Analytical Results 637439

LT Environmental, Inc., Arvada, CO

Palmillo State 001

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637439-001	Date Collected:	09.17.19 13.27	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.20.19 11.45	Basis:	Wet Weight
Seq Number:	3102200			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.496	0.496	mg/kg	09.24.19 16.20	UD	250
Toluene	108-88-3	**8.44**	0.496	mg/kg	09.24.19 16.20	D	250
Ethylbenzene	100-41-4	**4.92**	0.496	mg/kg	09.24.19 16.20	D	250
m,p-Xylenes	179601-23-1	**23.0**	0.992	mg/kg	09.24.19 16.20	D	250
o-Xylene	95-47-6	**8.36**	0.496	mg/kg	09.24.19 16.20	D	250
Total Xylenes	1330-20-7	**31.4**	0.496	mg/kg	09.24.19 16.20		250
Total BTEX		**44.7**	0.496	mg/kg	09.24.19 16.20		250

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	09.20.19 21.51	
4-Bromofluorobenzene	460-00-4	280	%	70-130	09.20.19 21.51	**

Certificate of Analytical Results 637439

LT Environmental, Inc., Arvada, CO

Palmillo State 001

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637439-002	Date Collected:	09.17.19 13.28	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	09.20.19 13.30	Basis:	Wet Weight
Seq Number:	3102110			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6740**	49.9	mg/kg	09.20.19 17.23		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	09.20.19 08.30	Basis:	Wet Weight
Seq Number:	3102247			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**10600**	2500	mg/kg	09.24.19 10.01		50
Diesel Range Organics (DRO)	C10C28DRO	**17900**	2500	mg/kg	09.24.19 10.01		50
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<2500	2500	mg/kg	09.24.19 10.01	U	50
Total GRO-DRO	PHC628	**28500**	2500	mg/kg	09.24.19 10.01		50
Total TPH	PHC635	**57000**	2500	mg/kg	09.24.19 10.01		50

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	510	%	70-135	09.24.19 10.01	**
o-Terphenyl	84-15-1	415	%	70-135	09.24.19 10.01	**

Certificate of Analytical Results 637439

LT Environmental, Inc., Arvada, CO

Palmillo State 001

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637439-002	Date Collected:	09.17.19 13.28	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.20.19 11.45	Basis:	Wet Weight
Seq Number:	3102200			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**5.21**	0.498	mg/kg	09.24.19 16.41	D	250
Toluene	108-88-3	**44.3**	0.498	mg/kg	09.24.19 16.41	D	250
Ethylbenzene	100-41-4	**15.0**	0.498	mg/kg	09.24.19 16.41	D	250
m,p-Xylenes	179601-23-1	**72.2**	0.996	mg/kg	09.24.19 16.41	D	250
o-Xylene	95-47-6	**22.1**	0.498	mg/kg	09.24.19 16.41	D	250
Total Xylenes	1330-20-7	**94.3**	0.498	mg/kg	09.24.19 16.41		250
Total BTEX		**159**	0.498	mg/kg	09.24.19 16.41		250

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	1803	%	70-130	09.20.19 22.12	**
4-Bromofluorobenzene	460-00-4	610	%	70-130	09.20.19 22.12	**

Certificate of Analytical Results 637439

LT Environmental, Inc., Arvada, CO

Palmillo State 001

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637439-003	Date Collected:	09.17.19 13.29	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	09.20.19 13.30	Basis:	Wet Weight
Seq Number:	3102110			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**103**	4.95	mg/kg	09.20.19 17.29		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	09.20.19 08.30	Basis:	Wet Weight
Seq Number:	3102247			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.20.19 18.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	**175**	50.0	mg/kg	09.20.19 18.10		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**155**	50.0	mg/kg	09.20.19 18.10		1
Total GRO-DRO	PHC628	**175**	50.0	mg/kg	09.20.19 18.10		1
Total TPH	PHC635	**330**	50.0	mg/kg	09.20.19 18.10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	09.20.19 18.10	
o-Terphenyl	84-15-1	116	%	70-135	09.20.19 18.10	

Certificate of Analytical Results 637439

LT Environmental, Inc., Arvada, CO

Palmillo State 001

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637439-003	Date Collected:	09.17.19 13.29	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.23.19 17.00	Basis:	Wet Weight
Seq Number:	3102200			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.24.19 17.01	U	1
Toluene	108-88-3	**0.00820**	0.00199	mg/kg	09.24.19 17.01		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.24.19 17.01	U	1
m,p-Xylenes	179601-23-1	**0.0103**	0.00398	mg/kg	09.24.19 17.01		1
o-Xylene	95-47-6	**0.00629**	0.00199	mg/kg	09.24.19 17.01		1
Total Xylenes	1330-20-7	**0.0166**	0.00199	mg/kg	09.24.19 17.01		1
Total BTEX		**0.0248**	0.00199	mg/kg	09.24.19 17.01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	09.24.19 17.01	
1,4-Difluorobenzene	540-36-3	106	%	70-130	09.24.19 17.01	

Certificate of Analytical Results 637439

LT Environmental, Inc., Arvada, CO

Palmillo State 001

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637439-004	Date Collected:	09.17.19 13.30	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	09.20.19 13.30	Basis:	Wet Weight
Seq Number:	3102110			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**192**	5.04	mg/kg	09.20.19 17.36		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	09.20.19 08.30	Basis:	Wet Weight
Seq Number:	3102247			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.20.19 18.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	**69.4**	49.9	mg/kg	09.20.19 18.31		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**78.8**	49.9	mg/kg	09.20.19 18.31		1
Total GRO-DRO	PHC628	**69.4**	49.9	mg/kg	09.20.19 18.31		1
Total TPH	PHC635	**148**	49.9	mg/kg	09.20.19 18.31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	136	%	70-135	09.20.19 18.31	**
o-Terphenyl	84-15-1	136	%	70-135	09.20.19 18.31	**

Certificate of Analytical Results 637439

LT Environmental, Inc., Arvada, CO

Palmillo State 001

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637439-004	Date Collected:	09.17.19 13.30	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.23.19 17.00	Basis:	Wet Weight
Seq Number:	3102200			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.24.19 17.21	U	1
Toluene	108-88-3	**0.00629**	0.00202	mg/kg	09.24.19 17.21		1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.24.19 17.21	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.24.19 17.21	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.24.19 17.21	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.24.19 17.21	U	1
Total BTEX		**0.00629**	0.00202	mg/kg	09.24.19 17.21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	09.24.19 17.21	
4-Bromofluorobenzene	460-00-4	105	%	70-130	09.24.19 17.21	

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.

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 637439

LT Environmental, Inc.

Palmillo State 001

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3102110 — Matrix: Solid — Date Prep: 09.20.19
MB Sample Id: 7686622-1-BLK — LCS Sample Id: 7686622-1-BKS — LCSD Sample Id: 7686622-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	259	104	260	104	90-110	0	20	mg/kg	09.20.19 16:44	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3102110 — Matrix: Soil — Date Prep: 09.20.19
Parent Sample Id: 637438-005 — MS Sample Id: 637438-005 S — MSD Sample Id: 637438-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	387	250	629	97	616	92	90-110	2	20	mg/kg	09.20.19 17:03	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3102110 — Matrix: Soil — Date Prep: 09.20.19
Parent Sample Id: 637482-003 — MS Sample Id: 637482-003 S — MSD Sample Id: 637482-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	95.7	252	353	102	348	100	90-110	1	20	mg/kg	09.20.19 18:34	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3102247 — Matrix: Solid — Date Prep: 09.20.19
MB Sample Id: 7686563-1-BLK — LCS Sample Id: 7686563-1-BKS — LCSD Sample Id: 7686563-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1030	103	1040	104	70-135	1	20	mg/kg	09.20.19 09:45	
Diesel Range Organics (DRO)	<15.0	1000	1040	104	1060	106	70-135	2	20	mg/kg	09.20.19 09:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		128		119		70-135	%	09.20.19 09:45
o-Terphenyl	117		121		121		70-135	%	09.20.19 09:45

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

1.000

QC Summary 637439

LT Environmental, Inc.

Palmillo State 001

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3102246 — Matrix: Solid — Date Prep: 09.20.19
MB Sample Id: 7686628-1-BLK — LCS Sample Id: 7686628-1-BKS — LCSD Sample Id: 7686628-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1070	107	1060	106	70-135	1	20	mg/kg	09.20.19 19:35	
Diesel Range Organics (DRO)	<15.0	1000	1050	105	1050	105	70-135	0	20	mg/kg	09.20.19 19:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		125		131		70-135	%	09.20.19 19:35
o-Terphenyl	120		126		125		70-135	%	09.20.19 19:35

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3102247 — Matrix: Soil — Date Prep: 09.20.19
Parent Sample Id: 637190-001 — MS Sample Id: 637190-001 S — MSD Sample Id: 637190-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	15.1	999	987	97	990	98	70-135	0	20	mg/kg	09.20.19 10:48	
Diesel Range Organics (DRO)	343	999	1320	98	1330	99	70-135	1	20	mg/kg	09.20.19 10:48	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		109		70-135	%	09.20.19 10:48
o-Terphenyl	113		112		70-135	%	09.20.19 10:48

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3102246 — Matrix: Soil — Date Prep: 09.20.19
Parent Sample Id: 637427-006 — MS Sample Id: 637427-006 S — MSD Sample Id: 637427-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	1080	108	1080	108	70-135	0	20	mg/kg	09.20.19 20:38	
Diesel Range Organics (DRO)	89.8	999	1140	105	1130	104	70-135	1	20	mg/kg	09.20.19 20:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		128		70-135	%	09.20.19 20:38
o-Terphenyl	128		126		70-135	%	09.20.19 20:38

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

1.000

QC Summary 637439

LT Environmental, Inc.

Palmillo State 001

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3102200 Matrix: Solid Date Prep: 09.20.19

MB Sample Id: 7686584-1-BLK LCS Sample Id: 7686584-1-BKS LCSD Sample Id: 7686584-1-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	0.0997	100	0.104	104	70-130	4	35	mg/kg	09.20.19 19:52	
Toluene	<0.00200	0.100	0.0982	98	0.103	103	70-130	5	35	mg/kg	09.20.19 19:52	
Ethylbenzene	<0.00200	0.100	0.104	104	0.109	109	70-130	5	35	mg/kg	09.20.19 19:52	
m,p-Xylenes	<0.00400	0.200	0.203	102	0.212	106	70-130	4	35	mg/kg	09.20.19 19:52	
o-Xylene	<0.00200	0.100	0.104	104	0.110	110	70-130	6	35	mg/kg	09.20.19 19:52	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		98		97		70-130	%	09.20.19 19:52
4-Bromofluorobenzene	112		104		105		70-130	%	09.20.19 19:52

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3102200 Matrix: Soil Date Prep: 09.20.19

Parent Sample Id: 637439-001 MS Sample Id: 637439-001 S MSD Sample Id: 637439-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.485	0.100	0.971	486	0.969	484	70-130	0	35	mg/kg	09.20.19 20:32	X
Toluene	5.02	0.100	10.3	5280	0.660	0	70-130	176	35	mg/kg	09.20.19 20:32	XF
Ethylbenzene	2.67	0.100	6.30	3630	5.68	3010	70-130	10	35	mg/kg	09.20.19 20:32	X
m,p-Xylenes	12.2	0.200	25.3	6550	22.2	4975	70-130	13	35	mg/kg	09.20.19 20:32	X
o-Xylene	4.38	0.100	0.448	0	8.44	4060	70-130	180	35	mg/kg	09.20.19 20:32	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	118		125		70-130	%	09.20.19 20:32
4-Bromofluorobenzene	1747	**	1403	**	70-130	%	09.20.19 20:32

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: 637439

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 _____ of _____

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:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	wmather@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	Palmillo state 001	Turn Around	
Project Number:	12919217	Routine	☑
P.O. Number:	Eddy County	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	2.2	Thermometer ID	T-NM-007
Received Intact:	Yes No	Correction Factor:	-0.2
Cooler Custody Seals:	Yes No N/A	Total Containers:	4
Sample Custody Seals:	Yes No N/A		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SS01	s	9/17/2019	13:27	0.5	1	x	x	x	Discrete
SS02	s	9/17/2019	13:28	0.5	1	x	x	x	Discrete
SS03	s	9/17/2019	13:29	0.5	1	x	x	x	Discrete
SS04	s	9/17/2019	13:30	0.5	1	x	x	x	Discrete

Work Order Notes

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

ANALYSIS REQUEST

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		9/19/19 10:50	2		
3			4		

Inter-Office Shipment

IOS Number **48410**

Date/Time: 09/19/19 14:17
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 776288782636

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

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
637439-001	S	SS01	09/17/19 13:27	SW8015MOD_NM	TPH by SW8015 Mod	09/25/19	10/01/19	JKR	GRO-DRO PHCC10C28 PI	
637439-001	S	SS01	09/17/19 13:27	SW8021B	BTEX by EPA 8021B	09/25/19	10/01/19	JKR	BR4FBZ BZ BZME EBZ X	
637439-001	S	SS01	09/17/19 13:27	E300_CL	Chloride by EPA 300	09/25/19	03/15/20	JKR	CL	
637439-002	S	SS02	09/17/19 13:28	SW8021B	BTEX by EPA 8021B	09/25/19	10/01/19	JKR	BR4FBZ BZ BZME EBZ X	
637439-002	S	SS02	09/17/19 13:28	SW8015MOD_NM	TPH by SW8015 Mod	09/25/19	10/01/19	JKR	GRO-DRO PHCC10C28 PI	
637439-002	S	SS02	09/17/19 13:28	E300_CL	Chloride by EPA 300	09/25/19	03/15/20	JKR	CL	
637439-003	S	SS03	09/17/19 13:29	SW8021B	BTEX by EPA 8021B	09/25/19	10/01/19	JKR	BR4FBZ BZ BZME EBZ X	
637439-003	S	SS03	09/17/19 13:29	SW8015MOD_NM	TPH by SW8015 Mod	09/25/19	10/01/19	JKR	GRO-DRO PHCC10C28 PI	
637439-003	S	SS03	09/17/19 13:29	E300_CL	Chloride by EPA 300	09/25/19	03/15/20	JKR	CL	
637439-004	S	SS04	09/17/19 13:30	SW8021B	BTEX by EPA 8021B	09/25/19	10/01/19	JKR	BR4FBZ BZ BZME EBZ X	
637439-004	S	SS04	09/17/19 13:30	E300_CL	Chloride by EPA 300	09/25/19	03/15/20	JKR	CL	
637439-004	S	SS04	09/17/19 13:30	SW8015MOD_NM	TPH by SW8015 Mod	09/25/19	10/01/19	JKR	GRO-DRO PHCC10C28 PI	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 09/19/2019

Received By: Brianna Teel

Date Received: 09/20/2019 11:34

Cooler Temperature: 0.4

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 48410

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

Sent By: Elizabeth McClellan **Date Sent:** 09/19/2019 02:17 PM

Received By: Brianna Teel **Date Received:** 09/20/2019 11:34 AM

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

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

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

Checklist reviewed by: Brianna Teel Date: 09/20/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09/19/2019 10:50:00 AM

Work Order #: 637439

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.2	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Subbed to Midland
#18 Water VOC samples have zero headspace?	**N/A**	

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 09/19/2019

Checklist reviewed by: Jessica Kramer Date: 09/20/2019

Jessica Kramer

Analytical Report 652436

for

LT Environmental, Inc.

Project Manager: Dan Moir

Palmillo State #001

012919217

17-FEB-20

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

17-FEB-20

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

Reference: XENCO Report No(s): **652436**
Palmillo State #001
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) 652436. 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. 652436 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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

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

Sample Cross Reference 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	02-13-20 09:50	1 ft	652436-001
BH01A	S	02-13-20 10:18	4 ft	652436-002
BH02	S	02-13-20 11:34	1 ft	652436-003
BH02A	S	02-13-20 11:56	2.54 ft	652436-004
BH03	S	02-13-20 12:51	1 ft	652436-005
BH03A	S	02-13-20 13:33	8 ft	652436-006
BH03B	S	02-13-20 14:35	12 ft	652436-007

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Palmillo State #001

Project ID: *012919217*
Work Order Number(s): *652436*

Report Date: *17-FEB-20*
Date Received: *02/14/2020*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3116684 BTEX by EPA 8021B

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

Certificate of Analysis Summary 652436

LT Environmental, Inc., Arvada, CO

Project Name: Palmillo State #001

Project Id: 012919217
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri Feb-14-20 10:30 am
Report Date: 17-FEB-20
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	652436-001		652436-002		652436-003		652436-004		652436-005		652436-006	
	Field Id:	BH01		BH01A		BH02		BH02A		BH03		BH03A	
	Depth:	1- ft		4- ft		1- ft		2.54- ft		1- ft		8- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-13-20 09:50		Feb-13-20 10:18		Feb-13-20 11:34		Feb-13-20 11:56		Feb-13-20 12:51		Feb-13-20 13:33	
BTEX by EPA 8021B	***Extracted:***	Feb-14-20 11:30		Feb-14-20 11:30		Feb-14-20 11:30		Feb-14-20 11:30		Feb-14-20 11:30		Feb-14-20 11:30	
	Analyzed:	Feb-14-20 17:47		Feb-14-20 18:07		Feb-14-20 18:28		Feb-14-20 19:29		Feb-15-20 14:09		Feb-15-20 13:49	
	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	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	1.85	0.200	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	16.6	0.200	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	7.28	0.200	<0.00200	0.00200
m,p-Xylenes		<0.00400	0.00400	<0.00399	0.00399	0.00559	0.00396	<0.00400	0.00400	36.4	0.400	0.00911	0.00399
o-Xylene		0.00388	0.00200	<0.00200	0.00200	0.00470	0.00198	<0.00200	0.00200	33.3	0.200	0.00675	0.00200
Total Xylenes		0.00388	0.00200	<0.00200	0.00200	0.0103	0.00198	<0.00200	0.00200	69.7	0.200	0.0159	0.00200
Total BTEX		0.00388	0.00200	<0.00200	0.00200	0.0103	0.00198	<0.00200	0.00200	95.4	0.200	0.0159	0.00200
Chloride by EPA 300	***Extracted:***	Feb-14-20 13:00		Feb-14-20 13:00		Feb-14-20 13:00		Feb-14-20 13:00		Feb-14-20 13:00		Feb-14-20 13:00	
	Analyzed:	Feb-14-20 17:32		Feb-14-20 17:38		Feb-14-20 17:44		Feb-14-20 17:49		Feb-14-20 18:07		Feb-14-20 18:13	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		10.7	9.98	<9.98	9.98	2300	49.9	369	9.96	1990	49.6	56.3	9.96
TPH by SW8015 Mod	***Extracted:***	Feb-14-20 11:43		Feb-14-20 11:43		Feb-14-20 11:43		Feb-14-20 11:43		Feb-14-20 15:00		Feb-14-20 15:00	
	Analyzed:	Feb-14-20 14:21		Feb-14-20 14:41		Feb-14-20 14:41		Feb-14-20 15:01		Feb-17-20 09:50		Feb-14-20 16:22	
	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	<50.1	50.1	<50.1	50.1	<50.3	50.3	6670	251	<49.9	49.9
Diesel Range Organics (DRO)		<49.9	49.9	<50.1	50.1	159	50.1	130	50.3	17100	251	62.8	49.9
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.1	50.1	<50.1	50.1	<50.3	50.3	1150	251	<49.9	49.9
Total GRO-DRO		<49.9	49.9	<50.1	50.1	159	50.1	130	50.3	23800	251	62.8	49.9
Total TPH		<49.9	49.9	<50.1	50.1	159	50.1	130	50.3	24900	251	62.8	49.9

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 652436

LT Environmental, Inc., Arvada, CO

Project Name: Palmillo State #001

Project Id: 012919217
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri Feb-14-20 10:30 am
Report Date: 17-FEB-20
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	652436-007					
	Field Id:	BH03B					
	Depth:	12- ft					
	Matrix:	SOIL					
	Sampled:	Feb-13-20 14:35					
BTEX by EPA 8021B	***Extracted:***	Feb-14-20 11:30					
	Analyzed:	Feb-14-20 20:30					
	Units/RL:	mg/kg	RL				
Benzene		<0.00199	0.00199				
Toluene		<0.00199	0.00199				
Ethylbenzene		<0.00199	0.00199				
m,p-Xylenes		<0.00398	0.00398				
o-Xylene		<0.00199	0.00199				
Total Xylenes		<0.00199	0.00199				
Total BTEX		<0.00199	0.00199				
Chloride by EPA 300	***Extracted:***	Feb-14-20 13:00					
	Analyzed:	Feb-14-20 18:31					
	Units/RL:	mg/kg	RL				
Chloride		17.1	9.96				
TPH by SW8015 Mod	***Extracted:***	Feb-14-20 15:00					
	Analyzed:	Feb-14-20 16:22					
	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				

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	02.14.20 10.30
Lab Sample Id:	652436-001	Date Collected:	02.13.20 09.50	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.20 13.00	Basis:	Wet Weight
Seq Number:	3116672				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.7**	9.98	mg/kg	02.14.20 17.32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.14.20 11.43	Basis:	Wet Weight
Seq Number:	3116625				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.14.20 14.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.14.20 14.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.14.20 14.21	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	02.14.20 14.21	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.14.20 14.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	02.14.20 14.21	
o-Terphenyl	84-15-1	104	%	70-135	02.14.20 14.21	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	02.14.20 10.30
Lab Sample Id:	652436-001	Date Collected:	02.13.20 09.50	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.20 11.30	Basis:	Wet Weight
Seq Number:	3116684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.14.20 17.47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.14.20 17.47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.14.20 17.47	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.14.20 17.47	U	1
o-Xylene	95-47-6	**0.00388**	0.00200	mg/kg	02.14.20 17.47		1
Total Xylenes	1330-20-7	**0.00388**	0.00200	mg/kg	02.14.20 17.47		1
Total BTEX		**0.00388**	0.00200	mg/kg	02.14.20 17.47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	02.14.20 17.47	
1,4-Difluorobenzene	540-36-3	107	%	70-130	02.14.20 17.47	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	02.14.20 10.30
Lab Sample Id:	652436-002	Date Collected:	02.13.20 10.18	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.20 13.00	Basis:	Wet Weight
Seq Number:	3116672				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	02.14.20 17.38	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.14.20 11.43	Basis:	Wet Weight
Seq Number:	3116625				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.14.20 14.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.14.20 14.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.14.20 14.41	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.14.20 14.41	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.14.20 14.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	02.14.20 14.41	
o-Terphenyl	84-15-1	100	%	70-135	02.14.20 14.41	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	02.14.20 10.30
Lab Sample Id:	652436-002	Date Collected:	02.13.20 10.18	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.20 11.30	Basis:	Wet Weight
Seq Number:	3116684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.14.20 18.07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.14.20 18.07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.14.20 18.07	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.14.20 18.07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.14.20 18.07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.14.20 18.07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.14.20 18.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	02.14.20 18.07	
1,4-Difluorobenzene	540-36-3	110	%	70-130	02.14.20 18.07	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	02.14.20 10.30
Lab Sample Id:	652436-003	Date Collected:	02.13.20 11.34	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.20 13.00	Basis:	Wet Weight
Seq Number:	3116672				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2300**	49.9	mg/kg	02.14.20 17.44		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.14.20 11.43	Basis:	Wet Weight
Seq Number:	3116625				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.14.20 14.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	**159**	50.1	mg/kg	02.14.20 14.41		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.14.20 14.41	U	1
Total GRO-DRO	PHC628	**159**	50.1	mg/kg	02.14.20 14.41		1
Total TPH	PHC635	**159**	50.1	mg/kg	02.14.20 14.41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	02.14.20 14.41	
o-Terphenyl	84-15-1	103	%	70-135	02.14.20 14.41	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	02.14.20 10.30
Lab Sample Id:	652436-003	Date Collected:	02.13.20 11.34	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.20 11.30	Basis:	Wet Weight
Seq Number:	3116684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.14.20 18.28	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.14.20 18.28	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.14.20 18.28	U	1
m,p-Xylenes	179601-23-1	**0.00559**	0.00396	mg/kg	02.14.20 18.28		1
o-Xylene	95-47-6	**0.00470**	0.00198	mg/kg	02.14.20 18.28		1
Total Xylenes	1330-20-7	**0.0103**	0.00198	mg/kg	02.14.20 18.28		1
Total BTEX		**0.0103**	0.00198	mg/kg	02.14.20 18.28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	02.14.20 18.28	
4-Bromofluorobenzene	460-00-4	93	%	70-130	02.14.20 18.28	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	02.14.20 10.30
Lab Sample Id:	652436-004	Date Collected:	02.13.20 11.56	Sample Depth:	2.54 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.20 13.00	Basis:	Wet Weight
Seq Number:	3116672				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**369**	9.96	mg/kg	02.14.20 17.49		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.14.20 11.43	Basis:	Wet Weight
Seq Number:	3116625				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	02.14.20 15.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	**130**	50.3	mg/kg	02.14.20 15.01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	02.14.20 15.01	U	1
Total GRO-DRO	PHC628	**130**	50.3	mg/kg	02.14.20 15.01		1
Total TPH	PHC635	**130**	50.3	mg/kg	02.14.20 15.01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.14.20 15.01	
o-Terphenyl	84-15-1	103	%	70-135	02.14.20 15.01	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	02.14.20 10.30
Lab Sample Id:	652436-004	Date Collected:	02.13.20 11.56	Sample Depth:	2.54 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.20 11.30	Basis:	Wet Weight
Seq Number:	3116684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.14.20 19.29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.14.20 19.29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.14.20 19.29	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.14.20 19.29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.14.20 19.29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.14.20 19.29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.14.20 19.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	02.14.20 19.29	
1,4-Difluorobenzene	540-36-3	108	%	70-130	02.14.20 19.29	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	02.14.20 10.30
Lab Sample Id:	652436-005	Date Collected:	02.13.20 12.51	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.20 13.00	Basis:	Wet Weight
Seq Number:	3116672				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1990**	49.6	mg/kg	02.14.20 18.07		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.14.20 15.00	Basis:	Wet Weight
Seq Number:	3116680				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**6670**	251	mg/kg	02.17.20 09.50		5
Diesel Range Organics (DRO)	C10C28DRO	**17100**	251	mg/kg	02.17.20 09.50		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**1150**	251	mg/kg	02.17.20 09.50		5
Total GRO-DRO	PHC628	**23800**	251	mg/kg	02.17.20 09.50		5
Total TPH	PHC635	**24900**	251	mg/kg	02.17.20 09.50		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	02.17.20 09.50	
o-Terphenyl	84-15-1	113	%	70-135	02.17.20 09.50	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	02.14.20 10.30
Lab Sample Id:	652436-005	Date Collected:	02.13.20 12.51	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.20 11.30	Basis:	Wet Weight
Seq Number:	3116684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**1.85**	0.200	mg/kg	02.15.20 14.09		100
Toluene	108-88-3	**16.6**	0.200	mg/kg	02.15.20 14.09		100
Ethylbenzene	100-41-4	**7.28**	0.200	mg/kg	02.15.20 14.09		100
m,p-Xylenes	179601-23-1	**36.4**	0.400	mg/kg	02.15.20 14.09		100
o-Xylene	95-47-6	**33.3**	0.200	mg/kg	02.15.20 14.09		100
Total Xylenes	1330-20-7	**69.7**	0.200	mg/kg	02.15.20 14.09		100
Total BTEX		**95.4**	0.200	mg/kg	02.15.20 14.09		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	02.15.20 14.09	
1,4-Difluorobenzene	540-36-3	94	%	70-130	02.15.20 14.09	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	02.14.20 10.30
Lab Sample Id:	652436-006	Date Collected:	02.13.20 13.33	Sample Depth:	8 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.20 13.00	Basis:	Wet Weight
Seq Number:	3116672				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**56.3**	9.96	mg/kg	02.14.20 18.13		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.14.20 15.00	Basis:	Wet Weight
Seq Number:	3116680				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.14.20 16.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	**62.8**	49.9	mg/kg	02.14.20 16.22		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.14.20 16.22	U	1
Total GRO-DRO	PHC628	**62.8**	49.9	mg/kg	02.14.20 16.22		1
Total TPH	PHC635	**62.8**	49.9	mg/kg	02.14.20 16.22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	02.14.20 16.22	
o-Terphenyl	84-15-1	111	%	70-135	02.14.20 16.22	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	02.14.20 10.30
Lab Sample Id:	652436-006	Date Collected:	02.13.20 13.33	Sample Depth:	8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.20 11.30	Basis:	Wet Weight
Seq Number:	3116684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.15.20 13.49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.15.20 13.49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.15.20 13.49	U	1
m,p-Xylenes	179601-23-1	**0.00911**	0.00399	mg/kg	02.15.20 13.49		1
o-Xylene	95-47-6	**0.00675**	0.00200	mg/kg	02.15.20 13.49		1
Total Xylenes	1330-20-7	**0.0159**	0.00200	mg/kg	02.15.20 13.49		1
Total BTEX		**0.0159**	0.00200	mg/kg	02.15.20 13.49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	02.15.20 13.49	
1,4-Difluorobenzene	540-36-3	105	%	70-130	02.15.20 13.49	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH03B**	Matrix:	Soil	Date Received:	02.14.20 10.30
Lab Sample Id:	652436-007	Date Collected:	02.13.20 14.35	Sample Depth:	12 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.20 13.00	Basis:	Wet Weight
Seq Number:	3116672				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**17.1**	9.96	mg/kg	02.14.20 18.31		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.14.20 15.00	Basis:	Wet Weight
Seq Number:	3116680				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.14.20 16.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.14.20 16.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.14.20 16.22	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.14.20 16.22	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.14.20 16.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	02.14.20 16.22	
o-Terphenyl	84-15-1	103	%	70-135	02.14.20 16.22	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH03B**	Matrix:	Soil	Date Received:	02.14.20 10.30
Lab Sample Id:	652436-007	Date Collected:	02.13.20 14.35	Sample Depth:	12 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.20 11.30	Basis:	Wet Weight
Seq Number:	3116684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.14.20 20.30	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.14.20 20.30	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.14.20 20.30	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.14.20 20.30	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.14.20 20.30	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.14.20 20.30	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.14.20 20.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	02.14.20 20.30	
1,4-Difluorobenzene	540-36-3	110	%	70-130	02.14.20 20.30	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 652436

LT Environmental, Inc.

Palmillo State #001

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116672 — Matrix: Solid — Date Prep: 02.14.20
MB Sample Id: 7696716-1-BLK — LCS Sample Id: 7696716-1-BKS — LCSD Sample Id: 7696716-1-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	258	103	259	104	90-110	0	20	mg/kg	02.14.20 16:21	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116672 — Matrix: Soil — Date Prep: 02.14.20
Parent Sample Id: 652436-004 — MS Sample Id: 652436-004 S — MSD Sample Id: 652436-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	369	199	581	107	579	105	90-110	0	20	mg/kg	02.14.20 17:55	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116672 — Matrix: Soil — Date Prep: 02.14.20
Parent Sample Id: 652437-001 — MS Sample Id: 652437-001 S — MSD Sample Id: 652437-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	409	200	617	104	616	104	90-110	0	20	mg/kg	02.14.20 16:37	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3116625 — Matrix: Solid — Date Prep: 02.14.20
MB Sample Id: 7696686-1-BLK — LCS Sample Id: 7696686-1-BKS — LCSD Sample Id: 7696686-1-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	862	86	828	83	70-135	4	35	mg/kg	02.14.20 10:46	
Diesel Range Organics (DRO)	<50.0	1000	798	80	745	75	70-135	7	35	mg/kg	02.14.20 10:46	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		107		105		70-135	%	02.14.20 10:46
o-Terphenyl	101		109		93		70-135	%	02.14.20 10:46

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 652436

LT Environmental, Inc.

Palmillo State #001

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3116680 — Matrix: Solid — Date Prep: 02.14.20
MB Sample Id: 7696765-1-BLK — LCS Sample Id: 7696765-1-BKS — LCSD Sample Id: 7696765-1-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	926	93	970	97	70-135	5	35	mg/kg	02.14.20 15:22	
Diesel Range Organics (DRO)	<50.0	1000	1000	100	1050	105	70-135	5	35	mg/kg	02.14.20 15:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		116		118		70-135	%	02.14.20 15:22
o-Terphenyl	103		109		120		70-135	%	02.14.20 15:22

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3116625 — Matrix: Solid — Date Prep: 02.14.20
MB Sample Id: 7696686-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.14.20 10:27	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3116680 — Matrix: Solid — Date Prep: 02.14.20
MB Sample Id: 7696765-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.14.20 15:22	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3116625 — Matrix: Soil — Date Prep: 02.14.20
Parent Sample Id: 652422-001 — MS Sample Id: 652422-001 S — MSD Sample Id: 652422-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	832	83	782	78	70-135	6	35	mg/kg	02.14.20 11:13	
Diesel Range Organics (DRO)	<49.9	997	749	75	717	72	70-135	4	35	mg/kg	02.14.20 11:13	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		79		70-135	%	02.14.20 11:13
o-Terphenyl	80		82		70-135	%	02.14.20 11:13

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

QC Summary 652436

LT Environmental, Inc.

Palmillo State #001

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3116680 — Matrix: Soil — Date Prep: 02.14.20
Parent Sample Id: 652437-001 — MS Sample Id: 652437-001 S — MSD Sample Id: 652437-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	938	94	930	93	70-135	1	35	mg/kg	02.14.20 16:02	
Diesel Range Organics (DRO)	<49.9	997	1020	102	1000	100	70-135	2	35	mg/kg	02.14.20 16:02	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		118		70-135	%	02.14.20 16:02
o-Terphenyl	116		111		70-135	%	02.14.20 16:02

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3116684 — Matrix: Solid — Date Prep: 02.14.20
MB Sample Id: 7696731-1-BLK — LCS Sample Id: 7696731-1-BKS — LCSD Sample Id: 7696731-1-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	0.121	121	0.118	118	70-130	3	35	mg/kg	02.14.20 13:42	
Toluene	<0.00200	0.100	0.111	111	0.109	109	70-130	2	35	mg/kg	02.14.20 13:42	
Ethylbenzene	<0.00200	0.100	0.107	107	0.105	105	71-129	2	35	mg/kg	02.14.20 13:42	
m,p-Xylenes	<0.00400	0.200	0.209	105	0.206	103	70-135	1	35	mg/kg	02.14.20 13:42	
o-Xylene	<0.00200	0.100	0.105	105	0.103	103	71-133	2	35	mg/kg	02.14.20 13:42	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		107		109		70-130	%	02.14.20 13:42
4-Bromofluorobenzene	97		89		92		70-130	%	02.14.20 13:42

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3116684 — Matrix: Soil — Date Prep: 02.14.20
Parent Sample Id: 652437-001 — MS Sample Id: 652437-001 S — MSD Sample Id: 652437-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0901	89	0.115	116	70-130	24	35	mg/kg	02.14.20 14:23	
Toluene	<0.00202	0.101	0.0826	82	0.106	107	70-130	25	35	mg/kg	02.14.20 14:23	
Ethylbenzene	<0.00202	0.101	0.0783	78	0.102	103	71-129	26	35	mg/kg	02.14.20 14:23	
m,p-Xylenes	<0.00403	0.202	0.154	76	0.200	101	70-135	26	35	mg/kg	02.14.20 14:23	
o-Xylene	<0.00202	0.101	0.0766	76	0.0997	101	71-133	26	35	mg/kg	02.14.20 14:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		106		70-130	%	02.14.20 14:23
4-Bromofluorobenzene	93		94		70-130	%	02.14.20 14:23

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

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, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

Work Order No: 652436

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, Inc.
Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849 Email:		fsmith@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	Palmillo State #001	Turn Around	
Project Number:	012919217	Routine: ☐	
PO #:	2RP-5645	Rush: 24hrs	
Sampler's Name:	Fatima Smith	Due Date:	

SAMPLE RECEIPT			
Temperature (°C):	0.6	Temp Blank: (Yes) No	Wet Ice: (Yes) No
Received Intact:	(Yes) No	Thermometer ID	TN14007
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	7

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BH01	S	2/13/20	0950	1'	1	X	X	X
BH01A	S		1018	4'				
BH02	S		1134	1'				
BH02A	S		1156	2.5'				
BH03	S		1251	1'				
BH03A	S		1333	8'				
BH03B	S		1435	12'				

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			2/14/20 10:00am	2		2/14/20 10:30
3				4		
5				6		

Revised Date101419 Rev. 2019.1

Analytical Report 652436

for

LT Environmental, Inc.

Project Manager: Dan Moir

Palmillo State #001

012919217

02.24.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

02.24.2020

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

Reference: XENCO Report No(s): **652436**
Palmillo State #001
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) 652436. 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. 652436 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,

John Builes
Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	02.13.2020 09:50	1 ft	652436-001
BH01A	S	02.13.2020 10:18	4 ft	652436-002
BH02	S	02.13.2020 11:34	1 ft	652436-003
BH02A	S	02.13.2020 11:56	2.5 ft	652436-004
BH03	S	02.13.2020 12:51	1 ft	652436-005
BH03A	S	02.13.2020 13:33	8 ft	652436-006
BH03B	S	02.13.2020 14:35	12 ft	652436-007

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Palmillo State #001

Project ID: *012919217*
Work Order Number(s): *652436*

Report Date: *02.24.2020*
Date Received: *02.14.2020*

Sample receipt non conformances and comments:

Revised report issued to correct sample depth transcription error from COC. JB 2/24/20

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3116684 BTEX by EPA 8021B

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

Certificate of Analysis Summary 652436

LT Environmental, Inc., Arvada, CO

Project Name: Palmillo State #001

Project Id: 012919217
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri 02.14.2020 10:30
Report Date: 02.24.2020 11:44
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	652436-001		652436-002		652436-003		652436-004		652436-005		652436-006	
	Field Id:	BH01		BH01A		BH02		BH02A		BH03		BH03A	
	Depth:	1- ft		4- ft		1- ft		2.5- ft		1- ft		8- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	02.13.2020 09:50		02.13.2020 10:18		02.13.2020 11:34		02.13.2020 11:56		02.13.2020 12:51		02.13.2020 13:33	
BTEX by EPA 8021B	***Extracted:***	02.14.2020 11:30		02.14.2020 11:30		02.14.2020 11:30		02.14.2020 11:30		02.14.2020 11:30		02.14.2020 11:30	
	Analyzed:	02.14.2020 17:47		02.14.2020 18:07		02.14.2020 18:28		02.14.2020 19:29		02.15.2020 14:09		02.15.2020 13:49	
	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	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	1.85	0.200	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	16.6	0.200	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	7.28	0.200	<0.00200	0.00200
m,p-Xylenes		<0.00400	0.00400	<0.00399	0.00399	0.00559	0.00396	<0.00400	0.00400	36.4	0.400	0.00911	0.00399
o-Xylene		0.00388	0.00200	<0.00200	0.00200	0.00470	0.00198	<0.00200	0.00200	33.3	0.200	0.00675	0.00200
Total Xylenes		0.00388	0.00200	<0.00200	0.00200	0.0103	0.00198	<0.00200	0.00200	69.7	0.200	0.0159	0.00200
Total BTEX		0.00388	0.00200	<0.00200	0.00200	0.0103	0.00198	<0.00200	0.00200	95.4	0.200	0.0159	0.00200
Chloride by EPA 300	***Extracted:***	02.14.2020 13:00		02.14.2020 13:00		02.14.2020 13:00		02.14.2020 13:00		02.14.2020 13:00		02.14.2020 13:00	
	Analyzed:	02.14.2020 17:32		02.14.2020 17:38		02.14.2020 17:44		02.14.2020 17:49		02.14.2020 18:07		02.14.2020 18:13	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		10.7	9.98	<9.98	9.98	2300	49.9	369	9.96	1990	49.6	56.3	9.96
TPH by SW8015 Mod	***Extracted:***	02.14.2020 11:43		02.14.2020 11:43		02.14.2020 11:43		02.14.2020 11:43		02.14.2020 15:00		02.14.2020 15:00	
	Analyzed:	02.14.2020 14:21		02.14.2020 14:41		02.14.2020 14:41		02.14.2020 15:01		02.17.2020 09:50		02.14.2020 16:22	
	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	<50.1	50.1	<50.1	50.1	<50.3	50.3	6670	251	<49.9	49.9
Diesel Range Organics (DRO)		<49.9	49.9	<50.1	50.1	159	50.1	130	50.3	17100	251	62.8	49.9
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.1	50.1	<50.1	50.1	<50.3	50.3	1150	251	<49.9	49.9
Total GRO-DRO		<49.9	49.9	<50.1	50.1	159	50.1	130	50.3	23800	251	62.8	49.9
Total TPH		<49.9	49.9	<50.1	50.1	159	50.1	130	50.3	24900	251	62.8	49.9

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

John Builes
Project Manager

Certificate of Analysis Summary 652436

LT Environmental, Inc., Arvada, CO

Project Name: Palmillo State #001

Project Id: 012919217
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri 02.14.2020 10:30
Report Date: 02.24.2020 11:44
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	652436-007					
	Field Id:	BH03B					
	Depth:	12- ft					
	Matrix:	SOIL					
	Sampled:	02.13.2020 14:35					
BTEX by EPA 8021B	***Extracted:***	02.14.2020 11:30					
	Analyzed:	02.14.2020 20:30					
	Units/RL:	mg/kg	RL				
Benzene		<0.00199	0.00199				
Toluene		<0.00199	0.00199				
Ethylbenzene		<0.00199	0.00199				
m,p-Xylenes		<0.00398	0.00398				
o-Xylene		<0.00199	0.00199				
Total Xylenes		<0.00199	0.00199				
Total BTEX		<0.00199	0.00199				
Chloride by EPA 300	***Extracted:***	02.14.2020 13:00					
	Analyzed:	02.14.2020 18:31					
	Units/RL:	mg/kg	RL				
Chloride		17.1	9.96				
TPH by SW8015 Mod	***Extracted:***	02.14.2020 15:00					
	Analyzed:	02.14.2020 16:22					
	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				

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

John Builes
Project Manager

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	02.14.2020 10:30
Lab Sample Id:	652436-001	Date Collected:	02.13.2020 09:50	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.2020 13:00	Basis:	Wet Weight
Seq Number:	3116672				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.7**	9.98	mg/kg	02.14.2020 17:32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.14.2020 11:43	Basis:	Wet Weight
Seq Number:	3116625				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.14.2020 14:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.14.2020 14:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.14.2020 14:21	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	02.14.2020 14:21	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.14.2020 14:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	02.14.2020 14:21	
o-Terphenyl	84-15-1	104	%	70-135	02.14.2020 14:21	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	02.14.2020 10:30
Lab Sample Id:	652436-001	Date Collected:	02.13.2020 09:50	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.2020 11:30	Basis:	Wet Weight
Seq Number:	3116684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.14.2020 17:47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.14.2020 17:47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.14.2020 17:47	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.14.2020 17:47	U	1
o-Xylene	95-47-6	**0.00388**	0.00200	mg/kg	02.14.2020 17:47		1
Total Xylenes	1330-20-7	**0.00388**	0.00200	mg/kg	02.14.2020 17:47		1
Total BTEX		**0.00388**	0.00200	mg/kg	02.14.2020 17:47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	02.14.2020 17:47	
1,4-Difluorobenzene	540-36-3	107	%	70-130	02.14.2020 17:47	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	02.14.2020 10:30
Lab Sample Id:	652436-002	Date Collected:	02.13.2020 10:18	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.2020 13:00	Basis:	Wet Weight
Seq Number:	3116672				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	02.14.2020 17:38	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.14.2020 11:43	Basis:	Wet Weight
Seq Number:	3116625				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.14.2020 14:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.14.2020 14:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.14.2020 14:41	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.14.2020 14:41	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.14.2020 14:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	02.14.2020 14:41	
o-Terphenyl	84-15-1	100	%	70-135	02.14.2020 14:41	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	02.14.2020 10:30
Lab Sample Id:	652436-002	Date Collected:	02.13.2020 10:18	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.2020 11:30	Basis:	Wet Weight
Seq Number:	3116684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.14.2020 18:07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.14.2020 18:07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.14.2020 18:07	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.14.2020 18:07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.14.2020 18:07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.14.2020 18:07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.14.2020 18:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	02.14.2020 18:07	
1,4-Difluorobenzene	540-36-3	110	%	70-130	02.14.2020 18:07	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	02.14.2020 10:30
Lab Sample Id:	652436-003	Date Collected:	02.13.2020 11:34	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.2020 13:00	Basis:	Wet Weight
Seq Number:	3116672				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2300**	49.9	mg/kg	02.14.2020 17:44		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.14.2020 11:43	Basis:	Wet Weight
Seq Number:	3116625				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.14.2020 14:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	**159**	50.1	mg/kg	02.14.2020 14:41		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.14.2020 14:41	U	1
Total GRO-DRO	PHC628	**159**	50.1	mg/kg	02.14.2020 14:41		1
Total TPH	PHC635	**159**	50.1	mg/kg	02.14.2020 14:41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	02.14.2020 14:41	
o-Terphenyl	84-15-1	103	%	70-135	02.14.2020 14:41	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	02.14.2020 10:30
Lab Sample Id:	652436-003	Date Collected:	02.13.2020 11:34	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.2020 11:30	Basis:	Wet Weight
Seq Number:	3116684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.14.2020 18:28	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.14.2020 18:28	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.14.2020 18:28	U	1
m,p-Xylenes	179601-23-1	**0.00559**	0.00396	mg/kg	02.14.2020 18:28		1
o-Xylene	95-47-6	**0.00470**	0.00198	mg/kg	02.14.2020 18:28		1
Total Xylenes	1330-20-7	**0.0103**	0.00198	mg/kg	02.14.2020 18:28		1
Total BTEX		**0.0103**	0.00198	mg/kg	02.14.2020 18:28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	02.14.2020 18:28	
4-Bromofluorobenzene	460-00-4	93	%	70-130	02.14.2020 18:28	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	02.14.2020 10:30
Lab Sample Id:	652436-004	Date Collected:	02.13.2020 11:56	Sample Depth:	2.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.2020 13:00	Basis:	Wet Weight
Seq Number:	3116672				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**369**	9.96	mg/kg	02.14.2020 17:49		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.14.2020 11:43	Basis:	Wet Weight
Seq Number:	3116625				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	02.14.2020 15:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	**130**	50.3	mg/kg	02.14.2020 15:01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	02.14.2020 15:01	U	1
Total GRO-DRO	PHC628	**130**	50.3	mg/kg	02.14.2020 15:01		1
Total TPH	PHC635	**130**	50.3	mg/kg	02.14.2020 15:01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.14.2020 15:01	
o-Terphenyl	84-15-1	103	%	70-135	02.14.2020 15:01	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	02.14.2020 10:30
Lab Sample Id:	652436-004	Date Collected:	02.13.2020 11:56	Sample Depth:	2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.2020 11:30	Basis:	Wet Weight
Seq Number:	3116684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.14.2020 19:29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.14.2020 19:29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.14.2020 19:29	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.14.2020 19:29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.14.2020 19:29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.14.2020 19:29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.14.2020 19:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	02.14.2020 19:29	
1,4-Difluorobenzene	540-36-3	108	%	70-130	02.14.2020 19:29	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	02.14.2020 10:30
Lab Sample Id:	652436-005	Date Collected:	02.13.2020 12:51	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.2020 13:00	Basis:	Wet Weight
Seq Number:	3116672				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1990**	49.6	mg/kg	02.14.2020 18:07		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.14.2020 15:00	Basis:	Wet Weight
Seq Number:	3116680				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**6670**	251	mg/kg	02.17.2020 09:50		5
Diesel Range Organics (DRO)	C10C28DRO	**17100**	251	mg/kg	02.17.2020 09:50		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**1150**	251	mg/kg	02.17.2020 09:50		5
Total GRO-DRO	PHC628	**23800**	251	mg/kg	02.17.2020 09:50		5
Total TPH	PHC635	**24900**	251	mg/kg	02.17.2020 09:50		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	02.17.2020 09:50	
o-Terphenyl	84-15-1	113	%	70-135	02.17.2020 09:50	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	02.14.2020 10:30
Lab Sample Id:	652436-005	Date Collected:	02.13.2020 12:51	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.2020 11:30	Basis:	Wet Weight
Seq Number:	3116684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**1.85**	0.200	mg/kg	02.15.2020 14:09		100
Toluene	108-88-3	**16.6**	0.200	mg/kg	02.15.2020 14:09		100
Ethylbenzene	100-41-4	**7.28**	0.200	mg/kg	02.15.2020 14:09		100
m,p-Xylenes	179601-23-1	**36.4**	0.400	mg/kg	02.15.2020 14:09		100
o-Xylene	95-47-6	**33.3**	0.200	mg/kg	02.15.2020 14:09		100
Total Xylenes	1330-20-7	**69.7**	0.200	mg/kg	02.15.2020 14:09		100
Total BTEX		**95.4**	0.200	mg/kg	02.15.2020 14:09		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	02.15.2020 14:09	
1,4-Difluorobenzene	540-36-3	94	%	70-130	02.15.2020 14:09	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	02.14.2020 10:30
Lab Sample Id:	652436-006	Date Collected:	02.13.2020 13:33	Sample Depth:	8 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.2020 13:00	Basis:	Wet Weight
Seq Number:	3116672				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**56.3**	9.96	mg/kg	02.14.2020 18:13		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.14.2020 15:00	Basis:	Wet Weight
Seq Number:	3116680				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.14.2020 16:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	**62.8**	49.9	mg/kg	02.14.2020 16:22		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.14.2020 16:22	U	1
Total GRO-DRO	PHC628	**62.8**	49.9	mg/kg	02.14.2020 16:22		1
Total TPH	PHC635	**62.8**	49.9	mg/kg	02.14.2020 16:22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	02.14.2020 16:22	
o-Terphenyl	84-15-1	111	%	70-135	02.14.2020 16:22	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	02.14.2020 10:30
Lab Sample Id:	652436-006	Date Collected:	02.13.2020 13:33	Sample Depth:	8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.2020 11:30	Basis:	Wet Weight
Seq Number:	3116684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.15.2020 13:49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.15.2020 13:49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.15.2020 13:49	U	1
m,p-Xylenes	179601-23-1	**0.00911**	0.00399	mg/kg	02.15.2020 13:49		1
o-Xylene	95-47-6	**0.00675**	0.00200	mg/kg	02.15.2020 13:49		1
Total Xylenes	1330-20-7	**0.0159**	0.00200	mg/kg	02.15.2020 13:49		1
Total BTEX		**0.0159**	0.00200	mg/kg	02.15.2020 13:49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	02.15.2020 13:49	
1,4-Difluorobenzene	540-36-3	105	%	70-130	02.15.2020 13:49	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH03B**	Matrix:	Soil	Date Received:	02.14.2020 10:30
Lab Sample Id:	652436-007	Date Collected:	02.13.2020 14:35	Sample Depth:	12 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.2020 13:00	Basis:	Wet Weight
Seq Number:	3116672				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**17.1**	9.96	mg/kg	02.14.2020 18:31		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.14.2020 15:00	Basis:	Wet Weight
Seq Number:	3116680				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.14.2020 16:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.14.2020 16:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.14.2020 16:22	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.14.2020 16:22	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.14.2020 16:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	02.14.2020 16:22	
o-Terphenyl	84-15-1	103	%	70-135	02.14.2020 16:22	

Certificate of Analytical Results 652436

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**BH03B**	Matrix:	Soil	Date Received:	02.14.2020 10:30
Lab Sample Id:	652436-007	Date Collected:	02.13.2020 14:35	Sample Depth:	12 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.14.2020 11:30	Basis:	Wet Weight
Seq Number:	3116684				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.14.2020 20:30	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.14.2020 20:30	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.14.2020 20:30	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.14.2020 20:30	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.14.2020 20:30	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.14.2020 20:30	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.14.2020 20:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	02.14.2020 20:30	
1,4-Difluorobenzene	540-36-3	110	%	70-130	02.14.2020 20:30	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **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 652436

LT Environmental, Inc.

Palmillo State #001

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116672 — Matrix: Solid — Date Prep: 02.14.2020
MB Sample Id: 7696716-1-BLK — LCS Sample Id: 7696716-1-BKS — LCSD Sample Id: 7696716-1-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	258	103	259	104	90-110	0	20	mg/kg	02.14.2020 16:21	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116672 — Matrix: Soil — Date Prep: 02.14.2020
Parent Sample Id: 652436-004 — MS Sample Id: 652436-004 S — MSD Sample Id: 652436-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	369	199	581	107	579	105	90-110	0	20	mg/kg	02.14.2020 17:55	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116672 — Matrix: Soil — Date Prep: 02.14.2020
Parent Sample Id: 652437-001 — MS Sample Id: 652437-001 S — MSD Sample Id: 652437-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	409	200	617	104	616	104	90-110	0	20	mg/kg	02.14.2020 16:37	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3116625 — Matrix: Solid — Date Prep: 02.14.2020
MB Sample Id: 7696686-1-BLK — LCS Sample Id: 7696686-1-BKS — LCSD Sample Id: 7696686-1-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	862	86	828	83	70-135	4	35	mg/kg	02.14.2020 10:46	
Diesel Range Organics (DRO)	<50.0	1000	798	80	745	75	70-135	7	35	mg/kg	02.14.2020 10:46	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		107		105		70-135	%	02.14.2020 10:46
o-Terphenyl	101		109		93		70-135	%	02.14.2020 10:46

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3116680 — Matrix: Solid — Date Prep: 02.14.2020
MB Sample Id: 7696765-1-BLK — LCS Sample Id: 7696765-1-BKS — LCSD Sample Id: 7696765-1-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	926	93	970	97	70-135	5	35	mg/kg	02.14.2020 15:22	
Diesel Range Organics (DRO)	<50.0	1000	1000	100	1050	105	70-135	5	35	mg/kg	02.14.2020 15:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		116		118		70-135	%	02.14.2020 15:22
o-Terphenyl	103		109		120		70-135	%	02.14.2020 15:22

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 652436

LT Environmental, Inc.

Palmillo State #001

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3116625 Matrix: Solid Date Prep: 02.14.2020
MB Sample Id: 7696686-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.14.2020 10:27	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3116680 Matrix: Solid Date Prep: 02.14.2020
MB Sample Id: 7696765-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.14.2020 15:22	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3116625 Matrix: Soil Date Prep: 02.14.2020
Parent Sample Id: 652422-001 MS Sample Id: 652422-001 S MSD Sample Id: 652422-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	832	83	782	78	70-135	6	35	mg/kg	02.14.2020 11:13	
Diesel Range Organics (DRO)	<49.9	997	749	75	717	72	70-135	4	35	mg/kg	02.14.2020 11:13	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		79		70-135	%	02.14.2020 11:13
o-Terphenyl	80		82		70-135	%	02.14.2020 11:13

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3116680 Matrix: Soil Date Prep: 02.14.2020
Parent Sample Id: 652437-001 MS Sample Id: 652437-001 S MSD Sample Id: 652437-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	938	94	930	93	70-135	1	35	mg/kg	02.14.2020 16:02	
Diesel Range Organics (DRO)	<49.9	997	1020	102	1000	100	70-135	2	35	mg/kg	02.14.2020 16:02	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		118		70-135	%	02.14.2020 16:02
o-Terphenyl	116		111		70-135	%	02.14.2020 16:02

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 652436

LT Environmental, Inc.

Palmillo State #001

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3116684 Matrix: Solid Date Prep: 02.14.2020

MB Sample Id: 7696731-1-BLK LCS Sample Id: 7696731-1-BKS LCSD Sample Id: 7696731-1-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	0.121	121	0.118	118	70-130	3	35	mg/kg	02.14.2020 13:42	
Toluene	<0.00200	0.100	0.111	111	0.109	109	70-130	2	35	mg/kg	02.14.2020 13:42	
Ethylbenzene	<0.00200	0.100	0.107	107	0.105	105	71-129	2	35	mg/kg	02.14.2020 13:42	
m,p-Xylenes	<0.00400	0.200	0.209	105	0.206	103	70-135	1	35	mg/kg	02.14.2020 13:42	
o-Xylene	<0.00200	0.100	0.105	105	0.103	103	71-133	2	35	mg/kg	02.14.2020 13:42	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		107		109		70-130	%	02.14.2020 13:42
4-Bromofluorobenzene	97		89		92		70-130	%	02.14.2020 13:42

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3116684 Matrix: Soil Date Prep: 02.14.2020

Parent Sample Id: 652437-001 MS Sample Id: 652437-001 S MSD Sample Id: 652437-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0901	89	0.115	116	70-130	24	35	mg/kg	02.14.2020 14:23	
Toluene	<0.00202	0.101	0.0826	82	0.106	107	70-130	25	35	mg/kg	02.14.2020 14:23	
Ethylbenzene	<0.00202	0.101	0.0783	78	0.102	103	71-129	26	35	mg/kg	02.14.2020 14:23	
m,p-Xylenes	<0.00403	0.202	0.154	76	0.200	101	70-135	26	35	mg/kg	02.14.2020 14:23	
o-Xylene	<0.00202	0.101	0.0766	76	0.0997	101	71-133	26	35	mg/kg	02.14.2020 14:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		106		70-130	%	02.14.2020 14:23
4-Bromofluorobenzene	93		94		70-130	%	02.14.2020 14:23

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, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

Work Order No: 652436

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, Inc.
Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849 Email:		fsmith@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	Palmillo State #001	Turn Around	
Project Number:	012919217	Routine: ☐	
PO #:	2RP-5645	Rush: 24hrs	
Sampler's Name:	Fatima Smith	Due Date:	

SAMPLE RECEIPT			
Temperature (°C):	0.6	Temp Blank: (Yes) No	Wet Ice: (Yes) No
Received Intact:	(Yes) No	Thermometer ID	TN14007
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	7

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BH01	S	2/13/20	0950	1'	1	X	X	X
BH01A	S		1018	4'				
BH02	S		1134	1'				
BH02A	S		1156	2.5'				
BH03	S		1251	1'				
BH03A	S		1333	8'				
BH03B	S		1435	12'				

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			2/14/20 10:00am	2		2/14/20 10:30
3				4		
5				6		

Revised Date101419 Rev. 2019.1

Analytical Report 652817

for

LT Environmental, Inc.

Project Manager: Dan Moir

Palmillo State #001

012919217

19-FEB-20

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

19-FEB-20

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

Reference: XENCO Report No(s): **652817**
Palmillo State #001
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) 652817. 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. 652817 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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

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

Sample Cross Reference 652817

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	02-18-20 11:32	6 ft	652817-001
FS02	S	02-18-20 11:38	5 ft	652817-002
FS03	S	02-18-20 11:41	5 ft	652817-003
SW01	S	02-18-20 12:03	0 - 6 ft	652817-004
SW02	S	02-18-20 12:04	0 - 5 ft	652817-005
SW03	S	02-18-20 12:07	0 - 5 ft	652817-006
SW04	S	02-18-20 12:09	0 - 6 ft	652817-007

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Palmillo State #001

Project ID: *012919217*
Work Order Number(s): *652817*

Report Date: *19-FEB-20*
Date Received: *02/18/2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3116910 BTEX by EPA 8021B

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

Certificate of Analysis Summary 652817

LT Environmental, Inc., Arvada, CO

Project Name: Palmillo State #001

Project Id: 012919217
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue Feb-18-20 02:55 pm
Report Date: 19-FEB-20
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	652817-001		652817-002		652817-003		652817-004		652817-005		652817-006	
	Field Id:	FS01		FS02		FS03		SW01		SW02		SW03	
	Depth:	6- ft		5- ft		5- ft		0-6 ft		0-5 ft		0-5 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-18-20 11:32		Feb-18-20 11:38		Feb-18-20 11:41		Feb-18-20 12:03		Feb-18-20 12:04		Feb-18-20 12:07	
BTEX by EPA 8021B	*Extracted:*	Feb-18-20 15:30		Feb-18-20 15:30		Feb-18-20 15:30		Feb-18-20 15:30		Feb-18-20 15:30		Feb-18-20 15:30	
	Analyzed:	Feb-18-20 18:56		Feb-18-20 19:16		Feb-18-20 19:37		Feb-18-20 19:57		Feb-18-20 20:18		Feb-18-20 20:38	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	0.339	0.0625
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	11.7	0.0625
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	5.81	0.0625
m,p-Xylenes		<0.00401	0.00401	<0.00399	0.00399	<0.00399	0.00399	<0.00399	0.00399	<0.00397	0.00397	25.0	0.125
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	12.1	0.0625
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	37.1	0.0625
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	54.9	0.0625
Chloride by EPA 300	*Extracted:*	Feb-18-20 16:00		Feb-18-20 16:00		Feb-18-20 16:00		Feb-18-20 16:00		Feb-18-20 16:00		Feb-18-20 16:00	
	Analyzed:	Feb-18-20 17:00		Feb-18-20 17:17		Feb-18-20 17:22		Feb-18-20 17:28		Feb-18-20 17:34		Feb-18-20 17:50	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		240	9.98	138	9.96	13.0	9.94	37.6	9.98	37.1	9.92	1090	50.1
TPH by SW8015 Mod	*Extracted:*	Feb-18-20 15:15		Feb-18-20 15:15		Feb-18-20 15:15		Feb-18-20 15:15		Feb-18-20 15:15		Feb-18-20 15:15	
	Analyzed:	Feb-18-20 16:26		Feb-18-20 16:46		Feb-18-20 17:06		Feb-18-20 17:06		Feb-18-20 17:26		Feb-18-20 19:47	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<50.1	50.1	<50.0	50.0	<50.1	50.1	<50.3	50.3	2150	50.2
Diesel Range Organics (DRO)		65.9	50.1	<50.1	50.1	<50.0	50.0	<50.1	50.1	<50.3	50.3	4890	50.2
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<50.1	50.1	<50.0	50.0	<50.1	50.1	<50.3	50.3	340	50.2
Total GRO-DRO		65.9	50.1	<50.1	50.1	<50.0	50.0	<50.1	50.1	<50.3	50.3	7040	50.2
Total TPH		65.9	50.1	<50.1	50.1	<50.0	50.0	<50.1	50.1	<50.3	50.3	7380	50.2

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 652817

LT Environmental, Inc., Arvada, CO

Project Name: Palmillo State #001

Project Id: 012919217
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue Feb-18-20 02:55 pm
Report Date: 19-FEB-20
Project Manager: Jessica Kramer

Analysis Requested								
	Lab Id:	652817-007						
	Field Id:	SW04						
	Depth:	0-6 ft						
	Matrix:	SOIL						
	Sampled:	Feb-18-20 12:09						
BTEX by EPA 8021B	***Extracted:***	Feb-18-20 15:30						
	Analyzed:	Feb-18-20 20:58						
	Units/RL:	mg/kg	RL					
Benzene		0.0168	0.0125					
Toluene		0.0740	0.0500					
Ethylbenzene		0.943	0.0500					
m,p-Xylenes		6.28	0.100					
o-Xylene		5.80	0.0500					
Total Xylenes		12.1	0.0500					
Total BTEX		13.1	0.0125					
Chloride by EPA 300	***Extracted:***	Feb-18-20 16:00						
	Analyzed:	Feb-18-20 17:56						
	Units/RL:	mg/kg	RL					
Chloride		2600	49.9					
TPH by SW8015 Mod	***Extracted:***	Feb-18-20 15:15						
	Analyzed:	Feb-18-20 20:07						
	Units/RL:	mg/kg	RL					
Gasoline Range Hydrocarbons (GRO)		450	50.3					
Diesel Range Organics (DRO)		3420	50.3					
Motor Oil Range Hydrocarbons (MRO)		225	50.3					
Total GRO-DRO		3870	50.3					
Total TPH		4100	50.3					

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analytical Results 652817

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	02.18.20 14.55
Lab Sample Id:	652817-001	Date Collected:	02.18.20 11.32	Sample Depth:	6 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.18.20 16.00	Basis:	Wet Weight
Seq Number:	3116915				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**240**	9.98	mg/kg	02.18.20 17.00		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.18.20 15.15	Basis:	Wet Weight
Seq Number:	3116927				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.18.20 16.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	**65.9**	50.1	mg/kg	02.18.20 16.26		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.18.20 16.26	U	1
Total GRO-DRO	PHC628	**65.9**	50.1	mg/kg	02.18.20 16.26		1
Total TPH	PHC635	**65.9**	50.1	mg/kg	02.18.20 16.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	02.18.20 16.26	
o-Terphenyl	84-15-1	121	%	70-135	02.18.20 16.26	

Certificate of Analytical Results 652817

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	02.18.20 14.55
Lab Sample Id:	652817-001	Date Collected:	02.18.20 11.32	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.18.20 15.30	Basis:	Wet Weight
Seq Number:	3116910				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.18.20 18.56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.18.20 18.56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.18.20 18.56	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.18.20 18.56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.18.20 18.56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.18.20 18.56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.18.20 18.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	02.18.20 18.56	
4-Bromofluorobenzene	460-00-4	97	%	70-130	02.18.20 18.56	

Certificate of Analytical Results 652817

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	02.18.20 14.55
Lab Sample Id:	652817-002	Date Collected:	02.18.20 11.38	Sample Depth:	5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.18.20 16.00	Basis:	Wet Weight
Seq Number:	3116915				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**138**	9.96	mg/kg	02.18.20 17.17		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.18.20 15.15	Basis:	Wet Weight
Seq Number:	3116927				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.18.20 16.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.18.20 16.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.18.20 16.46	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.18.20 16.46	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.18.20 16.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	02.18.20 16.46	
o-Terphenyl	84-15-1	111	%	70-135	02.18.20 16.46	

Certificate of Analytical Results 652817

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	02.18.20 14.55
Lab Sample Id:	652817-002	Date Collected:	02.18.20 11.38	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.18.20 15.30	Basis:	Wet Weight
Seq Number:	3116910				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.18.20 19.16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.18.20 19.16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.18.20 19.16	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.18.20 19.16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.18.20 19.16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.18.20 19.16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.18.20 19.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	02.18.20 19.16	
1,4-Difluorobenzene	540-36-3	104	%	70-130	02.18.20 19.16	

Certificate of Analytical Results 652817

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	02.18.20 14.55
Lab Sample Id:	652817-003	Date Collected:	02.18.20 11.41	Sample Depth:	5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.18.20 16.00	Basis:	Wet Weight
Seq Number:	3116915				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13.0**	9.94	mg/kg	02.18.20 17.22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.18.20 15.15	Basis:	Wet Weight
Seq Number:	3116927				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.18.20 17.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.18.20 17.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.18.20 17.06	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	02.18.20 17.06	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.18.20 17.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.18.20 17.06	
o-Terphenyl	84-15-1	106	%	70-135	02.18.20 17.06	

Certificate of Analytical Results 652817

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	02.18.20 14.55
Lab Sample Id:	652817-003	Date Collected:	02.18.20 11.41	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.18.20 15.30	Basis:	Wet Weight
Seq Number:	3116910				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.18.20 19.37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.18.20 19.37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.18.20 19.37	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.18.20 19.37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.18.20 19.37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.18.20 19.37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.18.20 19.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	02.18.20 19.37	
4-Bromofluorobenzene	460-00-4	94	%	70-130	02.18.20 19.37	

Certificate of Analytical Results 652817

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	02.18.20 14.55
Lab Sample Id:	652817-004	Date Collected:	02.18.20 12.03	Sample Depth:	0 - 6 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.18.20 16.00	Basis:	Wet Weight
Seq Number:	3116915				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**37.6**	9.98	mg/kg	02.18.20 17.28		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.18.20 15.15	Basis:	Wet Weight
Seq Number:	3116927				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.18.20 17.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.18.20 17.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.18.20 17.06	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.18.20 17.06	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.18.20 17.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	02.18.20 17.06	
o-Terphenyl	84-15-1	110	%	70-135	02.18.20 17.06	

Certificate of Analytical Results 652817

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	02.18.20 14.55
Lab Sample Id:	652817-004	Date Collected:	02.18.20 12.03	Sample Depth:	0 - 6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.18.20 15.30	Basis:	Wet Weight
Seq Number:	3116910				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.18.20 19.57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.18.20 19.57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.18.20 19.57	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.18.20 19.57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.18.20 19.57	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.18.20 19.57	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.18.20 19.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	02.18.20 19.57	
4-Bromofluorobenzene	460-00-4	92	%	70-130	02.18.20 19.57	

Certificate of Analytical Results 652817

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	02.18.20 14.55
Lab Sample Id:	652817-005	Date Collected:	02.18.20 12.04	Sample Depth:	0 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.18.20 16.00	Basis:	Wet Weight
Seq Number:	3116915				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**37.1**	9.92	mg/kg	02.18.20 17.34		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.18.20 15.15	Basis:	Wet Weight
Seq Number:	3116927				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	02.18.20 17.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	02.18.20 17.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	02.18.20 17.26	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	02.18.20 17.26	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	02.18.20 17.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	02.18.20 17.26	
o-Terphenyl	84-15-1	116	%	70-135	02.18.20 17.26	

Certificate of Analytical Results 652817

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	02.18.20 14.55
Lab Sample Id:	652817-005	Date Collected:	02.18.20 12.04	Sample Depth:	0 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.18.20 15.30	Basis:	Wet Weight
Seq Number:	3116910				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.18.20 20.18	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.18.20 20.18	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.18.20 20.18	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	02.18.20 20.18	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	02.18.20 20.18	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	02.18.20 20.18	U	1
Total BTEX		<0.00198	0.00198	mg/kg	02.18.20 20.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	02.18.20 20.18	
1,4-Difluorobenzene	540-36-3	105	%	70-130	02.18.20 20.18	

Certificate of Analytical Results 652817

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	02.18.20 14.55
Lab Sample Id:	652817-006	Date Collected:	02.18.20 12.07	Sample Depth:	0 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.18.20 16.00	Basis:	Wet Weight
Seq Number:	3116915				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1090**	50.1	mg/kg	02.18.20 17.50		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.18.20 15.15	Basis:	Wet Weight
Seq Number:	3116927				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**2150**	50.2	mg/kg	02.18.20 19.47		1
Diesel Range Organics (DRO)	C10C28DRO	**4890**	50.2	mg/kg	02.18.20 19.47		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**340**	50.2	mg/kg	02.18.20 19.47		1
Total GRO-DRO	PHC628	**7040**	50.2	mg/kg	02.18.20 19.47		1
Total TPH	PHC635	**7380**	50.2	mg/kg	02.18.20 19.47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	02.18.20 19.47	
o-Terphenyl	84-15-1	105	%	70-135	02.18.20 19.47	

Certificate of Analytical Results 652817

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	02.18.20 14.55
Lab Sample Id:	652817-006	Date Collected:	02.18.20 12.07	Sample Depth:	0 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.18.20 15.30	Basis:	Wet Weight
Seq Number:	3116910				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.339**	0.0625	mg/kg	02.18.20 20.38		1
Toluene	108-88-3	**11.7**	0.0625	mg/kg	02.18.20 20.38		1
Ethylbenzene	100-41-4	**5.81**	0.0625	mg/kg	02.18.20 20.38		1
m,p-Xylenes	179601-23-1	**25.0**	0.125	mg/kg	02.18.20 20.38		1
o-Xylene	95-47-6	**12.1**	0.0625	mg/kg	02.18.20 20.38		1
Total Xylenes	1330-20-7	**37.1**	0.0625	mg/kg	02.18.20 20.38		1
Total BTEX		**54.9**	0.0625	mg/kg	02.18.20 20.38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	02.18.20 20.38	
4-Bromofluorobenzene	460-00-4	128	%	70-130	02.18.20 20.38	

Certificate of Analytical Results 652817

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	02.18.20 14.55
Lab Sample Id:	652817-007	Date Collected:	02.18.20 12.09	Sample Depth:	0 - 6 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.18.20 16.00	Basis:	Wet Weight
Seq Number:	3116915				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2600**	49.9	mg/kg	02.18.20 17.56		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.18.20 15.15	Basis:	Wet Weight
Seq Number:	3116927				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**450**	50.3	mg/kg	02.18.20 20.07		1
Diesel Range Organics (DRO)	C10C28DRO	**3420**	50.3	mg/kg	02.18.20 20.07		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**225**	50.3	mg/kg	02.18.20 20.07		1
Total GRO-DRO	PHC628	**3870**	50.3	mg/kg	02.18.20 20.07		1
Total TPH	PHC635	**4100**	50.3	mg/kg	02.18.20 20.07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	02.18.20 20.07	
o-Terphenyl	84-15-1	118	%	70-135	02.18.20 20.07	

Certificate of Analytical Results 652817

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	02.18.20 14.55
Lab Sample Id:	652817-007	Date Collected:	02.18.20 12.09	Sample Depth:	0 - 6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.18.20 15.30	Basis:	Wet Weight
Seq Number:	3116910				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0168**	0.0125	mg/kg	02.18.20 20.58		1
Toluene	108-88-3	**0.0740**	0.0500	mg/kg	02.18.20 20.58		1
Ethylbenzene	100-41-4	**0.943**	0.0500	mg/kg	02.18.20 20.58		1
m,p-Xylenes	179601-23-1	**6.28**	0.100	mg/kg	02.18.20 20.58		1
o-Xylene	95-47-6	**5.80**	0.0500	mg/kg	02.18.20 20.58		1
Total Xylenes	1330-20-7	**12.1**	0.0500	mg/kg	02.18.20 20.58		1
Total BTEX		**13.1**	0.0125	mg/kg	02.18.20 20.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	02.18.20 20.58	
4-Bromofluorobenzene	460-00-4	117	%	70-130	02.18.20 20.58	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 652817

LT Environmental, Inc.

Palmillo State #001

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116915 — Matrix: Solid — Date Prep: 02.18.20
MB Sample Id: 7696884-1-BLK — LCS Sample Id: 7696884-1-BKS — LCSD Sample Id: 7696884-1-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	255	102	249	100	90-110	2	20	mg/kg	02.18.20 16:49	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116915 — Matrix: Soil — Date Prep: 02.18.20
Parent Sample Id: 652817-001 — MS Sample Id: 652817-001 S — MSD Sample Id: 652817-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	240	200	449	105	453	107	90-110	1	20	mg/kg	02.18.20 17:06	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3116915 — Matrix: Soil — Date Prep: 02.18.20
Parent Sample Id: 652836-001 — MS Sample Id: 652836-001 S — MSD Sample Id: 652836-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	87.6	200	271	92	267	90	90-110	1	20	mg/kg	02.18.20 18:24	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3116927 — Matrix: Solid — Date Prep: 02.18.20
MB Sample Id: 7696919-1-BLK — LCS Sample Id: 7696919-1-BKS — LCSD Sample Id: 7696919-1-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	848	85	929	93	70-135	9	35	mg/kg	02.18.20 12:20	
Diesel Range Organics (DRO)	<50.0	1000	938	94	1010	101	70-135	7	35	mg/kg	02.18.20 12:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		118		117		70-135	%	02.18.20 12:20
o-Terphenyl	102		110		112		70-135	%	02.18.20 12:20

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3116927 — Matrix: Solid — Date Prep: 02.18.20
MB Sample Id: 7696919-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.18.20 12:00	

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 652817

LT Environmental, Inc.

Palmillo State #001

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3116927 | Matrix: Soil | Date Prep: 02.18.20
Parent Sample Id: 652817-001 | MS Sample Id: 652817-001 S | MSD Sample Id: 652817-001 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)	<50.3	1010	1180	117	868	87	70-135	30	35	mg/kg	02.18.20 16:26	
Diesel Range Organics (DRO)	65.9	1010	1130	105	992	93	70-135	13	35	mg/kg	02.18.20 16:26	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	135		108		70-135	%	02.18.20 16:26
o-Terphenyl	124		116		70-135	%	02.18.20 16:26

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3116910 | Matrix: Solid | Date Prep: 02.18.20
MB Sample Id: 7696952-1-BLK | LCS Sample Id: 7696952-1-BKS | LCSD Sample Id: 7696952-1-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	0.106	106	70-130	1	35	mg/kg	02.18.20 17:14	
Toluene	<0.00200	0.100	0.104	104	0.102	102	70-130	2	35	mg/kg	02.18.20 17:14	
Ethylbenzene	<0.00200	0.100	0.101	101	0.0987	99	71-129	2	35	mg/kg	02.18.20 17:14	
m,p-Xylenes	<0.00400	0.200	0.207	104	0.203	102	70-135	2	35	mg/kg	02.18.20 17:14	
o-Xylene	<0.00200	0.100	0.104	104	0.102	102	71-133	2	35	mg/kg	02.18.20 17:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		104		105		70-130	%	02.18.20 17:14
4-Bromofluorobenzene	93		95		92		70-130	%	02.18.20 17:14

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3116910 | Matrix: Soil | Date Prep: 02.18.20
Parent Sample Id: 652817-001 | MS Sample Id: 652817-001 S | MSD Sample Id: 652817-001 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	0.108	108	0.115	115	70-130	6	35	mg/kg	02.18.20 17:55	
Toluene	<0.00200	0.100	0.103	103	0.107	107	70-130	4	35	mg/kg	02.18.20 17:55	
Ethylbenzene	<0.00200	0.100	0.0994	99	0.105	105	71-129	5	35	mg/kg	02.18.20 17:55	
m,p-Xylenes	<0.00400	0.200	0.205	103	0.217	109	70-135	6	35	mg/kg	02.18.20 17:55	
o-Xylene	<0.00200	0.100	0.102	102	0.109	109	71-133	7	35	mg/kg	02.18.20 17:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		103		70-130	%	02.18.20 17:55
4-Bromofluorobenzene	96		90		70-130	%	02.18.20 17:55

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

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

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

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

Final 1.000

Chain of Custody

Work Order No: 652817

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, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800
www.xenco.com

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

Work Order Comments

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

Project Name:	Palmillo State #001	Turn Around	
Project Number:	012919217	Routine: ☐	
PO #:	2RP-5645	Rush: 24 hrs	
Sampler's Name:	Fatima Smith	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	0.4	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:	7	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS01	S	2/18/20	1132	6'	1	X	X	X
FS02	S		1138	5'				
FS03	S		1141	5'				
SW01	S		1203	0-6'				
SW02	S		1204	0-5'				
SW03	S		1207	0-5'				
SW04	S		1209	0-6'				

Work Order Notes

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

Sample Comments

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		2/18/20 14:55	2		
3			4		
5			6		

Revised Date101419 Rev. 2019.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 02.18.2020 02.55.00 PM

Work Order #: 652817

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

Temperature Measuring device used : T-NM-007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 02.18.2020

Checklist reviewed by: Jessica Kramer Date: 02.19.2020

Jessica Kramer

Analytical Report 652989

for

LT Environmental, Inc.

Project Manager: Dan Moir

Palmillo State #001

012919217

02.20.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

02.20.2020

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

Reference: XENCO Report No(s): **652989**
Palmillo State #001
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) 652989. 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. 652989 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,

John Builes
Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 652989

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW05	S	02.19.2020 09:16	0 - 3 ft	652989-001
SW06	S	02.19.2020 10:30	0 - 8 ft	652989-002
SW07	S	02.19.2020 10:37	0 - 8 ft	652989-003
SW08	S	02.19.2020 10:39	0 - 3 ft	652989-004
FS04	S	02.19.2020 10:23	8 ft	652989-005
FS05	S	02.19.2020 10:25	8 ft	652989-006
FS06	S	02.19.2020 09:35	3 ft	652989-007

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Palmillo State #001

Project ID: *012919217*
Work Order Number(s): *652989*

Report Date: *02.20.2020*
Date Received: *02.19.2020*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3117054 BTEX by EPA 8021B

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

Certificate of Analysis Summary 652989

LT Environmental, Inc., Arvada, CO

Project Name: Palmillo State #001

Project Id: 012919217
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed 02.19.2020 14:08
Report Date: 02.20.2020 14:08
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	652989-001		652989-002		652989-003		652989-004		652989-005		652989-006	
	Field Id:	SW05		SW06		SW07		SW08		FS04		FS05	
	Depth:	0-3 ft		0-8 ft		0-8 ft		0-3 ft		8- ft		8- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	02.19.2020 09:16		02.19.2020 10:30		02.19.2020 10:37		02.19.2020 10:39		02.19.2020 10:23		02.19.2020 10:25	
BTEX by EPA 8021B	***Extracted:***	02.19.2020 14:42		02.19.2020 14:42		02.19.2020 14:42		02.19.2020 14:42		02.19.2020 14:42		02.19.2020 14:42	
	Analyzed:	02.19.2020 17:40		02.19.2020 18:01		02.19.2020 19:22		02.19.2020 19:43		02.19.2020 18:21		02.19.2020 18:41	
	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	<0.00198	0.00198	<0.0167	0.0167	0.0594	0.0156	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00198	0.00198	0.0220	0.0167	0.402	0.0625	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00198	0.00198	0.154	0.0667	1.74	0.0625	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00401	0.00401	<0.00397	0.00397	0.808	0.133	9.11	0.125	<0.00400	0.00400	<0.00401	0.00401
o-Xylene		<0.00200	0.00200	0.00394	0.00198	0.849	0.0667	8.96	0.0625	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	0.00394	0.00198	1.66	0.0667	18.1	0.0625	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	0.00394	0.00198	1.83	0.0167	20.3	0.0156	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300	***Extracted:***	02.19.2020 14:46		02.19.2020 14:46		02.19.2020 14:46		02.19.2020 14:46		02.19.2020 14:46		02.19.2020 14:46	
	Analyzed:	02.19.2020 16:10		02.19.2020 16:29		02.19.2020 16:35		02.19.2020 16:42		02.19.2020 16:48		02.19.2020 17:07	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<10.0	10.0	103	9.98	972	10.0	<9.98	9.98	27.0	9.94	33.3	9.98
TPH by SW8015 Mod	***Extracted:***	02.19.2020 14:30		02.19.2020 14:30		02.19.2020 14:30		02.19.2020 14:30		02.19.2020 14:30		02.19.2020 14:30	
	Analyzed:	02.19.2020 15:29		02.19.2020 15:49		02.19.2020 16:09		02.20.2020 11:17		02.19.2020 16:09		02.19.2020 16:29	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.2	50.2	<50.1	50.1	127	50.2	2980	250	<50.0	50.0	<50.1	50.1
Diesel Range Organics (DRO)		<50.2	50.2	<50.1	50.1	927	50.2	10400	250	<50.0	50.0	<50.1	50.1
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2	<50.1	50.1	68.2	50.2	616	250	<50.0	50.0	<50.1	50.1
Total GRO-DRO		<50.2	50.2	<50.1	50.1	1050	50.2	13400	250	<50.0	50.0	<50.1	50.1
Total TPH		<50.2	50.2	<50.1	50.1	1120	50.2	14000	250	<50.0	50.0	<50.1	50.1

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

John Builes
Project Manager

Certificate of Analysis Summary 652989

LT Environmental, Inc., Arvada, CO

Project Name: Palmillo State #001

Project Id: 012919217
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed 02.19.2020 14:08
Report Date: 02.20.2020 14:08
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	652989-007					
	Field Id:	FS06					
	Depth:	3- ft					
	Matrix:	SOIL					
	Sampled:	02.19.2020 09:35					
BTEX by EPA 8021B	***Extracted:***	02.19.2020 14:42					
	Analyzed:	02.19.2020 19:02					
	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:***	02.19.2020 14:46					
	Analyzed:	02.19.2020 17:13					
	Units/RL:	mg/kg	RL				
Chloride		10.4	9.96				
TPH by SW8015 Mod	***Extracted:***	02.19.2020 14:30					
	Analyzed:	02.19.2020 16:29					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9				
Diesel Range Organics (DRO)		<49.9	49.9				
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9				
Total GRO-DRO		<49.9	49.9				
Total TPH		<49.9	49.9				

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

John Builes
Project Manager

Certificate of Analytical Results 652989

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	02.19.2020 14:08
Lab Sample Id:	652989-001	Date Collected:	02.19.2020 09:16	Sample Depth:	0 - 3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 14:46	Basis:	Wet Weight
Seq Number:	3117048				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	02.19.2020 16:10	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.19.2020 14:30	Basis:	Wet Weight
Seq Number:	3117087				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.19.2020 15:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.19.2020 15:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.19.2020 15:29	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.19.2020 15:29	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.19.2020 15:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	02.19.2020 15:29	
o-Terphenyl	84-15-1	96	%	70-135	02.19.2020 15:29	

Certificate of Analytical Results 652989

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	02.19.2020 14:08
Lab Sample Id:	652989-001	Date Collected:	02.19.2020 09:16	Sample Depth:	0 - 3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 14:42	Basis:	Wet Weight
Seq Number:	3117054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.19.2020 17:40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.19.2020 17:40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.19.2020 17:40	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.19.2020 17:40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.19.2020 17:40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.19.2020 17:40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.19.2020 17:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	02.19.2020 17:40	
1,4-Difluorobenzene	540-36-3	104	%	70-130	02.19.2020 17:40	

Certificate of Analytical Results 652989

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	02.19.2020 14:08
Lab Sample Id:	652989-002	Date Collected:	02.19.2020 10:30	Sample Depth:	0 - 8 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 14:46	Basis:	Wet Weight
Seq Number:	3117048				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**103**	9.98	mg/kg	02.19.2020 16:29		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.19.2020 14:30	Basis:	Wet Weight
Seq Number:	3117087				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.19.2020 15:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.19.2020 15:49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.19.2020 15:49	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.19.2020 15:49	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.19.2020 15:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	02.19.2020 15:49	
o-Terphenyl	84-15-1	106	%	70-135	02.19.2020 15:49	

Certificate of Analytical Results 652989

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	02.19.2020 14:08
Lab Sample Id:	652989-002	Date Collected:	02.19.2020 10:30	Sample Depth:	0 - 8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 14:42	Basis:	Wet Weight
Seq Number:	3117054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.19.2020 18:01	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.19.2020 18:01	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.19.2020 18:01	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	02.19.2020 18:01	U	1
o-Xylene	95-47-6	**0.00394**	0.00198	mg/kg	02.19.2020 18:01		1
Total Xylenes	1330-20-7	**0.00394**	0.00198	mg/kg	02.19.2020 18:01		1
Total BTEX		**0.00394**	0.00198	mg/kg	02.19.2020 18:01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	02.19.2020 18:01	
4-Bromofluorobenzene	460-00-4	95	%	70-130	02.19.2020 18:01	

Certificate of Analytical Results 652989

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	02.19.2020 14:08
Lab Sample Id:	652989-003	Date Collected:	02.19.2020 10:37	Sample Depth:	0 - 8 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 14:46	Basis:	Wet Weight
Seq Number:	3117048				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**972**	10.0	mg/kg	02.19.2020 16:35		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.19.2020 14:30	Basis:	Wet Weight
Seq Number:	3117087				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**127**	50.2	mg/kg	02.19.2020 16:09		1
Diesel Range Organics (DRO)	C10C28DRO	**927**	50.2	mg/kg	02.19.2020 16:09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**68.2**	50.2	mg/kg	02.19.2020 16:09		1
Total GRO-DRO	PHC628	**1050**	50.2	mg/kg	02.19.2020 16:09		1
Total TPH	PHC635	**1120**	50.2	mg/kg	02.19.2020 16:09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	02.19.2020 16:09	
o-Terphenyl	84-15-1	117	%	70-135	02.19.2020 16:09	

Certificate of Analytical Results 652989

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	02.19.2020 14:08
Lab Sample Id:	652989-003	Date Collected:	02.19.2020 10:37	Sample Depth:	0 - 8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 14:42	Basis:	Wet Weight
Seq Number:	3117054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0167	0.0167	mg/kg	02.19.2020 19:22	U	1
Toluene	108-88-3	**0.0220**	0.0167	mg/kg	02.19.2020 19:22		1
Ethylbenzene	100-41-4	**0.154**	0.0667	mg/kg	02.19.2020 19:22		1
m,p-Xylenes	179601-23-1	**0.808**	0.133	mg/kg	02.19.2020 19:22		1
o-Xylene	95-47-6	**0.849**	0.0667	mg/kg	02.19.2020 19:22		1
Total Xylenes	1330-20-7	**1.66**	0.0667	mg/kg	02.19.2020 19:22		1
Total BTEX		**1.83**	0.0167	mg/kg	02.19.2020 19:22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	02.19.2020 19:22	
1,4-Difluorobenzene	540-36-3	100	%	70-130	02.19.2020 19:22	

Certificate of Analytical Results 652989

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	02.19.2020 14:08
Lab Sample Id:	652989-004	Date Collected:	02.19.2020 10:39	Sample Depth:	0 - 3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 14:46	Basis:	Wet Weight
Seq Number:	3117048				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	02.19.2020 16:42	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.19.2020 14:30	Basis:	Wet Weight
Seq Number:	3117087				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**2980**	250	mg/kg	02.20.2020 11:17		5
Diesel Range Organics (DRO)	C10C28DRO	**10400**	250	mg/kg	02.20.2020 11:17		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**616**	250	mg/kg	02.20.2020 11:17		5
Total GRO-DRO	PHC628	**13400**	250	mg/kg	02.20.2020 11:17		5
Total TPH	PHC635	**14000**	250	mg/kg	02.20.2020 11:17		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	134	%	70-135	02.20.2020 11:17	
o-Terphenyl	84-15-1	118	%	70-135	02.20.2020 11:17	

Certificate of Analytical Results 652989

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	02.19.2020 14:08
Lab Sample Id:	652989-004	Date Collected:	02.19.2020 10:39	Sample Depth:	0 - 3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 14:42	Basis:	Wet Weight
Seq Number:	3117054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0594**	0.0156	mg/kg	02.19.2020 19:43		1
Toluene	108-88-3	**0.402**	0.0625	mg/kg	02.19.2020 19:43		1
Ethylbenzene	100-41-4	**1.74**	0.0625	mg/kg	02.19.2020 19:43		1
m,p-Xylenes	179601-23-1	**9.11**	0.125	mg/kg	02.19.2020 19:43		1
o-Xylene	95-47-6	**8.96**	0.0625	mg/kg	02.19.2020 19:43		1
Total Xylenes	1330-20-7	**18.1**	0.0625	mg/kg	02.19.2020 19:43		1
Total BTEX		**20.3**	0.0156	mg/kg	02.19.2020 19:43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	02.19.2020 19:43	
1,4-Difluorobenzene	540-36-3	93	%	70-130	02.19.2020 19:43	

Certificate of Analytical Results 652989

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	02.19.2020 14:08
Lab Sample Id:	652989-005	Date Collected:	02.19.2020 10:23	Sample Depth:	8 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 14:46	Basis:	Wet Weight
Seq Number:	3117048				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**27.0**	9.94	mg/kg	02.19.2020 16:48		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.19.2020 14:30	Basis:	Wet Weight
Seq Number:	3117087				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.19.2020 16:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.19.2020 16:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.19.2020 16:09	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	02.19.2020 16:09	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.19.2020 16:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.19.2020 16:09	
o-Terphenyl	84-15-1	104	%	70-135	02.19.2020 16:09	

Certificate of Analytical Results 652989

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	02.19.2020 14:08
Lab Sample Id:	652989-005	Date Collected:	02.19.2020 10:23	Sample Depth:	8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 14:42	Basis:	Wet Weight
Seq Number:	3117054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.19.2020 18:21	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.19.2020 18:21	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.19.2020 18:21	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.19.2020 18:21	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.19.2020 18:21	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.19.2020 18:21	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.19.2020 18:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	02.19.2020 18:21	
4-Bromofluorobenzene	460-00-4	94	%	70-130	02.19.2020 18:21	

Certificate of Analytical Results 652989

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	02.19.2020 14:08
Lab Sample Id:	652989-006	Date Collected:	02.19.2020 10:25	Sample Depth:	8 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 14:46	Basis:	Wet Weight
Seq Number:	3117048				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**33.3**	9.98	mg/kg	02.19.2020 17:07		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.19.2020 14:30	Basis:	Wet Weight
Seq Number:	3117087				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.19.2020 16:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.19.2020 16:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.19.2020 16:29	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.19.2020 16:29	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.19.2020 16:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	02.19.2020 16:29	
o-Terphenyl	84-15-1	101	%	70-135	02.19.2020 16:29	

Certificate of Analytical Results 652989

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	02.19.2020 14:08
Lab Sample Id:	652989-006	Date Collected:	02.19.2020 10:25	Sample Depth:	8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 14:42	Basis:	Wet Weight
Seq Number:	3117054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.19.2020 18:41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.19.2020 18:41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.19.2020 18:41	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.19.2020 18:41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.19.2020 18:41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.19.2020 18:41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.19.2020 18:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	02.19.2020 18:41	
1,4-Difluorobenzene	540-36-3	104	%	70-130	02.19.2020 18:41	

Certificate of Analytical Results 652989

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	02.19.2020 14:08
Lab Sample Id:	652989-007	Date Collected:	02.19.2020 09:35	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 14:46	Basis:	Wet Weight
Seq Number:	3117048				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.4**	9.96	mg/kg	02.19.2020 17:13		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.19.2020 14:30	Basis:	Wet Weight
Seq Number:	3117087				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.19.2020 16:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.19.2020 16:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.19.2020 16:29	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	02.19.2020 16:29	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.19.2020 16:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	02.19.2020 16:29	
o-Terphenyl	84-15-1	102	%	70-135	02.19.2020 16:29	

Certificate of Analytical Results 652989

LT Environmental, Inc., Arvada, CO

Palmillo State #001

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	02.19.2020 14:08
Lab Sample Id:	652989-007	Date Collected:	02.19.2020 09:35	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 14:42	Basis:	Wet Weight
Seq Number:	3117054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.19.2020 19:02	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.19.2020 19:02	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.19.2020 19:02	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.19.2020 19:02	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.19.2020 19:02	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.19.2020 19:02	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.19.2020 19:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	02.19.2020 19:02	
1,4-Difluorobenzene	540-36-3	104	%	70-130	02.19.2020 19:02	

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 652989

LT Environmental, Inc.

Palmillo State #001

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3117048 — Matrix: Solid — Date Prep: 02.19.2020
MB Sample Id: 7697015-1-BLK — LCS Sample Id: 7697015-1-BKS — LCSD Sample Id: 7697015-1-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	263	105	262	105	90-110	0	20	mg/kg	02.19.2020 15:57	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3117048 — Matrix: Soil — Date Prep: 02.19.2020
Parent Sample Id: 652989-001 — MS Sample Id: 652989-001 S — MSD Sample Id: 652989-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8.40	200	216	104	214	102	90-110	1	20	mg/kg	02.19.2020 16:17	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3117048 — Matrix: Soil — Date Prep: 02.19.2020
Parent Sample Id: 653026-001 — MS Sample Id: 653026-001 S — MSD Sample Id: 653026-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	12.6	202	227	106	226	106	90-110	0	20	mg/kg	02.19.2020 18:02	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3117087 — Matrix: Solid — Date Prep: 02.19.2020
MB Sample Id: 7697026-1-BLK — LCS Sample Id: 7697026-1-BKS — LCSD Sample Id: 7697026-1-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	1040	104	971	97	70-135	7	35	mg/kg	02.19.2020 15:08	
Diesel Range Organics (DRO)	<50.0	1000	1130	113	1100	110	70-135	3	35	mg/kg	02.19.2020 15:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		131		123		70-135	%	02.19.2020 15:08
o-Terphenyl	108		127		120		70-135	%	02.19.2020 15:08

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3117087 — Matrix: Solid — Date Prep: 02.19.2020
MB Sample Id: 7697026-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.19.2020 14:49	

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

QC Summary 652989

LT Environmental, Inc.

Palmillo State #001

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3117087 Matrix: Soil Date Prep: 02.19.2020
Parent Sample Id: 652989-001 MS Sample Id: 652989-001 S MSD Sample Id: 652989-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	930	93	960	96	70-135	3	35	mg/kg	02.19.2020 15:29	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1050	105	70-135	1	35	mg/kg	02.19.2020 15:29	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		114		70-135	%	02.19.2020 15:29
o-Terphenyl	113		118		70-135	%	02.19.2020 15:29

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3117054 Matrix: Solid Date Prep: 02.19.2020
MB Sample Id: 7697014-1-BLK LCS Sample Id: 7697014-1-BKS LCSD Sample Id: 7697014-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.102	102	0.104	104	70-130	2	35	mg/kg	02.19.2020 15:58	
Toluene	<0.00200	0.100	0.0982	98	0.101	101	70-130	3	35	mg/kg	02.19.2020 15:58	
Ethylbenzene	<0.00200	0.100	0.0942	94	0.0977	98	71-129	4	35	mg/kg	02.19.2020 15:58	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.202	101	70-135	4	35	mg/kg	02.19.2020 15:58	
o-Xylene	<0.00200	0.100	0.0968	97	0.101	101	71-133	4	35	mg/kg	02.19.2020 15:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		104		104		70-130	%	02.19.2020 15:58
4-Bromofluorobenzene	95		94		93		70-130	%	02.19.2020 15:58

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3117054 Matrix: Soil Date Prep: 02.19.2020
Parent Sample Id: 652989-001 MS Sample Id: 652989-001 S MSD Sample Id: 652989-001 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	0.0910	91	0.103	103	70-130	12	35	mg/kg	02.19.2020 16:39	
Toluene	<0.00200	0.100	0.0843	84	0.0959	96	70-130	13	35	mg/kg	02.19.2020 16:39	
Ethylbenzene	<0.00200	0.100	0.0796	80	0.0922	92	71-129	15	35	mg/kg	02.19.2020 16:39	
m,p-Xylenes	<0.00400	0.200	0.165	83	0.190	95	70-135	14	35	mg/kg	02.19.2020 16:39	
o-Xylene	<0.00200	0.100	0.0826	83	0.0950	95	71-133	14	35	mg/kg	02.19.2020 16:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		104		70-130	%	02.19.2020 16:39
4-Bromofluorobenzene	93		92		70-130	%	02.19.2020 16:39

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: 652989

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, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800
www.xenco.com

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

Work Order Comments

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

Project Name:	Palmillo State # 001	Turn Around	
Project Number:	012919217	Routine: ☐	
PO #:	2RP-5645	Rush: 24 hrs	
Sampler's Name:	Fatima Smith	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.6	Thermometer ID	T-NM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	7

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SW05	S	2/19/20	0916	0-3'	1	X	X	X
SW06	S		1030	0-8'				
SW07	S		1037	0-8'				
SW08	S		1039	0-3'				
FS04	S		1023	8'				
FS05	S		1025	8'				
FS06	S		0935	3'				

Work Order Notes

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

Sample Comments

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		2/19/20 14:08	2		
3			4		
5			6		

Revised Date101419 Rev. 2019.1

Analytical Report 656666

for

LT Environmental, Inc.

Project Manager: Dan Moir

Palmillo State #1

012919217

25-MAR-20

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

25-MAR-20

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

Reference: XENCO Report No(s): **656666**
Palmillo State #1
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) 656666. 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. 656666 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

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

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

Sample Cross Reference 656666

LT Environmental, Inc., Arvada, CO

Palmillo State #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS07	S	03-24-20 09:50	12 ft	656666-001
FS08	S	03-24-20 10:10	10 ft	656666-002

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Palmillo State #1

Project ID: *012919217*
Work Order Number(s): *656666*

Report Date: *25-MAR-20*
Date Received: *03/24/2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3120853 BTEX by EPA 8021B

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

Certificate of Analysis Summary 656666

LT Environmental, Inc., Arvada, CO

Project Name: Palmillo State #1

Project Id: 012919217
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue Mar-24-20 01:40 pm
Report Date: 25-MAR-20
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	656666-001		656666-002									
	Field Id:	FS07		FS08									
	Depth:	12- ft		10- ft									
	Matrix:	SOIL		SOIL									
	Sampled:	Mar-24-20 09:50		Mar-24-20 10:10									
BTEX by EPA 8021B	***Extracted:***	Mar-24-20 14:37		Mar-24-20 14:37									
	Analyzed:	Mar-24-20 17:30		Mar-24-20 17:51									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Benzene		<0.00199	0.00199	<0.00199	0.00199								
Toluene		<0.00199	0.00199	<0.00199	0.00199								
Ethylbenzene		<0.00199	0.00199	<0.00199	0.00199								
m,p-Xylenes		<0.00398	0.00398	0.0173	0.00398								
o-Xylene		<0.00199	0.00199	0.0135	0.00199								
Total Xylenes		<0.00199	0.00199	0.0308	0.00199								
Total BTEX		<0.00199	0.00199	0.0308	0.00199								
Chloride by EPA 300	***Extracted:***	Mar-24-20 14:51		Mar-24-20 14:51									
	Analyzed:	Mar-24-20 15:49		Mar-24-20 16:06									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Chloride		688	9.98	1500	49.8								
TPH by SW8015 Mod	***Extracted:***	Mar-24-20 17:30		Mar-24-20 17:20									
	Analyzed:	Mar-25-20 10:10		Mar-24-20 18:27									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<49.8	49.8								
Diesel Range Organics (DRO)		<50.1	50.1	728	49.8								
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	68.4	49.8								
Total GRO-DRO		<50.1	50.1	728	49.8								
Total TPH		<50.1	50.1	796	49.8								

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

Jessica Kramer
Project Manager

Certificate of Analytical Results 656666

LT Environmental, Inc., Arvada, CO

Palmillo State #1

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	03.24.20 13.40
Lab Sample Id:	656666-001	Date Collected:	03.24.20 09.50	Sample Depth:	12 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 14.51	Basis:	Wet Weight
Seq Number:	3120867				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**688**	9.98	mg/kg	03.24.20 15.49		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.24.20 17.30	Basis:	Wet Weight
Seq Number:	3120922				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.25.20 10.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.25.20 10.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.25.20 10.10	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.25.20 10.10	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.25.20 10.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	03.25.20 10.10	
o-Terphenyl	84-15-1	114	%	70-135	03.25.20 10.10	

Certificate of Analytical Results 656666

LT Environmental, Inc., Arvada, CO

Palmillo State #1

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	03.24.20 13.40
Lab Sample Id:	656666-001	Date Collected:	03.24.20 09.50	Sample Depth:	12 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 14.37	Basis:	Wet Weight
Seq Number:	3120853				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.24.20 17.30	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.24.20 17.30	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.24.20 17.30	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.24.20 17.30	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.24.20 17.30	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.24.20 17.30	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.24.20 17.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.24.20 17.30	
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.24.20 17.30	

Certificate of Analytical Results 656666

LT Environmental, Inc., Arvada, CO

Palmillo State #1

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	03.24.20 13.40
Lab Sample Id:	656666-002	Date Collected:	03.24.20 10.10	Sample Depth:	10 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 14.51	Basis:	Wet Weight
Seq Number:	3120867				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1500**	49.8	mg/kg	03.24.20 16.06		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.24.20 17.20	Basis:	Wet Weight
Seq Number:	3120791				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.24.20 18.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	**728**	49.8	mg/kg	03.24.20 18.27		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**68.4**	49.8	mg/kg	03.24.20 18.27		1
Total GRO-DRO	PHC628	**728**	49.8	mg/kg	03.24.20 18.27		1
Total TPH	PHC635	**796**	49.8	mg/kg	03.24.20 18.27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	03.24.20 18.27	
o-Terphenyl	84-15-1	125	%	70-135	03.24.20 18.27	

Certificate of Analytical Results 656666

LT Environmental, Inc., Arvada, CO

Palmillo State #1

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	03.24.20 13.40
Lab Sample Id:	656666-002	Date Collected:	03.24.20 10.10	Sample Depth:	10 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 14.37	Basis:	Wet Weight
Seq Number:	3120853				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.24.20 17.51	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.24.20 17.51	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.24.20 17.51	U	1
m,p-Xylenes	179601-23-1	**0.0173**	0.00398	mg/kg	03.24.20 17.51		1
o-Xylene	95-47-6	**0.0135**	0.00199	mg/kg	03.24.20 17.51		1
Total Xylenes	1330-20-7	**0.0308**	0.00199	mg/kg	03.24.20 17.51		1
Total BTEX		**0.0308**	0.00199	mg/kg	03.24.20 17.51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.24.20 17.51	
1,4-Difluorobenzene	540-36-3	100	%	70-130	03.24.20 17.51	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 656666

LT Environmental, Inc.

Palmillo State #1

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120867 — Matrix: Solid — Date Prep: 03.24.20
MB Sample Id: 7699626-1-BLK — LCS Sample Id: 7699626-1-BKS — LCSD Sample Id: 7699626-1-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	263	105	90-110	3	20	mg/kg	03.24.20 15:38	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120867 — Matrix: Soil — Date Prep: 03.24.20
Parent Sample Id: 656666-001 — MS Sample Id: 656666-001 S — MSD Sample Id: 656666-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	688	200	892	102	876	96	90-110	2	20	mg/kg	03.24.20 15:55	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120867 — Matrix: Soil — Date Prep: 03.24.20
Parent Sample Id: 656670-008 — MS Sample Id: 656670-008 S — MSD Sample Id: 656670-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2150	201	2350	100	2350	100	90-110	0	20	mg/kg	03.24.20 17:14	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120791 — Matrix: Solid — Date Prep: 03.24.20
MB Sample Id: 7699645-1-BLK — LCS Sample Id: 7699645-1-BKS — LCSD Sample Id: 7699645-1-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	1010	101	1050	105	70-135	4	35	mg/kg	03.24.20 13:44	
Diesel Range Organics (DRO)	<50.0	1000	1100	110	1140	114	70-135	4	35	mg/kg	03.24.20 13:44	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		124		128		70-135	%	03.24.20 13:44
o-Terphenyl	105		121		127		70-135	%	03.24.20 13:44

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

QC Summary 656666

LT Environmental, Inc.

Palmillo State #1

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120922 — Matrix: Solid — Date Prep: 03.24.20
MB Sample Id: 7699702-1-BLK — LCS Sample Id: 7699702-1-BKS — LCSD Sample Id: 7699702-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	984	98	992	99	70-135	1	35	mg/kg	03.25.20 09:25	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	1090	109	70-135	0	35	mg/kg	03.25.20 09:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		123		123		70-135	%	03.25.20 09:25
o-Terphenyl	112		121		122		70-135	%	03.25.20 09:25

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120791 — Matrix: Solid — Date Prep: 03.24.20
MB Sample Id: 7699645-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.24.20 13:24	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120922 — Matrix: Solid — Date Prep: 03.24.20
MB Sample Id: 7699702-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.25.20 14:56	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120791 — Matrix: Soil — Date Prep: 03.24.20
Parent Sample Id: 656458-132 — MS Sample Id: 656458-132 S — MSD Sample Id: 656458-132 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	965	97	904	90	70-135	7	35	mg/kg	03.24.20 15:24	
Diesel Range Organics (DRO)	<50.1	1000	1130	113	1030	103	70-135	9	35	mg/kg	03.24.20 15:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		116		70-135	%	03.24.20 15:24
o-Terphenyl	121		111		70-135	%	03.24.20 15:24

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 656666

LT Environmental, Inc.

Palmillo State #1

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3120922 | Matrix: Soil | Date Prep: 03.24.20
Parent Sample Id: 656666-001 | MS Sample Id: 656666-001 S | MSD Sample Id: 656666-001 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	1010	101	912	91	70-135	10	35	mg/kg	03.25.20 10:50	
Diesel Range Organics (DRO)	<50.1	1000	1150	115	1030	103	70-135	11	35	mg/kg	03.25.20 10:50	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		119		70-135	%	03.25.20 10:50
o-Terphenyl	128		121		70-135	%	03.25.20 10:50

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3120853 | Matrix: Solid | Date Prep: 03.24.20
MB Sample Id: 7699625-1-BLK | LCS Sample Id: 7699625-1-BKS | LCSD Sample Id: 7699625-1-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	0.113	113	0.114	114	70-130	1	35	mg/kg	03.24.20 15:48	
Toluene	<0.00200	0.100	0.108	108	0.110	110	70-130	2	35	mg/kg	03.24.20 15:48	
Ethylbenzene	<0.00200	0.100	0.102	102	0.104	104	71-129	2	35	mg/kg	03.24.20 15:48	
m,p-Xylenes	<0.00400	0.200	0.210	105	0.215	108	70-135	2	35	mg/kg	03.24.20 15:48	
o-Xylene	<0.00200	0.100	0.105	105	0.108	108	71-133	3	35	mg/kg	03.24.20 15:48	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		108		108		70-130	%	03.24.20 15:48
4-Bromofluorobenzene	95		88		91		70-130	%	03.24.20 15:48

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3120853 | Matrix: Soil | Date Prep: 03.24.20
Parent Sample Id: 656666-001 | MS Sample Id: 656666-001 S | MSD Sample Id: 656666-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.112	112	0.118	118	70-130	5	35	mg/kg	03.24.20 16:29	
Toluene	<0.00199	0.0996	0.107	107	0.114	114	70-130	6	35	mg/kg	03.24.20 16:29	
Ethylbenzene	<0.00199	0.0996	0.101	101	0.108	108	71-129	7	35	mg/kg	03.24.20 16:29	
m,p-Xylenes	<0.00398	0.199	0.208	105	0.223	112	70-135	7	35	mg/kg	03.24.20 16:29	
o-Xylene	<0.00199	0.0996	0.104	104	0.111	111	71-133	7	35	mg/kg	03.24.20 16:29	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		109		70-130	%	03.24.20 16:29
4-Bromofluorobenzene	94		93		70-130	%	03.24.20 16:29

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

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

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

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

Final 1.000

XENCO LABORATORIES

Chain of Custody

Work Order No: 656666

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 Littrel
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO-Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432.704.5178	Email:	dmoir@ltenv.com rmcafee@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:	Palmillo State #1	Turn Around	
Project Number:	012919217	Routine ☐	
P.O. Number:		Rush:	24hr
Sampler's Name:	Robert McAfee	Due Date:	

SAMPLE RECEIPT

Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.8	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)	Sample Comments
FS07	S	03/24/20	0950	12'	1	X	X	X	composite
FS08	S	03/24/20	1010	10'	1	X	X	X	composite

Work Order Notes

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

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
[signature]	[signature]	3/24/20 13:40	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03.24.2020 01.40.00 PM

Work Order #: 656666

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

Temperature Measuring device used : T-NM-007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 03.24.2020

Checklist reviewed by: Jessica Kramer Date: 03.25.2020

Jessica Kramer

Analytical Report 657459

for

LT Environmental, Inc.

Project Manager: Dan Moir

Palmillo State #1

012919217

04.09.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

04.09.2020

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

Reference: XENCO Report No(s): **657459**
Palmillo State #1
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) 657459. 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. 657459 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 657459

LT Environmental, Inc., Arvada, CO

Palmillo State #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS07A	S	03.30.2020 11:10	13 ft	657459-001
FS08A	S	03.30.2020 11:15	13 ft	657459-002

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Palmillo State #1

Project ID: *012919217*
Work Order Number(s): *657459*

Report Date: *04.09.2020*
Date Received: *03.31.2020*

Sample receipt non conformances and comments:

V1.001 Revision (client called) changes sample 002 name from FS07B to FS08A JK 04/09/20

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3121570 BTEX by EPA 8021B

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

Certificate of Analysis Summary 657459

LT Environmental, Inc., Arvada, CO

Project Name: Palmillo State #1

Project Id: 012919217
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue 03.31.2020 17:09
Report Date: 04.09.2020 12:53
Project Manager: Jessica Kramer

Analysis Requested								
	Lab Id:	657459-001		657459-002				
	Field Id:	FS07A		FS08A				
	Depth:	13- ft		13- ft				
	Matrix:	SOIL		SOIL				
	Sampled:	03.30.2020 11:10		03.30.2020 11:15				
BTEX by EPA 8021B	***Extracted:***	03.31.2020 19:28		03.31.2020 19:28				
	Analyzed:	04.01.2020 12:09		04.01.2020 12:30				
	Units/RL:	mg/kg	RL	mg/kg	RL			
Benzene		<0.00201	0.00201	<0.00198	0.00198			
Toluene		<0.00201	0.00201	<0.00198	0.00198			
Ethylbenzene		<0.00201	0.00201	<0.00198	0.00198			
m,p-Xylenes		<0.00402	0.00402	<0.00397	0.00397			
o-Xylene		<0.00201	0.00201	<0.00198	0.00198			
Total Xylenes		<0.00201	0.00201	<0.00198	0.00198			
Total BTEX		<0.00201	0.00201	<0.00198	0.00198			
Chloride by EPA 300	***Extracted:***	03.31.2020 19:18		03.31.2020 19:18				
	Analyzed:	04.01.2020 12:05		04.01.2020 11:30				
	Units/RL:	mg/kg	RL	mg/kg	RL			
Chloride		<10.0	10.0	105	10.1			
TPH by SW8015 Mod	***Extracted:***	04.01.2020 11:57		04.01.2020 11:57				
	Analyzed:	04.02.2020 01:40		04.02.2020 02:00				
	Units/RL:	mg/kg	RL	mg/kg	RL			
Gasoline Range Hydrocarbons (GRO)		<50.2	50.2	<50.2	50.2			
Diesel Range Organics (DRO)		<50.2	50.2	<50.2	50.2			
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2	<50.2	50.2			
Total GRO-DRO		<50.2	50.2	<50.2	50.2			
Total TPH		<50.2	50.2	<50.2	50.2			

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

Jessica Kramer
Project Manager

Certificate of Analytical Results 657459

LT Environmental, Inc., Arvada, CO

Palmillo State #1

Sample Id:	**FS07A**	Matrix:	Soil	Date Received:	03.31.2020 17:09
Lab Sample Id:	657459-001	Date Collected:	03.30.2020 11:10	Sample Depth:	13 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.31.2020 19:18	Basis:	Wet Weight
Seq Number:	3121597				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	04.01.2020 12:05	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.01.2020 11:57	Basis:	Wet Weight
Seq Number:	3121687				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.02.2020 01:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.02.2020 01:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.02.2020 01:40	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.02.2020 01:40	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.02.2020 01:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	04.02.2020 01:40	
o-Terphenyl	84-15-1	109	%	70-135	04.02.2020 01:40	

Certificate of Analytical Results 657459

LT Environmental, Inc., Arvada, CO

Palmillo State #1

Sample Id:	**FS07A**	Matrix:	Soil	Date Received:	03.31.2020 17:09
Lab Sample Id:	657459-001	Date Collected:	03.30.2020 11:10	Sample Depth:	13 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.31.2020 19:28	Basis:	Wet Weight
Seq Number:	3121570				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.01.2020 12:09	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.01.2020 12:09	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.01.2020 12:09	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.01.2020 12:09	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.01.2020 12:09	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.01.2020 12:09	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.01.2020 12:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	04.01.2020 12:09	
1,4-Difluorobenzene	540-36-3	109	%	70-130	04.01.2020 12:09	

Certificate of Analytical Results 657459

LT Environmental, Inc., Arvada, CO

Palmillo State #1

Sample Id:	**FS08A**	Matrix:	Soil	Date Received:	03.31.2020 17:09
Lab Sample Id:	657459-002	Date Collected:	03.30.2020 11:15	Sample Depth:	13 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.31.2020 19:18	Basis:	Wet Weight
Seq Number:	3121597				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**105**	10.1	mg/kg	04.01.2020 11:30		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.01.2020 11:57	Basis:	Wet Weight
Seq Number:	3121687				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.02.2020 02:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.02.2020 02:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.02.2020 02:00	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.02.2020 02:00	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.02.2020 02:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	04.02.2020 02:00	
o-Terphenyl	84-15-1	111	%	70-135	04.02.2020 02:00	

Certificate of Analytical Results 657459

LT Environmental, Inc., Arvada, CO

Palmillo State #1

Sample Id:	**FS08A**	Matrix:	Soil	Date Received:	03.31.2020 17:09
Lab Sample Id:	657459-002	Date Collected:	03.30.2020 11:15	Sample Depth:	13 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.31.2020 19:28	Basis:	Wet Weight
Seq Number:	3121570				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	04.01.2020 12:30	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	04.01.2020 12:30	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	04.01.2020 12:30	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	04.01.2020 12:30	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	04.01.2020 12:30	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	04.01.2020 12:30	U	1
Total BTEX		<0.00198	0.00198	mg/kg	04.01.2020 12:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	04.01.2020 12:30	
1,4-Difluorobenzene	540-36-3	110	%	70-130	04.01.2020 12:30	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **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 657459

LT Environmental, Inc.

Palmillo State #1

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3121597 — Matrix: Solid — Date Prep: 03.31.2020
MB Sample Id: 7700191-1-BLK — LCS Sample Id: 7700191-1-BKS — LCSD Sample Id: 7700191-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	267	107	266	107	90-110	0	20	mg/kg	04.01.2020 09:05	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3121597 — Matrix: Soil — Date Prep: 03.31.2020
Parent Sample Id: 657453-001 — MS Sample Id: 657453-001 S — MSD Sample Id: 657453-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	174	202	359	92	373	99	90-110	4	20	mg/kg	04.01.2020 09:21	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3121597 — Matrix: Soil — Date Prep: 03.31.2020
Parent Sample Id: 657454-011 — MS Sample Id: 657454-011 S — MSD Sample Id: 657454-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	312	201	512	100	520	103	90-110	2	20	mg/kg	04.01.2020 11:02	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3121687 — Matrix: Solid — Date Prep: 04.01.2020
MB Sample Id: 770257-1-BLK — LCS Sample Id: 770257-1-BKS — LCSD Sample Id: 770257-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1150	115	1130	113	70-135	2	35	mg/kg	04.01.2020 23:18	
Diesel Range Organics (DRO)	<50.0	1000	1220	122	1260	126	70-135	3	35	mg/kg	04.01.2020 23:18	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		134		129		70-135	%	04.01.2020 23:18
o-Terphenyl	100		131		126		70-135	%	04.01.2020 23:18

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3121687 — Matrix: Solid — Date Prep: 04.01.2020
MB Sample Id: 770257-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.01.2020 22:57	

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 657459

LT Environmental, Inc.

Palmillo State #1

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3121687 Matrix: Soil Date Prep: 04.01.2020
Parent Sample Id: 657454-009 MS Sample Id: 657454-009 S MSD Sample Id: 657454-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1020	102	902	91	70-135	12	35	mg/kg	04.02.2020 00:19	
Diesel Range Organics (DRO)	<50.1	1000	1170	117	1040	104	70-135	12	35	mg/kg	04.02.2020 00:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		116		70-135	%	04.02.2020 00:19
o-Terphenyl	126		116		70-135	%	04.02.2020 00:19

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3121570 Matrix: Solid Date Prep: 03.31.2020
MB Sample Id: 7700195-1-BLK LCS Sample Id: 7700195-1-BKS LCSD Sample Id: 7700195-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.111	111	0.105	105	70-130	6	35	mg/kg	04.01.2020 04:20	
Toluene	<0.00200	0.100	0.105	105	0.0986	99	70-130	6	35	mg/kg	04.01.2020 04:20	
Ethylbenzene	<0.00200	0.100	0.0980	98	0.0915	92	71-129	7	35	mg/kg	04.01.2020 04:20	
m,p-Xylenes	<0.00400	0.200	0.202	101	0.188	94	70-135	7	35	mg/kg	04.01.2020 04:20	
o-Xylene	<0.00200	0.100	0.103	103	0.0962	96	71-133	7	35	mg/kg	04.01.2020 04:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		109		110		70-130	%	04.01.2020 04:20
4-Bromofluorobenzene	96		95		95		70-130	%	04.01.2020 04:20

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3121570 Matrix: Soil Date Prep: 03.31.2020
Parent Sample Id: 657364-019 MS Sample Id: 657364-019 S MSD Sample Id: 657364-019 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0987	98	0.102	102	70-130	3	35	mg/kg	04.01.2020 05:01	
Toluene	<0.00201	0.101	0.0930	92	0.0962	97	70-130	3	35	mg/kg	04.01.2020 05:01	
Ethylbenzene	<0.00201	0.101	0.0867	86	0.0885	89	71-129	2	35	mg/kg	04.01.2020 05:01	
m,p-Xylenes	<0.00402	0.201	0.177	88	0.181	91	70-135	2	35	mg/kg	04.01.2020 05:01	
o-Xylene	<0.00201	0.101	0.0922	91	0.0947	95	71-133	3	35	mg/kg	04.01.2020 05:01	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		109		70-130	%	04.01.2020 05:01
4-Bromofluorobenzene	93		95		70-130	%	04.01.2020 05:01

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

Chain of Custody

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

Work Order No: 605459

Page 1 of 1

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

Work Order Comments

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

Project Name:	Palmillo state #1	Turn Around	
Project Number:	012919217	Routine	☐
P.O. Number:	2RP-5645	Rush:	24hr
Sampler's Name:	Robert McAfee	Due Date:	

SAMPLE RECEIPT			
Temperature (°C):	1-8	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

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS07A	S	03/30/20	1110	13'	1	X	X	X
FS08A	S	03/30/20	1115	13'	1	X	X	X

Work Order Notes

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

Sample Comments

composite
composite

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			3/31/20 1709	2			
3				4			
5				6			

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03.31.2020 05.09.00 PM

Work Order #: 657459

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

Temperature Measuring device used : T-NM-007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 03.31.2020

Checklist reviewed by: Jessica Kramer Date: 04.01.2020

Jessica Kramer