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	nCE2003758951
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.254431 Longitude -103.608987
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Mis Amigos CTB	Site Type Tank Battery
Date Release Discovered 01/18/2020	API# *(if applicable)* For-Mis Amigos State 001H #30-025-40590

Unit Letter	Section	Township	Range	County
O	31	23S	33E	LEA

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) .29	Volume Recovered (bbls) 0
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: VRT condensate scrubber pot dump line valve was inadvertently closed which sent hydrocarbons to the Low Pressure Flare. This created a fire which consumed the .29 bbls of hydrocarbons. Remediation of the de minimas staining will be completed by hand digging, soil will be taken to a disposal facility.

State of New Mexico
Oil Conservation Division

Incident ID	nCE2003758951
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? An unauthorized release of a volume that results in a fire or is the result of a fire.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Yes, by Kyle Littrell to 'EMNRD-OCD-District1spills@state.nm.us'; 'Griswold, Jim, EMNRD'; 'rmann@slo.state.nm.us' via email on Saturday, January 18, 2020 at 10:28 AM

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:

There were no fluids released to be contained via the use of berms or dikes, absorbent pads, or other containment devices.
There were no fluids released to be removed and managed

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: Adrian Baker Title: SH&E Coordinator

Signature: Date: 1/31/2020

email: Adrian_Baker@xtoenergy.com Telephone:

OCD Only

Received by: Cristina Eads Date: 03/17/2020

Incident ID	nCE2003758951
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nCE2003758951
District RP	
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 04/20/2020

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

OCD Only

Received by: Cristina Eads Date: 04/24/2020

State of New Mexico
Oil Conservation Division

Incident ID	nCE2003758951
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 04/20/2020

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

OCD Only

Received by: Cristina Eads Date: 04/24/2020

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: 07/01/2020

Printed Name: Cristina Eads Title: Environmental Specialist

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

April 24, 2020

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

RE: Closure Request
Mis Amigos CTB
Incident Number NCE2003758951
Lea County, New Mexico

To Whom It May Concern:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment and soil sampling activities at the Mis Amigos Central Tank Battery (CTB, Site) in Unit O, Section 31, Township 23 South, Range 33 East, in Lea County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to confirm the presence or absence of impacts to soil following a fire and release of crude oil at the Site. Based on field observations, field screening activities, and laboratory analytical results following soil sampling events, XTO is submitting this Closure Request and requesting no further action (NFA) for Incident Number NCE2003758951.

RELEASE BACKGROUND

On January 18, 2020, a condensate scrubber valve inadvertently closed, which sent hydrocarbons to the flare and caused a fire. The fire consumed approximately 0.29 barrels (bbls) of crude oil. The fire was extinguished and no injuries were reported. 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 January 31, 2020 and was assigned Incident Number NCE2003758951.

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 nearest permitted groundwater well to the Site is New Mexico Office of the State Engineer (NMOSE) well number C-03565 located approximately 1,300 feet southeast of the Site; however, no depth to groundwater data is available for this well. The nearest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well number 321555103381501, located approximately 1.90 miles northwest of the Site. The groundwater well has a depth to groundwater (DTW) of 487

feet bgs and a total depth of 700 feet bgs. There are 8 wells within a 2.5 mile radius of the Site with similar DTW measurements indicating DTW is greater than 100 feet bgs. The closest continuously flowing water or significant watercourse to the Site is an intermittent streambed located approximately 1.71 miles southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not located within an unstable geological area (low-potential karst designation area). The Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

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

SITE ASSESSMENT AND DELINEATION SOIL SAMPLING ACTIVITIES

On March 31, 2020, LTE personnel inspected the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. During the initial site walk through, an area affected by light mist was observed west of the flare, extending into the pasture area. LTE personnel collected three preliminary soil samples (SS01 through SS03) within the release extent from a depth of approximately 0.5 feet bgs to assess for the presence or absence of soil impacts at the ground surface. Soil was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positing System (GPS) unit and are depicted on Figure 2. Photographic documentation of the release was conducted, and a photographic log of the Site is included in Attachment 1.

Preliminary 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), TPH-oil range organics (ORO) following EPA Method 8015M/D, and chloride following EPA Method 300.0.

Based on laboratory analytical results for the preliminary soil samples, visual observations, and field screening results, excavation activities did not appear warranted; however, additional site assessment activities were scheduled to further confirm the absence of impacted soil. Laboratory analytical results are depicted on Figure 2 and summarized in Table 1. The laboratory analytical report is included as Attachment 2.

On April 8, 2020, LTE personnel returned to the Site to oversee additional soil assessment activities. Three boreholes (BH01 through BH03) were advanced via hand auger, to a depth of approximately 2 feet bgs at the SS01 through SS03 preliminary soil sample locations. Soil samples were collected at depths of approximately 1 foot bgs (BH01 through BH03) and 2 feet bgs (BH01A through BH03A) at each borehole location. Soil from the three boreholes was field screened utilizing a PID and Hach® chloride QuanTab® test strips. Field screening results and observations for each borehole were logged on lithologic/soil sampling logs, which are included in Attachment 3. The delineation soil samples were collected, handled, and analyzed as described above at Xenco in Carlsbad, New Mexico. All boreholes were backfilled with the same soil removed. The delineation soil sample locations are depicted on Figure 3.

ANALYTICAL RESULTS

Laboratory analytical results indicated benzene, BTEX, GRO and DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in preliminary soil samples SS01 through SS03 collected at a depth of approximately 0.5 feet bgs, and in delineation soil samples collected from boreholes BH01 through BH03 at depths ranging from 1 foot to 2 feet bgs. Laboratory analytical results are presented on Figure 2 and Figure 3, and are summarized in Table 1. The complete laboratory analytical reports are included as Attachment 2.

CONCLUSIONS

Preliminary soil samples SS01 through SS03 and delineation soil samples BH01/BH01A through BH03/BH03A were collected from within the release extent from depths ranging from 0.5 feet to 2 feet bgs to assess for the presence or absence of soil impacts as a result of the January 18, 2020, release. Laboratory analytical results for all soil samples indicated that benzene, BTEX, GRO and DRO, TPH, and chloride concentrations were compliant with the Closure Criteria and chloride concentrations were compliant with the reclamation requirement in the top 4 feet. Additionally,

field screening of soil indicated volatile aromatic hydrocarbons and chloride concentrations were not elevated and petroleum hydrocarbon odors were not identified within the release extent.

Based on initial response efforts, absence of elevated field screening results, and soil sample laboratory analytical results compliant with the Closure Criteria and reclamation requirement, no impacted soil was identified, and no soil excavation was required as a result of the crude oil fire. XTO requests NFA for Incident Number NCE2003758951.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Kalei Jennings
Project Environmental Scientist

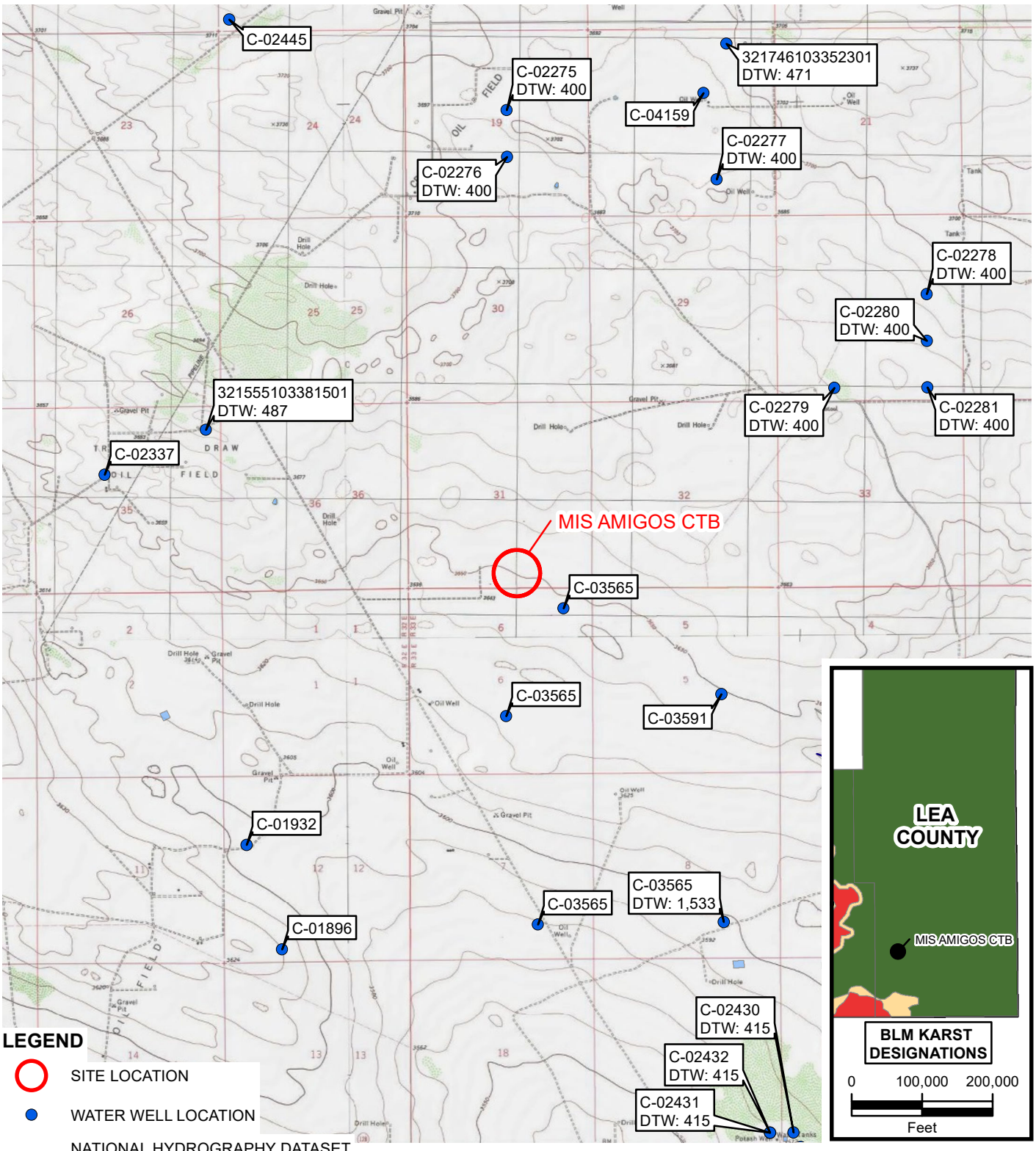
Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
Ryan Mann, State Land Office

Appendices:

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

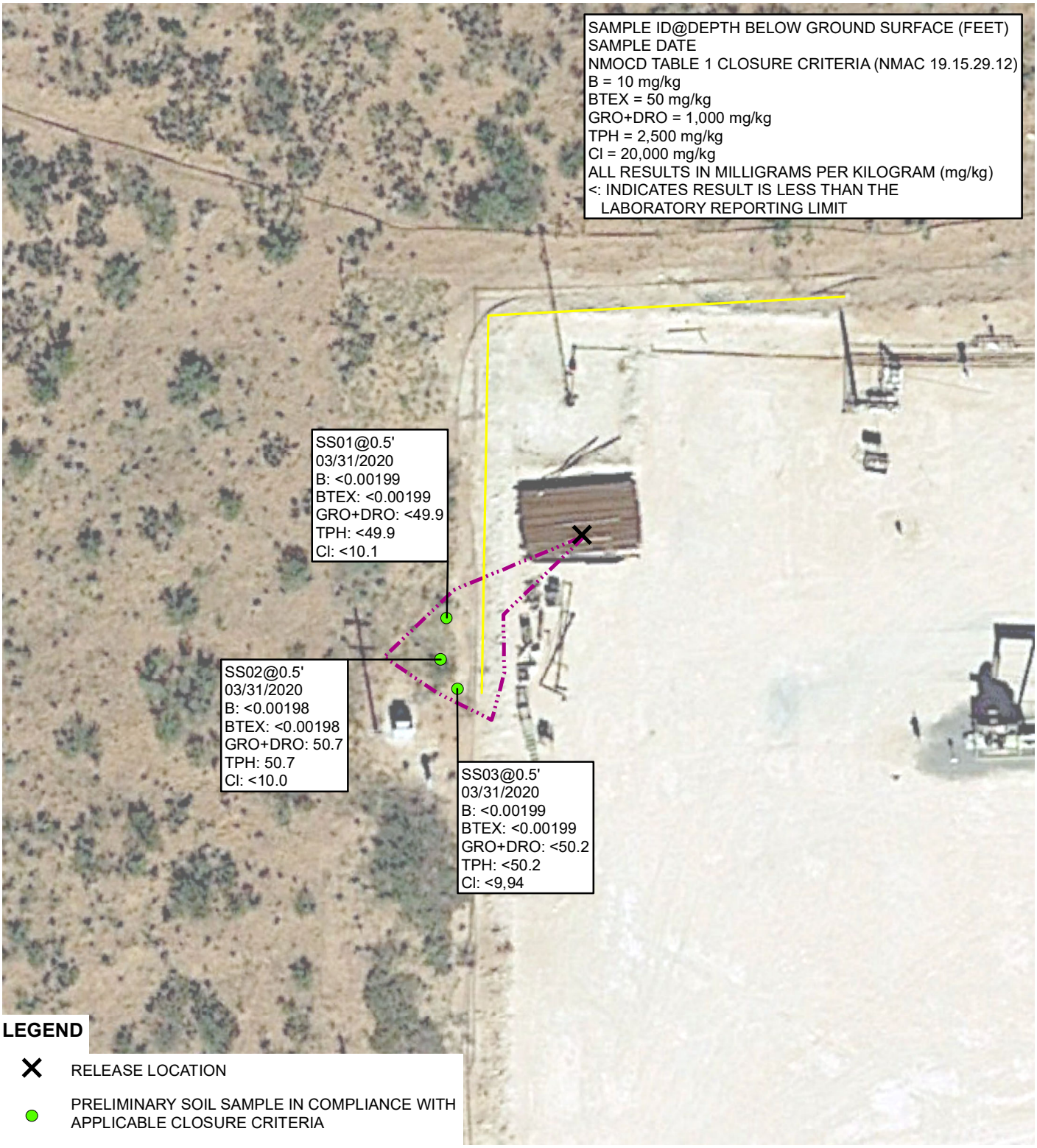
FIGURES



NOTE: INCIDENT NUMBER NCE2003758951
DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT

FIGURE 1
SITE LOCATION MAP
MIS AMIGOS CTB
UNIT O SEC 31 T23S R33E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

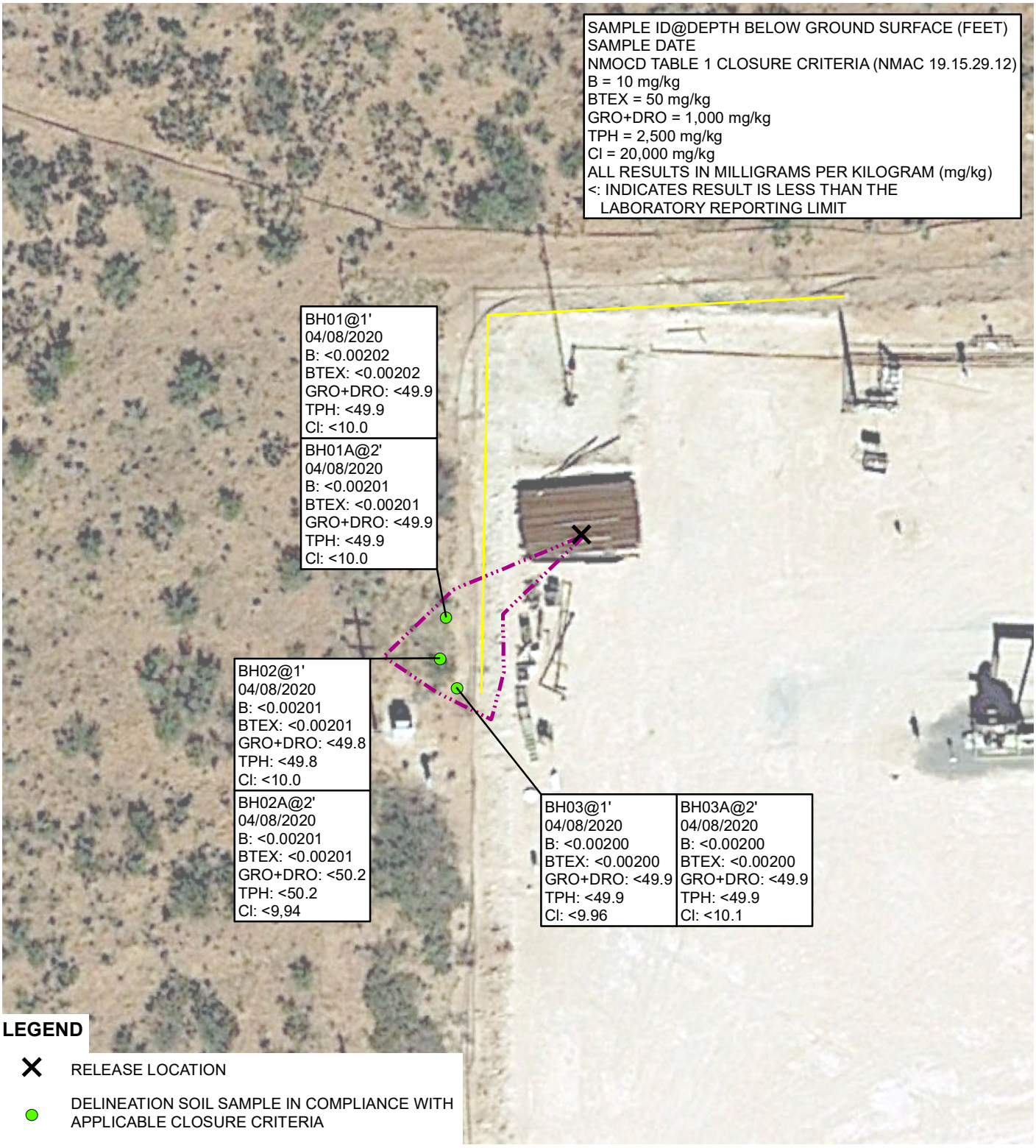
P:\XTO Energy\GIS\MXD\012920045_MIS AMIGOS CTB\012920045_FIG01_SL_2020.mxd



B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
GRO: GASOLINE RANGE ORGANICS
DRO: DIESEL RANGE ORGANICS
TPH: TOTAL PETROLEUM HYDROCARBONS
Cl: CHLORIDE
NMAC: NEW MEXICO ADMINISTRATIVE CODE
NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
NOTE: INCIDENT NUMBER NCE2003758951

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
MIS AMIGOS CTB
UNIT O SEC 31 T23S R33E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920045_MIS AMIGOS CTB\012920045_FIG02_PRELIMINARY_2020.mxd



B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
GRO: GASOLINE RANGE ORGANICS
DRO: DIESEL RANGE ORGANICS
TPH: TOTAL PETROLEUM HYDROCARBONS
Cl: CHLORIDE
NMAC: NEW MEXICO ADMINISTRATIVE CODE
NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
NOTE: INCIDENT NUMBER NCE2003758951

FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
MIS AMIGOS CTB
UNIT O SEC 31 T23S R33E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920045_MIS AMIGOS CTB\012920045_FIG03_DELINEATION_2020.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

MIS AMIGOS CTB
INCIDENT NUMBER NCE2003758951
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
SS01	0.5	03/31/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	<10.1
SS02	0.5	03/31/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	50.7	<49.9	50.7	50.7	<10.0
SS03	0.5	03/31/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	<9.94
BH01	1	04/08/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	<10.0
BH01A	2	04/08/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	<10.0
BH02	1	04/08/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	<10.0
BH02A	2	04/08/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	<9.94
BH03	1	04/08/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<9.96
BH03A	2	04/08/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<10.1

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

A proud member of WSP

ATTACHMENT 1: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Photograph 1: View of misting from flare on electric box facing southwest.

Photograph 2: View of delineation soil sampling off-pad facing northeast.

Photograph 3: View of flare stack on-pad facing north.

ATTACHMENT 2: LABORATORY ANALYTICAL REPORTS

Analytical Report 657498

for

LT Environmental, Inc.

Project Manager: Dan Moir

Mis Amigos CTB

012920045

04.07.2020

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)

04.07.2020

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

Reference: XENCO Report No(s): **657498**
Mis Amigos CTB
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 657498. 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. 657498 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 657498

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	03.31.2020 14:53	0.5 ft	657498-001
SS02	S	03.31.2020 15:07	0.5 ft	657498-002
SS03	S	03.31.2020 15:16	0.5 ft	657498-003

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Mis Amigos CTB

Project ID: *012920045*
Work Order Number(s): *657498*

Report Date: *04.07.2020*
Date Received: *04.01.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3121969 BTEX by EPA 8021B

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

Certificate of Analysis Summary 657498

LT Environmental, Inc., Arvada, CO

Project Name: Mis Amigos CTB

Project Id: 012920045
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed 04.01.2020 09:00
Report Date: 04.07.2020 12:22
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	657498-001		657498-002		657498-003					
	Field Id:	SS01		SS02		SS03					
	Depth:	0.5- ft		0.5- ft		0.5- ft					
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	03.31.2020 14:53		03.31.2020 15:07		03.31.2020 15:16					
BTEX by EPA 8021B	***Extracted:***	04.04.2020 16:52		04.04.2020 16:52		04.04.2020 16:52					
	Analyzed:	04.05.2020 18:04		04.05.2020 18:24		04.05.2020 18:44					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199				
Toluene		<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199				
Ethylbenzene		<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199				
m,p-Xylenes		<0.00398	0.00398	<0.00396	0.00396	<0.00398	0.00398				
o-Xylene		<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199				
Total Xylenes		<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199				
Total BTEX		<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199				
Chloride by EPA 300	***Extracted:***	04.06.2020 10:36		04.06.2020 10:36		04.06.2020 10:36					
	Analyzed:	04.06.2020 23:20		04.06.2020 23:38		04.06.2020 23:44					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		<10.1	10.1	<10.0	10.0	<9.94	9.94				
TPH by SW8015 Mod	***Extracted:***	04.03.2020 18:00		04.03.2020 18:00		04.03.2020 18:00					
	Analyzed:	04.04.2020 15:41		04.04.2020 16:01		04.04.2020 16:22					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<49.9	49.9	<50.2	50.2				
Diesel Range Organics (DRO)		<49.9	49.9	50.7	49.9	<50.2	50.2				
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<49.9	49.9	<50.2	50.2				
Total GRO-DRO		<49.9	49.9	50.7	49.9	<50.2	50.2				
Total TPH		<49.9	49.9	50.7	49.9	<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 657498

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	04.01.2020 09:00
Lab Sample Id:	657498-001	Date Collected:	03.31.2020 14:53	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.06.2020 10:36	Basis:	Wet Weight
Seq Number:	3122154				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	04.06.2020 23:20	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.03.2020 18:00	Basis:	Wet Weight
Seq Number:	3121987				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.04.2020 15:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.04.2020 15:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.04.2020 15:41	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	04.04.2020 15:41	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.04.2020 15:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	04.04.2020 15:41	
o-Terphenyl	84-15-1	113	%	70-135	04.04.2020 15:41	

Certificate of Analytical Results 657498

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	04.01.2020 09:00
Lab Sample Id:	657498-001	Date Collected:	03.31.2020 14:53	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.04.2020 16:52	Basis:	Wet Weight
Seq Number:	3121969				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.05.2020 18:04	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.05.2020 18:04	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.05.2020 18:04	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.05.2020 18:04	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.05.2020 18:04	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.05.2020 18:04	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.05.2020 18:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	04.05.2020 18:04	
1,4-Difluorobenzene	540-36-3	115	%	70-130	04.05.2020 18:04	

Certificate of Analytical Results 657498

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	04.01.2020 09:00
Lab Sample Id:	657498-002	Date Collected:	03.31.2020 15:07	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.06.2020 10:36	Basis:	Wet Weight
Seq Number:	3122154				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	04.06.2020 23:38	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.03.2020 18:00	Basis:	Wet Weight
Seq Number:	3121987				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.04.2020 16:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	**50.7**	49.9	mg/kg	04.04.2020 16:01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.04.2020 16:01	U	1
Total GRO-DRO	PHC628	**50.7**	49.9	mg/kg	04.04.2020 16:01		1
Total TPH	PHC635	**50.7**	49.9	mg/kg	04.04.2020 16:01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	04.04.2020 16:01	
o-Terphenyl	84-15-1	108	%	70-135	04.04.2020 16:01	

Certificate of Analytical Results 657498

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	04.01.2020 09:00
Lab Sample Id:	657498-002	Date Collected:	03.31.2020 15:07	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.04.2020 16:52	Basis:	Wet Weight
Seq Number:	3121969				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	04.05.2020 18:24	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	04.05.2020 18:24	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	04.05.2020 18:24	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	04.05.2020 18:24	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	04.05.2020 18:24	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	04.05.2020 18:24	U	1
Total BTEX		<0.00198	0.00198	mg/kg	04.05.2020 18:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	04.05.2020 18:24	
1,4-Difluorobenzene	540-36-3	115	%	70-130	04.05.2020 18:24	

Certificate of Analytical Results 657498

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	04.01.2020 09:00
Lab Sample Id:	657498-003	Date Collected:	03.31.2020 15:16	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.06.2020 10:36	Basis:	Wet Weight
Seq Number:	3122154				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.94	9.94	mg/kg	04.06.2020 23:44	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.03.2020 18:00	Basis:	Wet Weight
Seq Number:	3121987				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.04.2020 16:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.04.2020 16:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.04.2020 16:22	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.04.2020 16:22	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.04.2020 16:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	04.04.2020 16:22	
o-Terphenyl	84-15-1	128	%	70-135	04.04.2020 16:22	

Certificate of Analytical Results 657498

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	04.01.2020 09:00
Lab Sample Id:	657498-003	Date Collected:	03.31.2020 15:16	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.04.2020 16:52	Basis:	Wet Weight
Seq Number:	3121969				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.05.2020 18:44	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.05.2020 18:44	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.05.2020 18:44	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.05.2020 18:44	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.05.2020 18:44	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.05.2020 18:44	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.05.2020 18:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.05.2020 18:44	
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.05.2020 18:44	

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 657498

LT Environmental, Inc.

Mis Amigos CTB

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122154 — Matrix: Solid — Date Prep: 04.06.2020
MB Sample Id: 7700620-1-BLK — LCS Sample Id: 7700620-1-BKS — LCSD Sample Id: 7700620-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	260	104	261	104	90-110	0	20	mg/kg	04.07.2020 07:39	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122154 — Matrix: Soil — Date Prep: 04.06.2020
Parent Sample Id: 657565-001 — MS Sample Id: 657565-001 S — MSD Sample Id: 657565-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	122	199	337	108	338	109	90-110	0	20	mg/kg	04.07.2020 07:56	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122154 — Matrix: Soil — Date Prep: 04.06.2020
Parent Sample Id: 657719-001 — MS Sample Id: 657719-001 S — MSD Sample Id: 657719-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	102	200	320	109	320	109	90-110	0	20	mg/kg	04.06.2020 23:02	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3121987 — Matrix: Solid — Date Prep: 04.03.2020
MB Sample Id: 7700520-1-BLK — LCS Sample Id: 7700520-1-BKS — LCSD Sample Id: 7700520-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	878	88	940	94	70-135	7	35	mg/kg	04.04.2020 13:20	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1120	112	70-135	7	35	mg/kg	04.04.2020 13:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	89		109		116		70-135	%	04.04.2020 13:20
o-Terphenyl	97		110		116		70-135	%	04.04.2020 13:20

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3121987 — Matrix: Solid — Date Prep: 04.03.2020
MB Sample Id: 7700520-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.04.2020 14:00	

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 657498

LT Environmental, Inc.

Mis Amigos CTB

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3121987 Matrix: Soil Date Prep: 04.03.2020
Parent Sample Id: 657796-004 MS Sample Id: 657796-004 S MSD Sample Id: 657796-004 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	981	98	991	99	70-135	1	35	mg/kg	04.04.2020 14:41	
Diesel Range Organics (DRO)	<50.1	1000	1130	113	1140	114	70-135	1	35	mg/kg	04.04.2020 14:41	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		124		70-135	%	04.04.2020 14:41
o-Terphenyl	123		123		70-135	%	04.04.2020 14:41

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3121969 Matrix: Solid Date Prep: 04.04.2020
MB Sample Id: 7700541-1-BLK LCS Sample Id: 7700541-1-BKS LCSD Sample Id: 7700541-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.106	106	0.0955	96	70-130	10	35	mg/kg	04.05.2020 09:29	
Toluene	<0.00200	0.100	0.0953	95	0.0860	86	70-130	10	35	mg/kg	04.05.2020 09:29	
Ethylbenzene	<0.00200	0.100	0.0871	87	0.0785	79	71-129	10	35	mg/kg	04.05.2020 09:29	
m,p-Xylenes	<0.00400	0.200	0.169	85	0.152	76	70-135	11	35	mg/kg	04.05.2020 09:29	
o-Xylene	<0.00200	0.100	0.0874	87	0.0791	79	71-133	10	35	mg/kg	04.05.2020 09:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	114		109		108		70-130	%	04.05.2020 09:29
4-Bromofluorobenzene	91		84		87		70-130	%	04.05.2020 09:29

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3121969 Matrix: Soil Date Prep: 04.04.2020
Parent Sample Id: 657796-004 MS Sample Id: 657796-004 S MSD Sample Id: 657796-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.109	109	0.113	114	70-130	4	35	mg/kg	04.05.2020 10:10	
Toluene	<0.00200	0.0998	0.0920	92	0.0954	96	70-130	4	35	mg/kg	04.05.2020 10:10	
Ethylbenzene	<0.00200	0.0998	0.0807	81	0.0828	83	71-129	3	35	mg/kg	04.05.2020 10:10	
m,p-Xylenes	<0.00399	0.200	0.160	80	0.166	83	70-135	4	35	mg/kg	04.05.2020 10:10	
o-Xylene	<0.00200	0.0998	0.0817	82	0.0862	87	71-133	5	35	mg/kg	04.05.2020 10:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		109		70-130	%	04.05.2020 10:10
4-Bromofluorobenzene	88		88		70-130	%	04.05.2020 10:10

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

Chain of Custody

Work Order No: 657498

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:	Mis Amigos CTB	Turn Around	
Project Number:	012920045	Routine:	☑
PO #:	1/18/20 spill date	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	1.0	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:	3

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SS01	S	3/31/20	1453	0.5	1	X	X	X
SS02	S	3/31/20	1507	0.5	1	X	X	X
SS03	S	3/31/20	1516	0.5	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			4/1/20 9:05am	2		4/1/20 09:05
3				4		
5				6		

Revised Date101419 Rev. 2019.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04.01.2020 09.00.00 AM

Work Order #: 657498

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

Temperature Measuring device used : T-NM-007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 04.01.2020

Checklist reviewed by: Jessica Kramer Date: 04.01.2020

Jessica Kramer

Analytical Report 658347

for

LT Environmental, Inc.

Project Manager: Dan Moir

Mis Amigos CTB

012920045

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): **658347**
Mis Amigos CTB
Project Address: Lea 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) 658347. 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. 658347 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 658347

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	04.08.2020 10:48	1 ft	658347-001
BH01A	S	04.08.2020 10:51	2 ft	658347-002
BH02	S	04.08.2020 10:55	1 ft	658347-003
BH02A	S	04.08.2020 10:56	2 ft	658347-004
BH03	S	04.08.2020 10:58	1 ft	658347-005
BH03A	S	04.08.2020 11:00	2 ft	658347-006

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Mis Amigos CTB

Project ID: *012920045*
Work Order Number(s): *658347*

Report Date: *04.09.2020*
Date Received: *04.08.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3122412 BTEX by EPA 8021B

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

Certificate of Analysis Summary 658347

LT Environmental, Inc., Arvada, CO

Project Name: Mis Amigos CTB

Project Id: 012920045
Contact: Dan Moir
Project Location: Lea County

Date Received in Lab: Wed 04.08.2020 14:38
Report Date: 04.09.2020 12:56
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	658347-001		658347-002		658347-003		658347-004		658347-005		658347-006	
	Field Id:	BH01		BH01A		BH02		BH02A		BH03		BH03A	
	Depth:	1- ft		2- ft		1- ft		2- ft		1- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	04.08.2020 10:48		04.08.2020 10:51		04.08.2020 10:55		04.08.2020 10:56		04.08.2020 10:58		04.08.2020 11:00	
BTEX by EPA 8021B	Extracted:	04.08.2020 16:00		04.08.2020 16:00		04.08.2020 16:00		04.08.2020 16:00		04.08.2020 16:00		04.08.2020 16:00	
	Analyzed:	04.08.2020 19:04		04.08.2020 19:24		04.08.2020 19:45		04.08.2020 20:05		04.08.2020 20:25		04.08.2020 21:47	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00403	0.00403	<0.00402	0.00402	<0.00402	0.00402	<0.00402	0.00402	<0.00401	0.00401	<0.00401	0.00401
o-Xylene		<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300	Extracted:	04.08.2020 16:00		** ** ** **		** ** ** **		** ** ** **		** ** ** **		** ** ** **	
	Analyzed:	04.08.2020 16:22		04.08.2020 16:28		04.08.2020 16:33		04.08.2020 16:39		04.08.2020 16:44		04.08.2020 16:50	
	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	<10.0	10.0	<10.0	10.0	<9.94	9.94	<9.96	9.96	<10.1	10.1
TPH by SW8015 Mod	Extracted:	04.08.2020 16:30		04.08.2020 16:30		04.08.2020 16:30		04.08.2020 16:30		04.08.2020 16:30		04.08.2020 16:30	
	Analyzed:	04.08.2020 16:54		04.08.2020 17:14		04.08.2020 17:35		04.08.2020 16:54		04.08.2020 17:14		04.08.2020 17:35	
	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	<49.9	49.9	<49.8	49.8	<50.2	50.2	<49.9	49.9	<49.9	49.9
Diesel Range Organics (DRO)		<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.2	50.2	<49.9	49.9	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.2	50.2	<49.9	49.9	<49.9	49.9
Total GRO-DRO		<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.2	50.2	<49.9	49.9	<49.9	49.9
Total TPH		<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.2	50.2	<49.9	49.9	<49.9	49.9

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

Jessica Kramer
Project Manager

Certificate of Analytical Results 658347

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	04.08.2020 14:38
Lab Sample Id:	658347-001	Date Collected:	04.08.2020 10:48	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.08.2020 16:00	Basis:	Wet Weight
Seq Number:	3122416				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	04.08.2020 16:22	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.08.2020 16:30	Basis:	Wet Weight
Seq Number:	3122457				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.08.2020 16:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.08.2020 16:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.08.2020 16:54	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	04.08.2020 16:54	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.08.2020 16:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	04.08.2020 16:54	
o-Terphenyl	84-15-1	110	%	70-135	04.08.2020 16:54	

Certificate of Analytical Results 658347

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	04.08.2020 14:38
Lab Sample Id:	658347-001	Date Collected:	04.08.2020 10:48	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.08.2020 16:00	Basis:	Wet Weight
Seq Number:	3122412				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.08.2020 19:04	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.08.2020 19:04	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.08.2020 19:04	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.08.2020 19:04	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.08.2020 19:04	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.08.2020 19:04	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.08.2020 19:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.08.2020 19:04	
4-Bromofluorobenzene	460-00-4	95	%	70-130	04.08.2020 19:04	

Certificate of Analytical Results 658347

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	04.08.2020 14:38
Lab Sample Id:	658347-002	Date Collected:	04.08.2020 10:51	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.08.2020 14:00	Basis:	Wet Weight
Seq Number:	3122416				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	04.08.2020 16:28	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.08.2020 16:30	Basis:	Wet Weight
Seq Number:	3122457				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.08.2020 17:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.08.2020 17:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.08.2020 17:14	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	04.08.2020 17:14	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.08.2020 17:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	04.08.2020 17:14	
o-Terphenyl	84-15-1	102	%	70-135	04.08.2020 17:14	

Certificate of Analytical Results 658347

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	04.08.2020 14:38
Lab Sample Id:	658347-002	Date Collected:	04.08.2020 10:51	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.08.2020 16:00	Basis:	Wet Weight
Seq Number:	3122412				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.08.2020 19:24	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.08.2020 19:24	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.08.2020 19:24	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.08.2020 19:24	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.08.2020 19:24	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.08.2020 19:24	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.08.2020 19:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.08.2020 19:24	
4-Bromofluorobenzene	460-00-4	91	%	70-130	04.08.2020 19:24	

Certificate of Analytical Results 658347

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	04.08.2020 14:38
Lab Sample Id:	658347-003	Date Collected:	04.08.2020 10:55	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.08.2020 14:00	Basis:	Wet Weight
Seq Number:	3122416				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	04.08.2020 16:33	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.08.2020 16:30	Basis:	Wet Weight
Seq Number:	3122457				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.08.2020 17:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	04.08.2020 17:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.08.2020 17:35	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	04.08.2020 17:35	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	04.08.2020 17:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	04.08.2020 17:35	
o-Terphenyl	84-15-1	112	%	70-135	04.08.2020 17:35	

Certificate of Analytical Results 658347

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	04.08.2020 14:38
Lab Sample Id:	658347-003	Date Collected:	04.08.2020 10:55	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.08.2020 16:00	Basis:	Wet Weight
Seq Number:	3122412				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.08.2020 19:45	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.08.2020 19:45	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.08.2020 19:45	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.08.2020 19:45	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.08.2020 19:45	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.08.2020 19:45	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.08.2020 19:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.08.2020 19:45	
1,4-Difluorobenzene	540-36-3	113	%	70-130	04.08.2020 19:45	

Certificate of Analytical Results 658347

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	04.08.2020 14:38
Lab Sample Id:	658347-004	Date Collected:	04.08.2020 10:56	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.08.2020 14:00	Basis:	Wet Weight
Seq Number:	3122416				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.94	9.94	mg/kg	04.08.2020 16:39	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.08.2020 16:30	Basis:	Wet Weight
Seq Number:	3122441				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.08.2020 16:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.08.2020 16:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.08.2020 16:54	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.08.2020 16:54	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.08.2020 16:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	04.08.2020 16:54	
o-Terphenyl	84-15-1	113	%	70-135	04.08.2020 16:54	

Certificate of Analytical Results 658347

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	04.08.2020 14:38
Lab Sample Id:	658347-004	Date Collected:	04.08.2020 10:56	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.08.2020 16:00	Basis:	Wet Weight
Seq Number:	3122412				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.08.2020 20:05	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.08.2020 20:05	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.08.2020 20:05	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.08.2020 20:05	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.08.2020 20:05	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.08.2020 20:05	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.08.2020 20:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.08.2020 20:05	
4-Bromofluorobenzene	460-00-4	92	%	70-130	04.08.2020 20:05	

Certificate of Analytical Results 658347

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	04.08.2020 14:38
Lab Sample Id:	658347-005	Date Collected:	04.08.2020 10:58	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.08.2020 14:00	Basis:	Wet Weight
Seq Number:	3122416				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.96	9.96	mg/kg	04.08.2020 16:44	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.08.2020 16:30	Basis:	Wet Weight
Seq Number:	3122441				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.08.2020 17:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.08.2020 17:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.08.2020 17:14	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	04.08.2020 17:14	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.08.2020 17:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	04.08.2020 17:14	
o-Terphenyl	84-15-1	115	%	70-135	04.08.2020 17:14	

Certificate of Analytical Results 658347

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	04.08.2020 14:38
Lab Sample Id:	658347-005	Date Collected:	04.08.2020 10:58	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.08.2020 16:00	Basis:	Wet Weight
Seq Number:	3122412				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.08.2020 20:25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.08.2020 20:25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.08.2020 20:25	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.08.2020 20:25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.08.2020 20:25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.08.2020 20:25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.08.2020 20:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.08.2020 20:25	
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.08.2020 20:25	

Certificate of Analytical Results 658347

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	04.08.2020 14:38
Lab Sample Id:	658347-006	Date Collected:	04.08.2020 11:00	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.08.2020 14:00	Basis:	Wet Weight
Seq Number:	3122416				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	04.08.2020 16:50	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.08.2020 16:30	Basis:	Wet Weight
Seq Number:	3122441				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.08.2020 17:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.08.2020 17:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.08.2020 17:35	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	04.08.2020 17:35	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.08.2020 17:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	04.08.2020 17:35	
o-Terphenyl	84-15-1	115	%	70-135	04.08.2020 17:35	

Certificate of Analytical Results 658347

LT Environmental, Inc., Arvada, CO

Mis Amigos CTB

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	04.08.2020 14:38
Lab Sample Id:	658347-006	Date Collected:	04.08.2020 11:00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.08.2020 16:00	Basis:	Wet Weight
Seq Number:	3122412				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.08.2020 21:47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.08.2020 21:47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.08.2020 21:47	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.08.2020 21:47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.08.2020 21:47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.08.2020 21:47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.08.2020 21:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.08.2020 21:47	
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.08.2020 21:47	

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 658347

LT Environmental, Inc.

Mis Amigos CTB

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122416 — Matrix: Solid — Date Prep: 04.08.2020
MB Sample Id: 7700826-1-BLK — LCS Sample Id: 7700826-1-BKS — LCSD Sample Id: 7700826-1-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	100	98.8	99	98.3	98	90-110	1	20	mg/kg	04.08.2020 15:22	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122416 — Matrix: Soil — Date Prep: 04.08.2020
Parent Sample Id: 658302-001 — MS Sample Id: 658302-001 S — MSD Sample Id: 658302-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	109	200	325	108	320	106	90-110	2	20	mg/kg	04.08.2020 15:38	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122416 — Matrix: Soil — Date Prep: 04.08.2020
Parent Sample Id: 658347-006 — MS Sample Id: 658347-006 S — MSD Sample Id: 658347-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.1	201	217	108	216	107	90-110	0	20	mg/kg	04.08.2020 17:14	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122441 — Matrix: Solid — Date Prep: 04.08.2020
MB Sample Id: 7700886-1-BLK — LCS Sample Id: 7700886-1-BKS — LCSD Sample Id: 7700886-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1030	103	1030	103	70-135	0	35	mg/kg	04.08.2020 13:42	
Diesel Range Organics (DRO)	<50.0	1000	1170	117	1040	104	70-135	12	35	mg/kg	04.08.2020 13:42	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		125		123		70-135	%	04.08.2020 13:42
o-Terphenyl	107		124		122		70-135	%	04.08.2020 13:42

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122457 — Matrix: Solid — Date Prep: 04.08.2020
MB Sample Id: 7700884-1-BLK — LCS Sample Id: 7700884-1-BKS — LCSD Sample Id: 7700884-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	917	92	1110	111	70-135	19	35	mg/kg	04.08.2020 13:42	
Diesel Range Organics (DRO)	<50.0	1000	968	97	1080	108	70-135	11	35	mg/kg	04.08.2020 13:42	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		112		132		70-135	%	04.08.2020 13:42
o-Terphenyl	104		114		133		70-135	%	04.08.2020 13:42

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 658347

LT Environmental, Inc.

Mis Amigos CTB

Analytical Method: TPH by SW8015 Mod
Seq Number: 3122441
Prep Method: SW8015P
Matrix: Solid
Date Prep: 04.08.2020
MB Sample Id: 7700886-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.08.2020 13:21	

Analytical Method: TPH by SW8015 Mod
Seq Number: 3122457
Prep Method: SW8015P
Matrix: Solid
Date Prep: 04.08.2020
MB Sample Id: 7700884-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.08.2020 13:21	

Analytical Method: TPH by SW8015 Mod
Seq Number: 3122441
Prep Method: SW8015P
Matrix: Soil
Date Prep: 04.08.2020
Parent Sample Id: 658302-001
MS Sample Id: 658302-001 S
MSD Sample Id: 658302-001 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	959	95	957	96	70-135	0	35	mg/kg	04.08.2020 14:52	
Diesel Range Organics (DRO)	<50.3	1010	1090	108	1080	108	70-135	1	35	mg/kg	04.08.2020 14:52	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		122		70-135	%	04.08.2020 14:52
o-Terphenyl	121		121		70-135	%	04.08.2020 14:52

Analytical Method: TPH by SW8015 Mod
Seq Number: 3122457
Prep Method: SW8015P
Matrix: Soil
Date Prep: 04.08.2020
Parent Sample Id: 658302-002
MS Sample Id: 658302-002 S
MSD Sample Id: 658302-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	900	90	914	91	70-135	2	35	mg/kg	04.08.2020 14:52	
Diesel Range Organics (DRO)	<50.1	1000	975	98	996	100	70-135	2	35	mg/kg	04.08.2020 14:52	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		109		70-135	%	04.08.2020 14:52
o-Terphenyl	109		109		70-135	%	04.08.2020 14:52

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 658347

LT Environmental, Inc.

Mis Amigos CTB

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3122412 Matrix: Solid Date Prep: 04.08.2020
MB Sample Id: 7700827-1-BLK LCS Sample Id: 7700827-1-BKS LCSD Sample Id: 7700827-1-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	0.117	117	0.116	116	70-130	1	35	mg/kg	04.08.2020 15:20	
Toluene	<0.00200	0.100	0.105	105	0.105	105	70-130	0	35	mg/kg	04.08.2020 15:20	
Ethylbenzene	<0.00200	0.100	0.0968	97	0.0965	97	71-129	0	35	mg/kg	04.08.2020 15:20	
m,p-Xylenes	<0.00400	0.200	0.189	95	0.188	94	70-135	1	35	mg/kg	04.08.2020 15:20	
o-Xylene	<0.00200	0.100	0.0968	97	0.0960	96	71-133	1	35	mg/kg	04.08.2020 15:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		109		109		70-130	%	04.08.2020 15:20
4-Bromofluorobenzene	85		85		86		70-130	%	04.08.2020 15:20

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3122412 Matrix: Soil Date Prep: 04.08.2020
Parent Sample Id: 658302-001 MS Sample Id: 658302-001 S MSD Sample Id: 658302-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.109	109	0.118	118	70-130	8	35	mg/kg	04.08.2020 16:00	
Toluene	<0.00200	0.100	0.0949	95	0.102	102	70-130	7	35	mg/kg	04.08.2020 16:00	
Ethylbenzene	<0.00200	0.100	0.0830	83	0.0915	92	71-129	10	35	mg/kg	04.08.2020 16:00	
m,p-Xylenes	<0.00401	0.200	0.160	80	0.177	88	70-135	10	35	mg/kg	04.08.2020 16:00	
o-Xylene	<0.00200	0.100	0.0816	82	0.0900	90	71-133	10	35	mg/kg	04.08.2020 16:00	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		110		70-130	%	04.08.2020 16:00
4-Bromofluorobenzene	87		86		70-130	%	04.08.2020 16:00

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

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 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701
www.xenco.com

Work Order No: 658347

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:	emoreno@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:	Mis Amigos CTB	Turn Around	
Project Number:	012920045	Routine ☐	
Project Location	Lea County	Rush: 24 hrs	
Sampler's Name:	Ezequiel Moreno	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	2.5	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:	6

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Pres. Code	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
	BH01	S	4/8/20	1048	1		1	X	X	X
	BH01A			1051	2					
	BH02			1055	1					
	BH02A			1056	2					
	BH03			1058	1					
	BH03A			1100	2					

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

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
		4/8/20 14:38	2		
			4		
			6		

Revised Date 022619 Rev. 2019.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04.08.2020 02.38.00 PM

Work Order #: 658347

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)?	2.5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 04.08.2020

Checklist reviewed by: Jessica Kramer Date: 04.09.2020

Jessica Kramer

ATTACHMENT 3: LITHOLOGIC SOIL SAMPLE LOGS

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
A proud member of WSP
Compliance · Engineering · Remediation

BH or PH Name: BHO1	Date: 4/8/2020
Site Name: Mis Amigos CTB	
RP or Incident Number:	
LTE Job Number: 012920045	

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:	Field Screening: Chloride, PID	Logged By: EM	Method: Hand auger
		Hole Diameter: 6"	Total Depth: 2'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	SAND, dry, reddish brown, poorly grated, fine to very fine, no stain, no odor.
D	<173	1.8	N	BHO1	1	1		
D	<173	0.5	N	BHO1A	2	2		Total depth: 2 feet bgs

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BH or PH Name: BHO2	Date: 4/8/2020
Site Name: Mis Amigos CTB	
RP or Incident Number:	
LTE Job Number: 012920045	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: EM	Method: Hand auger		
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter: 6"	Total Depth: 2'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	SAND, dry, reddish brown, poorly grated, fine to very fine, no stain, no odor.
D	<173	4.8	N	BHO2	1	1		
D	<173	0.8	N	BHO2A	2	2		Total depth: 2 feet bgs

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BH or PH Name:	Date:
BHO3	4/8/2020
Site Name: Mis Amigos CTB	
RP or Incident Number:	
LTE Job Number: 012920045	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: EM	Method: Hand auger
Hole Diameter: 6"	Total Depth: 2'

Lat/Long:	Field Screening: Chloride, PID

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	SAND, dry, reddish brown, poorly grated, fine to very fine, no stain, no odor.
D	<173	6.4	N	BHO3	1	1		
D	<173	0.8	N	BHO3A	2	2		Total depth: 2 feet bgs