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	NAB1929041495
District RP	2RP-5672
Facility ID	
Application ID	pAB1929041013

Release Notification

GEJ4N-190927-C-1410

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # *(assigned by OCD)* NAB1929041495
Contact mailing address 522 W. Mermod, Calsbad, NM 88220	

Location of Release Source

Latitude 32.4912491 Longitude -104.0083542
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Golden 8 Federal Battery 1	Site Type Battery
Date Release Discovered 09/12/2019	API# *(if applicable)* *30-015-26931 (Golden 8 Federal #001)*

Unit Letter	Section	Township	Range	County
K	08	21S	29E	EDDY

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 0.01	Volume Recovered (bbls) 0.01
☒ Produced Water	Volume Released (bbls) 5.79	Volume Recovered (bbls) 4.99
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Produced water leaked from bottom of the Heater Treater due to internal corrosion. Release was contained inside dirt berm of the Battery. Additional third party resources have been retained to assist in the remediation.

State of New Mexico
Oil Conservation Division

Incident ID	NAB1929041493
District RP	2RP-5672
Facility ID	
Application ID	pAB1929041013

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

Initial Response

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

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

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

N/A

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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 9-27-19

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

OCD Only

Received by: *Amalia Bustamante* Date: *10/17/2019*

Incident ID	NAB1929041495
District RP	2RP-5672
Facility ID	
Application ID	pAB1929041013

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	*NAB1929041495*
District RP	2RP-5672
Facility ID	
Application ID	pAB1929041013

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: 08/31/2020

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

OCD Only

Received by: Cristina Eads Date: 09/02/2020

State of New Mexico
Oil Conservation Division

Incident ID	NAB1929041495
District RP	2RP-5672
Facility ID	
Application ID	pAB1929041013

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☒ Extents of contamination must be fully delineated.

☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Kyle Littrell Title: SH&E Coordinator

Signature: Date: 08/31/2020

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

OCD Only

Received by: Cristina Eads Date: 09/02/2020

☐ Approved ☐ Approved with Attached Conditions of Approval ☑ Denied ☐ Deferral Approved

Signature: Date: 11/09/2020

A proud member of WSP

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

August 31, 2020

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

RE: Deferral Request
Golden 8 Federal Battery 1
Remediation Permit Number 2RP-5672
Incident Number NAB1929041495
Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Deferral Request detailing site assessment, soil sampling and remediation activities at the Golden 8 Federal Battery 1 (Site) in Unit K, Section 8, Township 21 South, Range 29 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to confirm the presence or absence of impacts to soil following the release of crude oil and produced water at the Site. Based on field observations, field screening, and laboratory analytical results from soil sampling following excavation activities, XTO is submitting this Deferral Request, and requesting no further action (NFA) for Remediation Permit (RP) Number 2RP-5672 and Incident Number NAB1929041495 until the Site is reconstructed and/or the pad is abandoned.

RELEASE BACKGROUND

On September 12, 2019, internal corrosion from the bottom of the heater treater resulted in the release of approximately 0.01 barrels (bbls) of crude oil and approximately 5.79 bbls of produced water into the earthen berm surrounding the battery. A vacuum truck was dispatched to the Site to recover freestanding fluids; approximately 0.01 bbls of crude oil and approximately 4.99 bbls of produced water were recovered from within the dirt berm area. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on September 27, 2019, and subsequently assigned RP Number 2RP-5672 and Incident Number NAB1929041495.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The nearest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well

322850104014201, located approximately 1.43 miles southwest of the Site. The groundwater well has a depth to groundwater of 134 feet bgs and a total depth of 160 feet bgs. Ground surface elevation at the groundwater well location is 3,289 feet above mean sea level (AMSL), which is approximately 113 feet lower in elevation than the Site. There are 7 water wells within a 2.5-mile radius of the Site with data indicating depth to water is greater than 100 feet bgs, indicating the regional groundwater aquifer, including beneath the Site, is greater than 100 feet bgs. These water wells are depicted on Figure 1 and referenced well records are in Attachment 1. The closest continuously flowing water or significant watercourse to the Site is an unnamed dry wash located approximately 4,223 feet southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology based on being located in a medium potential karst designation area by the Bureau of Land Management (BLM). The Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT AND SOIL SAMPLING ACTIVITIES

On September 17, 2019, LTE personnel evaluated the release extent based on information provided on the Form C-141 and visual observations. LTE personnel collected four preliminary soil samples (SS01 through SS04) within and around the release extent at a depth of approximately 0.5 feet bgs to assess for the presence or absence of soil impacts at the ground surface. Soil from the preliminary soil samples was field screened for volatile aromatic hydrocarbons and chloride utilizing a photo-ionization detector (PID) and Hach© chloride QuanTab© test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was conducted during the Site visit, and a photographic log is included in Attachment 2.

The preliminary soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

The laboratory analytical results indicated preliminary soil samples SS01, SS02, and SS04 were in compliance with the Closure Criteria. Based on field screening results and laboratory analytical results for preliminary soil sample SS03, excavation activities appeared to be warranted at the Site. The laboratory analytical results are summarized in Table 1 and the laboratory data reports are provided in Attachment 3.

INITIAL DELINEATION ACTIVITIES

LTE personnel oversaw the advancement of three potholes (PH01 through PH03) within the release extent between December 3 and December 4, 2019 in coordination with excavation activities. Two discrete soil samples were collected from each pothole utilizing a backhoe to a depth of approximately 1-foot and 3 feet bgs.

Due to limitations of mechanical means to collect additional delineation soils samples in the vicinity of processing equipment, three boreholes (BH01 through BH03) were advanced via hand-auger within the release area. Boreholes BH01 and BH02 were advanced within the southern and western portion of the release extent, respectively, to a depth of approximately 0.5 feet bgs and 2 feet bgs; BH03 was advanced within the west-central portion of the release extent to a depth of 0.5 feet bgs before encountering auger refusal.

Soil from all potholes and boreholes were field screened for volatile aromatic hydrocarbons and chloride. The delineation soil samples were collected, handled, and analyzed as described above at Xenco in Carlsbad, New Mexico. Field screening results and observations for each pothole and borehole location were logged on lithologic/soil sampling logs, which are included in Attachment 4. The delineation soil sample locations are depicted on Figure 3.

Delineation soil samples from pothole PH03 and boreholes BH01 and BH02 were below the Closure Criteria for benzene, BTEX, TPH-GRO, TPH-DRO, TPH, and chloride. The shallow (0.5 feet) soil samples from PH01, PH02, and BH03 exceeded the Closure Criteria for TPH-GRO, TPH-DRO and/or TPH. All samples collected at the depth in the potholes and boreholes met Closure Criteria.

Laboratory analytical results for all delineation samples are summarized in Table 1 and the laboratory data reports are provided in Attachment 3.

EXCAVATION ACTIVITIES

From December 4, 2019 through February 20, 2020, LTE oversaw excavation of impacted soil, where possible, as indicated by visual observations, field screening results, and preliminary and delineation soil sample results. Excavation activities were performed in three areas using a track-mounted backhoe and hand shoveling as illustrated on Figure 4.

Following removal of impacted soil from the excavations, LTE collected 5-point composite soil samples following the required 200 square foot frequency from sidewalls and floor of the excavation. 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. The samples were handled and analyzed as described above at Xenco in Carlsbad, New Mexico.

The three excavation extents totaled approximately 240 square feet in area and ranged in depth from 0.5 feet in the west to 3.5 feet in the south. A total of approximately 27 cubic yards of impacted soil were removed from the Site. The impacted soil was transported and properly disposed of at the R360 landfill facility located in Carlsbad, New Mexico.

All excavation confirmation samples met Closure Criteria, except for two sidewall samples collected from the southern-most excavation. Sidewall samples SW03 and SW04 contained 1,860 mg/kg and 1,400 mg/kg TPH-GRO + TPH-DRO, respectively. Laboratory analytical results for all excavation samples are summarized in Table 1 and the laboratory data reports are provided in Attachment 3.

Additional soil was removed from the sidewall at sample SW03 and soil sample SW05 was collected for confirmation. The new sample met Closure Criteria. Additional excavation at SW04 was not possible due to XTO safety policy regarding soil disturbing activities within 2 feet of any above ground production equipment and active pipelines.

LTE personnel returned to the Site to collect a delineation pothole sample, PH04, to attempt to delineate impacts identified in SW04. Three discrete soil samples were collected from PH04 utilizing a backhoe at depths of approximately 1 foot, 3 feet, and 5 feet bgs. All samples from pothole PH04 met Closure Criteria.

DEFERRAL REQUEST

The release occurred in an area of active production equipment. Elevated concentrations of TPH identified during delineation activities were remediated to the maximum extent practical in coordination with XTO safety policy regarding earth moving activities near active production equipment. Approximately 27 cubic yards of impacted soil were excavated from the Site via track hoe, hand shoveling, and a hydrovac truck. Impacted soil between the active aboveground equipment, as indicated by laboratory analytical results for confirmation sidewall soil sample

SW04, could not be excavated further due to these safety limitations. The area of deferral is depicted in Figure 5.

The residual soil has been delineated. Soil samples from PH03, BH01, and BH02 confirm no impacted soil in other areas of the release footprint. Soil represented by SW04 is delineated vertically by the clean excavation floor sample (FS02) and pothole soil samples collected from total depths. Excavation and delineation samples from the release footprint delineate the impacted soil laterally to the south, east, and west. Soil samples collected from PH04 delineate the remaining impacted soil to the north. An estimated 4 cubic yards of impacted soil remains within 2 feet of active production equipment.

XTO respectfully requests NFA and deferral of final remediation for RP Number 2RP-5672 and Incident Number NAB192904149. XTO requests permission to backfill the excavation extents and complete remediation of the remaining impacted soil in the area immediately surrounding the containment during any future major construction, final facility abandonment, or when the structure is removed, whichever occurs first. LTE and XTO do not believe deferment will result in an imminent risk to human health, the environment, or groundwater. Upon approval of this deferral request, XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Kalei Jennings
Project Environmental Scientist

Ashley L. Ager, P.G.
Senior Geologist

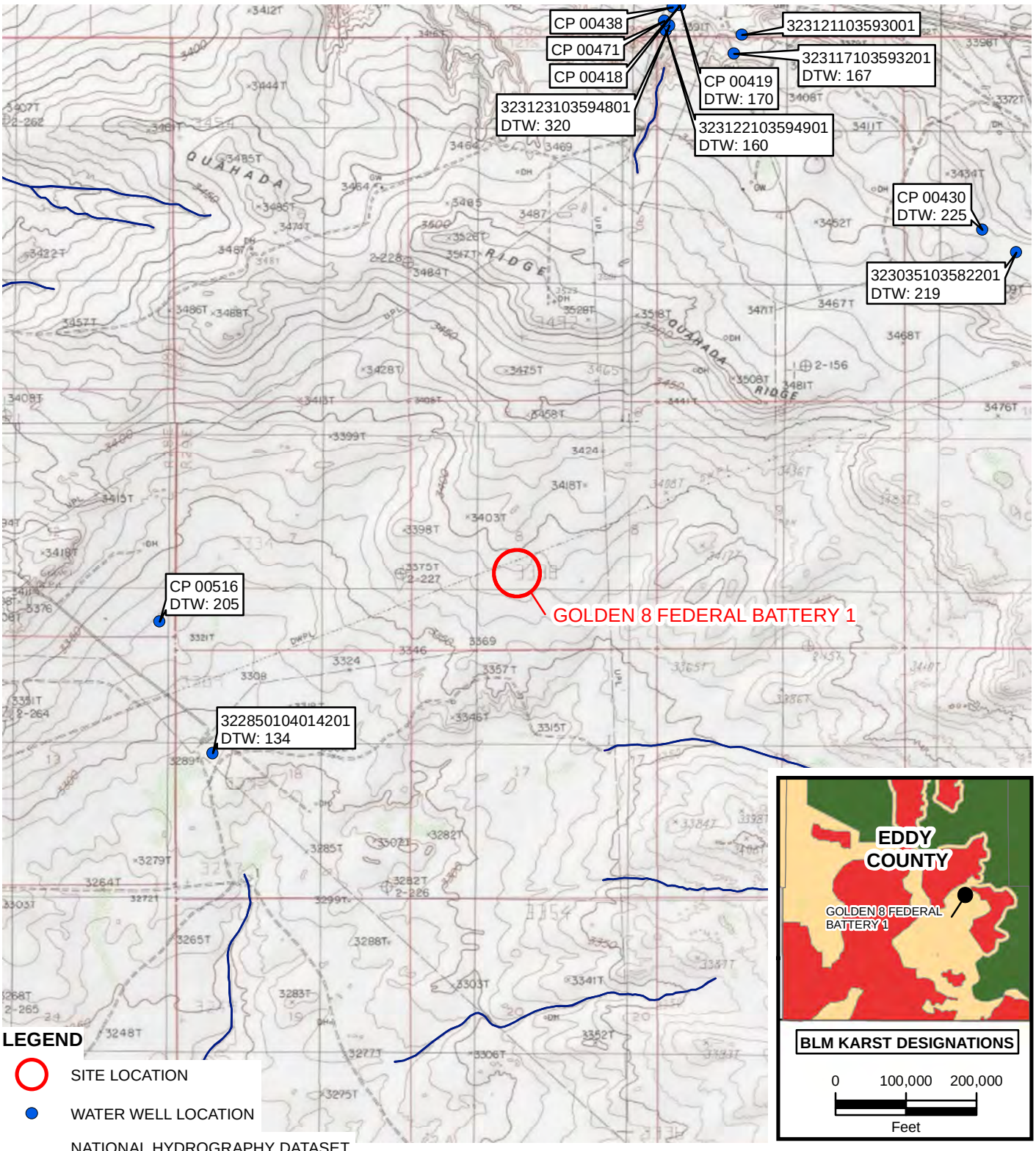
cc: Kyle Littrell, XTO
United States Bureau of Land Management – New Mexico
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD

A proud member of WSP

Attachments:

Figure 1 Site Location Map
Figure 2 Preliminary Soil Sample Locations
Figure 3 Delineation Soil Sample Locations
Figure 4 Excavation Soil Sample Locations
Figure 5 Deferral Area
Table 1 Soil Analytical Report
Attachment 1 Referenced Well Logs
Attachment 2 Photographic Log
Attachment 3 Laboratory Analytical Reports
Attachment 4 Lithologic/Soil Sample 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: REMEDIATION PERMIT NUMBER 2RP-5672
DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT

FIGURE 1
SITE LOCATION MAP
GOLDEN 8 FEDERAL BATTERY 1
UNIT K SEC 8 T21S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919219_GOLDEN 8 FED BATTERY\012919219_FIG01_SL_5672.mxd

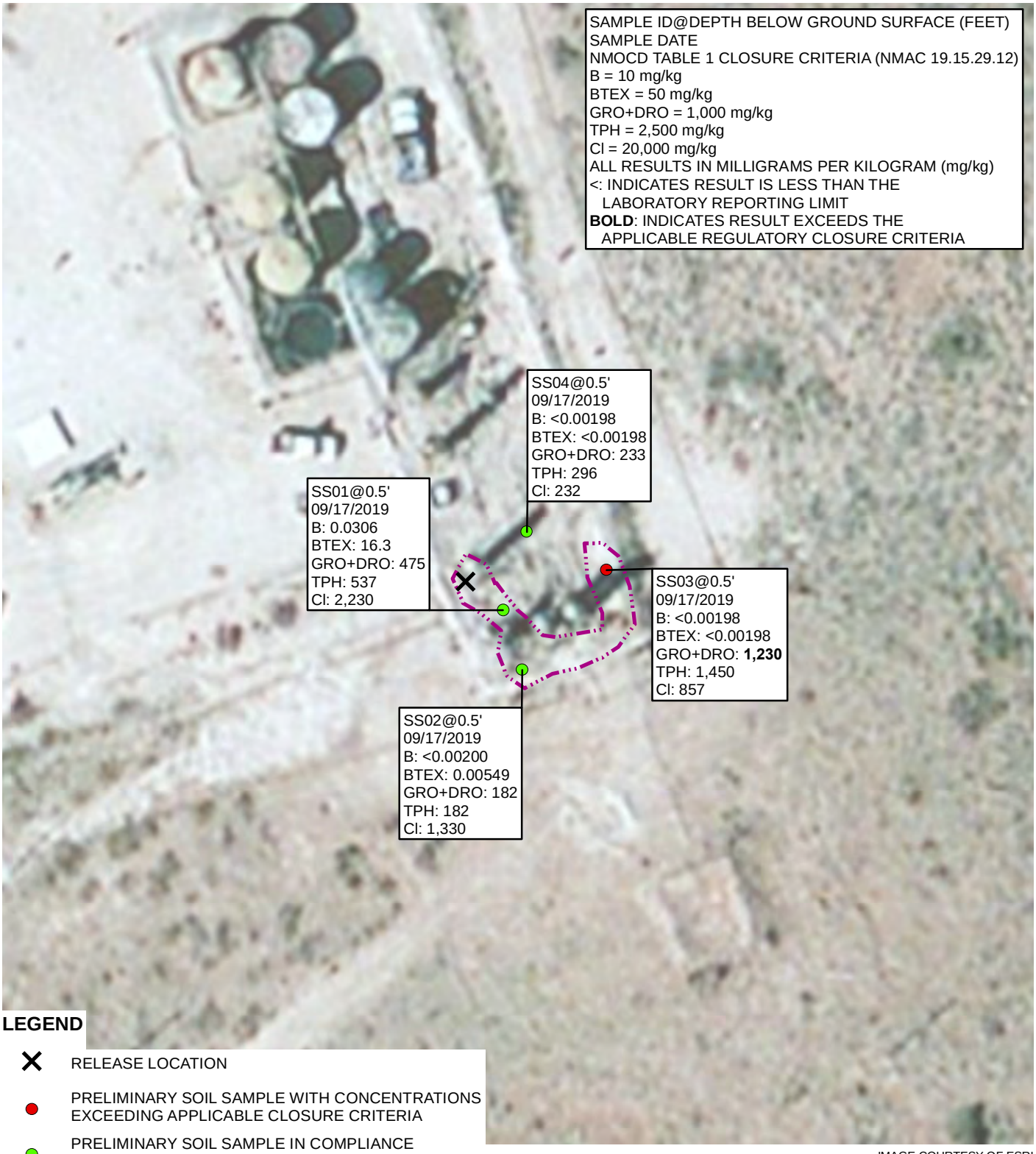
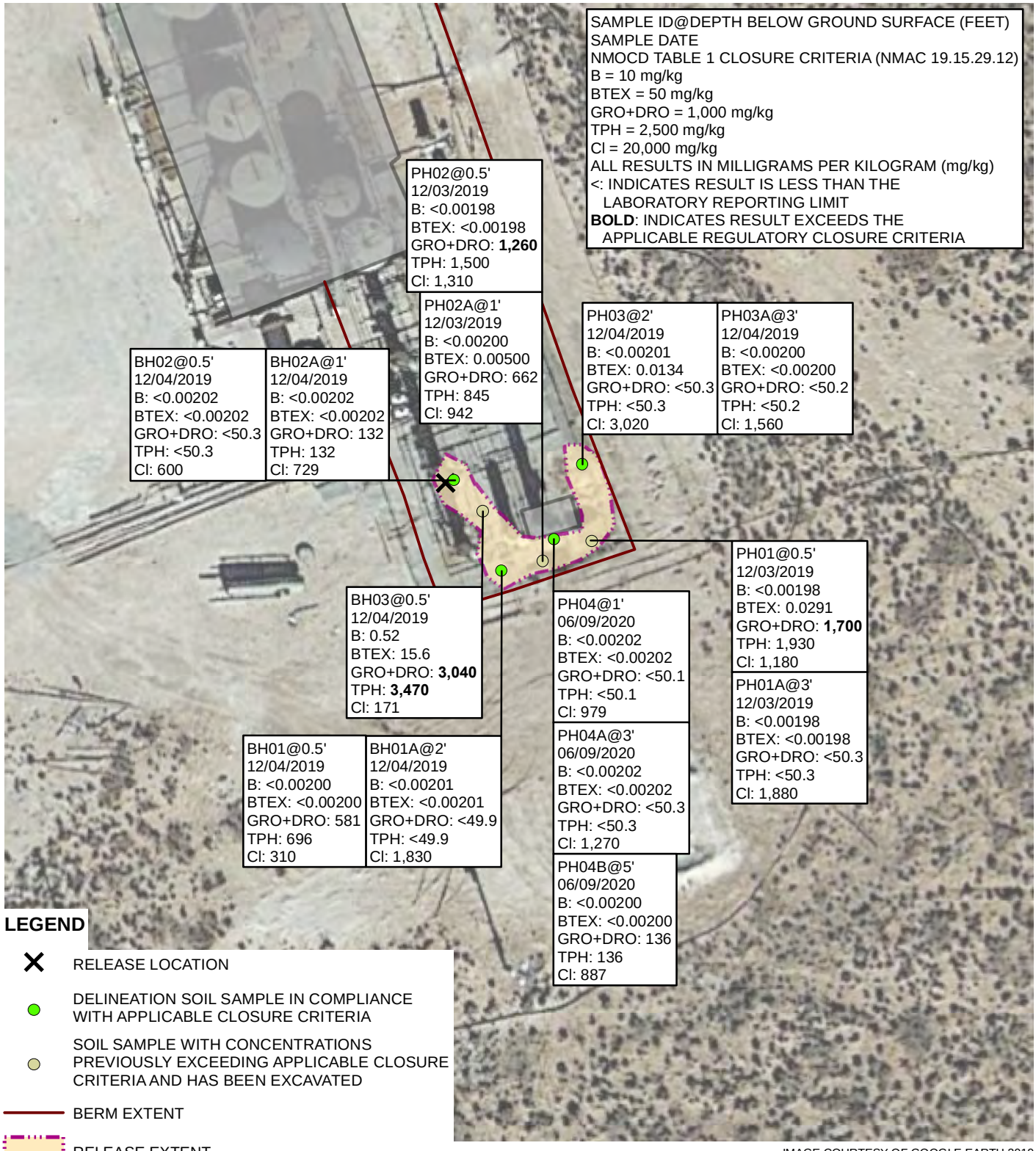


FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
GOLDEN 8 FEDERAL BATTERY 1
UNIT K SEC 8 T21S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919219_GOLDEN 8 FED BATTERY\012919219_FIG02_PRELIMINARY_2019.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: REMEDIATION PERMIT NUMBER 2RP-5672

FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
GOLDEN 8 FEDERAL BATTERY 1
UNIT K SEC 8 T21S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919219_GOLDEN 8 FED BATTERY\012919219_FIG03_DELINEATION_2020.mxd

LEGEND

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

NOTE: REMEDIATION PERMIT NUMBER 2RP-5672
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

IMAGE COURTESY OF GOOGLE EARTH 2019

0 40 80
Feet

N

FIGURE 4
EXCAVATION SOIL SAMPLE LOCATIONS
GOLDEN 8 FEDERAL BATTERY 1
UNIT K SEC 8 T21S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919219_GOLDEN 8 FED BATTERY\012919219_FIG04_EXCAVATION_ND_2020.mxd

IMAGE COURTESY OF GOOGLE EARTH 2019

LEGEND

- RELEASE LOCATION
- SIDEWALL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- BERM EXTENT
- EXCAVATION EXTENT
- INFRASTRUCTURE
- DEFERRAL AREA

NOTE: REMEDIATION PERMIT NUMBER 2RP-5672
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

0 40 80
Feet

N

FIGURE 5
DEFERRAL AREA
GOLDEN 8 FEDERAL BATTERY 1
UNIT K SEC 8 T21S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919219_GOLDEN 8 FED BATTERY\012919219_FIG05_DEFERRAL_2020.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

GOLDEN 8 FEDERAL BATTERY 1
REMEDIATION PERMIT NUMBER 2RP-5672
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	9/17/2019	0.0306	5.79	1.51	8.96	16.3	83.1	392	61	475	537	2,230
SS02	0.5	9/17/2019	<0.00200	0.00549	<0.00200	<0.00200	0.00549	<49.9	182	<49.9	182	182	1,330
SS03	0.5	9/17/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	1,230	215	**1,230**	1,450	857
SS04	0.5	9/17/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	233	62.7	233	296	232
PH01	0.5	12/3/2019	<0.00198	<0.00198	0.00843	0.0207	0.0291	<49.8	1,700	232	**1,700**	1,930	1,180
PH01A	3	12/3/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	1,880
PH02	0.5	12/3/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	1,260	243	**1,260**	1,500	1,310
PH02A	1	12/3/2019	<0.00200	<0.00200	<0.00200	0.005	0.005	<50.3	662	183	662	845	942
PH03	2	12/4/2019	<0.00201	<0.00201	<0.00201	0.0134	0.0134	<50.3	<50.3	<50.3	<50.3	<50.3	3,020
PH03A	3	12/4/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	1,560
PH04	1	06/09/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	979
PH04A	3	06/09/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	1,270
PH04B	5	06/09/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	136	<50.3	136	136	887
BH01	0.5	12/4/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	581	115	581	696	310
BH01A	2	12/4/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	1,830
BH02	0.5	12/4/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	600
BH02A	1	12/4/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	132	<50.2	132	132	729
BH03	0.5	12/4/2019	0.52	6.3	1.26	7.54	15.6	383	2,660	424	**3,040**	**3,470**	171
SW01	0 - 3	12/4/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	686	88.6	686	775	1,090
SW02	0 - 3	12/4/2019	<0.00203	<0.00203	<0.00203	<0.00203	<0.00203	<50.2	95.5	<50.2	95.5	95.5	1,290
SW03	0 - 3.5	12/4/2019	<0.00199	0.00287	0.287	0.75	1.04	281	1,580	151	**1,860**	2,010	707
SW04	0 - 4	1/31/2020	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<49.9	1400	159	**1,400**	1,560	2,050
SW04	0 - 4	06/09/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<250	3460	461	**3,460**	**3,920**	5,650

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TABLE 1
SOIL ANALYTICAL RESULTS

GOLDEN 8 FEDERAL BATTERY 1
REMEDIATION PERMIT NUMBER 2RP-5672
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**
SW05	0 - 4	1/31/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	395
FS01	0.5 - 3	12/3/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	155	<50.2	155	155	567
FS02	3.5	12/4/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	155	<49.9	155	155	969
FS03	0.5	02/20/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	371	66.9	371	438	487

Notes:

bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
DRO - diesel range organics
GRO - gasoline range organics
mg/kg - milligrams per kilogram
MRO - motor oil range organics
NMAC - New Mexico Administrative Code
NMOCD - New Mexico Oil Conservation Division
NE - not established
TPH - total petroleum hydrocarbons
Bold - indicates result exceeds the applicable regulatory standard
< - indicates result is below laboratory reporting limits
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018
TEXT - indicates soil was removed during remediation activities

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ATTACHMENT 1: REFERENCED WELL LOGS

New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: CP 00516 **Subbasin:** CP **Cross Reference:** -

Primary Purpose: PRO 72-12-1 PROSPECTING OR DEVELOPMENT OF NATURAL RESOURCE

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Owner: PERRY R. BASS INC.

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	473794	72121	1973-06-04	PMT	LOG	CP 00516	T		3	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
CP 00516		Shallow	4	4	4	12	21S	28E	590901	3594984*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

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New Mexico Office of the State Engineer

Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	CP 00516	4	4	4	12	21S	28E	590901	3594984*

Driller License:	46	**Driller Company:**	ABBOTT BROTHERS COMPANY		
Driller Name:	ABBOTT, MURRELL				
Drill Start Date:	05/30/1973	**Drill Finish Date:**	06/06/1973	**Plug Date:**	
Log File Date:	06/14/1973	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	7.00	**Depth Well:**	275 feet	**Depth Water:**	205 feet

Water Bearing Stratifications:	Top	Bottom	Description
	260	275	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	253	275

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

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USGS 322850104014201 21S.29E.18.13320

Available data for this site SUMMARY OF ALL AVAILABLE DATA GO

Well Site

DESCRIPTION:

Latitude 32°28'50", Longitude 104°01'42" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 160 feet
Land surface altitude: 3,289 feet above NAVD88.
Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1948-12-30	2015-12-16	6
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

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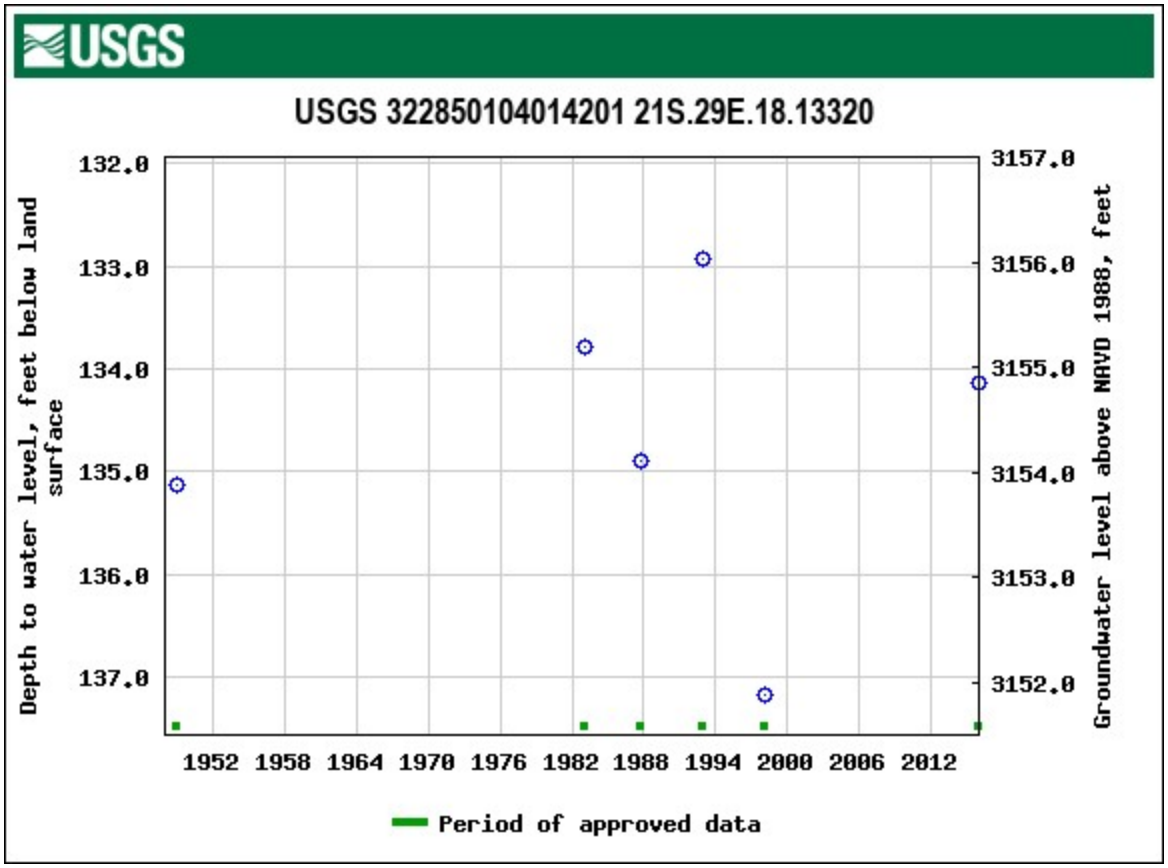
U.S. Department of the Interior | U.S. Geological Survey

Title: NWIS Site Information for USA: Site Inventory
URL: https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=322850104014201

Page Contact Information: New Mexico Water Data Support Team
Page Last Modified: 2020-08-31 16:46:30 EDT
0.28 0.28 caww01


USGS
USGS 322850104014201 21S.29E.18.13320
Depth to water level, feet below land surface
132.0
133.0
134.0
135.0
136.0
137.0
Groundwater level above NAVD 1988, feet
3157.0
3156.0
3155.0
3154.0
3153.0
3152.0
1952 1958 1964 1970 1976 1982 1988 1994 2000 2006 2012
Period of approved data

New Mexico Office of the State Engineer
Water Right Summary

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WR File Number: CP 00430 **Subbasin:** CP **Cross Reference:** -

Primary Purpose: PRO 72-12-1 PROSPECTING OR DEVELOPMENT OF NATURAL RESOURCE

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Owner: PAN AMERICAN PETROLEUM COMPANY

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	473385	72121	1989-12-20	EXP	EXP	CP 00430	T		3	
get images	473378	COWNF	1967-04-26	CHG	PRC	CP 00430	T		0	
get images	473326	72121	1967-04-07	PMT	LOG	CP 00430	T		3	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
CP 00430		Shallow	1	4	1	03	21S	29E	596221	3597558*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

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New Mexico Office of the State Engineer

Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	CP 00430	1	4	1	03	21S	29E	596221	3597558*

Driller License:	46	**Driller Company:**	ABBOTT BROTHERS COMPANY		
Driller Name:	ABBOTT, MURRELL				
Drill Start Date:	04/04/1967	**Drill Finish Date:**	04/06/1967	**Plug Date:**	06/27/1967
Log File Date:	04/21/1967	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	7.00	**Depth Well:**	360 feet	**Depth Water:**	225 feet

Water Bearing Stratifications:	Top	Bottom	Description
	175	205	Other/Unknown
	345	350	Limestone/Dolomite/Chalk

Casing Perforations:	Top	Bottom
	310	360

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

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New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: CP 00419 **Subbasin:** CP **Cross Reference:** -

Primary Purpose: PRO 72-12-1 PROSPECTING OR DEVELOPMENT OF NATURAL RESOURCE

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Owner: MCVAY DRILLING COMPANY

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	473268	72121	1966-12-01	PMT	LOG	CP 00419	T		3	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
CP 00419		Shallow	4	3		32	20S	30E	594250	3599003*	W 1/2

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

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New Mexico Office of the State Engineer

Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	CP 00419	4	3		32	20S	30E	594250	3599003*

Driller License:	46	**Driller Company:**	ABBOTT BROTHERS COMPANY		
Driller Name:	ABBOTT, MURRELL				
Drill Start Date:	11/18/1966	**Drill Finish Date:**	11/19/1966	**Plug Date:**	
Log File Date:	12/01/1966	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	7.00	**Depth Well:**	262 feet	**Depth Water:**	170 feet

Water Bearing Stratifications:	Top	Bottom	Description
	195	256	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	198	262

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

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USGS 323035103582201 21S.29E.03.14413

Available data for this site SUMMARY OF ALL AVAILABLE DATA GO

Well Site

DESCRIPTION:

Latitude 32°30'35", Longitude 103°58'22" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 360 feet
Land surface altitude: 3,425 feet above NAVD88.
Well completed in "Seven Rivers Formation" (313SVRV) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1983-01-18	1987-10-14	2
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

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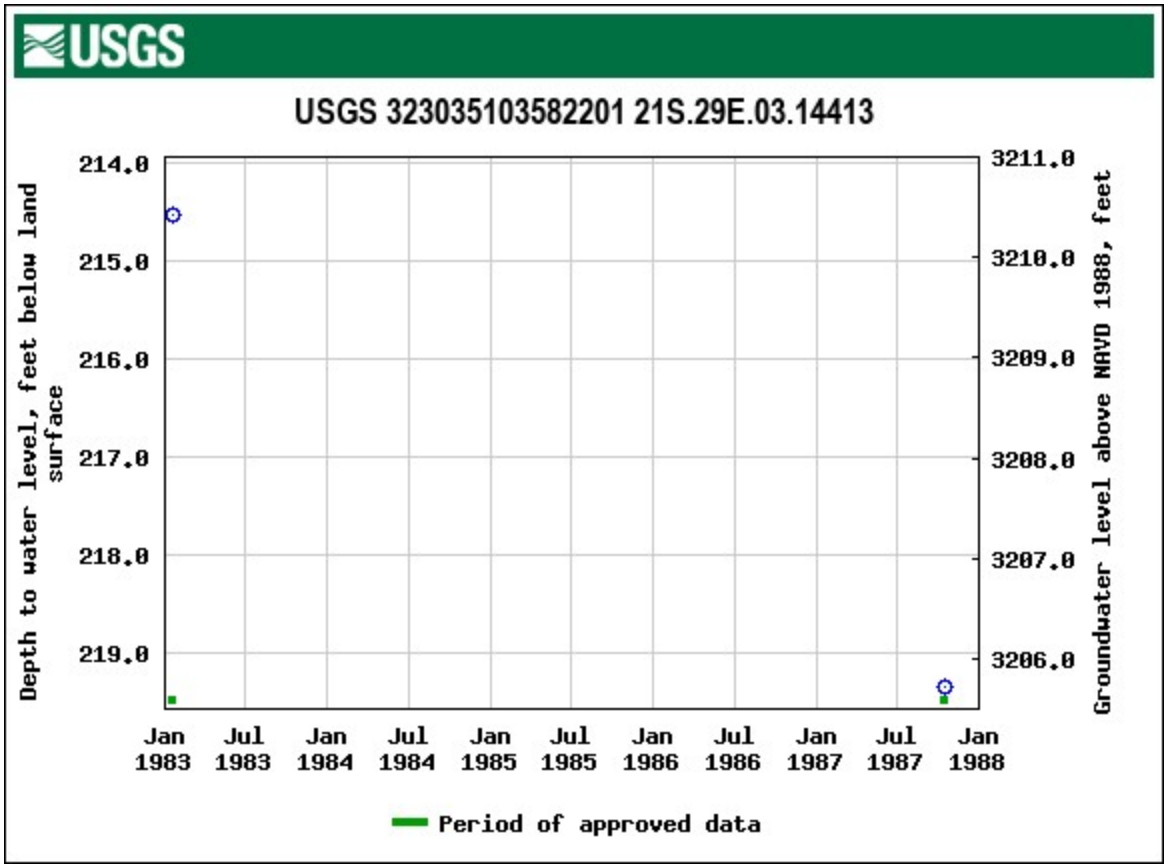
Title: NWIS Site Information for USA: Site Inventory
URL: https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=323035103582201

Page Contact Information: New Mexico Water Data Support Team
Page Last Modified: 2020-08-31 16:47:59 EDT
0.28 0.28 caww01


USGS
USGS 323035103582201 21S.29E.03.14413
Depth to water level, feet below land surface
214.0
215.0
216.0
217.0
218.0
219.0
Groundwater level above NAVD 1988, feet
3211.0
3210.0
3209.0
3208.0
3207.0
3206.0
Jan 1983
Jul 1983
Jan 1984
Jul 1984
Jan 1985
Jul 1985
Jan 1986
Jul 1986
Jan 1987
Jul 1987
Jan 1988
Period of approved data

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USGS 323117103593201 20S.30E.32.433342

Available data for this site SUMMARY OF ALL AVAILABLE DATA GO

Well Site

DESCRIPTION:

Latitude 32°31'17", Longitude 103°59'32" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 302 feet
Land surface altitude: 3,393 feet above NAVD88.
Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1968-05-27	1994-03-02	13
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
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URL: https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=323117103593201

Page Contact Information: New Mexico Water Data Support Team
Page Last Modified: 2020-08-31 16:49:39 EDT
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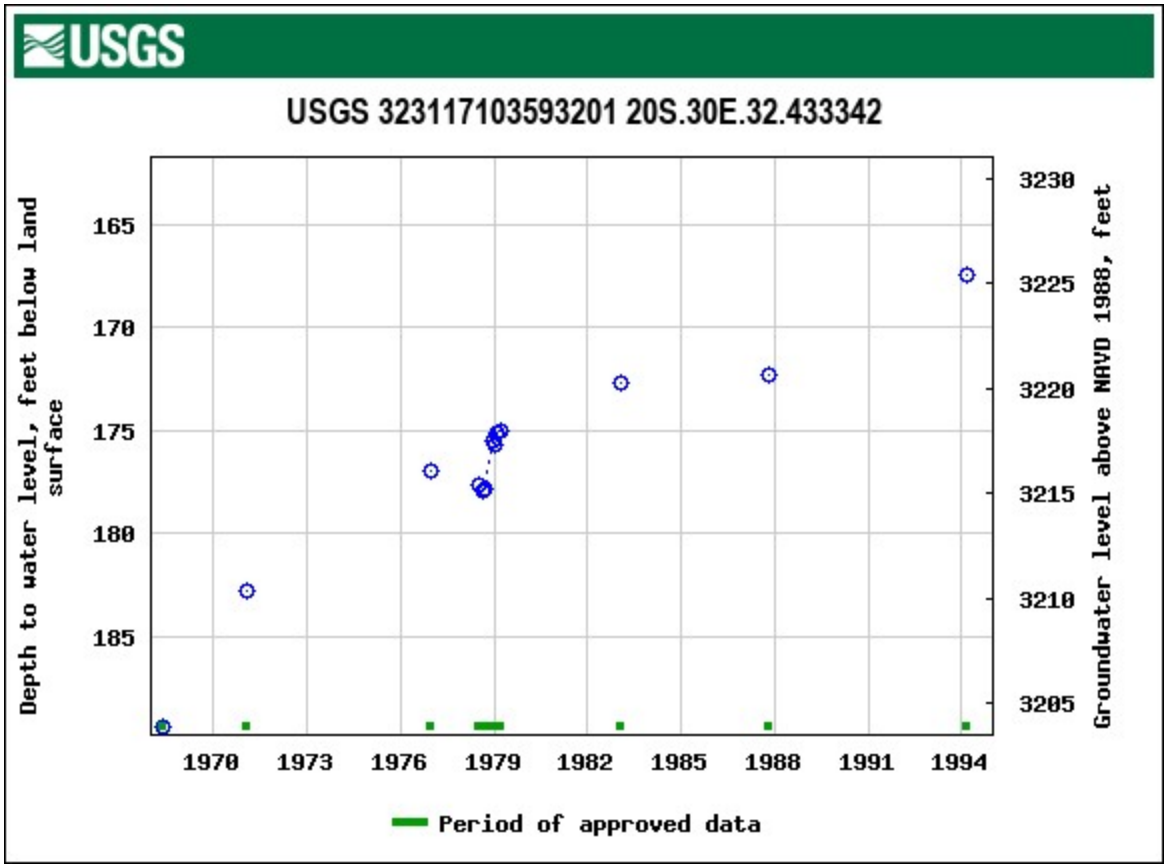
USGS
USGS 323117103593201 20S.30E.32.433342
Depth to water level, feet below land surface
165
170
175
180
185
Groundwater level above NAVD 1988, feet
3230
3225
3220
3215
3210
3205
1970
1973
1976
1979
1982
1985
1988
1991
1994
Period of approved data

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USGS 323123103594801 20S.30E.32.341344

Available data for this site SUMMARY OF ALL AVAILABLE DATA GO

Well Site

DESCRIPTION:

Latitude 32°31'23", Longitude 103°59'48" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 2515 feet
Land surface altitude: 3,379 feet above NAVD88.
Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1967-09-19	1994-03-02	12
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

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URL: https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=323123103594801

Page Contact Information: New Mexico Water Data Support Team
Page Last Modified: 2020-08-31 16:54:48 EDT
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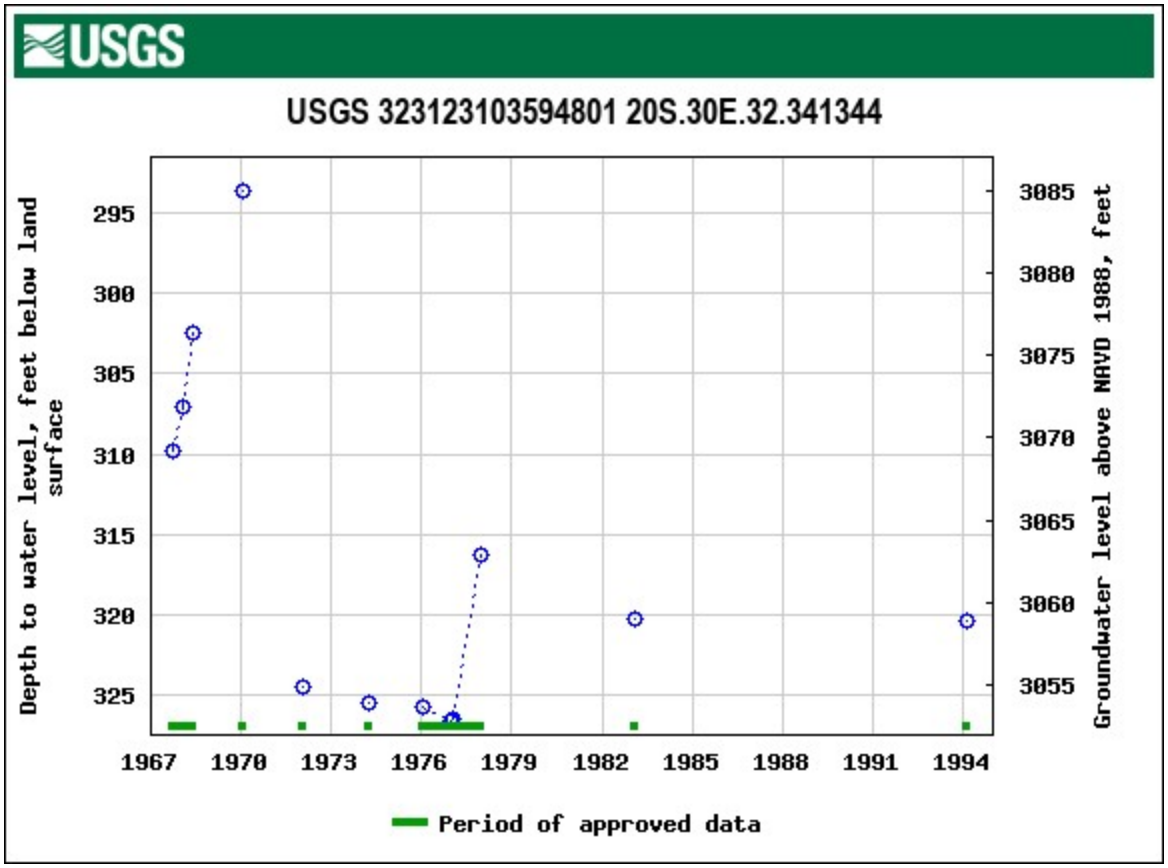
USGS
USGS 323123103594801 20S.30E.32.341344
Depth to water level, feet below land surface
295
300
305
310
315
320
325
Groundwater level above NAVD 1988, feet
3085
3080
3075
3070
3065
3060
3055
1967
1970
1973
1976
1979
1982
1985
1988
1991
1994
Period of approved data

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USGS 323122103594901 20S.30E.32.343123

Available data for this site SUMMARY OF ALL AVAILABLE DATA GO

Well Site

DESCRIPTION:

Latitude 32°31'22", Longitude 103°59'49" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 262 feet
Land surface altitude: 3,392 feet above NAVD88.
Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1970-09-03	1994-03-02	5
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
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Title: NWIS Site Information for USA: Site Inventory
URL: https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=323122103594901

Page Contact Information: New Mexico Water Data Support Team
Page Last Modified: 2020-08-31 16:55:43 EDT
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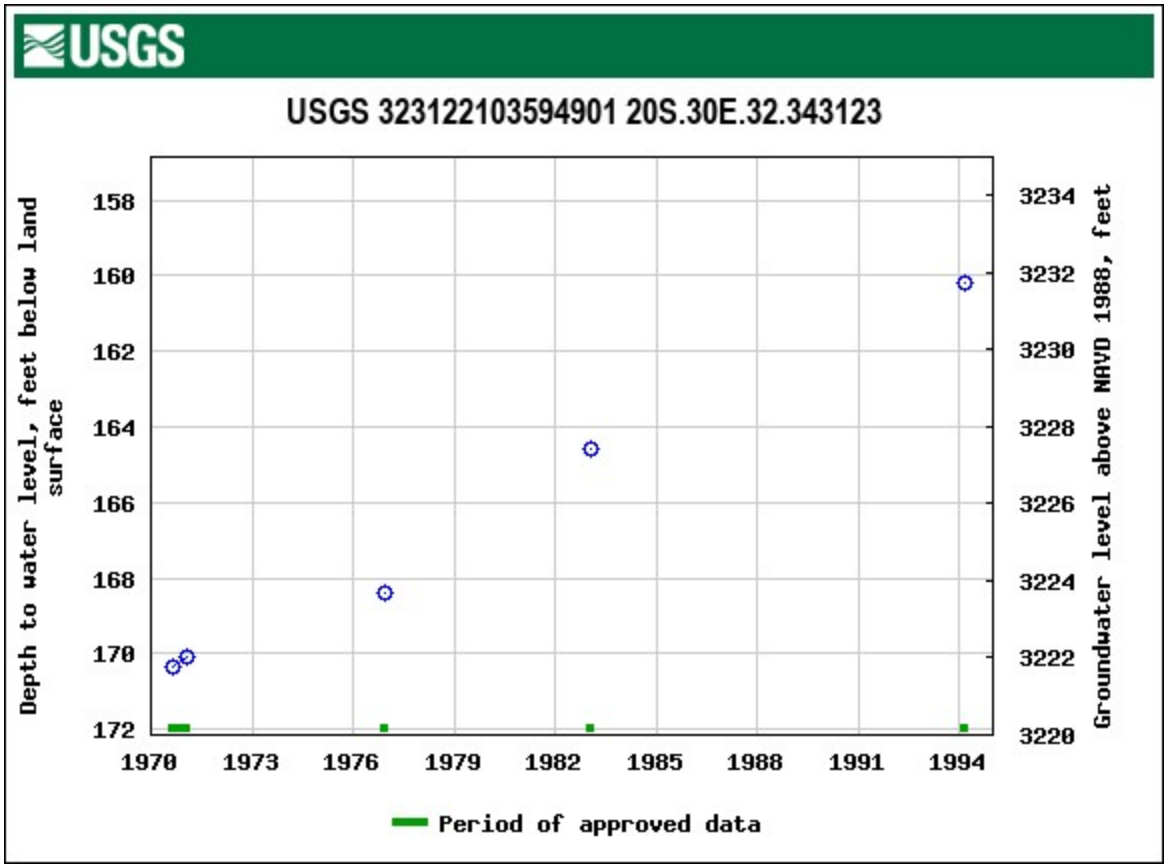
USGS
USGS 323122103594901 20S.30E.32.343123
Depth to water level, feet below land surface
158
160
162
164
166
168
170
172
Groundwater level above NAVD 1988, feet
3234
3232
3230
3228
3226
3224
3222
3220
1970
1973
1976
1979
1982
1985
1988
1991
1994
Period of approved data

ATTACHMENT 2: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Photograph 1: Northwest view of release staining between equipment.

Photograph 2: Northern view of surficial staining within release extent.

Photograph 3: Surficial staining between equipment.

Photograph 4: View of equipment after hand shoveling activities.

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PHOTOGRAPHIC LOG

Photograph 5: Northern view of eastern excavation activities.

Photograph 6: Southern view of eastern excavation activities.

Photograph 7: View north of southern excavation activities.

Photograph 8: Surficial staining before hand shoveling activities.

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ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS

Analytical Report 637435

for

LT Environmental, Inc.

Project Manager: Dan Moir

Golden 8 Fed Battery

012919219

25-SEP-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

25-SEP-19

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

Reference: XENCO Report No(s): **637435**
Golden 8 Fed Battery
Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 637435. 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. 637435 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
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Sample Cross Reference 637435

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	09-17-19 10:22	0.5 ft	637435-001
SS02	S	09-17-19 10:23	0.5 ft	637435-002
SS03	S	09-17-19 10:24	0.5 ft	637435-003
SS04	S	09-17-19 10:25	0.5 ft	637435-004

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Golden 8 Fed Battery

Project ID: *012919219*
Work Order Number(s): *637435*

Report Date: *25-SEP-19*
Date Received: *09/19/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3102203 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Surrogate 1,4-Difluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 637435-001.

Batch: LBA-3102246 TPH by SW8015 Mod
Surrogate 1-Chlorooctane, Surrogate o-Terphenyl recovered below QC limits. Matrix interferences is suspected;
Samples affected are: 637435-004.

Certificate of Analysis Summary 637435

LT Environmental, Inc., Arvada, CO

Project Name: Golden 8 Fed Battery

Project Id: 012919219
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Thu Sep-19-19 10:50 am
Report Date: 25-SEP-19
Project Manager: Jessica Kramer

Analysis Requested															
	Lab Id:	637435-001		637435-002		637435-003		637435-004							
	Field Id:	SS01		SS02		SS03		SS04							
	Depth:	0.5- ft		0.5- ft		0.5- ft		0.5- ft							
	Matrix:	SOIL		SOIL		SOIL		SOIL							
	Sampled:	Sep-17-19 10:22		Sep-17-19 10:23		Sep-17-19 10:24		Sep-17-19 10:25							
BTEX by EPA 8021B SUB: T104704400-18-18	***Extracted:***	Sep-20-19 11:30		Sep-20-19 11:30		Sep-20-19 11:30		Sep-20-19 11:30							
	Analyzed:	Sep-21-19 09:30		Sep-21-19 10:49		Sep-21-19 11:09		Sep-21-19 11:29							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Benzene		0.0306	0.00201	<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198						
Toluene		5.79 D	0.503	0.00549	0.00200	<0.00198	0.00198	<0.00198	0.00198						
Ethylbenzene		1.51 D	0.503	<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198						
m,p-Xylenes		6.39 D	1.01	<0.00400	0.00400	<0.00397	0.00397	<0.00396	0.00396						
o-Xylene		2.57 D	0.503	<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198						
Total Xylenes		8.96	0.503	<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198						
Total BTEX		16.3	0.00201	0.00549	0.00200	<0.00198	0.00198	<0.00198	0.00198						
Chloride by EPA 300 SUB: T104704400-18-18	***Extracted:***	Sep-20-19 13:20		Sep-20-19 13:20		Sep-20-19 13:20		Sep-20-19 13:20							
	Analyzed:	Sep-20-19 16:31		Sep-20-19 16:39		Sep-20-19 17:01		Sep-20-19 17:09							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Chloride		2230	24.8	1330	4.97	857	4.95	232	4.95						
TPH by SW8015 Mod SUB: T104704400-18-18	***Extracted:***	Sep-20-19 13:00		Sep-20-19 13:00		Sep-20-19 13:00		Sep-20-19 13:00							
	Analyzed:	Sep-21-19 00:08		Sep-21-19 00:50		Sep-21-19 01:11		Sep-21-19 01:32							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Gasoline Range Hydrocarbons (GRO)		83.1	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8						
Diesel Range Organics (DRO)		392	50.0	182	49.9	1230	50.0	233	49.8						
Motor Oil Range Hydrocarbons (MRO)		61.4	50.0	<49.9	49.9	215	50.0	62.7	49.8						
Total GRO-DRO		475	50.0	182	49.9	1230	50.0	233	49.8						
Total TPH		537	50.0	182	49.9	1450	50.0	296	49.8						

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Jessica Kramer
Project Assistant

Certificate of Analytical Results 637435

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637435-001	Date Collected:	09.17.19 10.22	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	09.20.19 13.20	Basis:	Wet Weight
Seq Number:	3102109			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2230**	24.8	mg/kg	09.20.19 16.31		5

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

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**83.1**	50.0	mg/kg	09.21.19 00.08		1
Diesel Range Organics (DRO)	C10C28DRO	**392**	50.0	mg/kg	09.21.19 00.08		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**61.4**	50.0	mg/kg	09.21.19 00.08		1
Total GRO-DRO	PHC628	**475**	50.0	mg/kg	09.21.19 00.08		1
Total TPH	PHC635	**537**	50.0	mg/kg	09.21.19 00.08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	136	%	70-135	09.21.19 00.08	**
o-Terphenyl	84-15-1	138	%	70-135	09.21.19 00.08	**

Certificate of Analytical Results 637435

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637435-001	Date Collected:	09.17.19 10.22	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.20.19 11.30	Basis:	Wet Weight
Seq Number:	3102203			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0306**	0.00201	mg/kg	09.21.19 09.30		1
Toluene	108-88-3	**5.79**	0.503	mg/kg	09.23.19 23.50	D	250
Ethylbenzene	100-41-4	**1.51**	0.503	mg/kg	09.23.19 23.50	D	250
m,p-Xylenes	179601-23-1	**6.39**	1.01	mg/kg	09.23.19 23.50	D	250
o-Xylene	95-47-6	**2.57**	0.503	mg/kg	09.23.19 23.50	D	250
Total Xylenes	1330-20-7	**8.96**	0.503	mg/kg	09.23.19 23.50		250
Total BTEX		**16.3**	0.00201	mg/kg	09.23.19 23.50		250

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	139	%	70-130	09.21.19 09.30	**
4-Bromofluorobenzene	460-00-4	120	%	70-130	09.21.19 09.30	

Certificate of Analytical Results 637435

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637435-002	Date Collected:	09.17.19 10.23	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	09.20.19 13.20	Basis:	Wet Weight
Seq Number:	3102109			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1330**	4.97	mg/kg	09.20.19 16.39		1

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

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.21.19 00.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	**182**	49.9	mg/kg	09.21.19 00.50		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.21.19 00.50	U	1
Total GRO-DRO	PHC628	**182**	49.9	mg/kg	09.21.19 00.50		1
Total TPH	PHC635	**182**	49.9	mg/kg	09.21.19 00.50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	133	%	70-135	09.21.19 00.50	
o-Terphenyl	84-15-1	136	%	70-135	09.21.19 00.50	**

Certificate of Analytical Results 637435

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637435-002	Date Collected:	09.17.19 10.23	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.20.19 11.30	Basis:	Wet Weight
Seq Number:	3102203			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.21.19 10.49	U	1
Toluene	108-88-3	**0.00549**	0.00200	mg/kg	09.21.19 10.49		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.21.19 10.49	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.21.19 10.49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.21.19 10.49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.21.19 10.49	U	1
Total BTEX		**0.00549**	0.00200	mg/kg	09.21.19 10.49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	09.21.19 10.49	
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.21.19 10.49	

Certificate of Analytical Results 637435

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637435-003	Date Collected:	09.17.19 10.24	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	09.20.19 13.20	Basis:	Wet Weight
Seq Number:	3102109			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**857**	4.95	mg/kg	09.20.19 17.01		1

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

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.21.19 01.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1230**	50.0	mg/kg	09.21.19 01.11		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**215**	50.0	mg/kg	09.21.19 01.11		1
Total GRO-DRO	PHC628	**1230**	50.0	mg/kg	09.21.19 01.11		1
Total TPH	PHC635	**1450**	50.0	mg/kg	09.21.19 01.11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	135	%	70-135	09.21.19 01.11	
o-Terphenyl	84-15-1	146	%	70-135	09.21.19 01.11	**

Certificate of Analytical Results 637435

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637435-003	Date Collected:	09.17.19 10.24	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.20.19 11.30	Basis:	Wet Weight
Seq Number:	3102203			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.21.19 11.09	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.21.19 11.09	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.21.19 11.09	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.21.19 11.09	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.21.19 11.09	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.21.19 11.09	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.21.19 11.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	89	%	70-130	09.21.19 11.09	
4-Bromofluorobenzene	460-00-4	76	%	70-130	09.21.19 11.09	

Certificate of Analytical Results 637435

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637435-004	Date Collected:	09.17.19 10.25	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	09.20.19 13.20	Basis:	Wet Weight
Seq Number:	3102109			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**232**	4.95	mg/kg	09.20.19 17.09		1

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

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.21.19 01.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	**233**	49.8	mg/kg	09.21.19 01.32		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**62.7**	49.8	mg/kg	09.21.19 01.32		1
Total GRO-DRO	PHC628	**233**	49.8	mg/kg	09.21.19 01.32		1
Total TPH	PHC635	**296**	49.8	mg/kg	09.21.19 01.32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	21	%	70-135	09.21.19 01.32	**
o-Terphenyl	84-15-1	22	%	70-135	09.21.19 01.32	**

Certificate of Analytical Results 637435

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637435-004	Date Collected:	09.17.19 10.25	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.20.19 11.30	Basis:	Wet Weight
Seq Number:	3102203			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.21.19 11.29	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.21.19 11.29	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.21.19 11.29	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	09.21.19 11.29	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.21.19 11.29	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.21.19 11.29	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.21.19 11.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	09.21.19 11.29	
1,4-Difluorobenzene	540-36-3	107	%	70-130	09.21.19 11.29	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 637435

LT Environmental, Inc.

Golden 8 Fed Battery

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3102109 Matrix: Solid Date Prep: 09.20.19
MB Sample Id: 7686607-1-BLK LCS Sample Id: 7686607-1-BKS LCSD Sample Id: 7686607-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	242	97	242	97	90-110	0	20	mg/kg	09.20.19 14:09	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3102109 Matrix: Soil Date Prep: 09.20.19
Parent Sample Id: 637438-001 MS Sample Id: 637438-001 S MSD Sample Id: 637438-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	35.3	250	275	96	275	96	90-110	0	20	mg/kg	09.20.19 16:16	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3102109 Matrix: Soil Date Prep: 09.20.19
Parent Sample Id: 637510-001 MS Sample Id: 637510-001 S MSD Sample Id: 637510-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	192	252	415	88	415	88	90-110	0	20	mg/kg	09.20.19 14:32	X

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

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

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

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 637435

LT Environmental, Inc.

Golden 8 Fed Battery

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

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

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

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3102203 — Matrix: Solid — Date Prep: 09.20.19
MB Sample Id: 7686580-1-BLK — LCS Sample Id: 7686580-1-BKS — LCSD Sample Id: 7686580-1-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	0.0962	96	0.0917	92	70-130	5	35	mg/kg	09.21.19 04:29	
Toluene	<0.00200	0.100	0.0982	98	0.0938	94	70-130	5	35	mg/kg	09.21.19 04:29	
Ethylbenzene	<0.00200	0.100	0.109	109	0.103	103	70-130	6	35	mg/kg	09.21.19 04:29	
m,p-Xylenes	<0.00400	0.200	0.220	110	0.206	103	70-130	7	35	mg/kg	09.21.19 04:29	
o-Xylene	<0.00200	0.100	0.114	114	0.108	108	70-130	5	35	mg/kg	09.21.19 04:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		96		95		70-130	%	09.21.19 04:29
4-Bromofluorobenzene	105		120		115		70-130	%	09.21.19 04:29

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3102203 — Matrix: Soil — Date Prep: 09.20.19
Parent Sample Id: 637427-001 — MS Sample Id: 637427-001 S — MSD Sample Id: 637427-001 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	0.0998	0.0806	81	0.0858	86	70-130	6	35	mg/kg	09.21.19 05:10	
Toluene	<0.00200	0.0998	0.0785	79	0.0822	83	70-130	5	35	mg/kg	09.21.19 05:10	
Ethylbenzene	<0.00200	0.0998	0.0808	81	0.0834	84	70-130	3	35	mg/kg	09.21.19 05:10	
m,p-Xylenes	<0.00399	0.200	0.158	79	0.162	81	70-130	3	35	mg/kg	09.21.19 05:10	
o-Xylene	<0.00200	0.0998	0.0796	80	0.0819	82	70-130	3	35	mg/kg	09.21.19 05:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		102		70-130	%	09.21.19 05:10
4-Bromofluorobenzene	108		110		70-130	%	09.21.19 05:10

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

Chain of Custody

XENCO LABORATORIES

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

Work Order No: 637435

www.xenco.com Page _____ of _____

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

Work Order Comments

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

Project Name:	Golden 8 Fed Battery	Turn Around	
Project Number:	12919219	Routine	✓
P.O. Number:	Eddy County	Rush:	
Sampler's Name:	William Mather	Due Date:	

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

ANALYSIS REQUEST

Work Order Notes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SS01	s	9/17/2019	10:22	0.5	1	x	x	x	Discrete
SS02	s	9/17/2019	10:23	0.5	1	x	x	x	Discrete
SS03	s	9/17/2019	10:24	0.5	1	x	x	x	Discrete
SS04	s	9/17/2019	10:25	0.5	1	x	x	x	Discrete

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		9/19/19 10:50	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 9/2/2020 10:45:07 AM

Inter-Office Shipment

IOS Number **48408**

Date/Time: 09/19/19 14:07
Lab# From: **Carlsbad**
Lab# To: **Midland**

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

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

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
637435-001	S	SS01	09/17/19 10:22	SW8015MOD_NM	TPH by SW8015 Mod	09/25/19	10/01/19	JKR	GRO-DRO PHCC10C28 PI	
637435-001	S	SS01	09/17/19 10:22	SW8021B	BTEX by EPA 8021B	09/25/19	10/01/19	JKR	BR4FBZ BZ BZME EBZ X	
637435-001	S	SS01	09/17/19 10:22	E300_CL	Chloride by EPA 300	09/25/19	03/15/20	JKR	CL	
637435-002	S	SS02	09/17/19 10:23	SW8021B	BTEX by EPA 8021B	09/25/19	10/01/19	JKR	BR4FBZ BZ BZME EBZ X	
637435-002	S	SS02	09/17/19 10:23	SW8015MOD_NM	TPH by SW8015 Mod	09/25/19	10/01/19	JKR	GRO-DRO PHCC10C28 PI	
637435-002	S	SS02	09/17/19 10:23	E300_CL	Chloride by EPA 300	09/25/19	03/15/20	JKR	CL	
637435-003	S	SS03	09/17/19 10:24	SW8021B	BTEX by EPA 8021B	09/25/19	10/01/19	JKR	BR4FBZ BZ BZME EBZ X	
637435-003	S	SS03	09/17/19 10:24	SW8015MOD_NM	TPH by SW8015 Mod	09/25/19	10/01/19	JKR	GRO-DRO PHCC10C28 PI	
637435-003	S	SS03	09/17/19 10:24	E300_CL	Chloride by EPA 300	09/25/19	03/15/20	JKR	CL	
637435-004	S	SS04	09/17/19 10:25	SW8021B	BTEX by EPA 8021B	09/25/19	10/01/19	JKR	BR4FBZ BZ BZME EBZ X	
637435-004	S	SS04	09/17/19 10:25	E300_CL	Chloride by EPA 300	09/25/19	03/15/20	JKR	CL	
637435-004	S	SS04	09/17/19 10:25	SW8015MOD_NM	TPH by SW8015 Mod	09/25/19	10/01/19	JKR	GRO-DRO PHCC10C28 PI	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 09/19/2019

Received By: Brianna Teel

Date Received: 09/20/2019 11:34

Cooler Temperature: 0.4

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 48408

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

Sent By: Elizabeth McClellan **Date Sent:** 09/19/2019 02:07 PM

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

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

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

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

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

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

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

Work Order #: 637435

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

Temperature Measuring device used : T-NM-007

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

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

Analyst: PH Device/Lot#:

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

Checklist reviewed by: Jessica Kramer Date: 09/23/2019

Jessica Kramer

Analytical Report 644985

for

LT Environmental, Inc.

Project Manager: Dan Moir

Golden 8 Fed Battery

012919219

05-DEC-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

05-DEC-19

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

Reference: XENCO Report No(s): **644985**
Golden 8 Fed Battery
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) 644985. 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. 644985 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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

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

Sample Cross Reference 644985

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	12-03-19 11:30	0.5 - 3 ft	644985-001
PH01	S	12-03-19 13:37	0.5 ft	644985-002
PH01A	S	12-03-19 13:20	3 ft	644985-003
PH02	S	12-03-19 14:00	0.5 ft	644985-004
PH02A	S	12-03-19 14:02	1 ft	644985-005

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Golden 8 Fed Battery

Project ID: *012919219*
Work Order Number(s): *644985*

Report Date: *05-DEC-19*
Date Received: *12/04/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109452 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3109453 TPH by SW8015 Mod
Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 644985-001.

Certificate of Analysis Summary 644985

LT Environmental, Inc., Arvada, CO

Project Name: Golden 8 Fed Battery

Project Id: 012919219
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed Dec-04-19 08:45 am
Report Date: 05-DEC-19
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	644985-001		644985-002		644985-003		644985-004		644985-005	
	Field Id:	FS01		PH01		PH01A		PH02		PH02A	
	Depth:	0.5-3 ft		0.5- ft		3- ft		0.5- ft		1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-03-19 11:30		Dec-03-19 13:37		Dec-03-19 13:20		Dec-03-19 14:00		Dec-03-19 14:02	
BTEX by EPA 8021B	***Extracted:***	Dec-04-19 10:00		Dec-04-19 10:00		Dec-04-19 10:00		Dec-04-19 10:00		Dec-04-19 10:00	
	Analyzed:	Dec-04-19 13:38		Dec-04-19 13:57		Dec-04-19 14:41		Dec-04-19 15:10		Dec-04-19 15:29	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00198	0.00198	<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00198	0.00198	<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	0.00843	0.00198	<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	0.0127	0.00395	<0.00395	0.00395	<0.00397	0.00397	<0.00399	0.00399
o-Xylene		<0.00201	0.00201	0.00798	0.00198	<0.00198	0.00198	<0.00198	0.00198	0.00500	0.00200
Total Xylenes		<0.00201	0.00201	0.0207	0.00198	<0.00198	0.00198	<0.00198	0.00198	0.00500	0.00200
Total BTEX		<0.00201	0.00201	0.0291	0.00198	<0.00198	0.00198	<0.00198	0.00198	0.00500	0.00200
Chloride by EPA 300	***Extracted:***	Dec-04-19 13:00		Dec-04-19 13:00		Dec-04-19 13:00		Dec-04-19 13:00		Dec-04-19 13:00	
	Analyzed:	Dec-04-19 17:26		Dec-04-19 17:32		Dec-04-19 17:38		Dec-04-19 17:44		Dec-04-19 17:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		567	9.94	1180	49.8	1880	49.9	1310	49.6	942	49.9
TPH by SW8015 Mod	***Extracted:***	Dec-04-19 13:30		Dec-04-19 13:30		Dec-04-19 13:30		Dec-04-19 13:30		Dec-04-19 13:30	
	Analyzed:	Dec-04-19 16:56		Dec-04-19 16:56		Dec-04-19 17:16		Dec-04-19 17:36		Dec-04-19 17:36	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.2	50.2	<49.8	49.8	<50.3	50.3	<50.0	50.0	<50.3	50.3
Diesel Range Organics (DRO)		155	50.2	1700	49.8	<50.3	50.3	1260	50.0	662	50.3
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2	232	49.8	<50.3	50.3	243	50.0	183	50.3
Total GRO-DRO		155	50.2	1700	49.8	<50.3	50.3	1260	50.0	662	50.3
Total TPH		155	50.2	1930	49.8	<50.3	50.3	1500	50.0	845	50.3

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 644985

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id: **FS01** Matrix: Soil Date Received:12.04.19 08.45

Lab Sample Id: 644985-001 Date Collected: 12.03.19 11.30 Sample Depth: 0.5 - 3 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB % Moisture:

Analyst: MAB Date Prep: 12.04.19 13.00 Basis: Wet Weight

Seq Number: 3109466

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**567**	9.94	mg/kg	12.04.19 17.26		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DTH % Moisture:

Analyst: DTH Date Prep: 12.04.19 13.30 Basis: Wet Weight

Seq Number: 3109453

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.04.19 16.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	**155**	50.2	mg/kg	12.04.19 16.56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.04.19 16.56	U	1
Total GRO-DRO	PHC628	**155**	50.2	mg/kg	12.04.19 16.56		1
Total TPH	PHC635	**155**	50.2	mg/kg	12.04.19 16.56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	125	%	70-135	12.04.19 16.56	
o-Terphenyl	84-15-1	136	%	70-135	12.04.19 16.56	**

Certificate of Analytical Results 644985

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	12.04.19 08.45
Lab Sample Id:	644985-001	Date Collected:	12.03.19 11.30	Sample Depth:	0.5 - 3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 10.00	Basis:	Wet Weight
Seq Number:	3109452				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.04.19 13.38	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.04.19 13.38	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.04.19 13.38	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.04.19 13.38	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.04.19 13.38	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.04.19 13.38	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.04.19 13.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	70-130	12.04.19 13.38	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.04.19 13.38	

Certificate of Analytical Results 644985

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id: **PH01** Matrix: Soil Date Received:12.04.19 08.45

Lab Sample Id: 644985-002 Date Collected: 12.03.19 13.37 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB % Moisture:

Analyst: MAB Date Prep: 12.04.19 13.00 Basis: Wet Weight

Seq Number: 3109466

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1180**	49.8	mg/kg	12.04.19 17.32		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DTH % Moisture:

Analyst: DTH Date Prep: 12.04.19 13.30 Basis: Wet Weight

Seq Number: 3109453

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.04.19 16.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1700**	49.8	mg/kg	12.04.19 16.56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**232**	49.8	mg/kg	12.04.19 16.56		1
Total GRO-DRO	PHC628	**1700**	49.8	mg/kg	12.04.19 16.56		1
Total TPH	PHC635	**1930**	49.8	mg/kg	12.04.19 16.56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	12.04.19 16.56	
o-Terphenyl	84-15-1	122	%	70-135	12.04.19 16.56	

Certificate of Analytical Results 644985

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	12.04.19 08.45
Lab Sample Id:	644985-002	Date Collected:	12.03.19 13.37	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 10.00	Basis:	Wet Weight
Seq Number:	3109452				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.04.19 13.57	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.04.19 13.57	U	1
Ethylbenzene	100-41-4	**0.00843**	0.00198	mg/kg	12.04.19 13.57		1
m,p-Xylenes	179601-23-1	**0.0127**	0.00395	mg/kg	12.04.19 13.57		1
o-Xylene	95-47-6	**0.00798**	0.00198	mg/kg	12.04.19 13.57		1
Total Xylenes	1330-20-7	**0.0207**	0.00198	mg/kg	12.04.19 13.57		1
Total BTEX		**0.0291**	0.00198	mg/kg	12.04.19 13.57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	12.04.19 13.57	
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.04.19 13.57	

Certificate of Analytical Results 644985

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id: **PH01A** Matrix: Soil Date Received:12.04.19 08.45

Lab Sample Id: 644985-003 Date Collected: 12.03.19 13.20 Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB % Moisture:

Analyst: MAB Date Prep: 12.04.19 13.00 Basis: Wet Weight

Seq Number: 3109466

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1880**	49.9	mg/kg	12.04.19 17.38		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DTH % Moisture:

Analyst: DTH Date Prep: 12.04.19 13.30 Basis: Wet Weight

Seq Number: 3109453

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.04.19 17.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.04.19 17.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.04.19 17.16	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.04.19 17.16	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.04.19 17.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	12.04.19 17.16	
o-Terphenyl	84-15-1	121	%	70-135	12.04.19 17.16	

Certificate of Analytical Results 644985

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	12.04.19 08.45
Lab Sample Id:	644985-003	Date Collected:	12.03.19 13.20	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 10.00	Basis:	Wet Weight
Seq Number:	3109452				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.04.19 14.41	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.04.19 14.41	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.04.19 14.41	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	12.04.19 14.41	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.04.19 14.41	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.04.19 14.41	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.04.19 14.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.04.19 14.41	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.04.19 14.41	

Certificate of Analytical Results 644985

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id: **PH02** Matrix: Soil Date Received:12.04.19 08.45
Lab Sample Id: 644985-004 Date Collected: 12.03.19 14.00 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 12.04.19 13.00 Basis: Wet Weight
Seq Number: 3109466

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1310**	49.6	mg/kg	12.04.19 17.44		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 12.04.19 13.30 Basis: Wet Weight
Seq Number: 3109453

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.04.19 17.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1260**	50.0	mg/kg	12.04.19 17.36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**243**	50.0	mg/kg	12.04.19 17.36		1
Total GRO-DRO	PHC628	**1260**	50.0	mg/kg	12.04.19 17.36		1
Total TPH	PHC635	**1500**	50.0	mg/kg	12.04.19 17.36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	12.04.19 17.36	
o-Terphenyl	84-15-1	127	%	70-135	12.04.19 17.36	

Certificate of Analytical Results 644985

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	12.04.19 08.45
Lab Sample Id:	644985-004	Date Collected:	12.03.19 14.00	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 10.00	Basis:	Wet Weight
Seq Number:	3109452				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.04.19 15.10	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.04.19 15.10	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.04.19 15.10	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.04.19 15.10	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.04.19 15.10	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.04.19 15.10	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.04.19 15.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	12.04.19 15.10	
4-Bromofluorobenzene	460-00-4	108	%	70-130	12.04.19 15.10	

Certificate of Analytical Results 644985

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id: **PH02A** Matrix: Soil Date Received:12.04.19 08.45

Lab Sample Id: 644985-005 Date Collected: 12.03.19 14.02 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB % Moisture:

Analyst: MAB Date Prep: 12.04.19 13.00 Basis: Wet Weight

Seq Number: 3109466

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**942**	49.9	mg/kg	12.04.19 17.51		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DTH % Moisture:

Analyst: DTH Date Prep: 12.04.19 13.30 Basis: Wet Weight

Seq Number: 3109453

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.04.19 17.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	**662**	50.3	mg/kg	12.04.19 17.36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**183**	50.3	mg/kg	12.04.19 17.36		1
Total GRO-DRO	PHC628	**662**	50.3	mg/kg	12.04.19 17.36		1
Total TPH	PHC635	**845**	50.3	mg/kg	12.04.19 17.36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.04.19 17.36	
o-Terphenyl	84-15-1	119	%	70-135	12.04.19 17.36	

Certificate of Analytical Results 644985

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	12.04.19 08.45
Lab Sample Id:	644985-005	Date Collected:	12.03.19 14.02	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 10.00	Basis:	Wet Weight
Seq Number:	3109452				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.04.19 15.29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.04.19 15.29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.04.19 15.29	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.04.19 15.29	U	1
o-Xylene	95-47-6	**0.00500**	0.00200	mg/kg	12.04.19 15.29		1
Total Xylenes	1330-20-7	**0.00500**	0.00200	mg/kg	12.04.19 15.29		1
Total BTEX		**0.00500**	0.00200	mg/kg	12.04.19 15.29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.04.19 15.29	
4-Bromofluorobenzene	460-00-4	116	%	70-130	12.04.19 15.29	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 644985

LT Environmental, Inc.

Golden 8 Fed Battery

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3109466 — Matrix: Solid — Date Prep: 12.04.19
MB Sample Id: 7691688-1-BLK — LCS Sample Id: 7691688-1-BKS — LCSD Sample Id: 7691688-1-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	262	105	266	106	90-110	2	20	mg/kg	12.04.19 15:56	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3109466 — Matrix: Soil — Date Prep: 12.04.19
Parent Sample Id: 644979-001 — MS Sample Id: 644979-001 S — MSD Sample Id: 644979-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10.5	202	219	103	217	103	90-110	1	20	mg/kg	12.04.19 16:34	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3109466 — Matrix: Soil — Date Prep: 12.04.19
Parent Sample Id: 644985-005 — MS Sample Id: 644985-005 S — MSD Sample Id: 644985-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	942	198	1140	100	1160	109	90-110	2	20	mg/kg	12.04.19 17:57	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3109453 — Matrix: Solid — Date Prep: 12.04.19
MB Sample Id: 7691711-1-BLK — LCS Sample Id: 7691711-1-BKS — LCSD Sample Id: 7691711-1-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	914	91	940	94	70-135	3	35	mg/kg	12.04.19 15:37	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1140	114	70-135	9	35	mg/kg	12.04.19 15:37	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		124		130		70-135	%	12.04.19 15:37
o-Terphenyl	108		123		128		70-135	%	12.04.19 15:37

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3109453 — Matrix: Solid — Date Prep: 12.04.19
MB Sample Id: 7691711-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.04.19 15:17	

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 644985

LT Environmental, Inc.

Golden 8 Fed Battery

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3109453 — Matrix: Soil — Date Prep: 12.04.19
Parent Sample Id: 644983-001 — MS Sample Id: 644983-001 S — MSD Sample Id: 644983-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	902	90	916	91	70-135	2	35	mg/kg	12.04.19 15:57	
Diesel Range Organics (DRO)	62.4	1000	1090	103	1080	101	70-135	1	35	mg/kg	12.04.19 15:57	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		126		70-135	%	12.04.19 15:57
o-Terphenyl	132		126		70-135	%	12.04.19 15:57

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3109452 — Matrix: Solid — Date Prep: 12.04.19
MB Sample Id: 7691694-1-BLK — LCS Sample Id: 7691694-1-BKS — LCSD Sample Id: 7691694-1-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	0.0892	89	0.0958	96	70-130	7	35	mg/kg	12.04.19 10:39	
Toluene	<0.00200	0.100	0.0913	91	0.0974	97	70-130	6	35	mg/kg	12.04.19 10:39	
Ethylbenzene	<0.00200	0.100	0.0913	91	0.0970	97	71-129	6	35	mg/kg	12.04.19 10:39	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.205	103	70-135	6	35	mg/kg	12.04.19 10:39	
o-Xylene	<0.00200	0.100	0.0970	97	0.103	103	71-133	6	35	mg/kg	12.04.19 10:39	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		102		102		70-130	%	12.04.19 10:39
4-Bromofluorobenzene	109		115		115		70-130	%	12.04.19 10:39

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3109452 — Matrix: Soil — Date Prep: 12.04.19
Parent Sample Id: 644979-001 — MS Sample Id: 644979-001 S — MSD Sample Id: 644979-001 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	0.0903	90	0.0737	74	70-130	20	35	mg/kg	12.04.19 11:18	
Toluene	<0.00200	0.100	0.0910	91	0.0740	74	70-130	21	35	mg/kg	12.04.19 11:18	
Ethylbenzene	<0.00200	0.100	0.0904	90	0.0720	72	71-129	23	35	mg/kg	12.04.19 11:18	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.154	77	70-135	22	35	mg/kg	12.04.19 11:18	
o-Xylene	<0.00200	0.100	0.0963	96	0.0760	76	71-133	24	35	mg/kg	12.04.19 11:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		105		70-130	%	12.04.19 11:18
4-Bromofluorobenzene	119		118		70-130	%	12.04.19 11:18

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

Page 85 of 160

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

Work Order No: 644785

www.xenco.com Page 1 of 1

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

Work Order Comments

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

Project Name:	Golden 8 Fed Battery	Turn Around	
Project Number:	012919219	Routine: ☐	
PO #:	2RP-5672	Rush: 24 hrs	
Sampler's Name:	Fatima Smith	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	1.2	Thermometer ID	TH1007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	5

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS01	S	12/3/19	1130	0.5-3'	1	X	X	X
PH01	S	12/3/19	1317	0.5'	1	X	X	X
PH01A	S	12/3/19	1320	3'	1	X	X	X
PH02	S	12/3/19	1400	0.5'	1	X	X	X
PH02A	S	12/3/19	1402	1'	1	X	X	X

Work Order Notes

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

Sample Comments

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			12-4-2019	2		12/4/19 08:45
3				4		
5				6		

Revised Date101419 Rev. 2019.1

Received by OCD: 9/2/2020 10:45:07 AM

Final 1.000

Page 19 of 20

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12/04/2019 08:45:00 AM

Work Order #: 644985

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

Temperature Measuring device used : TNM 07

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.2
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**No**
#4 *Custody Seals intact on shipping container/ cooler?	**No**
#5 Custody Seals intact on sample bottles?	**No**
#6*Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**Yes**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**Yes**
#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: Martha Castro Date: 12/04/2019

Checklist reviewed by: Jessica Kramer Date: 12/05/2019

Jessica Kramer

Analytical Report 645129

for

LT Environmental, Inc.

Project Manager: Dan Moir

Golden 8 Fed Battery

012919219

06-DEC-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

06-DEC-19

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

Reference: XENCO Report No(s): **645129**
Golden 8 Fed Battery
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) 645129. 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. 645129 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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

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

Sample Cross Reference 645129

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW01	S	12-04-19 08:35	0 - 3 ft	645129-001
SW02	S	12-04-19 10:15	0 - 3 ft	645129-002
BH01	S	12-04-19 10:34	0.5 ft	645129-003
BH01A	S	12-04-19 10:39	2 ft	645129-004
BH02	S	12-04-19 12:09	0.5 ft	645129-005
BH02A	S	12-04-19 12:11	1 ft	645129-006
FS02	S	12-04-19 12:27	3.5 ft	645129-007
SW03	S	12-04-19 12:34	0 - 3.5 ft	645129-008
PH03	S	12-04-19 13:21	2 ft	645129-009
PH03A	S	12-04-19 13:22	3 ft	645129-010

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Golden 8 Fed Battery

Project ID: *012919219*
Work Order Number(s): *645129*

Report Date: *06-DEC-19*
Date Received: *12/04/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109459 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3109484 TPH by SW8015 Mod
Surrogate 1-Chlorooctane, Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 645106-003 S.

Batch: LBA-3109529 BTEX by EPA 8021B
Ethylbenzene, Toluene, m,p-Xylenes , o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.
Samples in the analytical batch are: 645129-001, -007, -008, -009, -010
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Lab Sample ID 645129-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).
Benzene, Ethylbenzene, Toluene, m,p-Xylenes , o-Xylene 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: 645129-001, -007, -008, -009, -010.
The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 645129

LT Environmental, Inc., Arvada, CO

Project Name: Golden 8 Fed Battery

Project Id: 012919219
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed Dec-04-19 04:42 pm
Report Date: 06-DEC-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	645129-001		645129-002		645129-003		645129-004		645129-005		645129-006	
	Field Id:	SW01		SW02		BH01		BH01A		BH02		BH02A	
	Depth:	0-3 ft		0-3 ft		0.5- ft		2- ft		0.5- ft		1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-04-19 08:35		Dec-04-19 10:15		Dec-04-19 10:34		Dec-04-19 10:39		Dec-04-19 12:09		Dec-04-19 12:11	
BTEX by EPA 8021B	***Extracted:***	Dec-04-19 22:00		** ** ** **		** ** ** **		** ** ** **		** ** ** **		** ** ** **	
	Analyzed:	Dec-05-19 08:42		Dec-05-19 04:20		Dec-05-19 04:40		Dec-05-19 04:59		Dec-05-19 05:18		Dec-05-19 05:37	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00203	0.00203	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202	<0.00202	0.00202
Toluene		<0.00200	0.00200	<0.00203	0.00203	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202	<0.00202	0.00202
Ethylbenzene		<0.00200	0.00200	<0.00203	0.00203	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202	<0.00202	0.00202
m,p-Xylenes		<0.00399	0.00399	<0.00406	0.00406	<0.00401	0.00401	<0.00402	0.00402	<0.00403	0.00403	<0.00403	0.00403
o-Xylene		<0.00200	0.00200	<0.00203	0.00203	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202	<0.00202	0.00202
Total Xylenes		<0.00200	0.00200	<0.00203	0.00203	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202	<0.00202	0.00202
Total BTEX		<0.00200	0.00200	<0.00203	0.00203	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202	<0.00202	0.00202
Chloride by EPA 300	***Extracted:***	Dec-04-19 20:58		Dec-04-19 20:58		Dec-04-19 20:58		Dec-04-19 20:58		Dec-04-19 20:58		Dec-04-19 20:58	
	Analyzed:	Dec-05-19 10:11		Dec-05-19 10:17		Dec-05-19 10:34		Dec-05-19 11:23		Dec-05-19 11:29		Dec-05-19 11:35	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1090	49.7	1290	50.4	310	10.0	1830	100	600	9.98	729	49.6
TPH by SW8015 Mod	***Extracted:***	Dec-04-19 17:00		Dec-04-19 17:00		Dec-04-19 17:00		Dec-04-19 17:00		Dec-04-19 17:00		Dec-04-19 17:00	
	Analyzed:	Dec-05-19 06:44		Dec-05-19 06:44		Dec-05-19 07:23		Dec-05-19 07:23		Dec-05-19 07:43		Dec-05-19 08:03	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.2	50.2	<50.0	50.0	<49.9	49.9	<50.3	50.3	<50.2	50.2
Diesel Range Organics (DRO)		686	50.0	95.5	50.2	581	50.0	<49.9	49.9	<50.3	50.3	132	50.2
Motor Oil Range Hydrocarbons (MRO)		88.6	50.0	<50.2	50.2	115	50.0	<49.9	49.9	<50.3	50.3	<50.2	50.2
Total GRO-DRO		686	50.0	95.5	50.2	581	50.0	<49.9	49.9	<50.3	50.3	132	50.2
Total TPH		775	50.0	95.5	50.2	696	50.0	<49.9	49.9	<50.3	50.3	132	50.2

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 645129

LT Environmental, Inc., Arvada, CO

Project Name: Golden 8 Fed Battery

Project Id: 012919219
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed Dec-04-19 04:42 pm
Report Date: 06-DEC-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	645129-007		645129-008		645129-009		645129-010					
	Field Id:	FS02		SW03		PH03		PH03A					
	Depth:	3.5- ft		0-3.5 ft		2- ft		3- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Dec-04-19 12:27		Dec-04-19 12:34		Dec-04-19 13:21		Dec-04-19 13:22					
BTEX by EPA 8021B	***Extracted:***	Dec-04-19 22:00		Dec-04-19 22:00		Dec-04-19 22:00		Dec-04-19 22:00					
	Analyzed:	Dec-05-19 09:39		Dec-05-19 09:58		Dec-05-19 09:04		Dec-05-19 09:20					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200				
Toluene		<0.00202	0.00202	0.00287	0.00199	<0.00201	0.00201	<0.00200	0.00200				
Ethylbenzene		<0.00202	0.00202	0.287	0.199	<0.00201	0.00201	<0.00200	0.00200				
m,p-Xylenes		<0.00404	0.00404	0.750	0.398	<0.00402	0.00402	<0.00401	0.00401				
o-Xylene		<0.00202	0.00202	<0.199	0.199	0.0134	0.00201	<0.00200	0.00200				
Total Xylenes		<0.00202	0.00202	0.750	0.199	0.0134	0.00201	<0.00200	0.00200				
Total BTEX		<0.00202	0.00202	1.04	0.00199	0.0134	0.00201	<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	Dec-04-19 20:58		Dec-04-19 20:58		Dec-04-19 20:58		Dec-04-19 20:58					
	Analyzed:	Dec-05-19 11:40		Dec-05-19 11:47		Dec-05-19 11:52		Dec-05-19 11:58					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		969	50.4	707	49.9	3020	99.4	1560	50.0				
TPH by SW8015 Mod	***Extracted:***	Dec-04-19 17:00		Dec-04-19 17:00		Dec-04-19 17:00		Dec-04-19 17:00					
	Analyzed:	Dec-05-19 08:23		Dec-05-19 08:43		Dec-05-19 08:43		Dec-05-19 09:02					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	281	50.1	<50.3	50.3	<50.2	50.2				
Diesel Range Organics (DRO)		155	49.9	1580	50.1	<50.3	50.3	<50.2	50.2				
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	151	50.1	<50.3	50.3	<50.2	50.2				
Total GRO-DRO		155	49.9	1860	50.1	<50.3	50.3	<50.2	50.2				
Total TPH		155	49.9	2010	50.1	<50.3	50.3	<50.2	50.2				

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The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Jessica Kramer
Project Assistant

Certificate of Analytical Results 645129

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645129-001	Date Collected:	12.04.19 08.35	Sample Depth:	0 - 3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 20.58	Basis:	Wet Weight
Seq Number:	3109487				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1090**	49.7	mg/kg	12.05.19 10.11		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.04.19 17.00	Basis:	Wet Weight
Seq Number:	3109484				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.05.19 06.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	**686**	50.0	mg/kg	12.05.19 06.44		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**88.6**	50.0	mg/kg	12.05.19 06.44		1
Total GRO-DRO	PHC628	**686**	50.0	mg/kg	12.05.19 06.44		1
Total TPH	PHC635	**775**	50.0	mg/kg	12.05.19 06.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	12.05.19 06.44	
o-Terphenyl	84-15-1	117	%	70-135	12.05.19 06.44	

Certificate of Analytical Results 645129

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645129-001	Date Collected:	12.04.19 08.35	Sample Depth:	0 - 3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 22.00	Basis:	Wet Weight
Seq Number:	3109529				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.05.19 08.42	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.05.19 08.42	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.05.19 08.42	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.05.19 08.42	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.05.19 08.42	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.05.19 08.42	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.05.19 08.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	12.05.19 08.42	
4-Bromofluorobenzene	460-00-4	110	%	70-130	12.05.19 08.42	

Certificate of Analytical Results 645129

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645129-002	Date Collected:	12.04.19 10.15	Sample Depth:	0 - 3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 20.58	Basis:	Wet Weight
Seq Number:	3109487				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1290**	50.4	mg/kg	12.05.19 10.17		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.04.19 17.00	Basis:	Wet Weight
Seq Number:	3109484				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.05.19 06.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	**95.5**	50.2	mg/kg	12.05.19 06.44		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.05.19 06.44	U	1
Total GRO-DRO	PHC628	**95.5**	50.2	mg/kg	12.05.19 06.44		1
Total TPH	PHC635	**95.5**	50.2	mg/kg	12.05.19 06.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	12.05.19 06.44	
o-Terphenyl	84-15-1	124	%	70-135	12.05.19 06.44	

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LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645129-002	Date Collected:	12.04.19 10.15	Sample Depth:	0 - 3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 16.32	Basis:	Wet Weight
Seq Number:	3109459				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00203	0.00203	mg/kg	12.05.19 04.20	U	1
Toluene	108-88-3	<0.00203	0.00203	mg/kg	12.05.19 04.20	U	1
Ethylbenzene	100-41-4	<0.00203	0.00203	mg/kg	12.05.19 04.20	U	1
m,p-Xylenes	179601-23-1	<0.00406	0.00406	mg/kg	12.05.19 04.20	U	1
o-Xylene	95-47-6	<0.00203	0.00203	mg/kg	12.05.19 04.20	U	1
Total Xylenes	1330-20-7	<0.00203	0.00203	mg/kg	12.05.19 04.20	U	1
Total BTEX		<0.00203	0.00203	mg/kg	12.05.19 04.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	12.05.19 04.20	
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.05.19 04.20	

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LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id: **BH01** Matrix: Soil Date Received:12.04.19 16.42
Lab Sample Id: 645129-003 Date Collected: 12.04.19 10.34 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 12.04.19 20.58 Basis: Wet Weight
Seq Number: 3109487

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**310**	10.0	mg/kg	12.05.19 10.34		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 12.04.19 17.00 Basis: Wet Weight
Seq Number: 3109484

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.05.19 07.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	**581**	50.0	mg/kg	12.05.19 07.23		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**115**	50.0	mg/kg	12.05.19 07.23		1
Total GRO-DRO	PHC628	**581**	50.0	mg/kg	12.05.19 07.23		1
Total TPH	PHC635	**696**	50.0	mg/kg	12.05.19 07.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	12.05.19 07.23	
o-Terphenyl	84-15-1	125	%	70-135	12.05.19 07.23	

Certificate of Analytical Results 645129

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645129-003	Date Collected:	12.04.19 10.34	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 16.32	Basis:	Wet Weight
Seq Number:	3109459				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.05.19 04.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.05.19 04.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.05.19 04.40	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.05.19 04.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.05.19 04.40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.05.19 04.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.05.19 04.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	12.05.19 04.40	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.05.19 04.40	

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LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645129-004	Date Collected:	12.04.19 10.39	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 20.58	Basis:	Wet Weight
Seq Number:	3109487				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1830**	100	mg/kg	12.05.19 11.23		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.04.19 17.00	Basis:	Wet Weight
Seq Number:	3109484				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.05.19 07.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.05.19 07.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.05.19 07.23	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.05.19 07.23	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.05.19 07.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	12.05.19 07.23	
o-Terphenyl	84-15-1	123	%	70-135	12.05.19 07.23	

Certificate of Analytical Results 645129

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645129-004	Date Collected:	12.04.19 10.39	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 16.32	Basis:	Wet Weight
Seq Number:	3109459				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.05.19 04.59	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.05.19 04.59	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.05.19 04.59	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.05.19 04.59	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.05.19 04.59	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.05.19 04.59	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.05.19 04.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	12.05.19 04.59	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.05.19 04.59	

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LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id: **BH02** Matrix: Soil Date Received:12.04.19 16.42

Lab Sample Id: 645129-005 Date Collected: 12.04.19 12.09 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB % Moisture:

Analyst: MAB Date Prep: 12.04.19 20.58 Basis: Wet Weight

Seq Number: 3109487

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**600**	9.98	mg/kg	12.05.19 11.29		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DTH % Moisture:

Analyst: DTH Date Prep: 12.04.19 17.00 Basis: Wet Weight

Seq Number: 3109484

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.05.19 07.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.05.19 07.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.05.19 07.43	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.05.19 07.43	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.05.19 07.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.05.19 07.43	
o-Terphenyl	84-15-1	120	%	70-135	12.05.19 07.43	

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LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645129-005	Date Collected:	12.04.19 12.09	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 16.32	Basis:	Wet Weight
Seq Number:	3109459				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.05.19 05.18	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.05.19 05.18	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.05.19 05.18	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.05.19 05.18	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.05.19 05.18	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.05.19 05.18	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.05.19 05.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	70-130	12.05.19 05.18	
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.05.19 05.18	

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LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645129-006	Date Collected:	12.04.19 12.11	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 20.58	Basis:	Wet Weight
Seq Number:	3109487				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**729**	49.6	mg/kg	12.05.19 11.35		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.04.19 17.00	Basis:	Wet Weight
Seq Number:	3109484				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.05.19 08.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	**132**	50.2	mg/kg	12.05.19 08.03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.05.19 08.03	U	1
Total GRO-DRO	PHC628	**132**	50.2	mg/kg	12.05.19 08.03		1
Total TPH	PHC635	**132**	50.2	mg/kg	12.05.19 08.03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	12.05.19 08.03	
o-Terphenyl	84-15-1	124	%	70-135	12.05.19 08.03	

Certificate of Analytical Results 645129

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645129-006	Date Collected:	12.04.19 12.11	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 16.32	Basis:	Wet Weight
Seq Number:	3109459				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.05.19 05.37	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.05.19 05.37	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.05.19 05.37	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.05.19 05.37	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.05.19 05.37	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.05.19 05.37	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.05.19 05.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.05.19 05.37	
4-Bromofluorobenzene	460-00-4	119	%	70-130	12.05.19 05.37	

Certificate of Analytical Results 645129

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645129-007	Date Collected:	12.04.19 12.27	Sample Depth:	3.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 20.58	Basis:	Wet Weight
Seq Number:	3109487				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**969**	50.4	mg/kg	12.05.19 11.40		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.04.19 17.00	Basis:	Wet Weight
Seq Number:	3109484				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.05.19 08.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	**155**	49.9	mg/kg	12.05.19 08.23		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.05.19 08.23	U	1
Total GRO-DRO	PHC628	**155**	49.9	mg/kg	12.05.19 08.23		1
Total TPH	PHC635	**155**	49.9	mg/kg	12.05.19 08.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	12.05.19 08.23	
o-Terphenyl	84-15-1	121	%	70-135	12.05.19 08.23	

Certificate of Analytical Results 645129

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645129-007	Date Collected:	12.04.19 12.27	Sample Depth:	3.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 22.00	Basis:	Wet Weight
Seq Number:	3109529				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.05.19 09.39	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.05.19 09.39	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.05.19 09.39	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.05.19 09.39	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.05.19 09.39	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.05.19 09.39	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.05.19 09.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	123	%	70-130	12.05.19 09.39	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.05.19 09.39	

Certificate of Analytical Results 645129

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645129-008	Date Collected:	12.04.19 12.34	Sample Depth:	0 - 3.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 20.58	Basis:	Wet Weight
Seq Number:	3109487				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**707**	49.9	mg/kg	12.05.19 11.47		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.04.19 17.00	Basis:	Wet Weight
Seq Number:	3109484				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**281**	50.1	mg/kg	12.05.19 08.43		1
Diesel Range Organics (DRO)	C10C28DRO	**1580**	50.1	mg/kg	12.05.19 08.43		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**151**	50.1	mg/kg	12.05.19 08.43		1
Total GRO-DRO	PHC628	**1860**	50.1	mg/kg	12.05.19 08.43		1
Total TPH	PHC635	**2010**	50.1	mg/kg	12.05.19 08.43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	12.05.19 08.43	
o-Terphenyl	84-15-1	120	%	70-135	12.05.19 08.43	

Certificate of Analytical Results 645129

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645129-008	Date Collected:	12.04.19 12.34	Sample Depth:	0 - 3.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 22.00	Basis:	Wet Weight
Seq Number:	3109529				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.05.19 14.30	U	1
Toluene	108-88-3	**0.00287**	0.00199	mg/kg	12.05.19 14.30		1
Ethylbenzene	100-41-4	**0.287**	0.199	mg/kg	12.05.19 09.58		100
m,p-Xylenes	179601-23-1	**0.750**	0.398	mg/kg	12.05.19 09.58		100
o-Xylene	95-47-6	<0.199	0.199	mg/kg	12.05.19 09.58	U	100
Total Xylenes	1330-20-7	**0.750**	0.199	mg/kg	12.05.19 09.58		100
Total BTEX		**1.04**	0.00199	mg/kg	12.05.19 14.30		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.05.19 09.58	
4-Bromofluorobenzene	460-00-4	124	%	70-130	12.05.19 09.58	

Certificate of Analytical Results 645129

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645129-009	Date Collected:	12.04.19 13.21	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 20.58	Basis:	Wet Weight
Seq Number:	3109487				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3020**	99.4	mg/kg	12.05.19 11.52		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.04.19 17.00	Basis:	Wet Weight
Seq Number:	3109484				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.05.19 08.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.05.19 08.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.05.19 08.43	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.05.19 08.43	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.05.19 08.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.05.19 08.43	
o-Terphenyl	84-15-1	118	%	70-135	12.05.19 08.43	

Certificate of Analytical Results 645129

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645129-009	Date Collected:	12.04.19 13.21	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 22.00	Basis:	Wet Weight
Seq Number:	3109529				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.05.19 09.04	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.05.19 09.04	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.05.19 09.04	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.05.19 09.04	U	1
o-Xylene	95-47-6	**0.0134**	0.00201	mg/kg	12.05.19 09.04		1
Total Xylenes	1330-20-7	**0.0134**	0.00201	mg/kg	12.05.19 09.04		1
Total BTEX		**0.0134**	0.00201	mg/kg	12.05.19 09.04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	12.05.19 09.04	
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.05.19 09.04	

Certificate of Analytical Results 645129

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645129-010	Date Collected:	12.04.19 13.22	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 20.58	Basis:	Wet Weight
Seq Number:	3109487				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1560**	50.0	mg/kg	12.05.19 11.58		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.04.19 17.00	Basis:	Wet Weight
Seq Number:	3109484				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.05.19 09.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.05.19 09.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.05.19 09.02	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.05.19 09.02	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.05.19 09.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.05.19 09.02	
o-Terphenyl	84-15-1	114	%	70-135	12.05.19 09.02	

Certificate of Analytical Results 645129

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645129-010	Date Collected:	12.04.19 13.22	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 22.00	Basis:	Wet Weight
Seq Number:	3109529				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.05.19 09.20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.05.19 09.20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.05.19 09.20	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.05.19 09.20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.05.19 09.20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.05.19 09.20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.05.19 09.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	12.05.19 09.20	
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.05.19 09.20	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 645129

LT Environmental, Inc.

Golden 8 Fed Battery

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3109487 Matrix: Solid Date Prep: 12.04.19
MB Sample Id: 7691691-1-BLK LCS Sample Id: 7691691-1-BKS LCSD Sample Id: 7691691-1-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	264	106	264	106	90-110	0	20	mg/kg	12.05.19 08:38	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3109487 Matrix: Soil Date Prep: 12.04.19
Parent Sample Id: 645024-001 MS Sample Id: 645024-001 S MSD Sample Id: 645024-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	753	202	960	102	959	102	90-110	0	20	mg/kg	12.05.19 08:56	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3109484 Matrix: Solid Date Prep: 12.04.19
MB Sample Id: 7691735-1-BLK LCS Sample Id: 7691735-1-BKS LCSD Sample Id: 7691735-1-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	933	93	964	96	70-135	3	35	mg/kg	12.05.19 05:25	
Diesel Range Organics (DRO)	<50.0	1000	1070	107	1200	120	70-135	11	35	mg/kg	12.05.19 05:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		127		133		70-135	%	12.05.19 05:25
o-Terphenyl	112		128		132		70-135	%	12.05.19 05:25

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3109484 Matrix: Solid Date Prep: 12.04.19
MB Sample Id: 7691735-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.05.19 05:05	

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 645129

LT Environmental, Inc.

Golden 8 Fed Battery

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3109484 — Matrix: Soil — Date Prep: 12.04.19
Parent Sample Id: 645106-003 — MS Sample Id: 645106-003 S — MSD Sample Id: 645106-003 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	987	99	929	93	70-135	6	35	mg/kg	12.05.19 05:45	
Diesel Range Organics (DRO)	<50.2	1000	1220	122	1080	108	70-135	12	35	mg/kg	12.05.19 05:45	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	136	**	130		70-135	%	12.05.19 05:45
o-Terphenyl	147	**	130		70-135	%	12.05.19 05:45

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3109459 — Matrix: Solid — Date Prep: 12.04.19
MB Sample Id: 7691696-1-BLK — LCS Sample Id: 7691696-1-BKS — LCSD Sample Id: 7691696-1-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	0.0906	91	0.0926	93	70-130	2	35	mg/kg	12.04.19 21:07	
Toluene	<0.00200	0.100	0.0925	93	0.0955	96	70-130	3	35	mg/kg	12.04.19 21:07	
Ethylbenzene	<0.00200	0.100	0.0917	92	0.0949	95	71-129	3	35	mg/kg	12.04.19 21:07	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.202	101	70-135	4	35	mg/kg	12.04.19 21:07	
o-Xylene	<0.00200	0.100	0.0988	99	0.102	102	71-133	3	35	mg/kg	12.04.19 21:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		102		102		70-130	%	12.04.19 21:07
4-Bromofluorobenzene	108		114		115		70-130	%	12.04.19 21:07

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3109529 — Matrix: Solid — Date Prep: 12.04.19
MB Sample Id: 7691697-1-BLK — LCS Sample Id: 7691697-1-BKS — LCSD Sample Id: 7691697-1-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	0.0855	86	0.0900	90	70-130	5	35	mg/kg	12.05.19 07:00	
Toluene	<0.00200	0.100	0.0887	89	0.0938	94	70-130	6	35	mg/kg	12.05.19 07:00	
Ethylbenzene	<0.00200	0.100	0.0876	88	0.0930	93	71-129	6	35	mg/kg	12.05.19 07:00	
m,p-Xylenes	<0.00400	0.200	0.186	93	0.199	100	70-135	7	35	mg/kg	12.05.19 07:00	
o-Xylene	<0.00200	0.100	0.0960	96	0.102	102	71-133	6	35	mg/kg	12.05.19 07:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		99		100		70-130	%	12.05.19 07:00
4-Bromofluorobenzene	108		119		116		70-130	%	12.05.19 07:00

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

QC Summary 645129

LT Environmental, Inc.

Golden 8 Fed Battery

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

Seq Number: 3109459 Matrix: Soil Date Prep: 12.04.19

Parent Sample Id: 644999-001 MS Sample Id: 644999-001 S MSD Sample Id: 644999-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0815	82	0.0818	81	70-130	0	35	mg/kg	12.04.19 21:45	
Toluene	<0.00201	0.100	0.0830	83	0.0830	82	70-130	0	35	mg/kg	12.04.19 21:45	
Ethylbenzene	<0.00201	0.100	0.0817	82	0.0812	80	71-129	1	35	mg/kg	12.04.19 21:45	
m,p-Xylenes	<0.00402	0.201	0.173	86	0.171	85	70-135	1	35	mg/kg	12.04.19 21:45	
o-Xylene	<0.00201	0.100	0.0875	88	0.0871	86	71-133	0	35	mg/kg	12.04.19 21:45	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		103		70-130	%	12.04.19 21:45
4-Bromofluorobenzene	120		118		70-130	%	12.04.19 21:45

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

Seq Number: 3109529 Matrix: Soil Date Prep: 12.04.19

Parent Sample Id: 645129-001 MS Sample Id: 645129-001 S MSD Sample Id: 645129-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0662	67	0.0527	53	70-130	23	35	mg/kg	12.05.19 07:38	X
Toluene	<0.00199	0.0994	0.0543	55	0.0352	35	70-130	43	35	mg/kg	12.05.19 07:38	XF
Ethylbenzene	<0.00199	0.0994	0.0380	38	0.0214	21	71-129	56	35	mg/kg	12.05.19 07:38	XF
m,p-Xylenes	<0.00398	0.199	0.0773	39	0.0412	21	70-135	61	35	mg/kg	12.05.19 07:38	XF
o-Xylene	<0.00199	0.0994	0.0396	40	0.0234	23	71-133	51	35	mg/kg	12.05.19 07:38	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		101		70-130	%	12.05.19 07:38
4-Bromofluorobenzene	122		123		70-130	%	12.05.19 07:38

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike

Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added

LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec

Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

Page 117 of 160

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

Work Order No: 645129

www.xenco.com Page 1 of 1

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

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfield ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level I ☐ Level ☐ PST/US ☐ TRR ☐ Level ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Golden 8 Fed Battery	Turn Around	
Project Number:	012919219	Routine: ☐	
PO #:	2RP-5672	Rush: 24 hrs 48 hrs	
Sampler's Name:	Fatima Smith	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	9.0	Thermometer ID	
Received Intact:	(Yes) No	T-NM-007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	10

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SW01	S	12/4/19	0835	0-3'	1	X	X	X
SW02			1015	0-3'				
BH01			1034	0.5				
BH01A			1039	2				
BH02			1209	0.5				
BH02A			1211	.1				
FS02			1227	3.5				
SW03			1243	0-3.5				
PH03			1321	2				
PH03A	↓	↓	1322	3	↓	↓	↓	↓

Work Order Notes

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

Sample Comments

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Fatima		12/4/19 16:42	2		
3			4		
5			6		

Revised Date101419 Rev. 2019.1

Received by OCD: 9/2/2020 10:45:07 AM

Final 1.000

Page 31 of 31

Analytical Report 645131

for

LT Environmental, Inc.

Project Manager: Dan Moir

Golden 8 Fed Battery

012919219

06-APR-20

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

06-APR-20

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

Reference: XENCO Report No(s): **645131**
Golden 8 Fed Battery
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) 645131. 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. 645131 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

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

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

Sample Cross Reference 645131

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH03	S	12-04-19 12:55	0.5 ft	645131-001
BH03A	S	12-04-19 13:01	1.5 ft	Not Analyzed

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Golden 8 Fed Battery

Project ID: *012919219*
Work Order Number(s): *645131*

Report Date: *06-APR-20*
Date Received: *12/04/2019*

Sample receipt non conformances and comments:

V1.001 Revision (client email) Changed sample names. JK 04/06/20
SS01 --> BH03
SS01A --> BH03A

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109484 TPH by SW8015 Mod
Surrogate 1-Chlorooctane, Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 645106-003 S.

Batch: LBA-3109512 Chloride by EPA 300
Lab Sample ID 645131-001 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: 645131-001, -002.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3109529 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 645131

LT Environmental, Inc., Arvada, CO

Project Name: Golden 8 Fed Battery

Project Id: 012919219
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed Dec-04-19 04:42 pm
Report Date: 06-APR-20
Project Manager: Jessica Kramer

Analysis Requested								
	Lab Id:	645131-001						
	Field Id:	BH03						
	Depth:	0.5- ft						
	Matrix:	SOIL						
	Sampled:	Dec-04-19 12:55						
BTEX by EPA 8021B	***Extracted:***	Dec-04-19 22:00						
	Analyzed:	Dec-05-19 10:17						
	Units/RL:	mg/kg	RL					
Benzene		0.520	0.499					
Toluene		6.30	0.998					
Ethylbenzene		1.26	0.998					
m,p-Xylenes		5.44	2.00					
o-Xylene		2.10	0.998					
Total Xylenes		7.54	0.998					
Total BTEX		15.6	0.499					
Chloride by EPA 300	***Extracted:***	Dec-05-19 07:30						
	Analyzed:	Dec-05-19 12:39						
	Units/RL:	mg/kg	RL					
Chloride		171	10.0					
TPH by SW8015 Mod	***Extracted:***	Dec-04-19 17:00						
	Analyzed:	Dec-05-19 11:19						
	Units/RL:	mg/kg	RL					
Gasoline Range Hydrocarbons (GRO)		383	50.1					
Diesel Range Organics (DRO)		2660	50.1					
Motor Oil Range Hydrocarbons (MRO)		424	50.1					
Total GRO-DRO		3040	50.1					
Total TPH		3470	50.1					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager

Certificate of Analytical Results 645131

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645131-001	Date Collected:	12.04.19 12.55	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.05.19 07.30	Basis:	Wet Weight
Seq Number:	3109512				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**171**	10.0	mg/kg	12.05.19 12.39		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.04.19 17.00	Basis:	Wet Weight
Seq Number:	3109484				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**383**	50.1	mg/kg	12.05.19 11.19		1
Diesel Range Organics (DRO)	C10C28DRO	**2660**	50.1	mg/kg	12.05.19 11.19		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**424**	50.1	mg/kg	12.05.19 11.19		1
Total GRO-DRO	PHC628	**3040**	50.1	mg/kg	12.05.19 11.19		1
Total TPH	PHC635	**3470**	50.1	mg/kg	12.05.19 11.19		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	123	%	70-135	12.05.19 11.19	
o-Terphenyl	84-15-1	124	%	70-135	12.05.19 11.19	

Certificate of Analytical Results 645131

LT Environmental, Inc., Arvada, CO

Golden 8 Fed Battery

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	12.04.19 16.42
Lab Sample Id:	645131-001	Date Collected:	12.04.19 12.55	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.04.19 22.00	Basis:	Wet Weight
Seq Number:	3109529				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.520**	0.499	mg/kg	12.05.19 10.17		500
Toluene	108-88-3	**6.30**	0.998	mg/kg	12.05.19 10.17		500
Ethylbenzene	100-41-4	**1.26**	0.998	mg/kg	12.05.19 10.17		500
m,p-Xylenes	179601-23-1	**5.44**	2.00	mg/kg	12.05.19 10.17		500
o-Xylene	95-47-6	**2.10**	0.998	mg/kg	12.05.19 10.17		500
Total Xylenes	1330-20-7	**7.54**	0.998	mg/kg	12.05.19 10.17		500
Total BTEX		**15.6**	0.499	mg/kg	12.05.19 10.17		500

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	70-130	12.05.19 10.17	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.05.19 10.17	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 645131

LT Environmental, Inc.

Golden 8 Fed Battery

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3109512 Matrix: Solid Date Prep: 12.05.19
MB Sample Id: 7691692-1-BLK LCS Sample Id: 7691692-1-BKS LCSD Sample Id: 7691692-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	263	105	266	106	90-110	1	20	mg/kg	12.05.19 12:28	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3109512 Matrix: Soil Date Prep: 12.05.19
Parent Sample Id: 645018-006 MS Sample Id: 645018-006 S MSD Sample Id: 645018-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	295	200	487	96	487	96	90-110	0	20	mg/kg	12.05.19 15:18	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3109512 Matrix: Soil Date Prep: 12.05.19
Parent Sample Id: 645131-001 MS Sample Id: 645131-001 S MSD Sample Id: 645131-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	171	2000	1950	89	1930	88	90-110	1	20	mg/kg	12.05.19 12:45	X

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3109484 Matrix: Solid Date Prep: 12.04.19
MB Sample Id: 7691735-1-BLK LCS Sample Id: 7691735-1-BKS LCSD Sample Id: 7691735-1-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	933	93	964	96	70-135	3	35	mg/kg	12.05.19 05:25	
Diesel Range Organics (DRO)	<50.0	1000	1070	107	1200	120	70-135	11	35	mg/kg	12.05.19 05:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		127		133		70-135	%	12.05.19 05:25
o-Terphenyl	112		128		132		70-135	%	12.05.19 05:25

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3109484 Matrix: Solid Date Prep: 12.04.19
MB Sample Id: 7691735-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.05.19 05:05	

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 645131

LT Environmental, Inc.

Golden 8 Fed Battery

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3109484 — Matrix: Soil — Date Prep: 12.04.19
Parent Sample Id: 645106-003 — MS Sample Id: 645106-003 S — MSD Sample Id: 645106-003 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	987	99	929	93	70-135	6	35	mg/kg	12.05.19 05:45	
Diesel Range Organics (DRO)	<50.2	1000	1220	122	1080	108	70-135	12	35	mg/kg	12.05.19 05:45	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	136	**	130		70-135	%	12.05.19 05:45
o-Terphenyl	147	**	130		70-135	%	12.05.19 05:45

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3109529 — Matrix: Solid — Date Prep: 12.04.19
MB Sample Id: 7691697-1-BLK — LCS Sample Id: 7691697-1-BKS — LCSD Sample Id: 7691697-1-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	0.0855	86	0.0900	90	70-130	5	35	mg/kg	12.05.19 07:00	
Toluene	<0.00200	0.100	0.0887	89	0.0938	94	70-130	6	35	mg/kg	12.05.19 07:00	
Ethylbenzene	<0.00200	0.100	0.0876	88	0.0930	93	71-129	6	35	mg/kg	12.05.19 07:00	
m,p-Xylenes	<0.00400	0.200	0.186	93	0.199	100	70-135	7	35	mg/kg	12.05.19 07:00	
o-Xylene	<0.00200	0.100	0.0960	96	0.102	102	71-133	6	35	mg/kg	12.05.19 07:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		99		100		70-130	%	12.05.19 07:00
4-Bromofluorobenzene	108		119		116		70-130	%	12.05.19 07:00

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3109529 — Matrix: Soil — Date Prep: 12.04.19
Parent Sample Id: 645129-001 — MS Sample Id: 645129-001 S — MSD Sample Id: 645129-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0662	67	0.0527	53	70-130	23	35	mg/kg	12.05.19 07:38	X
Toluene	<0.00199	0.0994	0.0543	55	0.0352	35	70-130	43	35	mg/kg	12.05.19 07:38	XF
Ethylbenzene	<0.00199	0.0994	0.0380	38	0.0214	21	71-129	56	35	mg/kg	12.05.19 07:38	XF
m,p-Xylenes	<0.00398	0.199	0.0773	39	0.0412	21	70-135	61	35	mg/kg	12.05.19 07:38	XF
o-Xylene	<0.00199	0.0994	0.0396	40	0.0234	23	71-133	51	35	mg/kg	12.05.19 07:38	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		101		70-130	%	12.05.19 07:38
4-Bromofluorobenzene	122		123		70-130	%	12.05.19 07:38

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

Page 128 of 160

Chain of Custody

Work Order No: 445131 ~~445129~~ am 12/4

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800
www.xenco.com

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

Work Order Comments

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

Project Name:	Golden 8 Fed Battery	Turn Around	
Project Number:	012919219	Routine: ☐	
PO #:	2RP-5672	Rush: ~~24 hrs~~ 48hrs	
Sampler's Name:	Fatima Smith	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	5.0	Thermometer ID	
Received Intact:	(Yes) No	T-NM-007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	2

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SS01	S	12/4/19	1255	0.5	1	X	X	X
SS01A	S	12/4/19	1301	1.5	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		12/4/19 10:42	2		
3			4		
5			6		

Revised Date 101419 Rev. 2019.1

Received by OCD: 9/2/2020 10:45:07 AM

Page 11 of 11

1.001

Analytical Report 651048

for

LT Environmental, Inc.

Project Manager: Dan Moir

Golden 8 Federal Battery

012919141

03-FEB-20

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

03-FEB-20

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

Reference: XENCO Report No(s): **651048**
Golden 8 Federal Battery
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) 651048. 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. 651048 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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

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

Sample Cross Reference 651048

LT Environmental, Inc., Arvada, CO

Golden 8 Federal Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW04	S	01-31-20 13:50	0 - 4 ft	651048-001
SW05	S	01-31-20 13:55	0 - 4 ft	651048-002

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Golden 8 Federal Battery

Project ID: *012919141*
Work Order Number(s): *651048*

Report Date: *03-FEB-20*
Date Received: *01/31/2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3115251 BTEX by EPA 8021B

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

Certificate of Analysis Summary 651048

LT Environmental, Inc., Arvada, CO

Project Name: Golden 8 Federal Battery

Project Id: 012919141
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri Jan-31-20 04:03 pm
Report Date: 03-FEB-20
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	651048-001		651048-002					
	Field Id:	SW04		SW05					
	Depth:	0-4 ft		0-4 ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Jan-31-20 13:50		Jan-31-20 13:55					
BTEX by EPA 8021B	***Extracted:***	Jan-31-20 20:00		Jan-31-20 20:00					
	Analyzed:	Feb-01-20 04:13		Feb-01-20 20:33					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.0200	0.0200	<0.00201	0.00201				
Toluene		<0.0200	0.0200	<0.00201	0.00201				
Ethylbenzene		<0.0200	0.0200	<0.00201	0.00201				
m,p-Xylenes		<0.0400	0.0400	<0.00402	0.00402				
o-Xylene		<0.0200	0.0200	<0.00201	0.00201				
Total Xylenes		<0.0200	0.0200	<0.00201	0.00201				
Total BTEX		<0.0200	0.0200	<0.00201	0.00201				
Chloride by EPA 300	***Extracted:***	Jan-31-20 18:00		Jan-31-20 18:00					
	Analyzed:	Jan-31-20 23:15		Jan-31-20 23:21					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		2050	50.3	395	9.90				
TPH by SW8015 Mod	***Extracted:***	Jan-31-20 17:00		Jan-31-20 17:00					
	Analyzed:	Feb-01-20 00:23		Feb-03-20 12:22					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<49.8	49.8				
Diesel Range Organics (DRO)		1400	49.9	<49.8	49.8				
Motor Oil Range Hydrocarbons (MRO)		159	49.9	<49.8	49.8				
Total GRO-DRO		1400	49.9	<49.8	49.8				
Total TPH		1560	49.9	<49.8	49.8				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 651048

LT Environmental, Inc., Arvada, CO

Golden 8 Federal Battery

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	01.31.20 16.03
Lab Sample Id:	651048-001	Date Collected:	01.31.20 13.50	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.31.20 18.00	Basis:	Wet Weight
Seq Number:	3115294				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2050**	50.3	mg/kg	01.31.20 23.15		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.31.20 17.00	Basis:	Wet Weight
Seq Number:	3115292				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.01.20 00.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1400**	49.9	mg/kg	02.01.20 00.23		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**159**	49.9	mg/kg	02.01.20 00.23		1
Total GRO-DRO	PHC628	**1400**	49.9	mg/kg	02.01.20 00.23		1
Total TPH	PHC635	**1560**	49.9	mg/kg	02.01.20 00.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	02.01.20 00.23	
o-Terphenyl	84-15-1	97	%	70-135	02.01.20 00.23	

Certificate of Analytical Results 651048

LT Environmental, Inc., Arvada, CO

Golden 8 Federal Battery

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	01.31.20 16.03
Lab Sample Id:	651048-001	Date Collected:	01.31.20 13.50	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.31.20 20.00	Basis:	Wet Weight
Seq Number:	3115251				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0200	0.0200	mg/kg	02.01.20 04.13	U	1
Toluene	108-88-3	<0.0200	0.0200	mg/kg	02.01.20 04.13	U	1
Ethylbenzene	100-41-4	<0.0200	0.0200	mg/kg	02.01.20 04.13	U	1
m,p-Xylenes	179601-23-1	<0.0400	0.0400	mg/kg	02.01.20 04.13	U	1
o-Xylene	95-47-6	<0.0200	0.0200	mg/kg	02.01.20 04.13	U	1
Total Xylenes	1330-20-7	<0.0200	0.0200	mg/kg	02.01.20 04.13	U	1
Total BTEX		<0.0200	0.0200	mg/kg	02.01.20 04.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	02.01.20 04.13	
1,4-Difluorobenzene	540-36-3	99	%	70-130	02.01.20 04.13	

Certificate of Analytical Results 651048

LT Environmental, Inc., Arvada, CO

Golden 8 Federal Battery

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	01.31.20 16.03
Lab Sample Id:	651048-002	Date Collected:	01.31.20 13.55	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.31.20 18.00	Basis:	Wet Weight
Seq Number:	3115294				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**395**	9.90	mg/kg	01.31.20 23.21		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.31.20 17.00	Basis:	Wet Weight
Seq Number:	3115292				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	02.03.20 12.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	02.03.20 12.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	02.03.20 12.22	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	02.03.20 12.22	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	02.03.20 12.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	02.03.20 12.22	
o-Terphenyl	84-15-1	90	%	70-135	02.03.20 12.22	

Certificate of Analytical Results 651048

LT Environmental, Inc., Arvada, CO

Golden 8 Federal Battery

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	01.31.20 16.03
Lab Sample Id:	651048-002	Date Collected:	01.31.20 13.55	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.31.20 20.00	Basis:	Wet Weight
Seq Number:	3115251				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.01.20 20.33	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.01.20 20.33	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.01.20 20.33	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.01.20 20.33	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.01.20 20.33	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.01.20 20.33	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.01.20 20.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	02.01.20 20.33	
1,4-Difluorobenzene	540-36-3	104	%	70-130	02.01.20 20.33	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 651048

LT Environmental, Inc.

Golden 8 Federal Battery

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3115294 — Matrix: Solid — Date Prep: 01.31.20
MB Sample Id: 7695746-1-BLK — LCS Sample Id: 7695746-1-BKS — LCSD Sample Id: 7695746-1-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	254	102	255	102	90-110	0	20	mg/kg	01.31.20 21:21	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3115294 — Matrix: Soil — Date Prep: 01.31.20
Parent Sample Id: 651013-028 — MS Sample Id: 651013-028 S — MSD Sample Id: 651013-028 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	42.4	201	251	104	253	105	90-110	1	20	mg/kg	02.03.20 11:49	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3115294 — Matrix: Soil — Date Prep: 01.31.20
Parent Sample Id: 651046-003 — MS Sample Id: 651046-003 S — MSD Sample Id: 651046-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	27.8	199	236	105	236	104	90-110	0	20	mg/kg	01.31.20 23:02	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3115292 — Matrix: Solid — Date Prep: 01.31.20
MB Sample Id: 7695777-1-BLK — LCS Sample Id: 7695777-1-BKS — LCSD Sample Id: 7695777-1-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	950	95	883	88	70-135	7	35	mg/kg	01.31.20 20:26	
Diesel Range Organics (DRO)	<50.0	1000	781	78	747	75	70-135	4	35	mg/kg	01.31.20 20:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		113		105		70-135	%	01.31.20 20:26
o-Terphenyl	112		105		99		70-135	%	01.31.20 20:26

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3115292 — Matrix: Solid — Date Prep: 01.31.20
MB Sample Id: 7695777-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.31.20 20:26	

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

Final 1.000

QC Summary 651048

LT Environmental, Inc.

Golden 8 Federal Battery

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3115292 | Matrix: Soil | Date Prep: 01.31.20
Parent Sample Id: 651025-018 | MS Sample Id: 651025-018 S | MSD Sample Id: 651025-018 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	1110	111	1100	109	70-135	1	35	mg/kg	01.31.20 21:06	
Diesel Range Organics (DRO)	<49.9	997	1140	114	1100	109	70-135	4	35	mg/kg	01.31.20 21:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		116		70-135	%	01.31.20 21:06
o-Terphenyl	111		102		70-135	%	01.31.20 21:06

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3115251 | Matrix: Solid | Date Prep: 01.31.20
MB Sample Id: 7695742-1-BLK | LCS Sample Id: 7695742-1-BKS | LCSD Sample Id: 7695742-1-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	0.0920	92	0.102	102	70-130	10	35	mg/kg	02.01.20 01:10	
Toluene	<0.00200	0.100	0.0892	89	0.0987	99	70-130	10	35	mg/kg	02.01.20 01:10	
Ethylbenzene	<0.00200	0.100	0.0859	86	0.0950	95	71-129	10	35	mg/kg	02.01.20 01:10	
m,p-Xylenes	<0.00400	0.200	0.176	88	0.195	98	70-135	10	35	mg/kg	02.01.20 01:10	
o-Xylene	<0.00200	0.100	0.0884	88	0.0978	98	71-133	10	35	mg/kg	02.01.20 01:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		102		104		70-130	%	02.01.20 01:10
4-Bromofluorobenzene	95		95		95		70-130	%	02.01.20 01:10

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3115251 | Matrix: Soil | Date Prep: 01.31.20
Parent Sample Id: 651046-001 | MS Sample Id: 651046-001 S | MSD Sample Id: 651046-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0755	76	0.0870	88	70-130	14	35	mg/kg	02.01.20 01:51	
Toluene	<0.00199	0.0994	0.0785	79	0.0754	76	70-130	4	35	mg/kg	02.01.20 01:51	
Ethylbenzene	0.00507	0.0994	0.0815	77	0.0804	76	71-129	1	35	mg/kg	02.01.20 01:51	
m,p-Xylenes	0.0134	0.199	0.190	89	0.187	88	70-135	2	35	mg/kg	02.01.20 01:51	
o-Xylene	0.0126	0.0994	0.0865	74	0.0903	78	71-133	4	35	mg/kg	02.01.20 01:51	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		102		70-130	%	02.01.20 01:51
4-Bromofluorobenzene	114		123		70-130	%	02.01.20 01:51

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

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

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

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

Final 1.000

Received by OCD: 9/2/2020 10:45:07 AM Page 141 of 160

Chain of Custody

XENCO LABORATORIES

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

Work Order No: 651048

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrel
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO-Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432.704.5178	Email:	dmoir@ltenv.com rmcafee@ltenv.com

Work Order Comments

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

Project Name:	Golden 8 Federal Battery	Turn Around	
Project Number:	01291941	Routine	☐
P.O. Number:		Rush:	2 day
Sampler's Name:	Robert McAfee	Due Date:	

SAMPLE RECEIPT				
Temperature (°C):	1.2	Temp Blank:	Yes (No)	Wet Ice: (Yes) No
Received Intact:	(Yes) No	Thermometer ID		T-NM-007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:		-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:		2

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
SW04	S	01/31/20	1350	0-4'	1	X	X	X
SW05	S	01/31/20	1355	0-4'	1	X	X	X

Work Order Notes

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

Sample Comments

Composite

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

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Robert McAfee		1/31 16:03	2		
3			1/31/20	4		
5				6		

Revised Date 051418 Rev. 2018 1

Final 1.000 Page 13 of 14

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 01.31.2020 04.03.00 PM

Work Order #: 651048

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.2
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 01.31.2020

Checklist reviewed by: Jessica Kramer Date: 02.03.2020

Jessica Kramer

Analytical Report 653135

for

LT Environmental, Inc.

Project Manager: Dan Moir

Golden 8 Federal Battery 1

012919219

02.21.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

02.21.2020

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

Reference: XENCO Report No(s): **653135**
Golden 8 Federal Battery 1
Project Address: Eddy

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) 653135. 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. 653135 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

John Builes
Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 653135

LT Environmental, Inc., Arvada, CO

Golden 8 Federal Battery 1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS03	S	02.20.2020 10:23	0.5 ft	653135-001

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Golden 8 Federal Battery 1

Project ID: *012919219*
Work Order Number(s): *653135*

Report Date: *02.21.2020*
Date Received: *02.20.2020*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3117186 BTEX by EPA 8021B

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

Certificate of Analysis Summary 653135

LT Environmental, Inc., Arvada, CO

Project Name: Golden 8 Federal Battery 1

Project Id: 012919219
Contact: Dan Moir
Project Location: Eddy

Date Received in Lab: Thu 02.20.2020 12:40
Report Date: 02.21.2020 13:45
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	653135-001					
	Field Id:	FS03					
	Depth:	0.5- ft					
	Matrix:	SOIL					
	Sampled:	02.20.2020 10:23					
BTEX by EPA 8021B	***Extracted:***	** ** ** **					
	Analyzed:	02.20.2020 21:23					
	Units/RL:	mg/kg	RL				
Benzene		<0.00200	0.00200				
Toluene		<0.00200	0.00200				
Ethylbenzene		<0.00200	0.00200				
m,p-Xylenes		<0.00401	0.00401				
o-Xylene		<0.00200	0.00200				
Total Xylenes		<0.00200	0.00200				
Total BTEX		<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	02.20.2020 14:30					
	Analyzed:	02.20.2020 15:23					
	Units/RL:	mg/kg	RL				
Chloride		487	10.0				
TPH by SW8015 Mod	***Extracted:***	02.20.2020 17:00					
	Analyzed:	02.21.2020 03:01					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9				
Diesel Range Organics (DRO)		371	49.9				
Motor Oil Range Hydrocarbons (MRO)		66.9	49.9				
Total GRO-DRO		371	49.9				
Total TPH		438	49.9				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

John Builes
Project Manager

Certificate of Analytical Results 653135

LT Environmental, Inc., Arvada, CO

Golden 8 Federal Battery 1

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	02.20.2020 12:40
Lab Sample Id:	653135-001	Date Collected:	02.20.2020 10:23	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.20.2020 14:30	Basis:	Wet Weight
Seq Number:	3117209				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**487**	10.0	mg/kg	02.20.2020 15:23		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.20.2020 17:00	Basis:	Wet Weight
Seq Number:	3117215				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.21.2020 03:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	**371**	49.9	mg/kg	02.21.2020 03:01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**66.9**	49.9	mg/kg	02.21.2020 03:01		1
Total GRO-DRO	PHC628	**371**	49.9	mg/kg	02.21.2020 03:01		1
Total TPH	PHC635	**438**	49.9	mg/kg	02.21.2020 03:01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	02.21.2020 03:01	
o-Terphenyl	84-15-1	99	%	70-135	02.21.2020 03:01	

Certificate of Analytical Results 653135

LT Environmental, Inc., Arvada, CO

Golden 8 Federal Battery 1

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	02.20.2020 12:40
Lab Sample Id:	653135-001	Date Collected:	02.20.2020 10:23	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.20.2020 11:30	Basis:	Wet Weight
Seq Number:	3117186				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.20.2020 21:23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.20.2020 21:23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.20.2020 21:23	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.20.2020 21:23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.20.2020 21:23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.20.2020 21:23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.20.2020 21:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	02.20.2020 21:23	
4-Bromofluorobenzene	460-00-4	89	%	70-130	02.20.2020 21:23	

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 653135

LT Environmental, Inc.

Golden 8 Federal Battery 1

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3117209 — Matrix: Solid — Date Prep: 02.20.2020
MB Sample Id: 7697118-1-BLK — LCS Sample Id: 7697118-1-BKS — LCSD Sample Id: 7697118-1-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	265	106	265	106	90-110	0	20	mg/kg	02.20.2020 12:33	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3117209 — Matrix: Soil — Date Prep: 02.20.2020
Parent Sample Id: 653094-001 — MS Sample Id: 653094-001 S — MSD Sample Id: 653094-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3.02	200	207	102	209	103	90-110	1	20	mg/kg	02.20.2020 12:50	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3117209 — Matrix: Soil — Date Prep: 02.20.2020
Parent Sample Id: 653094-011 — MS Sample Id: 653094-011 S — MSD Sample Id: 653094-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3.80	200	218	107	217	107	90-110	0	20	mg/kg	02.20.2020 14:16	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3117215 — Matrix: Solid — Date Prep: 02.20.2020
MB Sample Id: 7697186-1-BLK — LCS Sample Id: 7697186-1-BKS — LCSD Sample Id: 7697186-1-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	906	91	873	87	70-135	4	35	mg/kg	02.20.2020 23:07	
Diesel Range Organics (DRO)	<50.0	1000	997	100	898	90	70-135	10	35	mg/kg	02.20.2020 23:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		121		110		70-135	%	02.20.2020 23:07
o-Terphenyl	106		115		106		70-135	%	02.20.2020 23:07

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3117215 — Matrix: Solid — Date Prep: 02.20.2020
MB Sample Id: 7697186-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.20.2020 23:07	

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 653135

LT Environmental, Inc.

Golden 8 Federal Battery 1

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3117215 Matrix: Soil Date Prep: 02.20.2020
Parent Sample Id: 653098-022 MS Sample Id: 653098-022 S MSD Sample Id: 653098-022 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	1070	107	936	94	70-135	13	35	mg/kg	02.20.2020 23:46	
Diesel Range Organics (DRO)	<50.2	1000	1110	111	1050	105	70-135	6	35	mg/kg	02.20.2020 23:46	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		121		70-135	%	02.20.2020 23:46
o-Terphenyl	133		121		70-135	%	02.20.2020 23:46

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3117186 Matrix: Solid Date Prep: 02.20.2020
MB Sample Id: 7697112-1-BLK LCS Sample Id: 7697112-1-BKS LCSD Sample Id: 7697112-1-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	0.103	103	0.101	101	70-130	2	35	mg/kg	02.20.2020 12:33	
Toluene	<0.00200	0.100	0.101	101	0.0984	98	70-130	3	35	mg/kg	02.20.2020 12:33	
Ethylbenzene	<0.00200	0.100	0.0983	98	0.0951	95	71-129	3	35	mg/kg	02.20.2020 12:33	
m,p-Xylenes	<0.00400	0.200	0.203	102	0.196	98	70-135	4	35	mg/kg	02.20.2020 12:33	
o-Xylene	<0.00200	0.100	0.101	101	0.0978	98	71-133	3	35	mg/kg	02.20.2020 12:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		104		104		70-130	%	02.20.2020 12:33
4-Bromofluorobenzene	93		93		94		70-130	%	02.20.2020 12:33

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3117186 Matrix: Soil Date Prep: 02.20.2020
Parent Sample Id: 652839-003 MS Sample Id: 652839-003 S MSD Sample Id: 652839-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.102	101	0.124	124	70-130	19	35	mg/kg	02.20.2020 13:14	
Toluene	<0.00202	0.101	0.110	109	0.121	121	70-130	10	35	mg/kg	02.20.2020 13:14	
Ethylbenzene	<0.00202	0.101	0.107	106	0.117	117	71-129	9	35	mg/kg	02.20.2020 13:14	
m,p-Xylenes	<0.00404	0.202	0.224	111	0.240	120	70-135	7	35	mg/kg	02.20.2020 13:14	
o-Xylene	<0.00202	0.101	0.111	110	0.118	118	71-133	6	35	mg/kg	02.20.2020 13:14	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		104		70-130	%	02.20.2020 13:14
4-Bromofluorobenzene	96		92		70-130	%	02.20.2020 13:14

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

Page 153 of 160

Chain of Custody

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

Work Order No: 653135

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

Work Order Comments

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

Project Name:	Golden 8 Federal Battery 1	Turn Around	
Project Number:	012919219	Routine	☐
P.O. Number:	Eddy	Rush:	24hr
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.8	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:	1	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS03	s	2/20/2020	10:23	.5'	1	x	x	x

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Composite

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		2/20/20 1240	2		
			4		
			6		

Received by OCD: 9/2/2020 10:45:07 AM
Final 1.000
Page 11 of 11

ATTACHMENT 4: LITHOLOGIC / SOIL SAMPLING LOG

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: 12/3/2019
Site Name: Golden 8 Federal Battery 1	
RP or Incident Number: 2RP-5672	
LTE Job Number: 12919219	

LITHOLOGIC / SOIL SAMPLING LOG

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

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
D	907	63.5	N	PH01	0.5'			SC, SL, SP, earthy brown
D	1,988	61.7	N	PH01A	1'	1		SC, SL, SP, earthy brown
						2		
D	2,290	2.0	N	PH01B	3'	3		SC, SL, SP, earthy brown
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
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BH or PH Name: PH02	Date: 12/3/2019
Site Name: Golden 8 Federal Battery 1	
RP or Incident Number: 2RP-5672	
LTE Job Number: 12919219	

LITHOLOGIC / SOIL SAMPLING LOG

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

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
D	991	416.5	Y	PH02	0.5'			Black staining, strong odor
D	1,372	2.1	N	PH02A	1'	1		SC, SL, SP, earthy brown
						2		
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
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BH or PH Name: PH03	Date: 12/4/2019
Site Name: Golden 8 Federal Battery 1	
RP or Incident Number: 2RP-5672	
LTE Job Number: 12919219	

LITHOLOGIC / SOIL SAMPLING LOG

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

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
D	907	0.9	N	PH03	1'	1		SC, SL, SP, reddish brown
D	554	1.2	N	PH03A	2'	2		SC, SL, SP, reddish brown
D	1,372	1.3	N	PH03B	3'	3		GW, tan, caliche, no odor
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
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BH or PH Name: BH01	Date: 12/4/2019
Site Name: Golden 8 Federal Battery 1	
RP or Incident Number: 2RP-5672	
LTE Job Number: 12919219	

LITHOLOGIC / SOIL SAMPLING LOG

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

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	285	4.0	N	BH01	0.5'	0		SC, SL, SP, reddish brown
D	207	0.7	N	BH01A	1'	1		SC, SL, SP, reddish brown
D	1,450	0.5	N	BH01B	2'	2		SC, SL, SP, reddish brown
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

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BH or PH Name: BH02	Date: 12/4/2019
Site Name: Golden 8 Federal Battery 1	
RP or Incident Number: 2RP-5672	
LTE Job Number: 12919219	

LITHOLOGIC / SOIL SAMPLING LOG

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

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	554	0.1	N	BH02	0.5'	0		SC, SL, SP, reddish brown
D	683	0.4	N	BH01A	1'	1		SC, SL, SP, reddish brown
						2		
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

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BH or PH Name: BH03	Date: 12/4/2019
Site Name: Golden 8 Federal Battery 1	
RP or Incident Number: 2RP-5672	
LTE Job Number: 012919219	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: FS	Method:		
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth: 0.5

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	554	561.0	N	BH03	0.5'	0		SC, SL, SP, reddish brown, grey staining
						1		Auger refusal at 0.5'
						2		
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		