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	NCE2002756541
District RP	
Facility ID	
Application ID	

NQUX4-191202-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)*
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.201506 Longitude -103.883480
(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU 261	Site Type Well Location
Date Release Discovered 11/18/2019	API# *(if applicable)* 30-015-34877

Unit Letter	Section	Township	Range	County
J	21	24S	30E	EDDY

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls) 0.0	Volume Recovered (bbls) 0.0
☒ Produced Water	Volume Released (bbls) 141.23	Volume Recovered (bbls) 140.0
	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: The seal on the transfer pump went out and released 141.23 bbls of produced water. A vacuum truck recovered 120 bbls in the lined containment and 20 bbls outside containment. Additional third party resources have been retained to assist in the remediation.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NCE2002756541
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? YES – An unauthorized release of fluid over 25 barrels.

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

YES, by email from Adrian Baker to Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; Venegas, Victoria, EMNRD; 'blm_nm_cfo_spill@blm.gov'; 'Jim.Griswold@state.nm.us' on November 19, 2019 8:32 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:

N/A

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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 12/2/2019

email: Kyle_Littrell@xtoenergy.com Telephone:

OCD Only

Received by: Cristina Eads Date: 01/27/2020

Incident ID	NCE2002756541
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NCE2002756541
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 Coordinator_____

Signature:_____ _____ Date: ___04/20/2020_____

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

OCD Only

Received by: _____ Date: _____

Incident ID	NCE2002756541
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: 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:

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

April 24, 2020

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

RE: Closure Request Addendum
Poker Lake Unit 261
Incident Number NCE2002756541
Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following addendum to an original Closure Request submitted February 14, 2020. This addendum provides an update of delineation activities at the Poker Lake Unit 261 (Site), located in Unit J, Section 21, Township 24 South, Range 30 East, in Eddy County, New Mexico (Figure 1), in response to the denial of the closure request by the New Mexico Oil Conservation Division (NMOCD). In the denial, NMOCD required XTO confirm the lateral extent of the release did not extend off pad through the subsurface. NMOCD requested delineation samples immediately north of the release extent to confirm soil meets the reclamation requirements (New Mexico Administration Code (NMAC) 19.15.29.13). Based on additional work conducted, XTO is requesting no further action (NFA) for Incident Number NCE2002756541.

BACKGROUND

On February 14, 2020, LTE submitted a Closure Request to NMOCD for a release from a failed seal on a transfer pump, resulting in approximately 141.23 barrels (bbls) of produced water released within and around a lined containment on the caliche well pad. XTO recovered free standing fluids with a hydrovacuum and excavated approximately 6 square feet of affected soil. A total of approximately 2 cubic yards of impacted soil were removed within the release extent. LTE personnel collected preliminary, delineation, and excavation soil samples within the release extent from December 2019 to February 2020. Closure was requested due to laboratory analytical results for preliminary, delineation, and excavation soil samples indicating residual soil was compliant with the Closure Criteria.

LTE collected two discrete soil samples (SS01 and SS02) from a depth of approximately 0.5 feet below ground surface (bgs) within the affected area on December 4, 2019 (Figure 2). Soil samples SS01 and SS02 exhibited chloride concentrations of 11,100 milligrams per kilogram (mg/kg) and 15,700 mg/kg, respectively. On March 26, 2020, NMOCD denied closure, via email, for the following reason:

The OCD has denied the submitted Closure Report C-141 for incident # NCE2002756541 for the following reason:

- *Horizontal delineation has not been completed. The edges -horizontal definition- of a liquid release must be determined. A visual footprint on the surface is not sufficient or adequate to assess the horizontal extent of the release.*

Upon clarification, NMOCD explained that because the release extended to the edge of the well pad, XTO would need to collect samples off pad to ensure the release did not migrate through the subsurface and impact the top four feet of soil above the reclamation standard.

ADDITIONAL SITE ACTIVITIES

LTE conducted additional delineation sampling on April 8, 2020, to confirm the extent of the release did not reach the off-pad area. The release extent and delineation soil sample locations are depicted on Figure 3. In response to NMOCD, potholes PH01 and PH02 were advanced via track-mounted backhoe approximately 25 feet north of preliminary soil samples SS01 and SS02. Two soil samples were collected from each pothole at depths of approximately 1 foot and 2 feet bgs. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for each pothole were logged on lithologic/soil sampling logs, which are included in Attachment 1. Photographic documentation was conducted during delineation activities and are included in Attachment 2.

The delineation soil samples were placed directly into pre-cleaned glass jars, labeled with location, date, time, sampler initials, method of analysis, and immediately placed on ice. The soil samples were transported at 4 degrees Celsius (°C) under strict chain-of-custody procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of chloride by United States Environmental Protection Agency (EPA) Method 300.0. The potholes were backfilled with the soil removed.

SOIL ANALYTICAL RESULTS

Laboratory analytical results indicated delineation soil samples PH01/PH01A and PH02/PH02A collected at approximately 1-foot and 2 feet bgs were compliant with the NMOCD Table 1 Closure Criteria for chloride concentrations and meet the reclamation standards (NMAC 19.15.29.13) in the top 4 feet. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical report is included as Attachment 3.

CLOSURE REQUEST

Given the proximity to the edge of the pad where this release occurred, LTE advanced two potholes approximately 25 feet north of preliminary soil sample locations SS01 and SS02 to

confirm the lateral definition of impacts from the produced water release. Laboratory analytical results for delineation soil samples PH01/PH01A and PH02/PH02A indicated chloride concentrations were compliant with the Closure Criteria and meet the reclamation requirements (NMAC 19.15.29.13) in the top 4 feet; therefore, the release is laterally defined, and no further remedial activities are warranted.

Initial response effort and remedial activities have mitigated impacts at this Site. XTO requests NFA for Incident Number NCE2002756541.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Kalei Jennings
Project Environmental Scientist

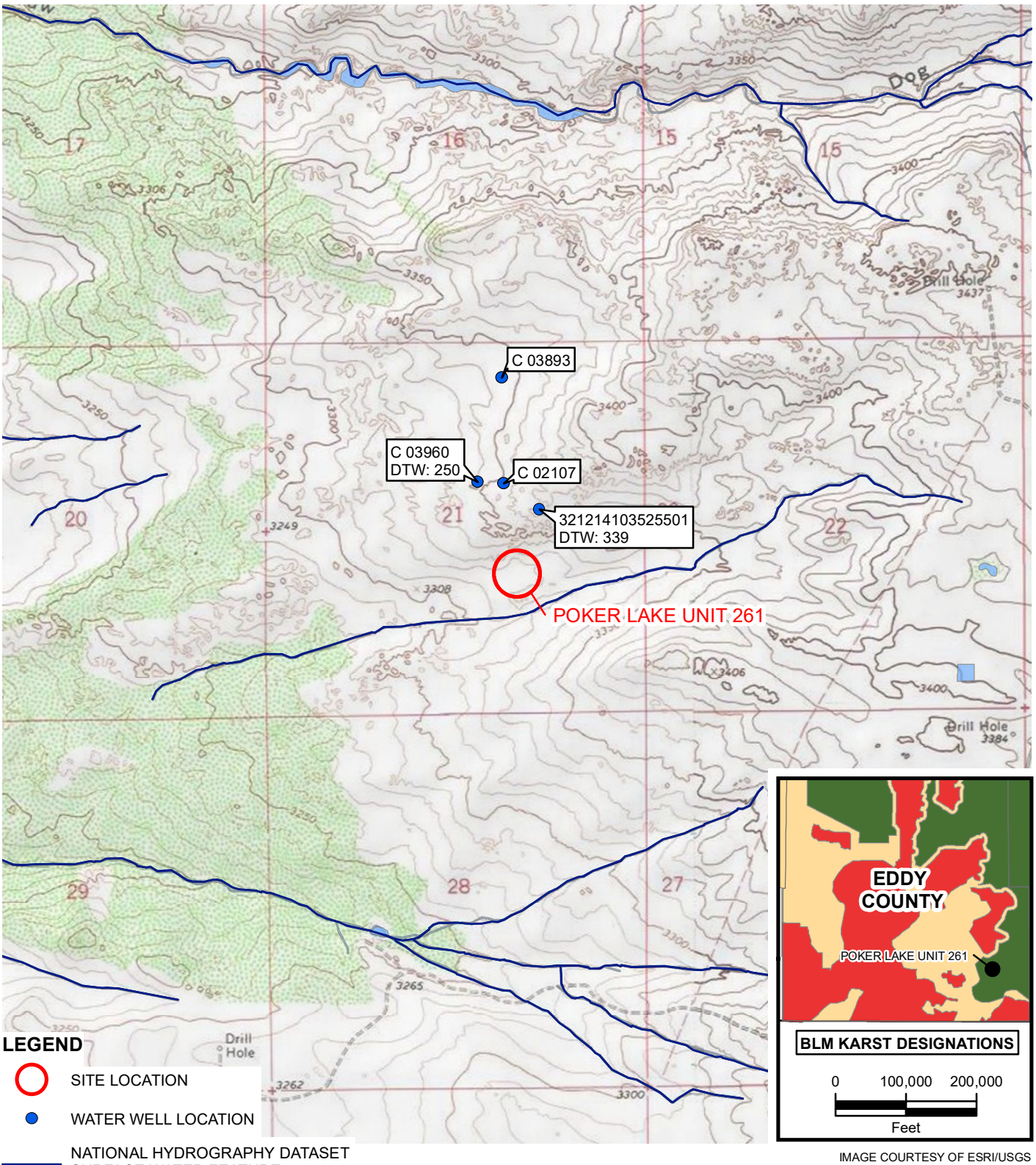
Ashley L. Ager, M.S., P.G.
Senior Geologist

cc: Kyle Littrell, XTO
United States Bureau of Land Management – New Mexico
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD
Cristina Eads, NMOCD

Appendices:

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

FIGURES



LEGEND

- SITE LOCATION
- WATER WELL LOCATION
- NATIONAL HYDROGRAPHY DATASET SURFACE WATER FEATURE
- NATIONAL WETLANDS INVENTORY SURFACE WATER FEATURE
- LOW KARST
- MEDIUM KARST
- HIGH KARST

INCIDENT NUMBER: NCE2002756541
DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT

FIGURE 1
SITE LOCATION MAP
POKER LAKE UNIT 261
UNIT J SEC 21 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919289_PLU 261\012919289_FIG01_SL_2020.mxd

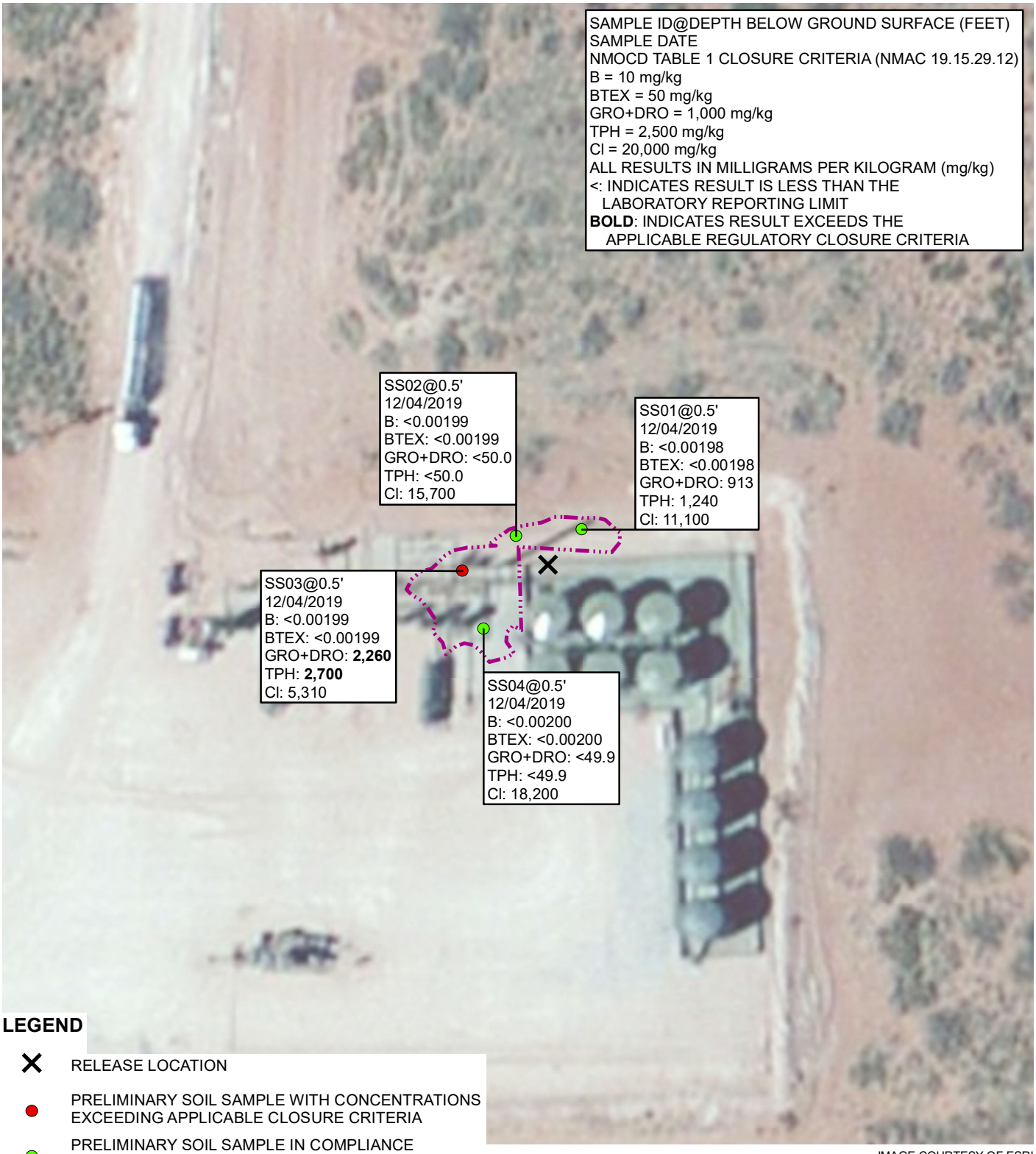
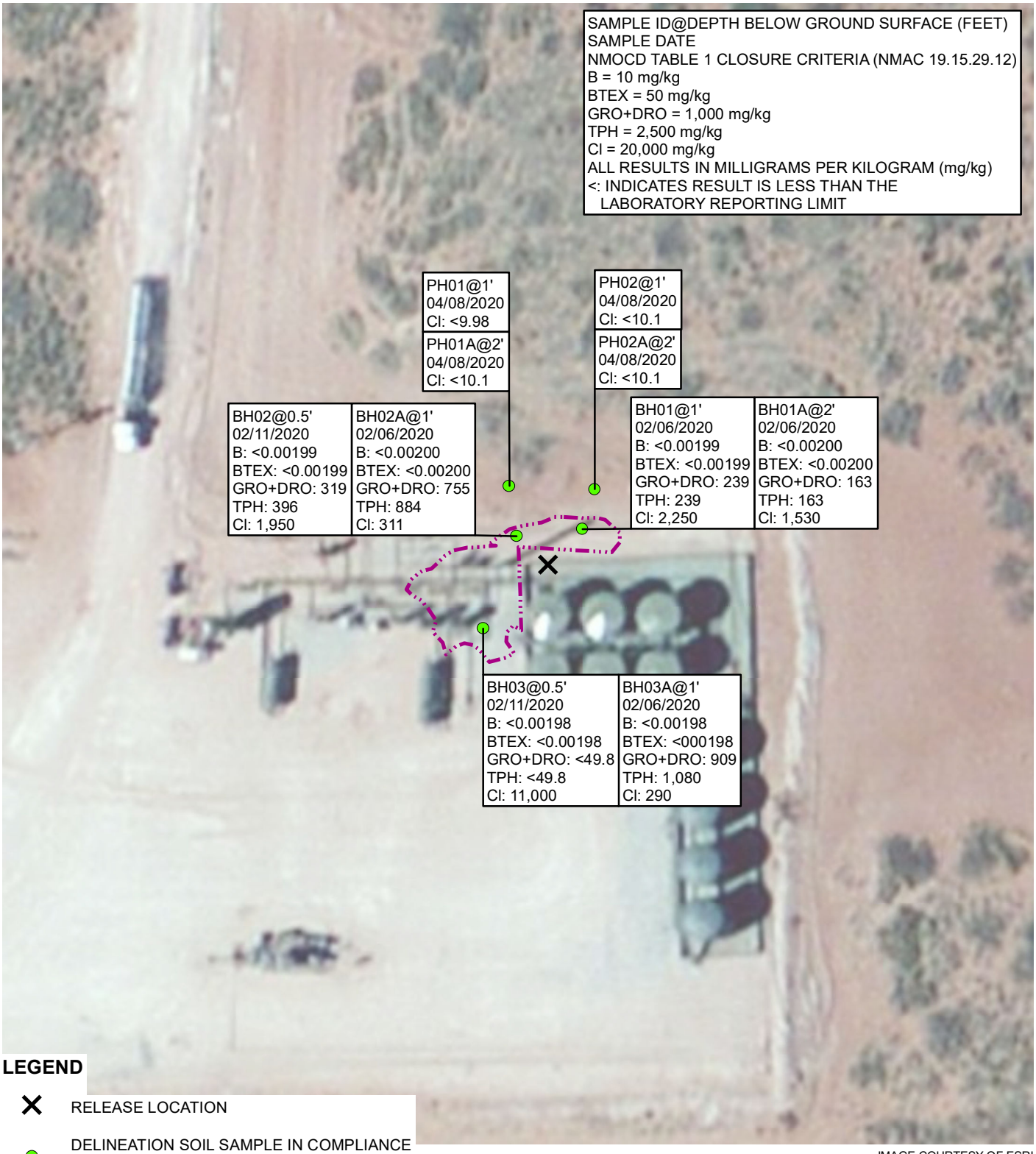


FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
POKER LAKE UNIT 261
UNIT J SEC 21 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919289_PLU 261\012919289_FIG02_PRELIMINARY_2020.mxd



LEGEND

- RELEASE LOCATION
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- RELEASE EXTENT

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
INCIDENT NUMBER: NCE2002756541

IMAGE COURTESY OF ESRI

0 50 100
Feet

N

FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
POKER LAKE UNIT 261
UNIT J SEC 21 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919289_PLU 261\012919289_FIG03_DELINEATION_2020.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

POKER LAKE UNIT 261
INCIDENT NUMBER NCE2002756541
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
SS01	0.5	12/04/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	913	325	913	1,240	11,100
SS02	0.5	12/04/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	15,700
SS03	0.5	12/04/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	2,260	438	**2,260**	**2,700**	5,310
SS04	0.5	12/04/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	18,200
BH01	1	02/06/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.3	239	<50.3	239	239	2,250
BH01A	2	02/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	163	<50.3	163	163	1,530
BH02	0.5	02/11/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	319	76.5	319	396	1,950
BH02A	1	02/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	755	129	755	884	311
BH03	0.5	02/11/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	11,000
BH03A	1	02/06/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	909	175	909	1,080	290
FS01	2	02/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	326	58.7	326	385	262
SW01	0 - 2	02/06/2020	<0.00198	0.00368	0.0169	0.0223	0.0429	<50.0	1,140	145	**1,140**	1,290	381
SW02	0 - 2	02/11/2020	<0.00199	<0.00199	0.00209	<0.00199	0.00209	<49.8	915	143	915	1,060	2,460
PH01	1	04/08/2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<9.98
PH01A	2	04/08/2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<10.1
PH02	1	04/08/2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<10.1
PH02A	2	04/08/2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<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

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ATTACHMENT 1: 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: PH01	Date: 4/8/2020
Site Name:	PLU 261
RP or Incident Number:	NCE2002756541
LTE Job Number:	12919289

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: SL	Method: trackhoe		
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
	<186	5	N	PH01	1'	1		Sand, no odor, no stain, m.-f., poorly graded, trace silt, brown, moist
	<186	4.6	N	PH01A	2'	2		Sand, no odor, no stain, m.-f., poorly graded, trace silt, brown, moist
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

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

BH or PH Name: PH02	Date: 4/8/2020
Site Name:	PLU 261
RP or Incident Number:	NCE2002756541
LTE Job Number:	12919289

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: SL	Method: trackhoe		
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
	<186	1.3	N	PH02	1'	1		Sand, no odor, no stain, m.-f., poorly graded, trace silt, brown, moist
	<186	1.3	N	PH02A	2'	2		Sand, no odor, no stain, m.-f., poorly graded, trace silt, brown, moist
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

ATTACHMENT 2: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Photograph 1: View of delineation soil sample PH01 facing south.

Photograph 2: View of delineation soil sample PH01 facing west.

Photograph 3: View of delineation soil sample PH02 facing east.

Photograph 4: View of delineation soil sample PH02 facing north.

PLU 261
NCE2002756541
Photographs Taken: April 8, 2020

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ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS

Analytical Report 658376

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 261

012919289

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): **658376**
PLU 261
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) 658376. 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. 658376 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 658376

LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	04.08.2020 14:00	1 ft	658376-001
PH01A	S	04.08.2020 14:10	2 ft	658376-002
PH02	S	04.08.2020 14:25	1 ft	658376-003
PH02A	S	04.08.2020 14:35	2 ft	658376-004

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 261

Project ID: *012919289*
Work Order Number(s): *658376*

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

Certificate of Analysis Summary 658376

LT Environmental, Inc., Arvada, CO

Project Name: PLU 261

Project Id: 012919289
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed 04.08.2020 16:22
Report Date: 04.09.2020 12:55
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	658376-001		658376-002		658376-003		658376-004					
	Field Id:	PH01		PH01A		PH02		PH02A					
	Depth:	1- ft		2- ft		1- ft		2- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	04.08.2020 14:00		04.08.2020 14:10		04.08.2020 14:25		04.08.2020 14:35					
Chloride by EPA 300	***Extracted:***	04.08.2020 18:00		04.08.2020 18:00		04.08.2020 18:00		04.08.2020 18:00					
	Analyzed:	04.08.2020 23:41		04.08.2020 23:59		04.09.2020 00:05		04.09.2020 00:11					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		<9.98	9.98	<10.1	10.1	<10.1	10.1	<10.1	10.1				

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Jessica Kramer
Project Manager

Certificate of Analytical Results 658376

LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	04.08.2020 16:22
Lab Sample Id:	658376-001	Date Collected:	04.08.2020 14:00	Sample Depth:	1 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.08.2020 18:00	Basis:	Wet Weight
Seq Number:	3122420				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	04.08.2020 23:41	U	1

Certificate of Analytical Results 658376

LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	04.08.2020 16:22
Lab Sample Id:	658376-002	Date Collected:	04.08.2020 14:10	Sample Depth:	2 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.08.2020 18:00	Basis:	Wet Weight
Seq Number:	3122420				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	04.08.2020 23:59	U	1

Certificate of Analytical Results 658376

LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	04.08.2020 16:22
Lab Sample Id:	658376-003	Date Collected:	04.08.2020 14:25	Sample Depth:	1 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.08.2020 18:00	Basis:	Wet Weight
Seq Number:	3122420				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	04.09.2020 00:05	U	1

Certificate of Analytical Results 658376

LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	04.08.2020 16:22
Lab Sample Id:	658376-004	Date Collected:	04.08.2020 14:35	Sample Depth:	2 ft
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.08.2020 18:00	Basis:	Wet Weight
Seq Number:	3122420				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	04.09.2020 00:11	U	1

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 658376

LT Environmental, Inc.

PLU 261

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3122420 Matrix: Solid Date Prep: 04.08.2020
MB Sample Id: 7700870-1-BLK LCS Sample Id: 7700870-1-BKS LCSD Sample Id: 7700870-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	259	104	262	105	90-110	1	20	mg/kg	04.08.2020 21:43	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3122420 Matrix: Soil Date Prep: 04.08.2020
Parent Sample Id: 658368-050 MS Sample Id: 658368-050 S MSD Sample Id: 658368-050 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	271	199	488	109	487	109	90-110	0	20	mg/kg	04.08.2020 22:00	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3122420 Matrix: Soil Date Prep: 04.08.2020
Parent Sample Id: 658368-060 MS Sample Id: 658368-060 S MSD Sample Id: 658368-060 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.94	199	213	107	214	108	90-110	0	20	mg/kg	04.08.2020 23:23	

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

XENCO LABORATORIES

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

Work Order No: 605837Co

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

Work Order Comments

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

Project Name:	PLU 261	Turn Around	
Project Number:	012919289	Routine ☐	
P.O. Number:		Rush: 24H	
Sampler's Name:	Spencer Lo	Due Date:	

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

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH01	S	4.8.20	1400	1'	1			X
PH01A	S	4.8.20	1410	2'	1			X
PH02	S	4.8.20	1425	1'	1			X
PH02A	S	4.8.20	1435	2'	1			X

Work Order Notes

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

Sample Comments

Analyze for Chloride only

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 1610	2		4/8/20 16:22
			4		
			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04.08.2020 04.22.00 PM

Work Order #: 658376

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

Temperature Measuring device used : T-NM-007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 04.08.2020

Checklist reviewed by: Jessica Kramer Date: 04.09.2020

Jessica Kramer