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	NRM2012229165
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # *(assigned by OCD)*
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# *(if applicable)*

Unit Letter	Section	Township	Range	County

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)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release		

State of New Mexico
Oil Conservation Division

Incident ID	NRM2012229165
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?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

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:

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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Ramona Marcus Date: 5/1/2020

NRM2012229165

Location:	Corral Canyon #212 Gas Lift	
Spill Date:	4/17/2020	

Area 1		
Approximate Area =	1268.00	sq. ft.
Average Saturation (or depth) of spill =	0.50	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Produced Water =	4.38	bbls

Area 2		
Approximate Area =	317.00	sq. ft.
Average Saturation (or depth) of spill =	2.00	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Produced Water =	0.28	bbls

Area 3		
Approximate Area =	2480.00	sq. ft.
Average Saturation (or depth) of spill =	0.50	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Produced Water =	0.55	bbls

TOTAL VOLUME OF LEAK		
Total Produced Water =	**5.21**	**bbls**
TOTAL VOLUME RECOVERED		
Total Produced Water =	**4.10**	**bbls**

State of New Mexico
Oil Conservation Division

Incident ID	NRM2012229165
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	NRM2012229165
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: 7/7/20

email: Kyle_Littrell@xtoenergy.com Telephone:

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NRM2012229165
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: Kyle Littrell Date: 5/7/20

email: Kyle_Littrell@xtoenergy.com Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

A proud member of WSP

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

July 9, 2020

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

RE: Closure Request
Corral Canyon 212H Gas Lift
Incident Number NRM2012229165
Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment, soil sampling, and remediation activities at the Corral Canyon 212H Gas Lift (Site) in Unit B, Section 16, Township 25 South, Range 29 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, remediation and soil sampling activities was to confirm the presence or absence of impact to soil by a release of produced water at the Site. Based on field observations, field screening, and laboratory analytical results from soil sampling activities, XTO is submitting this Closure Request and requesting no further action (NFA) for Incident Number NRM2012229165.

RELEASE BACKGROUND

On April 17, 2020, a scrubber tank took excess fluid and overfilled, resulting in the release of 5.21 barrels (bbls) of produced water on to the well pad. A vacuum truck was immediately dispatched to the Site to recover freestanding fluids; approximately 4.1 bbls of produced water was recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Form C-141 on April 29, 2020 and was subsequently assigned Incident Number NRM2012229165.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 320739103584201, located approximately 0.8 miles southeast of the Site. The groundwater well has a reported depth to groundwater of 140 feet bgs and a total depth of 192 feet bgs. There are eight groundwater wells located within a 1.5-mile radius of the site that indicate regional depth

to groundwater is greater than 50 feet bgs. New Mexico Office of the State Engineer (NMOSE) well C-04324, located 1.2 miles northwest of the Site, was most recently measured in August 2019 and had a reported depth to water of 65 feet bgs. The referenced well records are included in Attachment 1. All wells used for depth to groundwater determination are depicted on Figure 1.

The closest continuously flowing water or significant watercourse to the Site is an intermittent streambed, located approximately 502 feet east of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On May 14, 2020, LTE personnel visited the Site to evaluate the release extent. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positing System (GPS). The release occurred on the northeast side of the pad around the scrubber tank. LTE personnel collected and field screened four preliminary soil assessment samples at four locations (SS01 through SS04) within the release extent. Locations of soil samples are presented on Figure 2.

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

Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

According to laboratory analytical results, total BTEX, TPH-GRO and TPH-DRO, and TPH were reported at concentrations above the Closure Criteria in the preliminary assessment soil sample SS02. Soil samples indicate benzene, BTEX, TPH-GRO and TPH-DRO, TPH, and chloride concentrations in preliminary samples SS01, SS03, and SS04 were compliant with Closure Criteria. Based on visible staining in the release areas, field screening results, and laboratory analytical results, soil delineation and excavation appeared to be warranted for the release area.

EXCAVATION AND DELINEATION SOIL SAMPLING ACTIVITIES

On June 2, 2020, LTE oversaw excavation activities to remediate impacted soil as indicated by visual observations, field screening results, and preliminary soil sample results. Excavation activities were performed using track-mounted backhoe and transport vehicle in the above referenced impacted area (near SS02). The excavation was located on the eastern side of the well pad. Photographic documentation was conducted during the visit to the Site and is included in Attachment 2.

Following removal of impacted soil, LTE collected 5-point composite soil samples at least every 200 square feet from the sidewalls and floor of the excavations. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. A total of one composite floor soil sample (FS01) and four composite sidewall samples (SW01 through SW04) were collected from the excavations. The floor sample was collected at a depth of 2 feet bgs and sidewall samples were collected at depths of ground surface to 2 feet bgs. The excavation soil samples were collected, handled, and analyzed as described above. The locations of final excavation confirmation samples are presented on Figure 3.

The excavation extent totaled approximately 306 square feet. A total of approximately 22 cubic yards of impacted soil were removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility located in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing.

In addition, vertical delineation sampling was conducted on June 2, 2020 to investigate the presence or absence of impacted soil in the subsurface of the footprint of the release. Three potholes (PH01, PH03, and PH04) were advanced to a depth of 1-foot bgs in the general vicinity of preliminary soil samples SS01, SS03, and SS04. One discrete soil sample was collected at 1-foot bgs from each pothole utilizing a track mounted backhoe. Soil from the potholes was field screened and logged on lithologic/soil sampling logs, which are included in Attachment 3. The

locations of delineation potholes are presented on Figure 2. The discrete delineation soil samples were collected, handled, and analyzed as described above at Xenco in Carlsbad, New Mexico.

ANALYTICAL RESULTS

Laboratory analytical results indicated benzene, BTEX, TPH-GRO, TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria at the completion of the excavation activities in all composite floor and sidewall soil samples. In addition, analytical results for the three subsurface soil samples from the potholes were compliant with the Closure Criteria. The laboratory analytical results are summarized in Table 1 and the laboratory data reports are provided in Attachment 4.

CONCLUSIONS

Initial and follow-up response efforts conducted after the release of produced water included removal of freestanding fluid via a hydrovac truck, collection of delineation soil samples, and removal of waste-containing soil. Laboratory analytical results indicated total BTEX, TPH-GRO and TPH-DRO, and TPH concentrations were above the Closure Criteria in the location of preliminary soil sample SS02. As such, waste-containing soil was removed from the release extent in that location to a depth of approximately 2 feet bgs. Excavation composite samples indicate benzene, BTEX, TPH GRO and TPH DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. A total of approximately 22 cubic yards of waste-containing soil was excavated and transported to a permitted land farm. As such, XTO respectfully requests NFA for Incident Number NRM2012229165.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Elizabeth Naka
Staff Environmental Scientist

Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
United States Bureau of Land Management
Robert Hamlet, NMOCD

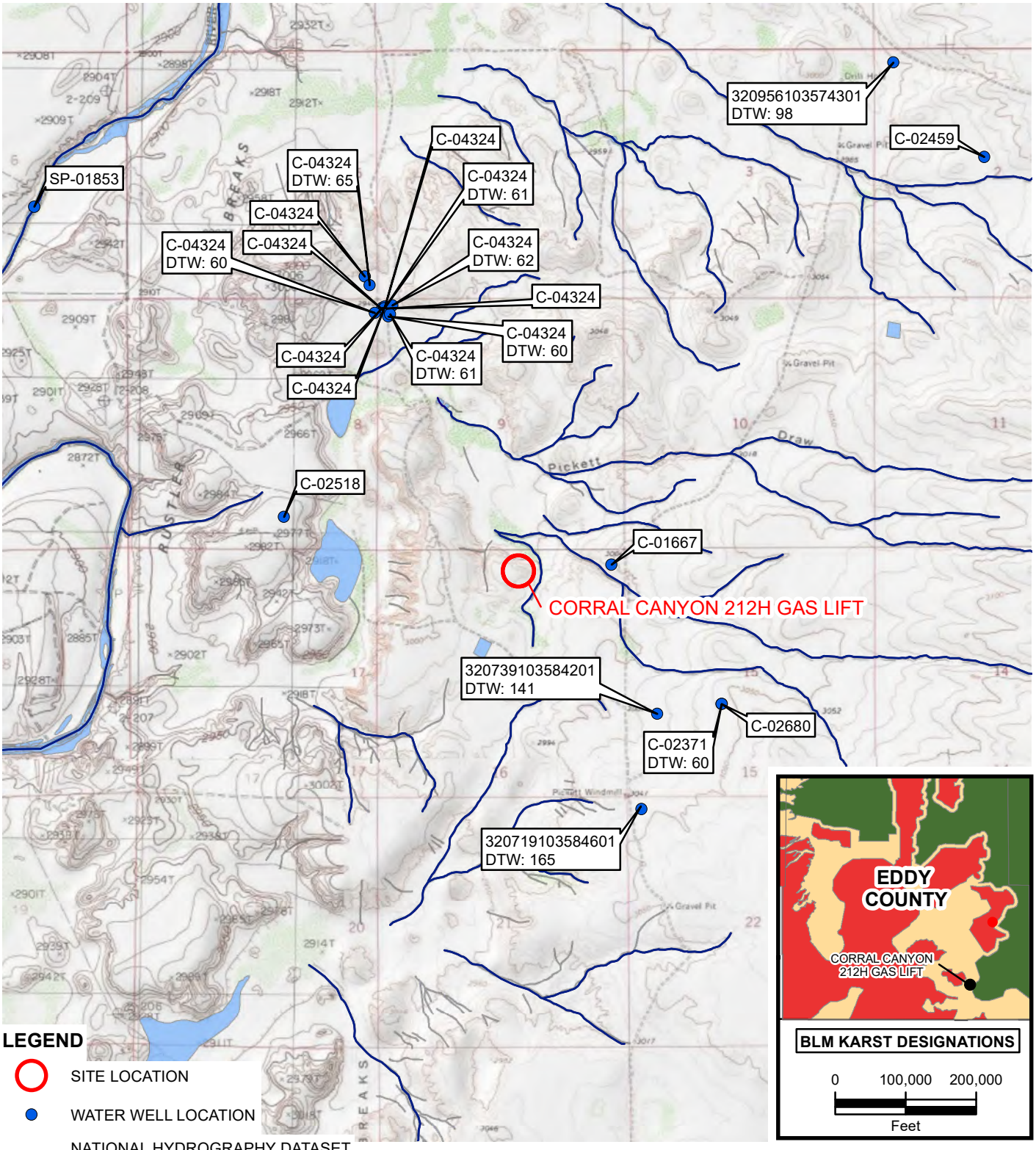
A proud member of WSP

Victoria Venegas, NMOCD

Appendices:

Figure 1	Site Location Map
Figure 2	Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Referenced Well Records
Attachment 2	Photographic Log
Attachment 3	Laboratory Analytical Results
Attachment 4	Lithologic/Soil Sampling Logs

FIGURES



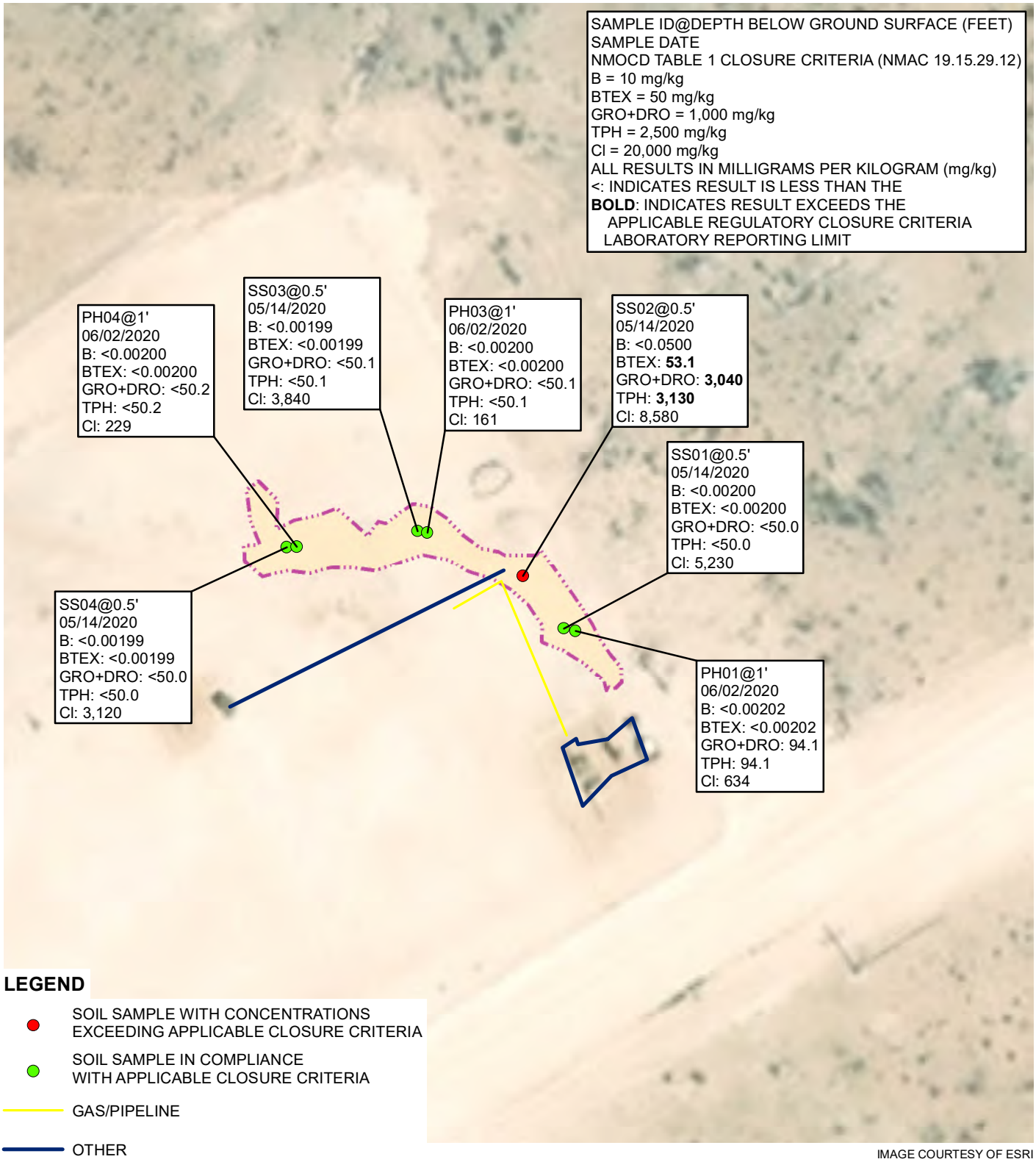
LEGEND

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

NOTE: INCIDENT NUMBER NRM2012229165
DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT

FIGURE 1
SITE LOCATION MAP
CORRAL CANYON 212H GAS LIFT
UNIT B SEC 16 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

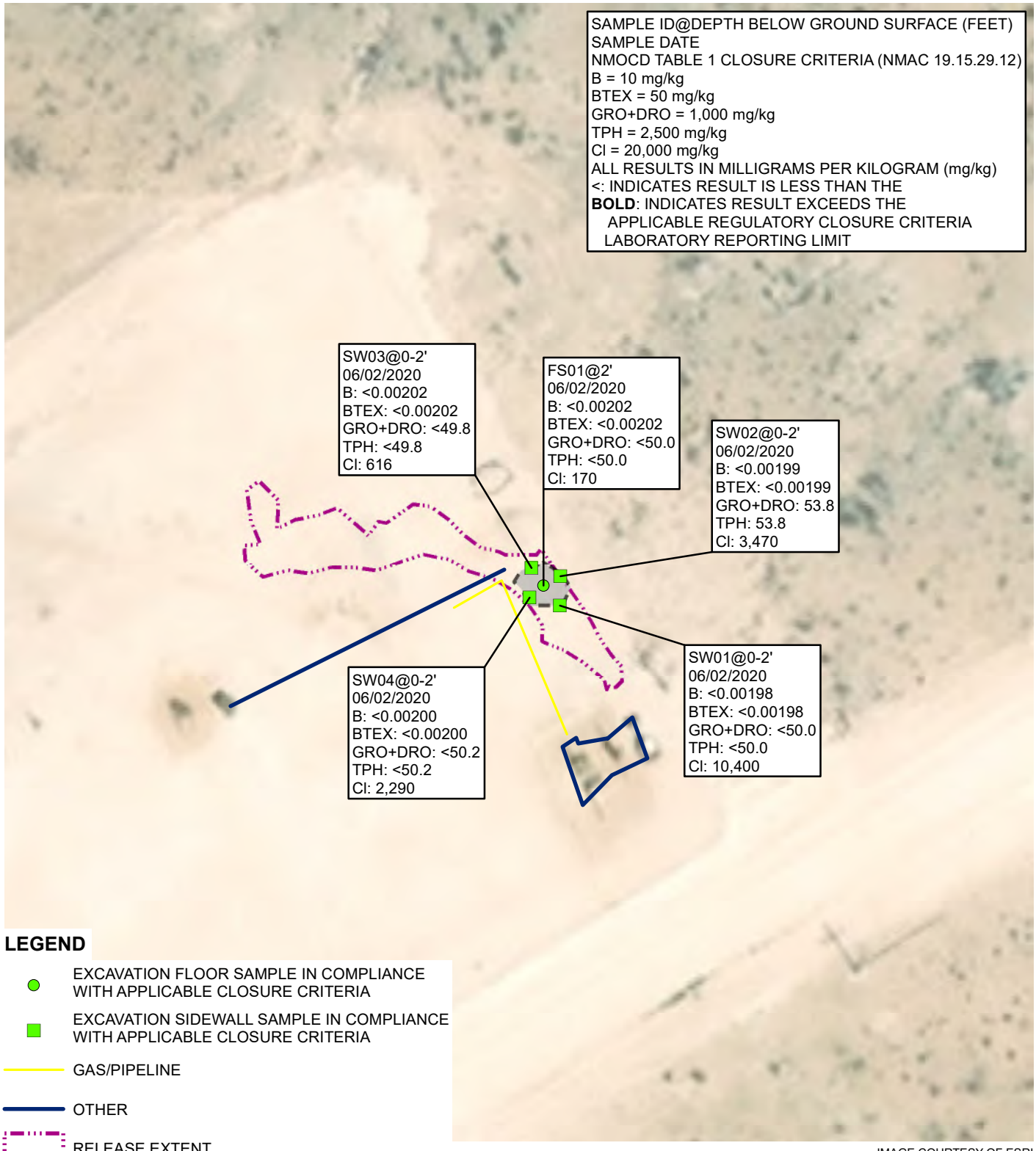
P:\XTO Energy\GIS\MXD\012920076_CORRAL CANYON 212H GAS LIFT\012920076_FIG01_SL_RECEPTOR_2020.mxd



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 NRM2012229165

FIGURE 2
SOIL SAMPLE LOCATIONS
CORRAL CANYON 212H GAS LIFT
UNIT B SEC 16 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920076_CORRAL CANYON 212H GAS LIFT\012920076_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 NRM2012229165

FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
CORRAL CANYON 212H GAS LIFT
UNIT B SEC 16 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920076_CORRAL CANYON 212H GAS LIFT\012920076_FIG03_EXCAVATION_2020.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

CORRAL CANYON 212H GAS LIFT
INCIDENT NUMBER NRM2012229165
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
SS01	0.5	05/14/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	5,230
SS02	0.5	05/14/2020	<0.0500	12.0	12.8	28.3	**53.1**	2,680	358	93.0	**3,040**	**3,130**	8,580
SS03	0.5	05/14/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	3,840
SS04	0.5	05/14/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	3,120
PH01	1	06/02/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	94.1	<49.8	94.1	94.1	634
PH03	1	06/02/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	161
PH04	1	06/02/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	229
FS01	2	06/02/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	170
SW01	0 - 2	06/02/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	10,400
SW02	0 - 2	06/02/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	53.8	<49.9	53.8	53.8	3,470
SW03	0 - 2	06/02/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	616
SW04	0 - 2	06/02/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	2,290

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
Greyed data represents samples that were excavated

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ATTACHMENT 1: REFERENCED WELL RECORDS

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
NA	C 04324 POD8	4	4	4	05	25S	29E	594442	3557807

x

Driller License: 1664 **Driller Company:** CASCADE DRILLING, LP

Driller Name: CAIN, SHAWN N.NJR.L.NER

Drill Start Date: 07/21/2019 **Drill Finish Date:** 07/21/2019 **Plug Date:**

Log File Date: 08/28/2019 **PCW Rcv Date:** **Source:** Shallow

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

Casing Size: 2.06 **Depth Well:** 69 feet **Depth Water:** 65 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	60	69	Shale/Mudstone/Siltstone

x

Casing Perforations:	Top	Bottom
	49	69

x

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
NA	C 04324 POD9	1	1	1	09	25S	29E	594590	3557676

x

Driller License: 1664 **Driller Company:** CASCADE DRILLING, LP

Driller Name: CAIN, SHAWN N.NJR.L.NER

Drill Start Date: 07/21/2019 **Drill Finish Date:** 07/21/2019 **Plug Date:**

Log File Date: 08/28/2019 **PCW Rcv Date:** **Source:** Shallow

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

Casing Size: 2.06 **Depth Well:** 72 feet **Depth Water:** 62 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	45	72	Shale/Mudstone/Siltstone

x

Casing Perforations:	Top	Bottom
	57	72

x

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
NA	C 04324 POD10	1	1	1	09	25S	29E	594563	3557603

x

Driller License: 1664 **Driller Company:** CASCADE DRILLING, LP

Driller Name: CAIN, SHAWN N.NJR.L.NER

Drill Start Date: 07/20/2019 **Drill Finish Date:** 07/21/2019 **Plug Date:**

Log File Date: 08/28/2019 **PCW Rcv Date:** **Source:** Shallow

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

Casing Size: 2.06 **Depth Well:** 65 feet **Depth Water:** 60 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	60	65	Shale/Mudstone/Siltstone

x

Casing Perforations:	Top	Bottom
	45	65

x

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
NA	C 04324 POD11	1	1	1	09	25S	29E	594576	3557619

x

Driller License: 1664 **Driller Company:** CASCADE DRILLING, LP

Driller Name: CAIN, SHAWN N.NJR.L.NER

Drill Start Date: 07/20/2019 **Drill Finish Date:** 07/20/2019 **Plug Date:**

Log File Date: 08/28/2019 **PCW Rcv Date:** **Source:** Shallow

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

Casing Size: 2.06 **Depth Well:** 61 feet **Depth Water:** 61 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	46	61	Limestone/Dolomite/Chalk

x

Casing Perforations:	Top	Bottom
	41	61

x

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
NA	C 04324 POD12	2	2	2	08	25S	29E	594476	3557627

x

Driller License: 1664 **Driller Company:** CASCADE DRILLING, LP

Driller Name: CAIN, SHAWN N.NJR.L.NER

Drill Start Date: 07/19/2019 **Drill Finish Date:** 07/20/2019 **Plug Date:**

Log File Date: 08/28/2019 **PCW Rcv Date:** **Source:** Shallow

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

Casing Size: 2.06 **Depth Well:** 65 feet **Depth Water:** 60 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	60	65	Limestone/Dolomite/Chalk

x

Casing Perforations:	Top	Bottom
	45	65

x

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twsp	Rng	X	Y
NA	C 04324 POD6	1	1	1	09	25S	29E	594538	3557657

x

Driller License: 1664 **Driller Company:** CASCADE DRILLING, LP

Driller Name: CAIN, SHAWN N.NJR.L.NER

Drill Start Date: 07/18/2019 **Drill Finish Date:** 07/18/2019 **Plug Date:**

Log File Date: 08/28/2019 **PCW Rcv Date:** **Source:** Shallow

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

Casing Size: 2.67 **Depth Well:** 62 feet **Depth Water:** 61 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	48	62	Limestone/Dolomite/Chalk

x

Casing Perforations:	Top	Bottom
	47	62

x

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 02371		2	3	15	25S	29E	596741	3555106*

x

Driller License: 1259 **Driller Company:** CAMPBELL DRILLING

Driller Name: CAMPBELL, MICHAEL R.

Drill Start Date: 01/12/1995 **Drill Finish Date:** 01/24/1995 **Plug Date:**

Log File Date: 02/01/1995 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 20 GPM

Casing Size: 7.00 **Depth Well:** 200 feet **Depth Water:** 60 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	162	200	Sandstone/Gravel/Conglomerate

x

Casing Perforations:	Top	Bottom
	140	200

x

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

USGS 320719103584601 25S.29E.16.44444

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°07'19", Longitude 103°58'46" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 200 feet
Land surface altitude: 3,042 feet above NAVD88.
Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

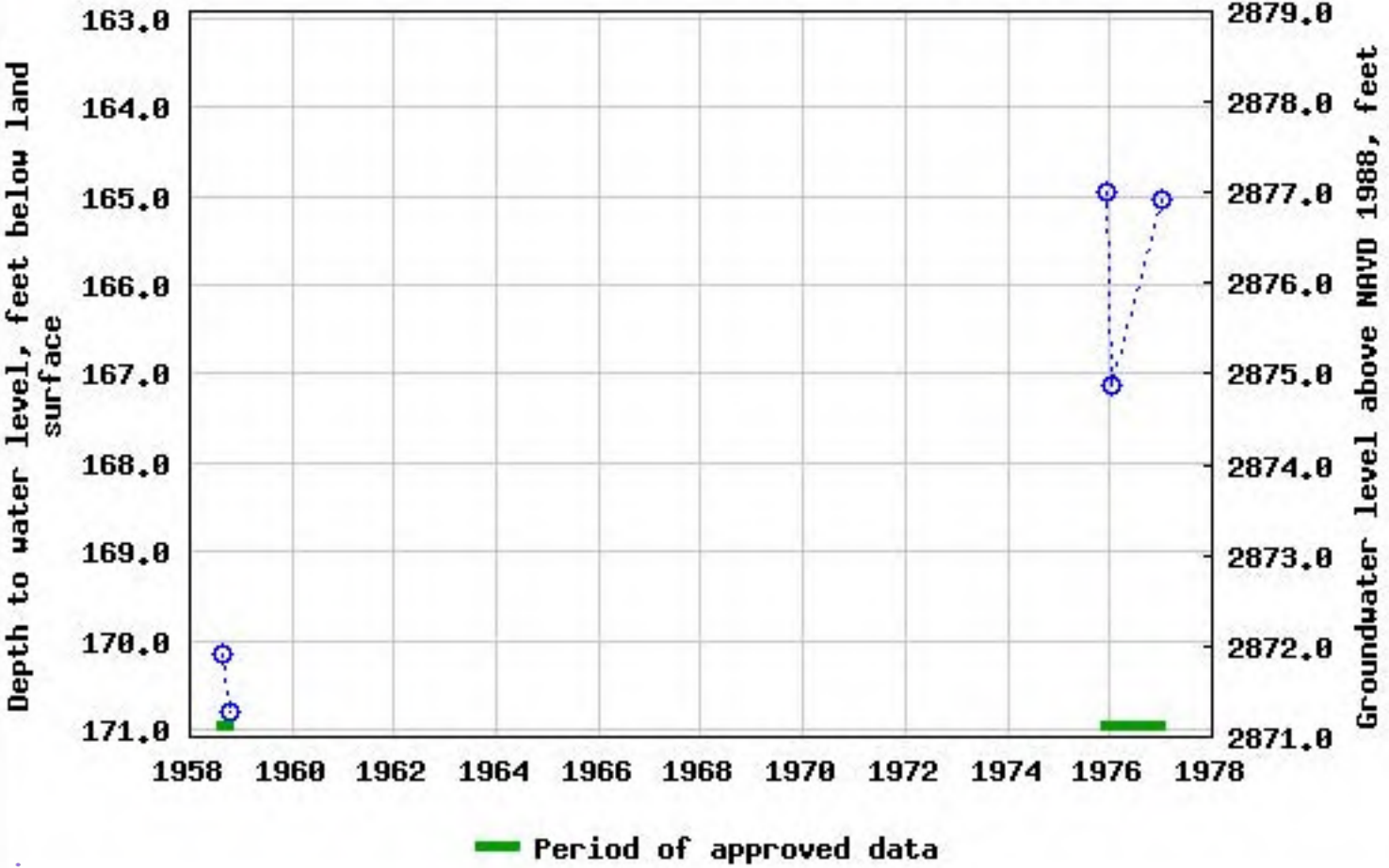
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1958-08-19	1977-01-14	5
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

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

USGS

USGS 320719103584601 25S.29E.16.44444



USGS 320739103584201 25S.29E.15.31134

Available data for this site

Well Site

DESCRIPTION:

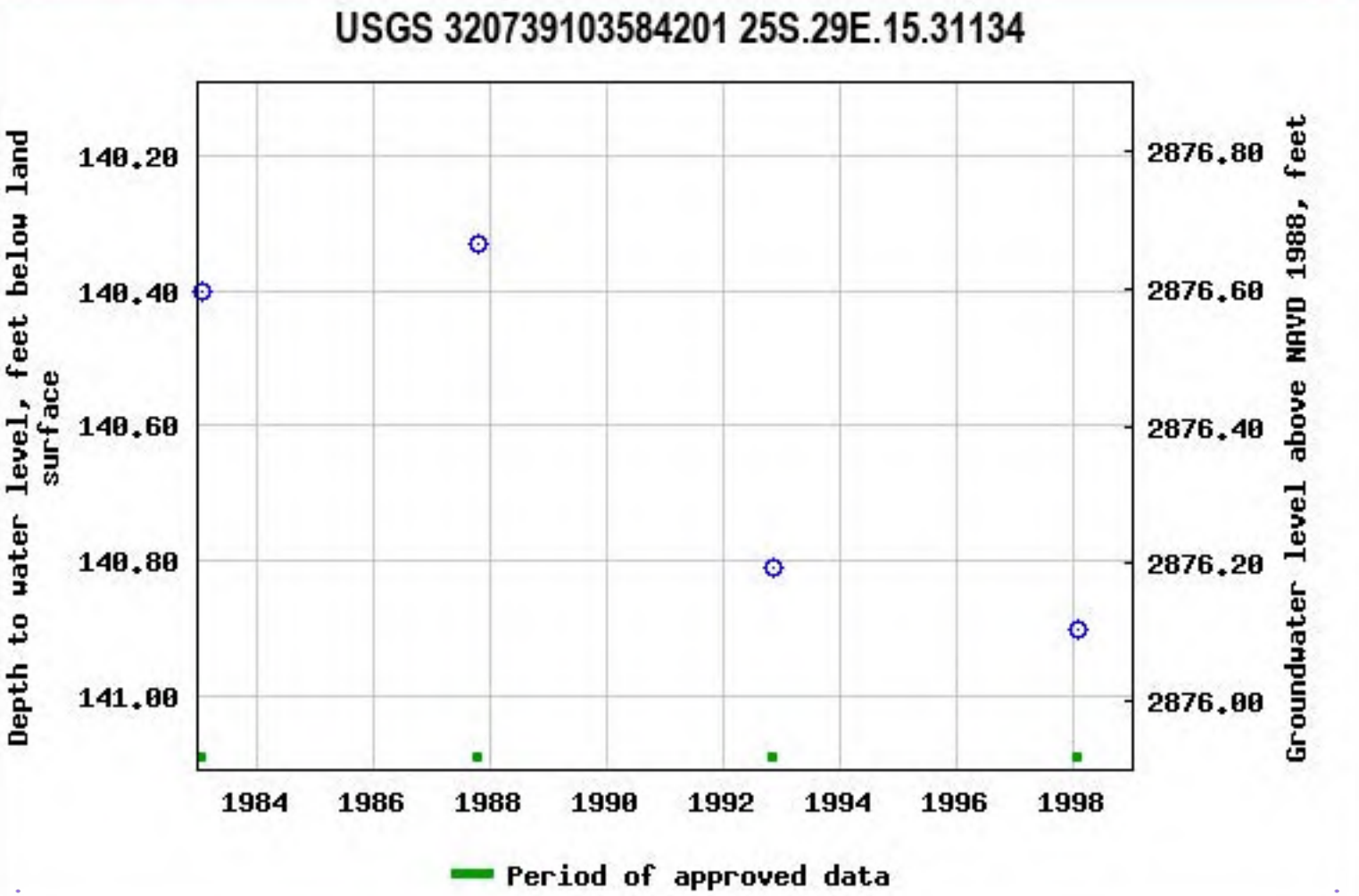
Latitude 32°07'39", Longitude 103°58'42" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 192 feet
Land surface altitude: 3,017 feet above NAVD88.
Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1983-02-01	1998-01-29	4
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

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


USGS 320739103584201 25S.29E.15.31134
Depth to water level, feet below land surface
140.20
140.40
140.60
140.80
141.00
Groundwater level above NAVD 1988, feet
2876.80
2876.60
2876.40
2876.20
2876.00
1984
1986
1988
1990
1992
1994
1996
1998
Period of approved data

USGS 320956103574301 25S.29E.02.11111

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°09'56", Longitude 103°57'43" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 140 feet
Land surface altitude: 3,000 feet above NAVD88.
Well completed in "Rustler Formation" (312RSLR) local aquifer

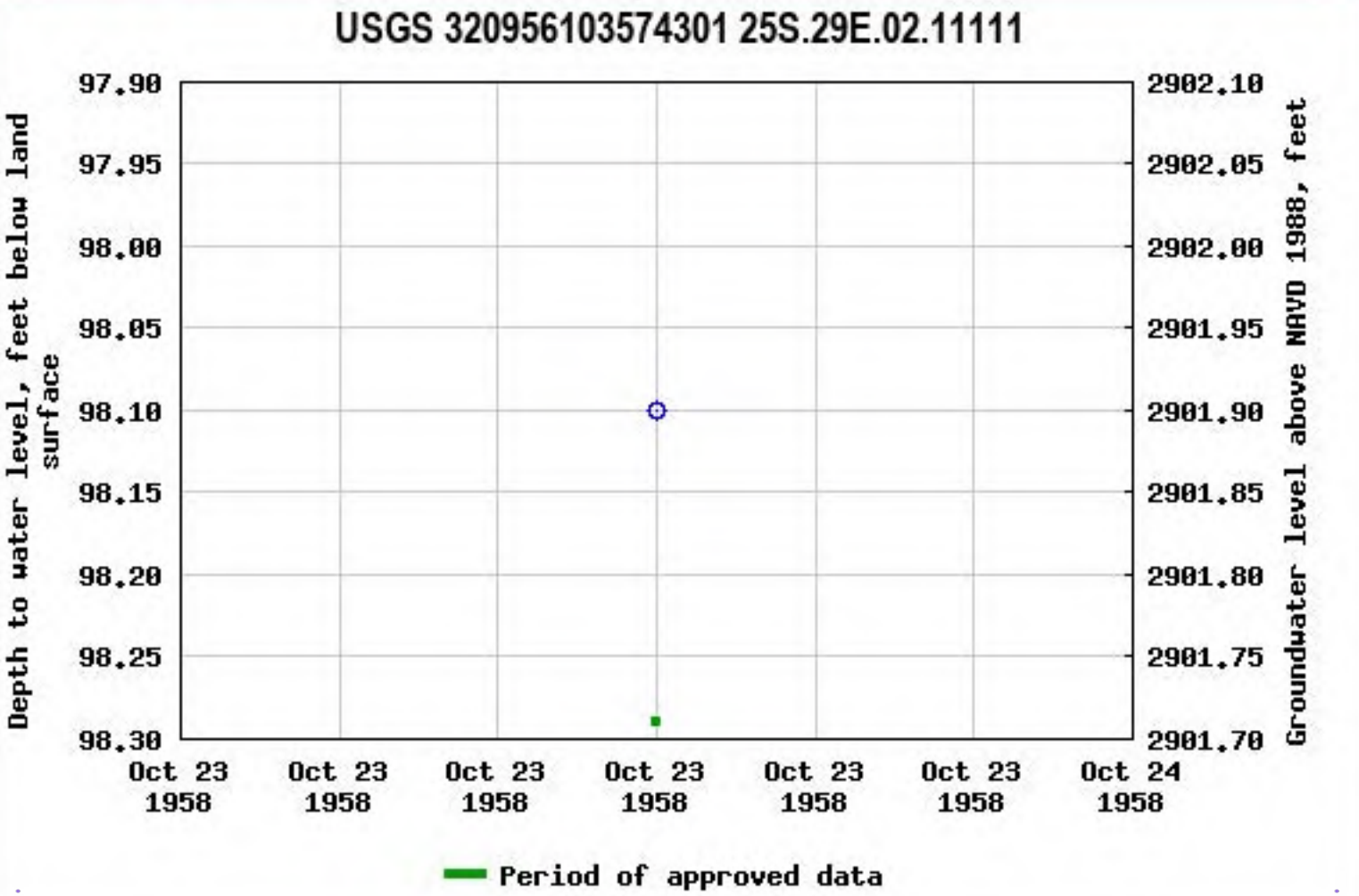
AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1958-10-23	1958-10-23	1
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

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

USGS


USGS 320956103574301 25S.29E.02.11111
Depth to water level, feet below land surface
97.90
97.95
98.00
98.05
98.10
98.15
98.20
98.25
98.30
Groundwater level above NAVD 1988, feet
2902.10
2902.05
2902.00
2901.95
2901.90
2901.85
2901.80
2901.75
2901.70
Oct 23 1958
Oct 23 1958
Oct 23 1958
Oct 23 1958
Oct 23 1958
Oct 23 1958
Oct 24 1958
Period of approved data

ATTACHMENT 2: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Photograph 1: Southeastern view of stained area.

Photograph 2: Northeastern view of stained area.

Photograph 3: Eastern view of excavated area.

Photograph 4: Southeastern view of excavation.

ATTACHMENT 3: LABORATORY ANALYTICAL RESULTS

Certificate of Analysis Summary 661668

LT Environmental, Inc., Arvada, CO

Project Name: Corral Canyon 212H

Project Id: 012920076
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu 05.14.2020 15:26
Report Date: 05.18.2020 13:47
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	661668-001		661668-002		661668-003		661668-004			
	Field Id:	SS01		SS02		SS03		SS04			
	Depth:	0.5- ft		0.5- ft		0.5- ft		0.5- ft			
	Matrix:	SOIL		SOIL		SOIL		SOIL			
	Sampled:	05.14.2020 10:00		05.14.2020 10:10		05.14.2020 10:15		05.14.2020 10:23			
BTEX by EPA 8021B	***Extracted:***	05.14.2020 16:00		05.14.2020 16:00		05.14.2020 16:00		05.14.2020 17:00			
	Analyzed:	05.14.2020 23:53		05.15.2020 00:54		05.15.2020 00:14		05.14.2020 20:22			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		<0.00200	0.00200	<0.0500	0.0500	<0.00199	0.00199	<0.00199	0.00199		
Toluene		<0.00200	0.00200	12.0	0.200	<0.00199	0.00199	<0.00199	0.00199		
Ethylbenzene		<0.00200	0.00200	12.8	0.200	<0.00199	0.00199	<0.00199	0.00199		
m,p-Xylenes		<0.00400	0.00400	6.54	0.400	<0.00398	0.00398	<0.00398	0.00398		
o-Xylene		<0.00200	0.00200	21.8	0.200	<0.00199	0.00199	<0.00199	0.00199		
Total Xylenes		<0.00200	0.00200	28.3	0.200	<0.00199	0.00199	<0.00199	0.00199		
Total BTEX		<0.00200	0.00200	53.1	0.0500	<0.00199	0.00199	<0.00199	0.00199		
Chloride by EPA 300	***Extracted:***	05.14.2020 17:43		05.14.2020 17:43		05.14.2020 17:43		05.14.2020 17:43			
	Analyzed:	05.14.2020 21:35		05.14.2020 21:41		05.14.2020 21:58		05.14.2020 22:04			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		5230	50.1	8580	50.2	3840	49.6	3120	49.5		
TPH by SW8015 Mod	***Extracted:***	05.14.2020 17:30		05.14.2020 17:30		05.15.2020 17:30		05.15.2020 17:30			
	Analyzed:	05.15.2020 13:30		05.15.2020 14:11		05.16.2020 07:45		05.16.2020 08:06			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	2680	49.8	<50.1	50.1	<50.0	50.0		
Diesel Range Organics (DRO)		<50.0	50.0	358	49.8	<50.1	50.1	<50.0	50.0		
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	93.0	49.8	<50.1	50.1	<50.0	50.0		
Total GRO-DRO		<50.0	50.0	3040	49.8	<50.1	50.1	<50.0	50.0		
Total TPH		<50.0	50.0	3130	49.8	<50.1	50.1	<50.0	50.0		

Jessica Kramer
Project Manager

Analytical Report 661668

for

LT Environmental, Inc.

Project Manager: Dan Moir

Corral Canyon 212H

012920076

05.18.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

05.18.2020

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

Reference: XENCO Report No(s): **661668**
Corral Canyon 212H
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) 661668. 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. 661668 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 661668

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	05.14.2020 10:00	0.5 ft	661668-001
SS02	S	05.14.2020 10:10	0.5 ft	661668-002
SS03	S	05.14.2020 10:15	0.5 ft	661668-003
SS04	S	05.14.2020 10:23	0.5 ft	661668-004

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Corral Canyon 212H

Project ID: *012920076*
Work Order Number(s): *661668*

Report Date: *05.18.2020*
Date Received: *05.14.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 661668

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	05.14.2020 15:26
Lab Sample Id:	661668-001	Date Collected:	05.14.2020 10:00	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.14.2020 17:43	Basis:	Wet Weight
Seq Number:	3126031				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5230**	50.1	mg/kg	05.14.2020 21:35		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	05.14.2020 17:30	Basis:	Wet Weight
Seq Number:	3126199				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.15.2020 13:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.15.2020 13:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.15.2020 13:30	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.15.2020 13:30	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.15.2020 13:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	05.15.2020 13:30	
o-Terphenyl	84-15-1	115	%	70-135	05.15.2020 13:30	

Certificate of Analytical Results 661668

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	05.14.2020 15:26
Lab Sample Id:	661668-001	Date Collected:	05.14.2020 10:00	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.14.2020 16:00	Basis:	Wet Weight
Seq Number:	3126047				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.14.2020 23:53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.14.2020 23:53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.14.2020 23:53	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.14.2020 23:53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.14.2020 23:53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.14.2020 23:53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.14.2020 23:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	05.14.2020 23:53	
1,4-Difluorobenzene	540-36-3	104	%	70-130	05.14.2020 23:53	

Certificate of Analytical Results 661668

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	05.14.2020 15:26
Lab Sample Id:	661668-002	Date Collected:	05.14.2020 10:10	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.14.2020 17:43	Basis:	Wet Weight
Seq Number:	3126031				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8580**	50.2	mg/kg	05.14.2020 21:41		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	05.14.2020 17:30	Basis:	Wet Weight
Seq Number:	3126199				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**2680**	49.8	mg/kg	05.15.2020 14:11		1
Diesel Range Organics (DRO)	C10C28DRO	**358**	49.8	mg/kg	05.15.2020 14:11		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**93.0**	49.8	mg/kg	05.15.2020 14:11		1
Total GRO-DRO	PHC628	**3040**	49.8	mg/kg	05.15.2020 14:11		1
Total TPH	PHC635	**3130**	49.8	mg/kg	05.15.2020 14:11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	05.15.2020 14:11	
o-Terphenyl	84-15-1	119	%	70-135	05.15.2020 14:11	

Certificate of Analytical Results 661668

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	05.14.2020 15:26
Lab Sample Id:	661668-002	Date Collected:	05.14.2020 10:10	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.14.2020 16:00	Basis:	Wet Weight
Seq Number:	3126047				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0500	0.0500	mg/kg	05.15.2020 00:54	U	100
Toluene	108-88-3	**12.0**	0.200	mg/kg	05.15.2020 00:54		100
Ethylbenzene	100-41-4	**12.8**	0.200	mg/kg	05.15.2020 00:54		100
m,p-Xylenes	179601-23-1	**6.54**	0.400	mg/kg	05.15.2020 00:54		100
o-Xylene	95-47-6	**21.8**	0.200	mg/kg	05.15.2020 00:54		100
Total Xylenes	1330-20-7	**28.3**	0.200	mg/kg	05.15.2020 00:54		100
Total BTEX		**53.1**	0.0500	mg/kg	05.15.2020 00:54		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.15.2020 00:54	
1,4-Difluorobenzene	540-36-3	97	%	70-130	05.15.2020 00:54	

Certificate of Analytical Results 661668

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	05.14.2020 15:26
Lab Sample Id:	661668-003	Date Collected:	05.14.2020 10:15	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.14.2020 17:43	Basis:	Wet Weight
Seq Number:	3126031				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3840**	49.6	mg/kg	05.14.2020 21:58		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	05.15.2020 17:30	Basis:	Wet Weight
Seq Number:	3126206				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.16.2020 07:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.16.2020 07:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.16.2020 07:45	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.16.2020 07:45	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.16.2020 07:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	05.16.2020 07:45	
o-Terphenyl	84-15-1	118	%	70-135	05.16.2020 07:45	

Certificate of Analytical Results 661668

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	05.14.2020 15:26
Lab Sample Id:	661668-003	Date Collected:	05.14.2020 10:15	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.14.2020 16:00	Basis:	Wet Weight
Seq Number:	3126047				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.15.2020 00:14	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.15.2020 00:14	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.15.2020 00:14	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.15.2020 00:14	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.15.2020 00:14	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.15.2020 00:14	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.15.2020 00:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	05.15.2020 00:14	
1,4-Difluorobenzene	540-36-3	109	%	70-130	05.15.2020 00:14	

Certificate of Analytical Results 661668

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	05.14.2020 15:26
Lab Sample Id:	661668-004	Date Collected:	05.14.2020 10:23	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.14.2020 17:43	Basis:	Wet Weight
Seq Number:	3126031				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3120**	49.5	mg/kg	05.14.2020 22:04		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	05.15.2020 17:30	Basis:	Wet Weight
Seq Number:	3126206				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.16.2020 08:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.16.2020 08:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.16.2020 08:06	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.16.2020 08:06	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.16.2020 08:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	05.16.2020 08:06	
o-Terphenyl	84-15-1	114	%	70-135	05.16.2020 08:06	

Certificate of Analytical Results 661668

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	05.14.2020 15:26
Lab Sample Id:	661668-004	Date Collected:	05.14.2020 10:23	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	05.14.2020 17:00	Basis:	Wet Weight
Seq Number:	3126048				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.14.2020 20:22	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.14.2020 20:22	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.14.2020 20:22	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.14.2020 20:22	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.14.2020 20:22	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.14.2020 20:22	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.14.2020 20:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.14.2020 20:22	
1,4-Difluorobenzene	540-36-3	117	%	70-130	05.14.2020 20:22	

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 661668

LT Environmental, Inc.

Corral Canyon 212H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3126031 — Matrix: Solid — Date Prep: 05.14.2020
MB Sample Id: 7703403-1-BLK — LCS Sample Id: 7703403-1-BKS — LCSD Sample Id: 7703403-1-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	250	100	249	100	90-110	0	20	mg/kg	05.14.2020 19:43	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3126031 — Matrix: Soil — Date Prep: 05.14.2020
Parent Sample Id: 661663-001 — MS Sample Id: 661663-001 S — MSD Sample Id: 661663-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	184	200	372	94	403	110	90-110	8	20	mg/kg	05.14.2020 20:01	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3126031 — Matrix: Soil — Date Prep: 05.14.2020
Parent Sample Id: 661667-001 — MS Sample Id: 661667-001 S — MSD Sample Id: 661667-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	73.8	200	269	98	269	98	90-110	0	20	mg/kg	05.14.2020 21:23	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3126199 — Matrix: Solid — Date Prep: 05.14.2020
MB Sample Id: 7703409-1-BLK — LCS Sample Id: 7703409-1-BKS — LCSD Sample Id: 7703409-1-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	1070	107	933	93	70-135	14	35	mg/kg	05.15.2020 09:41	
Diesel Range Organics (DRO)	<50.0	1000	1120	112	1070	107	70-135	5	35	mg/kg	05.15.2020 09:41	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		135		122		70-135	%	05.15.2020 09:41
o-Terphenyl	111		117		122		70-135	%	05.15.2020 09:41

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3126206 — Matrix: Solid — Date Prep: 05.15.2020
MB Sample Id: 7703510-1-BLK — LCS Sample Id: 7703510-1-BKS — LCSD Sample Id: 7703510-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1010	101	945	95	70-135	7	35	mg/kg	05.16.2020 05:40	
Diesel Range Organics (DRO)	<50.0	1000	1160	116	1070	107	70-135	8	35	mg/kg	05.16.2020 05:40	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		128		124		70-135	%	05.16.2020 05:40
o-Terphenyl	106		131		119		70-135	%	05.16.2020 05:40

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 661668

LT Environmental, Inc.

Corral Canyon 212H

Analytical Method: TPH by SW8015 Mod
Seq Number: 3126199
Prep Method: SW8015P
Matrix: Solid
Date Prep: 05.14.2020
MB Sample Id: 7703409-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.15.2020 09:20	

Analytical Method: TPH by SW8015 Mod
Seq Number: 3126206
Prep Method: SW8015P
Matrix: Solid
Date Prep: 05.15.2020
MB Sample Id: 7703510-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.16.2020 05:19	

Analytical Method: TPH by SW8015 Mod
Seq Number: 3126199
Prep Method: SW8015P
Matrix: Soil
Date Prep: 05.14.2020
Parent Sample Id: 661663-001
MS Sample Id: 661663-001 S
MSD Sample Id: 661663-001 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	1010	100	967	97	70-135	4	35	mg/kg	05.15.2020 10:44	
Diesel Range Organics (DRO)	<50.3	1010	1170	116	1150	116	70-135	2	35	mg/kg	05.15.2020 10:44	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		119		70-135	%	05.15.2020 10:44
o-Terphenyl	124		123		70-135	%	05.15.2020 10:44

Analytical Method: TPH by SW8015 Mod
Seq Number: 3126206
Prep Method: SW8015P
Matrix: Soil
Date Prep: 05.15.2020
Parent Sample Id: 661721-002
MS Sample Id: 661721-002 S
MSD Sample Id: 661721-002 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)	<50.2	1000	940	94	902	90	70-135	4	35	mg/kg	05.16.2020 06:42	
Diesel Range Organics (DRO)	67.2	1000	1140	107	1110	104	70-135	3	35	mg/kg	05.16.2020 06:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		121		70-135	%	05.16.2020 06:42
o-Terphenyl	122		121		70-135	%	05.16.2020 06:42

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

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

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

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

QC Summary 661668

LT Environmental, Inc.

Corral Canyon 212H

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3126047 — Matrix: Solid — Date Prep: 05.14.2020
MB Sample Id: 7703381-1-BLK — LCS Sample Id: 7703381-1-BKS — LCSD Sample Id: 7703381-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.107	107	0.101	101	70-130	6	35	mg/kg	05.14.2020 16:04	
Toluene	<0.00200	0.100	0.103	103	0.0974	97	70-130	6	35	mg/kg	05.14.2020 16:04	
Ethylbenzene	<0.00200	0.100	0.0974	97	0.0926	93	71-129	5	35	mg/kg	05.14.2020 16:04	
m,p-Xylenes	<0.00400	0.200	0.201	101	0.192	96	70-135	5	35	mg/kg	05.14.2020 16:04	
o-Xylene	<0.00200	0.100	0.101	101	0.0971	97	71-133	4	35	mg/kg	05.14.2020 16:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		104		100		70-130	%	05.14.2020 16:04
4-Bromofluorobenzene	97		93		91		70-130	%	05.14.2020 16:04

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3126048 — Matrix: Solid — Date Prep: 05.14.2020
MB Sample Id: 7703384-1-BLK — LCS Sample Id: 7703384-1-BKS — LCSD Sample Id: 7703384-1-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	0.119	119	0.117	117	70-130	2	35	mg/kg	05.14.2020 17:31	
Toluene	<0.00200	0.100	0.110	110	0.109	109	70-130	1	35	mg/kg	05.14.2020 17:31	
Ethylbenzene	<0.00200	0.100	0.105	105	0.102	102	71-129	3	35	mg/kg	05.14.2020 17:31	
m,p-Xylenes	<0.00400	0.200	0.203	102	0.198	99	70-135	2	35	mg/kg	05.14.2020 17:31	
o-Xylene	<0.00200	0.100	0.104	104	0.102	102	71-133	2	35	mg/kg	05.14.2020 17:31	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	115		108		109		70-130	%	05.14.2020 17:31
4-Bromofluorobenzene	102		94		97		70-130	%	05.14.2020 17:31

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3126047 — Matrix: Soil — Date Prep: 05.14.2020
Parent Sample Id: 661635-001 — MS Sample Id: 661635-001 S — MSD Sample Id: 661635-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.107	108	0.0992	100	70-130	8	35	mg/kg	05.14.2020 16:45	
Toluene	0.00986	0.0992	0.106	97	0.0955	87	70-130	10	35	mg/kg	05.14.2020 16:45	
Ethylbenzene	0.0147	0.0992	0.0911	77	0.0894	75	71-129	2	35	mg/kg	05.14.2020 16:45	
m,p-Xylenes	0.0337	0.198	0.191	79	0.183	75	70-135	4	35	mg/kg	05.14.2020 16:45	
o-Xylene	0.0207	0.0992	0.0979	78	0.0939	74	71-133	4	35	mg/kg	05.14.2020 16:45	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		105		70-130	%	05.14.2020 16:45
4-Bromofluorobenzene	95		94		70-130	%	05.14.2020 16:45

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

QC Summary 661668

LT Environmental, Inc.

Corral Canyon 212H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3126048 Matrix: Soil Date Prep: 05.14.2020

Parent Sample Id: 661668-004 MS Sample Id: 661668-004 S MSD Sample Id: 661668-004 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	0.122	122	0.111	111	70-130	9	35	mg/kg	05.14.2020 18:56	
Toluene	<0.00200	0.0998	0.112	112	0.101	101	70-130	10	35	mg/kg	05.14.2020 18:56	
Ethylbenzene	<0.00200	0.0998	0.107	107	0.0948	95	71-129	12	35	mg/kg	05.14.2020 18:56	
m,p-Xylenes	<0.00399	0.200	0.207	104	0.183	92	70-135	12	35	mg/kg	05.14.2020 18:56	
o-Xylene	<0.00200	0.0998	0.106	106	0.0945	95	71-133	11	35	mg/kg	05.14.2020 18:56	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		110		70-130	%	05.14.2020 18:56
4-Bromofluorobenzene	96		91		70-130	%	05.14.2020 18:56

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

XENCO LABORATORIES

Chain of Custody

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

Work Order No: 666668

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	emoreno@ltenv.com, dmoir@ltenv.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐

State of Project:

Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Deliverables: EDD ☐ ADaPT ☐ Other:

		Turn Around	
Project Name:	Corral Canyon 212H	Routine	☒
Project Number:	012920076	Rush:	
P.O. Number:			
Sampler's Name:	Ezequiel Moreno	Due Date:	

SAMPLE RECEIPT

Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	4.8	Thermometer ID	T-NM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	4

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SS01	S	5/14/20	1000	0.5'	1	X	X	X	
SS02	↓	↓	1010	↓	↓	↓	↓	↓	
SS03	↓	↓	1015	↓	↓	↓	↓	↓	
SS04	↓	↓	1023	↓	↓	↓	↓	↓	

Work Order Notes

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 [signature]	[signature]	5/14/20 15:26	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 05.14.2020 03.26.00 PM

Work Order #: 661668

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)?	4.8	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	Samples received in bulk containers.
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**No**	
#18 Water VOC samples have zero headspace?	**N/A**	

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 05.14.2020

Checklist reviewed by: Jessica Kramer Date: 05.15.2020

Jessica Kramer

Certificate of Analysis Summary 663293

LT Environmental, Inc., Arvada, CO

Project Name: Corral Canyon 212H

Project Id:
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed 06.03.2020 10:30
Report Date: 06.04.2020 15:18
Project Manager: Jessica Kramer

Analysis Requested		663293-001		663293-002		663293-003		663293-004		663293-005		663293-006	
	Field Id:	PH01		PH03		PH04		FS01		SW01		SW02	
	Depth:	1- ft		1- ft		1- ft		2- ft		0-2 ft		0-2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	06.02.2020 10:25		06.02.2020 10:15		06.02.2020 10:10		06.02.2020 13:10		06.02.2020 13:05		06.02.2020 13:00	
BTEX by EPA 8021B	*Extracted:*	06.03.2020 14:15		06.03.2020 14:15		06.03.2020 14:15		06.03.2020 14:15		06.03.2020 14:15		06.03.2020 14:15	
	Analyzed:	06.03.2020 15:52		06.03.2020 18:56		06.03.2020 19:16		06.03.2020 17:14		06.03.2020 17:34		06.03.2020 17:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198	<0.00199	0.00199
Toluene		<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198	<0.00199	0.00199
Ethylbenzene		<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198	<0.00199	0.00199
m,p-Xylenes		<0.00403	0.00403	<0.00400	0.00400	<0.00401	0.00401	<0.00404	0.00404	<0.00396	0.00396	<0.00398	0.00398
o-Xylene		<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198	<0.00199	0.00199
Total Xylenes		<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198	<0.00199	0.00199
Total BTEX		<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198	<0.00199	0.00199
Chloride by EPA 300	*Extracted:*	06.03.2020 15:07		06.03.2020 15:07		06.03.2020 15:07		06.03.2020 15:07		06.03.2020 15:07		06.03.2020 15:07	
	Analyzed:	06.03.2020 16:37		06.03.2020 16:58		06.03.2020 17:05		06.03.2020 17:12		06.03.2020 17:19		06.03.2020 17:40	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		634 X	9.88	161	10.0	229	10.0	170	10.0	10400	200	3470	101
TPH by SW8015 Mod	*Extracted:*	06.03.2020 13:00		06.03.2020 13:00		06.03.2020 13:00		06.03.2020 13:00		06.03.2020 13:00		06.03.2020 13:00	
	Analyzed:	06.03.2020 15:38		06.03.2020 16:40		06.03.2020 17:01		06.03.2020 20:32		06.03.2020 20:53		06.03.2020 21:14	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<50.1	50.1	<50.2	50.2	<50.0	50.0	<50.0	50.0	<49.9	49.9
Diesel Range Organics (DRO)		94.1	49.8	<50.1	50.1	<50.2	50.2	<50.0	50.0	<50.0	50.0	53.8	49.9
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<50.1	50.1	<50.2	50.2	<50.0	50.0	<50.0	50.0	<49.9	49.9
Total GRO-DRO		94.1	49.8	<50.1	50.1	<50.2	50.2	<50.0	50.0	<50.0	50.0	53.8	49.9
Total TPH		94.1	49.8	<50.1	50.1	<50.2	50.2	<50.0	50.0	<50.0	50.0	53.8	49.9

Jessica Kramer
Project Manager

Certificate of Analysis Summary 663293

LT Environmental, Inc., Arvada, CO

Project Name: Corral Canyon 212H

Project Id:
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed 06.03.2020 10:30
Report Date: 06.04.2020 15:18
Project Manager: Jessica Kramer

Analysis Requested								
	Lab Id:	663293-007		663293-008				
	Field Id:	SW03		SW04				
	Depth:	0-2 ft		0-2 ft				
	Matrix:	SOIL		SOIL				
	Sampled:	06.02.2020 12:55		06.02.2020 12:50				
BTEX by EPA 8021B	***Extracted:***	06.03.2020 14:15		06.03.2020 14:15				
	Analyzed:	06.03.2020 18:15		06.03.2020 18:36				
	Units/RL:	mg/kg	RL	mg/kg	RL			
Benzene		<0.00202	0.00202	<0.00200	0.00200			
Toluene		<0.00202	0.00202	<0.00200	0.00200			
Ethylbenzene		<0.00202	0.00202	<0.00200	0.00200			
m,p-Xylenes		<0.00404	0.00404	<0.00400	0.00400			
o-Xylene		<0.00202	0.00202	<0.00200	0.00200			
Total Xylenes		<0.00202	0.00202	<0.00200	0.00200			
Total BTEX		<0.00202	0.00202	<0.00200	0.00200			
Chloride by EPA 300	***Extracted:***	06.03.2020 15:07		06.03.2020 15:07				
	Analyzed:	06.03.2020 17:47		06.03.2020 17:54				
	Units/RL:	mg/kg	RL	mg/kg	RL			
Chloride		616	10.1	2290	50.1			
TPH by SW8015 Mod	***Extracted:***	06.03.2020 13:00		06.03.2020 13:00				
	Analyzed:	06.04.2020 10:21		06.04.2020 10:41				
	Units/RL:	mg/kg	RL	mg/kg	RL			
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<50.2	50.2			
Diesel Range Organics (DRO)		<49.8	49.8	<50.2	50.2			
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<50.2	50.2			
Total GRO-DRO		<49.8	49.8	<50.2	50.2			
Total TPH		<49.8	49.8	<50.2	50.2			

Jessica Kramer
Project Manager

Analytical Report 663293

for

LT Environmental, Inc.

Project Manager: Dan Moir

Corral Canyon 212H

06.04.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

06.04.2020

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

Reference: XENCO Report No(s): **663293**
Corral Canyon 212H
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) 663293. 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. 663293 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 663293

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	06.02.2020 10:25	1 ft	663293-001
PH03	S	06.02.2020 10:15	1 ft	663293-002
PH04	S	06.02.2020 10:10	1 ft	663293-003
FS01	S	06.02.2020 13:10	2 ft	663293-004
SW01	S	06.02.2020 13:05	0 - 2 ft	663293-005
SW02	S	06.02.2020 13:00	0 - 2 ft	663293-006
SW03	S	06.02.2020 12:55	0 - 2 ft	663293-007
SW04	S	06.02.2020 12:50	0 - 2 ft	663293-008

CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: Corral Canyon 212H

Project ID:
Work Order Number(s): *663293*

Report Date: *06.04.2020*
Date Received: *06.03.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3127912 Chloride by EPA 300

Lab Sample ID 663365-003 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 663293-001, -002, -003, -004, -005, -006, -007, -008.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analytical Results 663293

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	06.03.2020 10:30
Lab Sample Id:	663293-001	Date Collected:	06.02.2020 10:25	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.03.2020 15:07	Basis:	Wet Weight
Seq Number:	3127912				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**634**	9.88	mg/kg	06.03.2020 16:37	X	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.03.2020 13:00	Basis:	Wet Weight
Seq Number:	3127957				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	06.03.2020 15:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	**94.1**	49.8	mg/kg	06.03.2020 15:38		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	06.03.2020 15:38	U	1
Total GRO-DRO	PHC628	**94.1**	49.8	mg/kg	06.03.2020 15:38		1
Total TPH	PHC635	**94.1**	49.8	mg/kg	06.03.2020 15:38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	06.03.2020 15:38	
o-Terphenyl	84-15-1	112	%	70-135	06.03.2020 15:38	

Certificate of Analytical Results 663293

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	06.03.2020 10:30
Lab Sample Id:	663293-001	Date Collected:	06.02.2020 10:25	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.03.2020 14:15	Basis:	Wet Weight
Seq Number:	3127950				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.03.2020 15:52	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.03.2020 15:52	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.03.2020 15:52	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	06.03.2020 15:52	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.03.2020 15:52	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.03.2020 15:52	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.03.2020 15:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	06.03.2020 15:52	
4-Bromofluorobenzene	460-00-4	98	%	70-130	06.03.2020 15:52	

Certificate of Analytical Results 663293

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	06.03.2020 10:30
Lab Sample Id:	663293-002	Date Collected:	06.02.2020 10:15	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.03.2020 15:07	Basis:	Wet Weight
Seq Number:	3127912				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**161**	10.0	mg/kg	06.03.2020 16:58		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.03.2020 13:00	Basis:	Wet Weight
Seq Number:	3127957				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	06.03.2020 16:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	06.03.2020 16:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	06.03.2020 16:40	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	06.03.2020 16:40	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	06.03.2020 16:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	06.03.2020 16:40	
o-Terphenyl	84-15-1	113	%	70-135	06.03.2020 16:40	

Certificate of Analytical Results 663293

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	06.03.2020 10:30
Lab Sample Id:	663293-002	Date Collected:	06.02.2020 10:15	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.03.2020 14:15	Basis:	Wet Weight
Seq Number:	3127950				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.03.2020 18:56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.03.2020 18:56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.03.2020 18:56	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	06.03.2020 18:56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.03.2020 18:56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.03.2020 18:56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.03.2020 18:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	06.03.2020 18:56	
4-Bromofluorobenzene	460-00-4	95	%	70-130	06.03.2020 18:56	

Certificate of Analytical Results 663293

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	06.03.2020 10:30
Lab Sample Id:	663293-003	Date Collected:	06.02.2020 10:10	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.03.2020 15:07	Basis:	Wet Weight
Seq Number:	3127912				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**229**	10.0	mg/kg	06.03.2020 17:05		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.03.2020 13:00	Basis:	Wet Weight
Seq Number:	3127957				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	06.03.2020 17:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	06.03.2020 17:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	06.03.2020 17:01	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	06.03.2020 17:01	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	06.03.2020 17:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	06.03.2020 17:01	
o-Terphenyl	84-15-1	103	%	70-135	06.03.2020 17:01	

Certificate of Analytical Results 663293

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	06.03.2020 10:30
Lab Sample Id:	663293-003	Date Collected:	06.02.2020 10:10	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.03.2020 14:15	Basis:	Wet Weight
Seq Number:	3127950				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.03.2020 19:16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.03.2020 19:16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.03.2020 19:16	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.03.2020 19:16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.03.2020 19:16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.03.2020 19:16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.03.2020 19:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	06.03.2020 19:16	
4-Bromofluorobenzene	460-00-4	94	%	70-130	06.03.2020 19:16	

Certificate of Analytical Results 663293

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	06.03.2020 10:30
Lab Sample Id:	663293-004	Date Collected:	06.02.2020 13:10	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.03.2020 15:07	Basis:	Wet Weight
Seq Number:	3127912				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**170**	10.0	mg/kg	06.03.2020 17:12		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.03.2020 13:00	Basis:	Wet Weight
Seq Number:	3127957				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.03.2020 20:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.03.2020 20:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.03.2020 20:32	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	06.03.2020 20:32	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.03.2020 20:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	06.03.2020 20:32	
o-Terphenyl	84-15-1	103	%	70-135	06.03.2020 20:32	

Certificate of Analytical Results 663293

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	06.03.2020 10:30
Lab Sample Id:	663293-004	Date Collected:	06.02.2020 13:10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.03.2020 14:15	Basis:	Wet Weight
Seq Number:	3127950				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.03.2020 17:14	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.03.2020 17:14	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.03.2020 17:14	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.03.2020 17:14	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.03.2020 17:14	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.03.2020 17:14	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.03.2020 17:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	06.03.2020 17:14	
1,4-Difluorobenzene	540-36-3	104	%	70-130	06.03.2020 17:14	

Certificate of Analytical Results 663293

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	06.03.2020 10:30
Lab Sample Id:	663293-005	Date Collected:	06.02.2020 13:05	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.03.2020 15:07	Basis:	Wet Weight
Seq Number:	3127912				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10400**	200	mg/kg	06.03.2020 17:19		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.03.2020 13:00	Basis:	Wet Weight
Seq Number:	3127957				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.03.2020 20:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.03.2020 20:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.03.2020 20:53	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	06.03.2020 20:53	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.03.2020 20:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	06.03.2020 20:53	
o-Terphenyl	84-15-1	108	%	70-135	06.03.2020 20:53	

Certificate of Analytical Results 663293

LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	06.03.2020 10:30
Lab Sample Id:	663293-005	Date Collected:	06.02.2020 13:05	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.03.2020 14:15	Basis:	Wet Weight
Seq Number:	3127950				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	06.03.2020 17:34	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	06.03.2020 17:34	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	06.03.2020 17:34	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	06.03.2020 17:34	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	06.03.2020 17:34	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	06.03.2020 17:34	U	1
Total BTEX		<0.00198	0.00198	mg/kg	06.03.2020 17:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	06.03.2020 17:34	
1,4-Difluorobenzene	540-36-3	112	%	70-130	06.03.2020 17:34	

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LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	06.03.2020 10:30
Lab Sample Id:	663293-006	Date Collected:	06.02.2020 13:00	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.03.2020 15:07	Basis:	Wet Weight
Seq Number:	3127912				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3470**	101	mg/kg	06.03.2020 17:40		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.03.2020 13:00	Basis:	Wet Weight
Seq Number:	3127957				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.03.2020 21:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	**53.8**	49.9	mg/kg	06.03.2020 21:14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.03.2020 21:14	U	1
Total GRO-DRO	PHC628	**53.8**	49.9	mg/kg	06.03.2020 21:14		1
Total TPH	PHC635	**53.8**	49.9	mg/kg	06.03.2020 21:14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	06.03.2020 21:14	
o-Terphenyl	84-15-1	108	%	70-135	06.03.2020 21:14	

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LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	06.03.2020 10:30
Lab Sample Id:	663293-006	Date Collected:	06.02.2020 13:00	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.03.2020 14:15	Basis:	Wet Weight
Seq Number:	3127950				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.03.2020 17:55	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.03.2020 17:55	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.03.2020 17:55	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.03.2020 17:55	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.03.2020 17:55	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.03.2020 17:55	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.03.2020 17:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	06.03.2020 17:55	
4-Bromofluorobenzene	460-00-4	96	%	70-130	06.03.2020 17:55	

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LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	06.03.2020 10:30
Lab Sample Id:	663293-007	Date Collected:	06.02.2020 12:55	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.03.2020 15:07	Basis:	Wet Weight
Seq Number:	3127912				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**616**	10.1	mg/kg	06.03.2020 17:47		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.03.2020 13:00	Basis:	Wet Weight
Seq Number:	3127957				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	06.04.2020 10:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	06.04.2020 10:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	06.04.2020 10:21	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	06.04.2020 10:21	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	06.04.2020 10:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	06.04.2020 10:21	
o-Terphenyl	84-15-1	103	%	70-135	06.04.2020 10:21	

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LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	06.03.2020 10:30
Lab Sample Id:	663293-007	Date Collected:	06.02.2020 12:55	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.03.2020 14:15	Basis:	Wet Weight
Seq Number:	3127950				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.03.2020 18:15	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.03.2020 18:15	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.03.2020 18:15	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.03.2020 18:15	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.03.2020 18:15	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.03.2020 18:15	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.03.2020 18:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	06.03.2020 18:15	
4-Bromofluorobenzene	460-00-4	94	%	70-130	06.03.2020 18:15	

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LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	06.03.2020 10:30
Lab Sample Id:	663293-008	Date Collected:	06.02.2020 12:50	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.03.2020 15:07	Basis:	Wet Weight
Seq Number:	3127912				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2290**	50.1	mg/kg	06.03.2020 17:54		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.03.2020 13:00	Basis:	Wet Weight
Seq Number:	3127957				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	06.04.2020 10:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	06.04.2020 10:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	06.04.2020 10:41	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	06.04.2020 10:41	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	06.04.2020 10:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	06.04.2020 10:41	
o-Terphenyl	84-15-1	106	%	70-135	06.04.2020 10:41	

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LT Environmental, Inc., Arvada, CO

Corral Canyon 212H

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	06.03.2020 10:30
Lab Sample Id:	663293-008	Date Collected:	06.02.2020 12:50	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.03.2020 14:15	Basis:	Wet Weight
Seq Number:	3127950				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.03.2020 18:36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.03.2020 18:36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.03.2020 18:36	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	06.03.2020 18:36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.03.2020 18:36	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.03.2020 18:36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.03.2020 18:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	06.03.2020 18:36	
1,4-Difluorobenzene	540-36-3	110	%	70-130	06.03.2020 18:36	

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 663293

LT Environmental, Inc.

Corral Canyon 212H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3127912 — Matrix: Solid — Date Prep: 06.03.2020
MB Sample Id: 7704705-1-BLK — LCS Sample Id: 7704705-1-BKS — LCSD Sample Id: 7704705-1-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	252	101	252	101	90-110	0	20	mg/kg	06.03.2020 16:09	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3127912 — Matrix: Soil — Date Prep: 06.03.2020
Parent Sample Id: 663293-001 — MS Sample Id: 663293-001 S — MSD Sample Id: 663293-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	634	202	802	83	802	83	90-110	0	20	mg/kg	06.03.2020 16:44	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3127912 — Matrix: Soil — Date Prep: 06.03.2020
Parent Sample Id: 663365-003 — MS Sample Id: 663365-003 S — MSD Sample Id: 663365-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	385	200	568	92	570	93	90-110	0	20	mg/kg	06.03.2020 18:36	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3127957 — Matrix: Solid — Date Prep: 06.03.2020
MB Sample Id: 7704754-1-BLK — LCS Sample Id: 7704754-1-BKS — LCSD Sample Id: 7704754-1-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	971	97	907	91	70-135	7	35	mg/kg	06.03.2020 13:02	
Diesel Range Organics (DRO)	<50.0	1000	1020	102	1010	101	70-135	1	35	mg/kg	06.03.2020 13:02	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		117		110		70-135	%	06.03.2020 13:02
o-Terphenyl	98		108		108		70-135	%	06.03.2020 13:02

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3127957 — Matrix: Solid — Date Prep: 06.03.2020
MB Sample Id: 7704754-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.03.2020 12:41	

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 663293

LT Environmental, Inc.

Corral Canyon 212H

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3127957 | Matrix: Soil | Date Prep: 06.03.2020
Parent Sample Id: 663293-001 | MS Sample Id: 663293-001 S | MSD Sample Id: 663293-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1040	104	1020	102	70-135	2	35	mg/kg	06.03.2020 15:58	
Diesel Range Organics (DRO)	94.1	1000	1200	111	1190	110	70-135	1	35	mg/kg	06.03.2020 15:58	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		116		70-135	%	06.03.2020 15:58
o-Terphenyl	115		118		70-135	%	06.03.2020 15:58

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5035A
Seq Number: 3127950 | Matrix: Solid | Date Prep: 06.03.2020
MB Sample Id: 7704707-1-BLK | LCS Sample Id: 7704707-1-BKS | LCSD Sample Id: 7704707-1-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	0.112	112	0.114	114	70-130	2	35	mg/kg	06.03.2020 14:10	
Toluene	<0.00200	0.100	0.106	106	0.108	108	70-130	2	35	mg/kg	06.03.2020 14:10	
Ethylbenzene	<0.00200	0.100	0.0979	98	0.0995	100	71-129	2	35	mg/kg	06.03.2020 14:10	
m,p-Xylenes	<0.00400	0.200	0.200	100	0.203	102	70-135	1	35	mg/kg	06.03.2020 14:10	
o-Xylene	<0.00200	0.100	0.103	103	0.104	104	71-133	1	35	mg/kg	06.03.2020 14:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		107		107		70-130	%	06.03.2020 14:10
4-Bromofluorobenzene	93		93		93		70-130	%	06.03.2020 14:10

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5035A
Seq Number: 3127950 | Matrix: Soil | Date Prep: 06.03.2020
Parent Sample Id: 663293-001 | MS Sample Id: 663293-001 S | MSD Sample Id: 663293-001 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	0.117	117	0.111	110	70-130	5	35	mg/kg	06.03.2020 14:51	
Toluene	<0.00200	0.100	0.112	112	0.106	105	70-130	6	35	mg/kg	06.03.2020 14:51	
Ethylbenzene	<0.00200	0.100	0.106	106	0.100	99	71-129	6	35	mg/kg	06.03.2020 14:51	
m,p-Xylenes	<0.00401	0.200	0.218	109	0.206	102	70-135	6	35	mg/kg	06.03.2020 14:51	
o-Xylene	<0.00200	0.100	0.109	109	0.103	102	71-133	6	35	mg/kg	06.03.2020 14:51	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		108		70-130	%	06.03.2020 14:51
4-Bromofluorobenzene	97		94		70-130	%	06.03.2020 14:51

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

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

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

Chain of Custody

Work Order No: 1e63293

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

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	emoreno@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	Corral Canyon 212H	Turn Around	
Project Number:		Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Ezequiel Moreno	Due Date	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	2.3	Thermometer ID	TNH007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	8	

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	6/2/20	1025	1'	1	X	X	X
PH03			1015					
PH04			1010					
FS01			1310	2'				
SW01			1305	0-2'				
SW02			1300					
SW03			1255					
SW04			1250					

Work Order Notes

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

Sample Comments

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			6/3/20 9:00AM	2		6/3/20 10:30
3				4		
5				6		

Revised Date 051418 Rev. 2018 1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 06.03.2020 10.30.00 AM

Work Order #: 663293

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)?	2.3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	Samples received in bulk containers.
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**No**	
#18 Water VOC samples have zero headspace?	**N/A**	

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 06.03.2020

Checklist reviewed by: Jessica Kramer Date: 06.04.2020

Jessica Kramer

ATTACHMENT 4: LITHOLOGIC/SOIL SAMPLING 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: 6/2/2020
Site Name: Corral Canyon 212H	
RP or Incident Number:	
LTE Job Number: 012920076	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: EM	Method: Backhoe excavator		
Lat/Long: 32.135891, -103.988381	Field Screening: Chloride, PID	Hole Diameter: 2'	Total Depth: 1'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP-SM	SAND with silt, dry, light tan, poorly grated, fine to very fine, no stain, no odor.
D	8,500	1.9	N	SS01	0.5	0.5		
D	1,092	0	N	PH01	1	1		Total depth: 1 feet bgs

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BH or PH Name: PH03	Date: 6/2/2020
Site Name: Corral Canyon 212H	
RP or Incident Number:	
LTE Job Number: 012920076	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: EM	Method: Backhoe excavator		
Lat/Long: 32.136007, -103.988584	Field Screening: Chloride, PID	Hole Diameter: 2'	Total Depth: 1'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP-SM	SAND with silt, dry, light tan, poorly grated, fine to very fine, no stain, no odor.
D	5,640	24	N	SS03	0.5	0.5		
D	392	0.5	N	PH03	1	1		Total depth: 1 feet bgs

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BH or PH Name: PH04	Date: 6/2/2020
Site Name: Corral Canyon 212H	
RP or Incident Number:	
LTE Job Number: 012920076	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: EM	Method: Backhoe excavator		
Lat/Long: 32.135991, -103.988764	Field Screening: Chloride, PID	Hole Diameter: 2'	Total Depth: 1'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP-SM	SAND with silt, dry, light tan, poorly grated, fine to very fine, no stain, no odor.
D	5,180	16	N	SS04	0.5	0.5		
D	487	44	N	PH04	1	1		Total depth: 1 feet bgs