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	NRM2022151947
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

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

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

Unit Letter	Section	Township	Range	County

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

Nature and Volume of Release

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NRM2022151947
District RP	
Facility ID	
Application ID	

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

Initial Response

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

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

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

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

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Ramona Marcus Date: 8/8/2020

NRM2022151947

Location:	Perla Verde 4	
Spill Date:	7/24/2020	
Area 1		
Approximate Area =	1633.00	sq. ft.
Average Saturation (or depth) of spill =	0.75	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	3.94	bbls
Total Produced Water =	1.61	bbls
Area 2		
Approximate Area =	672.00	sq. ft.
Average Saturation (or depth) of spill =	0.06	inches

Average Porosity Factor =	0.03	

VOLUME OF LEAK		
Total Crude Oil =	0.01	bbls
Total Produced Water =	0.01	bbls

TOTAL VOLUME OF LEAK		
Total Crude Oil =	**3.95**	**bbls**
Total Produced Water =	**1.62**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**3.55**	**bbls**
Total Produced Water =	**1.45**	**bbls**

State of New Mexico
Oil Conservation Division

Incident ID	NRM2022151947
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	50-100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NRM2022151947
District RP	
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date:

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NRM2022151947
District RP	
Facility ID	
Application ID	

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 Supervisor

Signature: _____ Date: _____

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

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

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

October 20, 2020

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

RE: Deferral Request
Perla Verde 4
Incident Number NRM2022151947
Lea County, New Mexico

To Whom It May Concern:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Deferral Request detailing site assessment, excavation, and soil sampling activities at the Perla Verde 4 (Site) located in Unit P, Section 31, Township 19 South, Range 35 East, in Lea County, New Mexico (Figure 1). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil following a release of crude oil and produced water at the Site. Based on field observations, field screening activities, and soil sampling laboratory analytical results, XTO is submitting this Deferral Request, describing remediation that has occurred and requesting deferral of final remediation for Incident Number NRM2022151947 until the Site is reconstructed, and/or the well pad is abandoned.

RELEASE BACKGROUND

On July 24, 2020, the stuffing box packing blew out, resulting in the release of 3.95 barrels (bbls) of crude oil and 1.62 bbls of produced water onto the surface of the well pad in the area surrounding the wellhead. A vacuum truck was immediately dispatched to the Site to recover freestanding fluids, of which approximately 3.55 bbls of crude oil and 1.45 bbls of produced water were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on August 7, 2020. The release was assigned Incident Number NRM2022151947.

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 50 to 100 feet below ground surface (bgs) based on the nearest groundwater well data. The nearest permitted groundwater well with depth to groundwater data is the United States Geological Survey (USGS) well number 323545103285701, located approximately 0.76 miles south-southeast of the Site. The

groundwater well has a depth to groundwater of 53 feet bgs and a total depth of 70 feet bgs. The next three closest wells support a depth to water determination between 50 to 100 feet bgs, ranging from 53 feet to 64 feet bgs. There are no other surface features, such as significant watercourses, vegetation, wetlands, or springs, suggesting the presence of shallow groundwater. Ground surface elevation at the water well location is 3,694 feet above mean sea level (amsl), which is approximately 9 feet lower in elevation than the Site. All wells used for depth to groundwater determination are depicted on Figure 1. The referenced well records are included in Attachment 1.

The closest continuously flowing water or significant watercourse to the Site is an unnamed dry wash approximately 1.41 miles north west 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 (low potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

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

INITIAL SITE ASSESSMENT AND ANALYTICAL RESULTS

On August 19, 2020, LTE personnel inspected the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. LTE personnel collected four preliminary assessment soil samples (SS01 through SS04) within the release extent from a depth of approximately 0.5 feet bgs to assess the lateral extent of impacted soil. Soil from the preliminary soil samples was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 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, TPH-oil range organics (ORO) following EPA Method 8015M/D, and chloride following EPA Method 300.0.

Laboratory analytical results for preliminary soil samples SS02 through SS04 indicated that chloride and/or TPH-GRO/TPH-DRO and TPH concentrations exceeded the Closure Criteria. Laboratory analytical results for preliminary soil sample SS01 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with Closure Criteria. Based on visible staining in the release area, field screening activities, and laboratory analytical results for the preliminary soil samples, delineation and excavation activities were warranted.

EXCAVATION AND DELINEATION SOIL SAMPLING ACTIVITIES

Between October 5, 2020 through October 8, 2020, LTE personnel were at the Site to oversee delineation and excavation activities as indicated by visual observations, field screening activities, and laboratory analytical results for the preliminary soil samples. Based on field screening activities and laboratory analytical results for the preliminary and delineation soil samples, excavation activities were completed to remove impacted soil to the extent possible. Impacted soil was not excavated from the area immediately surrounding the wellhead due to XTO safety policy which restricts earth moving activities within 10 feet of an active wellhead. Excavation activities were performed using track-mounted backhoe and transport vehicle. To direct excavation activities, LTE screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. The excavation was completed to depths ranging from 1 foot to 2 feet bgs.

Following removal of impacted soil, LTE collected 5-point composite soil samples every 200 square feet from the 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. Composite soil samples FS01 through FS08 were collected from the floor of the excavation from depths ranging from 1 foot to 2 feet bgs. Composite samples SW01 through SW06 were collected from sidewalls of the excavation from depths ranging from ground surface to 2 feet bgs. Additionally, discrete sidewall samples SW05A and SW05B were collected from depths of 1 foot and 2 feet bgs from the excavation sidewall adjacent to the wellhead, to assess the vertical extent of impacted soil that was left in place. The excavation soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 3. Photographic documentation was conducted during the site visits. A photographic log is included in Attachment 3.

The excavation measured approximately 1,600 square feet. A total of approximately 125 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation areas were secured with fencing.

Boreholes BH01 through BH03 and pothole PH01 were advanced via hand auger or backhoe to depths ranging from 2 feet to 3 feet bgs, to delineate the lateral and vertical extent of impacted soil identified too close to the active wellhead to excavate. Delineation soil samples were collected from the boreholes and pothole from depths ranging from 1 foot to 3 feet bgs. Soil from the boreholes and pothole was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the boreholes and pothole were logged on lithologic/soil sampling logs, which are included in Attachment 2. The boreholes, pothole, and delineation soil sample locations are presented on Figure 4. The delineation soil samples were collected, handled, and analyzed as described above at Xenco in Carlsbad, New Mexico.

SOIL ANALYTICAL RESULTS

Laboratory analytical results for preliminary soil samples SS02 through SS04 indicated that chloride and/or TPH-GRO/TPH-DRO and TPH concentrations exceeded the Closure Criteria. Laboratory analytical results for preliminary soil sample SS01 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with Closure Criteria.

Laboratory analytical results for excavation samples FS01 through FS08, SW01 through SW04, and SW06, collected from the final excavation extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria.

Laboratory analytical results for composite sidewall sample SW05 and discrete sidewall sample SW05A, collected adjacent to the wellhead, indicated that TPH-GRO/TPH-DRO and TPH concentrations exceeded the Closure Criteria. Discrete sidewall sample SW05B, collected adjacent to the wellhead from depth of 2 feet bgs, was compliant with the Closure Criteria and confirmed that the impacted soil left in place immediately surrounding the wellhead was delineated vertically and did not exceed a depth of 2 feet bgs. Laboratory analytical results for the remaining delineation soil samples collected from boreholes BH01 through BH03 and pothole PH01 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with Closure Criteria. The laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are provided in Attachment 4.

DEFERRAL REQUEST

A total of approximately 125 cubic yards of impacted soil were excavated from the Site; however, residual impacted soil was left in place immediately surrounding the wellhead for compliance with XTO safety policy regarding earth moving activities within 10 feet of active wellheads.

Laboratory analytical results for excavation sidewall samples SW05 and SW05A indicated that soil with TPH-GRO/TPH-DRO and TPH concentrations exceeding the Closure Criteria was left in place. This XTO safety policy is established to protect workers and reduce the likelihood of compromising the foundation of the wellhead/wellbore. This policy was enforced where impacted soil was identified within 10 feet of the wellhead in excavation sidewall samples SW05/SW05A.

The impacted soil remaining in place is delineated vertically and laterally by excavation soil samples SW01 through SW04, SW05B, SW06, and FS01 through FS08, collected from the sidewalls and floor of the final excavation extent, and delineation soil samples collected from boreholes BH01 through BH03 and pothole PH01. An estimated 25 cubic yards of impacted soil remains in place, assuming a maximum 2-foot depth based on the excavation and delineation soil samples listed above, that were compliant with the Closure Criteria.

XTO requests to complete final remediation during any future major construction/alteration or final plugging and abandonment, whichever occurs first. LTE and XTO do not believe deferment will result in imminent risk to human health, the environment, or groundwater. The majority of the released fluids were recovered during initial response activities, the impacted soil remaining in place is limited to the area immediately around the pumpjack and wellhead, and no saturated soil remains in-place. XTO requests deferral of final remediation for Incident Number NRM2022151947.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Spencer Lo
Staff Geologist

Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD
Ryan Mann, New Mexico State Land Office

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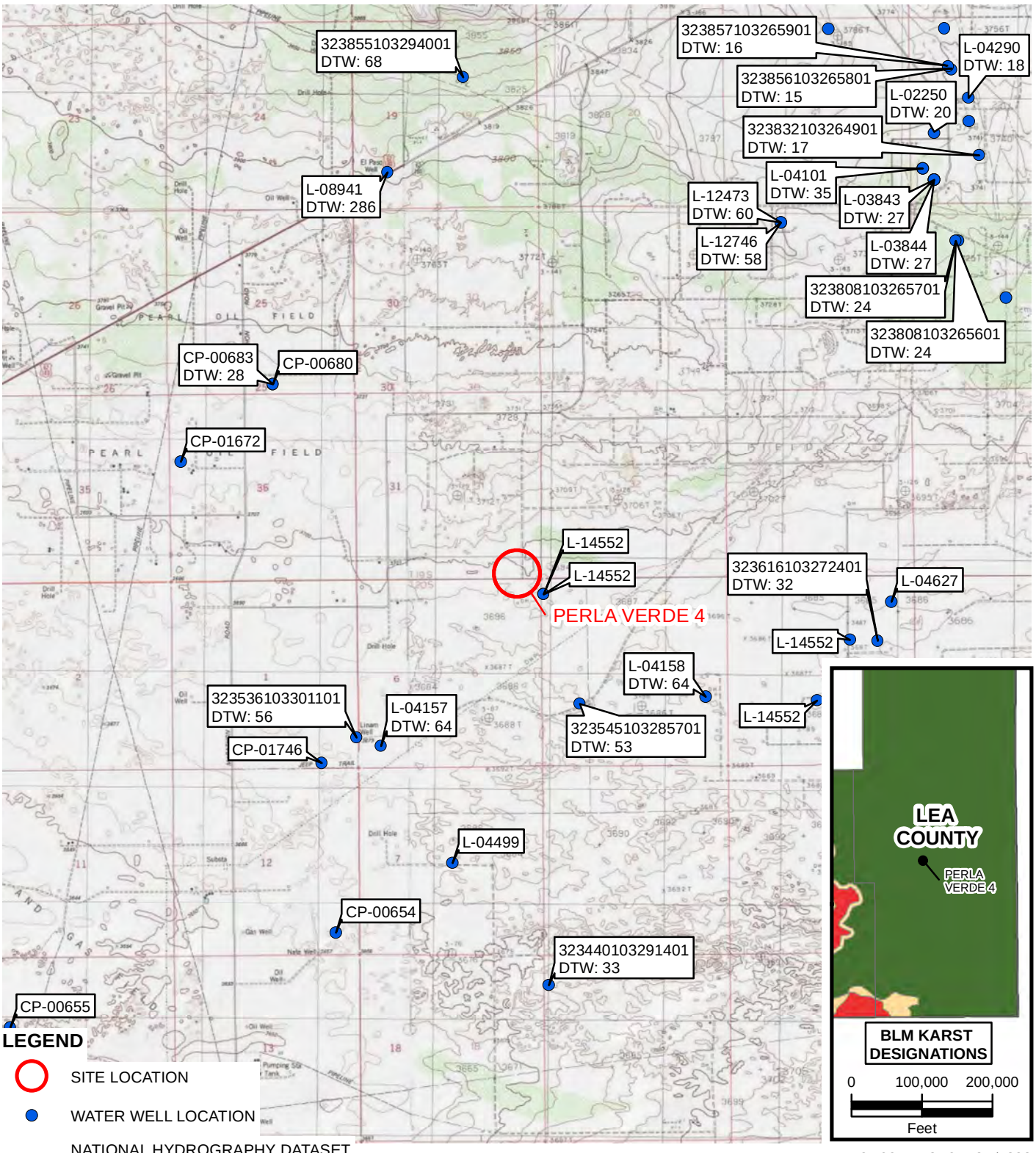
Attachments:

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

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 NOT ASSIGNED
DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT

FIGURE 1
SITE LOCATION MAP
PERLA VERDE 4
UNIT P SEC 31 T19S R35E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

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P:\XTO Energy\GIS\MXD\012920121_PERLA VERDE 4\012920121_FIG01_SL_RECEPTOR_2020.mxd

LEGEND

- RELEASE LOCATION
- PRELIMINARY SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- PRELIMINARY SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- GAS LINE
- RELEASE EXTENT
- INFRASTRUCTURE

NOTE: INCIDENT NUMBER NRM2022151947
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

IMAGE COURTESY OF ESRI

0 50 100
Feet

N

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
PERLA VERDE 4
UNIT P SEC 31 T19S R35E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

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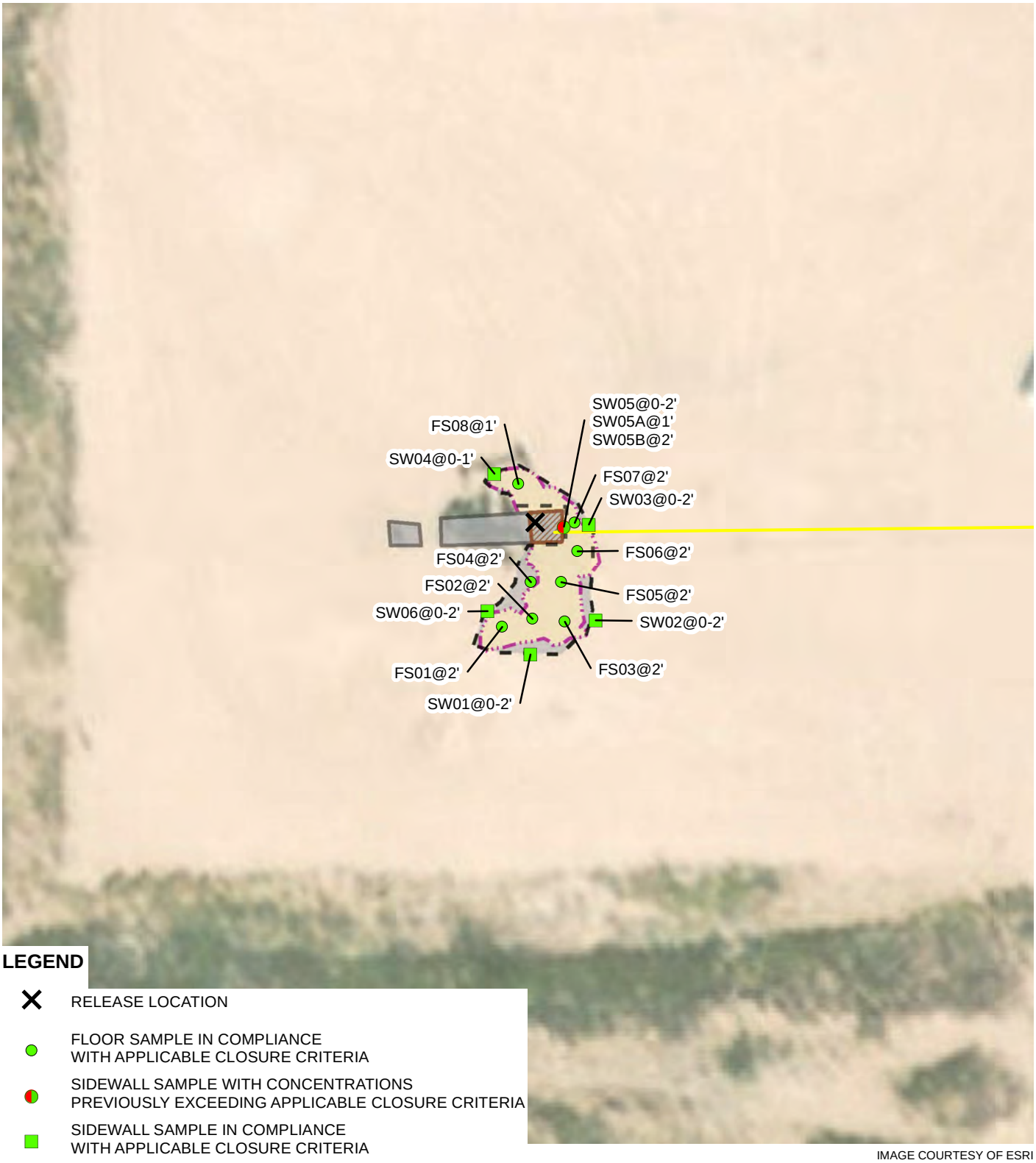
P:\XTO Energy\GIS\MXD\012920121_PERLA VERDE 4\012920121_FIG02_PRELIMINARY_2020.mxd



LEGEND

- RELEASE LOCATION
- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE WITH CONCENTRATIONS PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- GAS LINE
- RELEASE EXTENT
- INFRASTRUCTURE
- REMAINING IMPACTED SOIL
- EXCAVATION EXTENT

NOTE: INCIDENT NUMBER NRM2022151947
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

IMAGE COURTESY OF ESRI

0 50 100
Feet

N

FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
PERLA VERDE 4
UNIT P SEC 31 T19S R35E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

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LEGEND

- RELEASE LOCATION
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- GAS LINE
- RELEASE EXTENT
- INFRASTRUCTURE
- REMAINING IMPACTED SOIL
- EXCAVATION EXTENT

NOTE: INCIDENT NUMBER NRM2022151947
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

IMAGE COURTESY OF ESRI

0 50 100
Feet

N

FIGURE 4
DELINEATION SOIL SAMPLE LOCATIONS
PERLA VERDE 4
UNIT P SEC 31 T19S R35E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

A proud member of WSP

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TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

PERLA VERDE 4
INCIDENT NUMBER NRM2022151947
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**10,000**
SS01	0.5	08/19/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	753	141	753	894	1,050
SS02	0.5	08/19/2020	<0.100	7.20	12.7	35.3	**55.2**	2,220	20,800	1,970	**23,000**	**25,000**	337
SS03	0.5	08/19/2020	<0.100	1.47	4.52	9.51	15.5	934	25,300	3,500	**26,200**	**29,700**	**2,230**
SS04	0.5	10/08/2020	<0.00200	0.00448	0.0210	0.0552	0.0807	<49.9	3330	378	**3,330**	**3,710**	**5,080**
BH01	1	10/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	62.9	<50.1	62.9	62.9	82.2
BH01A	2	10/06/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	132
BH02	1	10/06/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	214
BH02A	2	10/06/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	194
BH03	3	10/08/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	185
PH01	1	10/05/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	51.2
PH01A	2	10/05/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	22.7
FS01	2	10/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	11.3
FS02	2	10/06/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	16.2
FS03	2	10/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	12.6
FS04	2	10/06/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	30.1
FS05	2	10/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	17.0
FS06	2	10/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<10.0
FS07	2	10/06/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	69.8
FS08	1	10/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	252
SW01	0 - 2	10/08/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	71.7
SW02	0 - 2	10/08/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	12.6
SW03	0 - 2	10/08/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	105

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TABLE 1
SOIL ANALYTICAL RESULTS

PERLA VERDE 4
INCIDENT NUMBER NRM2022151947
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**10,000**
SW04	0 - 1	10/08/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	154
SW05	0 - 2	10/08/2020	<0.00199	0.00433	0.133	0.514	0.651	176	3640	417	**3,820**	**4,230**	155
SW05A	1	10/08/2020	<0.00500	<0.00500	0.126	0.528	0.654	362	4770	547	**5,130**	**5,680**	116
SW05B	2	10/08/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	69.6	<49.8	69.6	69.6	31.5
SW06	0 - 2	10/08/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	200

Notes:

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

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ATTACHMENT 1: REFERENCED WELL RECORD

USGS 323545103285701 20S.35E.05.31424

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°35'59", Longitude 103°29'03" NAD27
Lea County, New Mexico , Hydrologic Unit 13060011
Well depth: 70 feet
Land surface altitude: 3,685.00 feet above NGVD29.
Well completed in "Ogallala Formation" (121OGLL) local aquifer

AVAILABLE DATA:

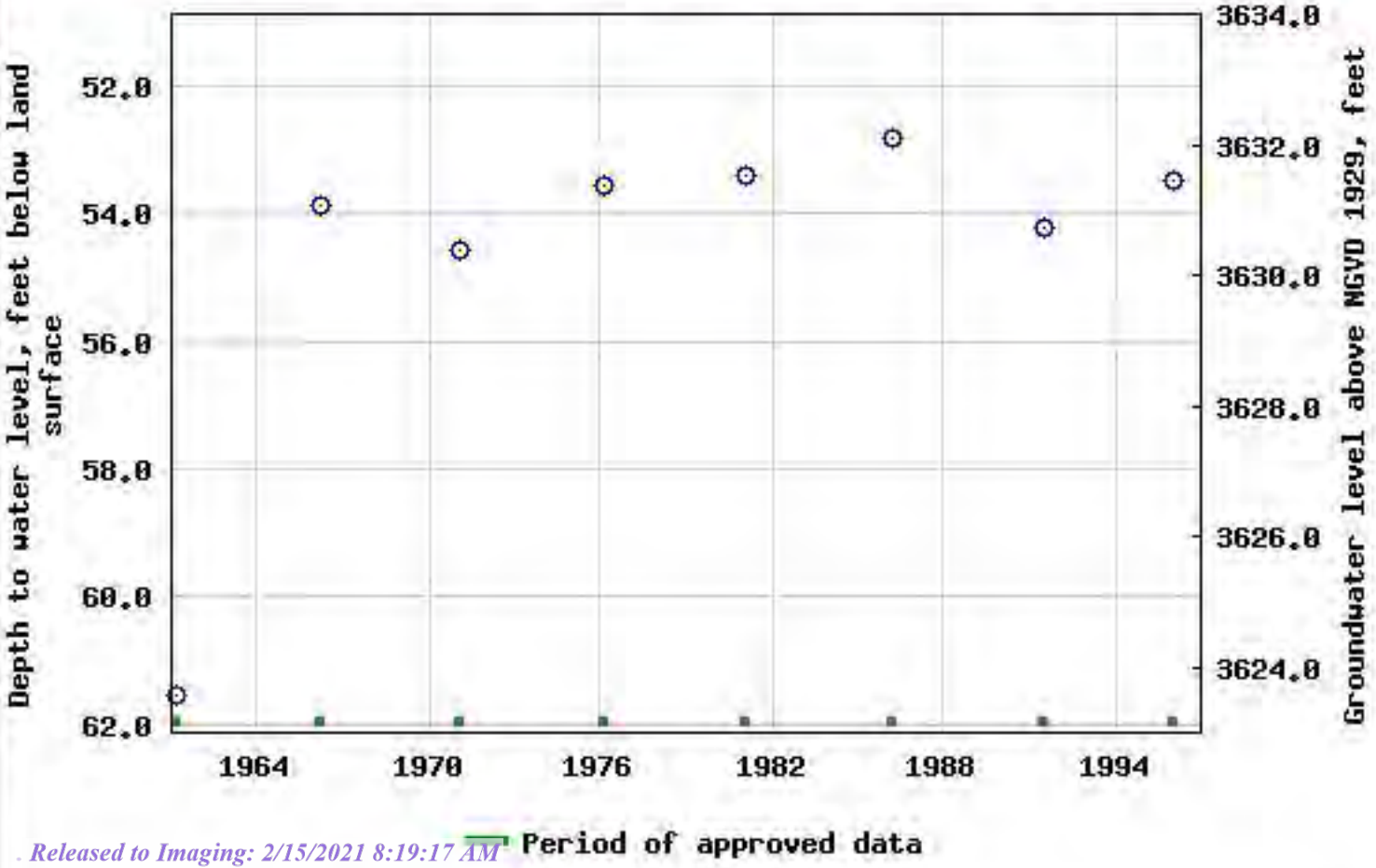
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1961-03-08	1996-01-25	8
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

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

USGS

USGS 323545103285701 20S.35E.05.31424



USGS 323440103291401 20S.35E.07.44420

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°34'40", Longitude 103°29'14" NAD27
Lea County, New Mexico , Hydrologic Unit 13060011
Well depth: not determined.
Land surface altitude: 3,692 feet above NAVD88.
Well completed in "Ogallala Formation" (121OGLL) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1961-03-08	1986-03-03	7
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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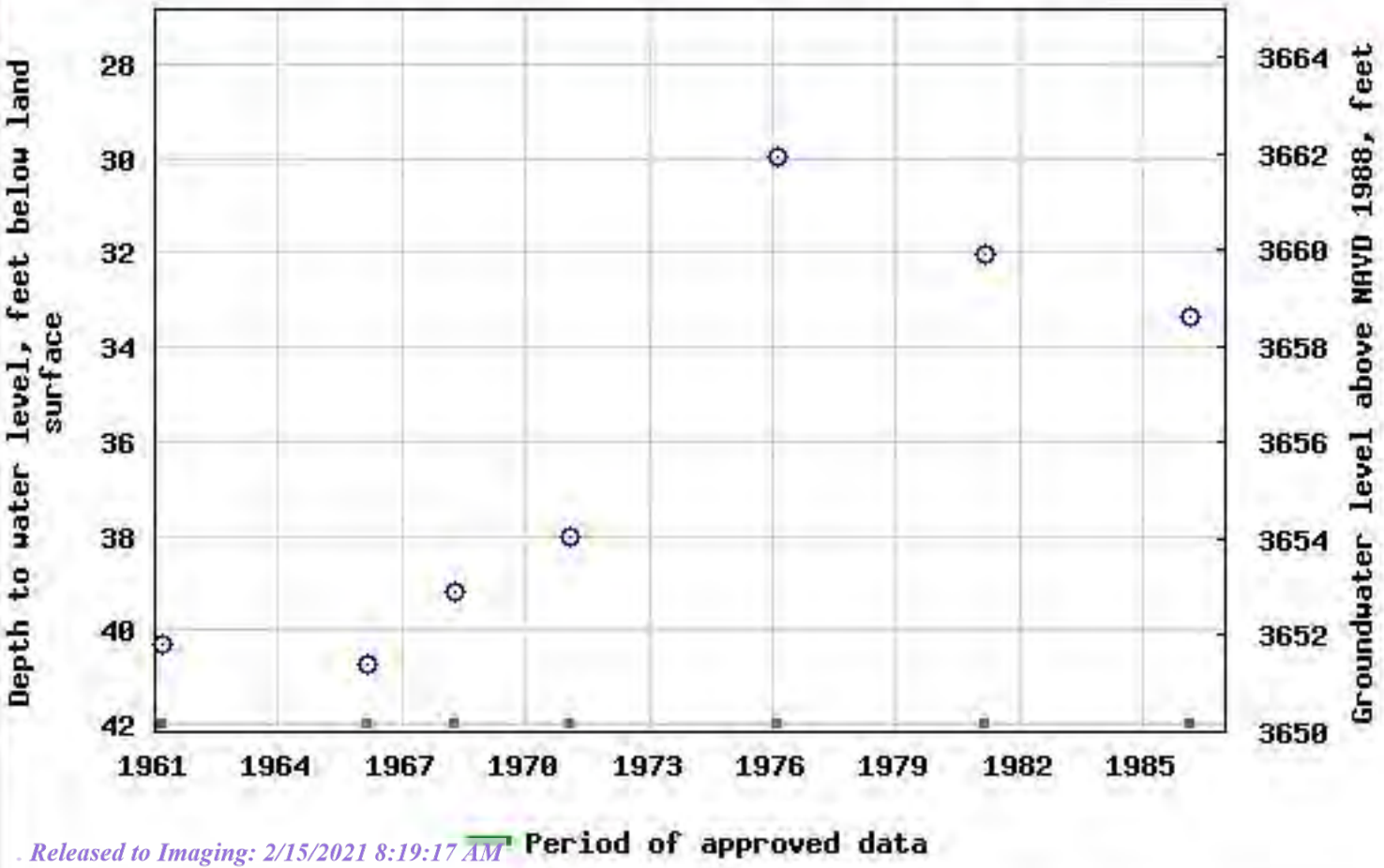
USGS

USGS 323440103291401 20S.35E.07.44420



USGS 323536103301101 20S.35E.06.331332

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°35'50", Longitude 103°30'17" NAD27
Lea County, New Mexico , Hydrologic Unit 13060011
Well depth: 70 feet
Land surface altitude: 3,678.00 feet above NGVD29.
Well completed in "Ogallala Formation" (121OGLL) local aquifer

AVAILABLE DATA:

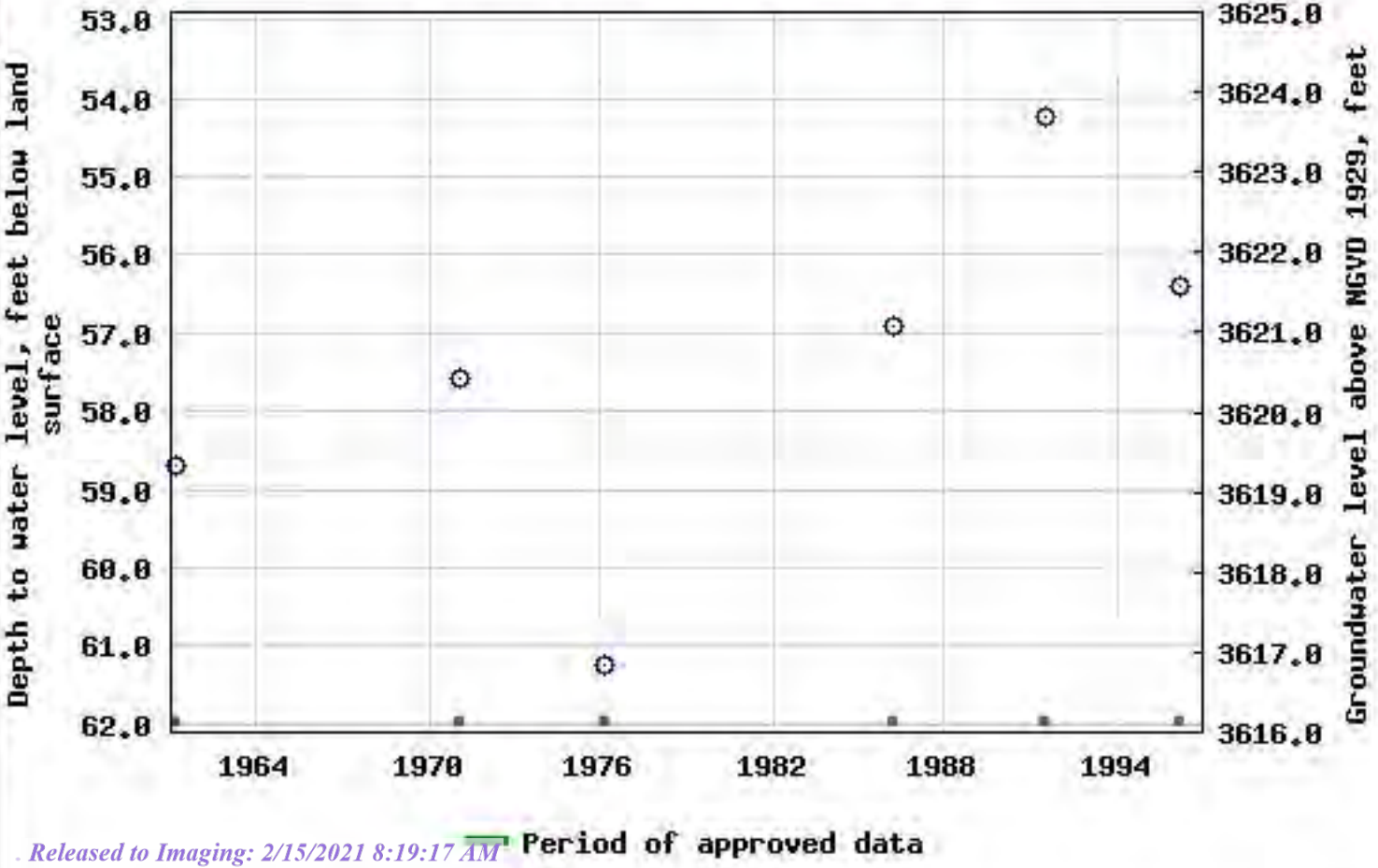
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1961-03-08	1996-03-05	6
Revisions	Unavailable (site:0) (timeseries:0)		

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

USGS

USGS 323536103301101 20S.35E.06.331332



USGS 323616103272401 20S.35E.04.22131

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°36'16", Longitude 103°27'24" NAD27
Lea County, New Mexico , Hydrologic Unit 13060011
Well depth: not determined.
Land surface altitude: 3,687 feet above NAVD88.
Well completed in "Ogallala Formation" (121OGLL) local aquifer

AVAILABLE DATA:

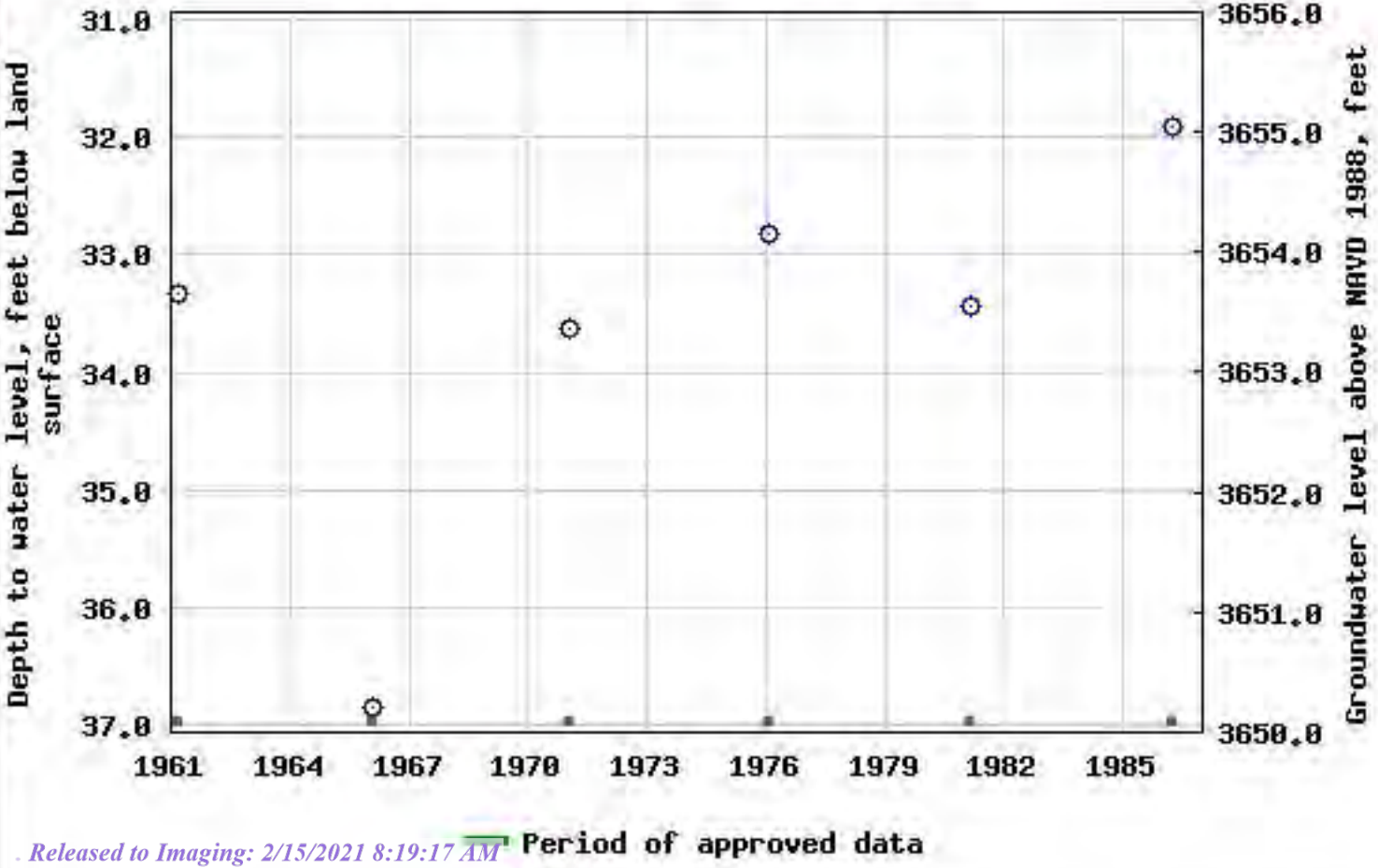
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1961-02-28	1986-04-02	6
Revisions	Unavailable (site:0) (timeseries:0)		

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

USGS

USGS 323616103272401 20S.35E.04.22131



USGS 323808103265601 19S.35E.22.334234

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°38'08", Longitude 103°26'56" NAD27
Lea County, New Mexico , Hydrologic Unit 13070007
Well depth: 50 feet
Land surface altitude: 3,733 feet above NAVD88.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

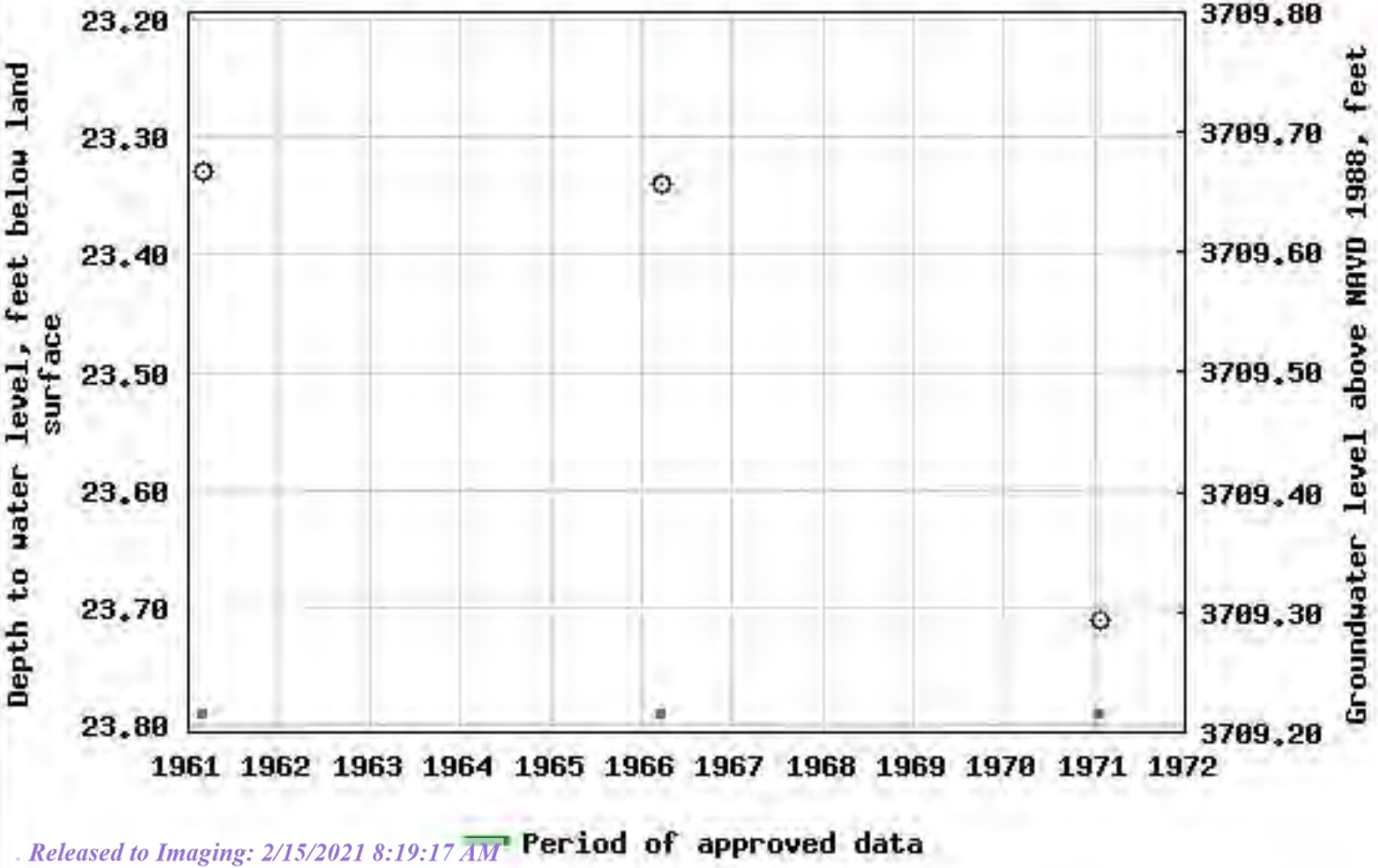
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1961-02-28	1971-01-27	3
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

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

USGS

USGS 323808103265601 19S.35E.22.334234



USGS 323808103265701 19S.35E.22.33423

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°38'08", Longitude 103°26'57" NAD27
Lea County, New Mexico , Hydrologic Unit 13070007
Well depth: not determined.
Land surface altitude: 3,733 feet above NAVD88.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

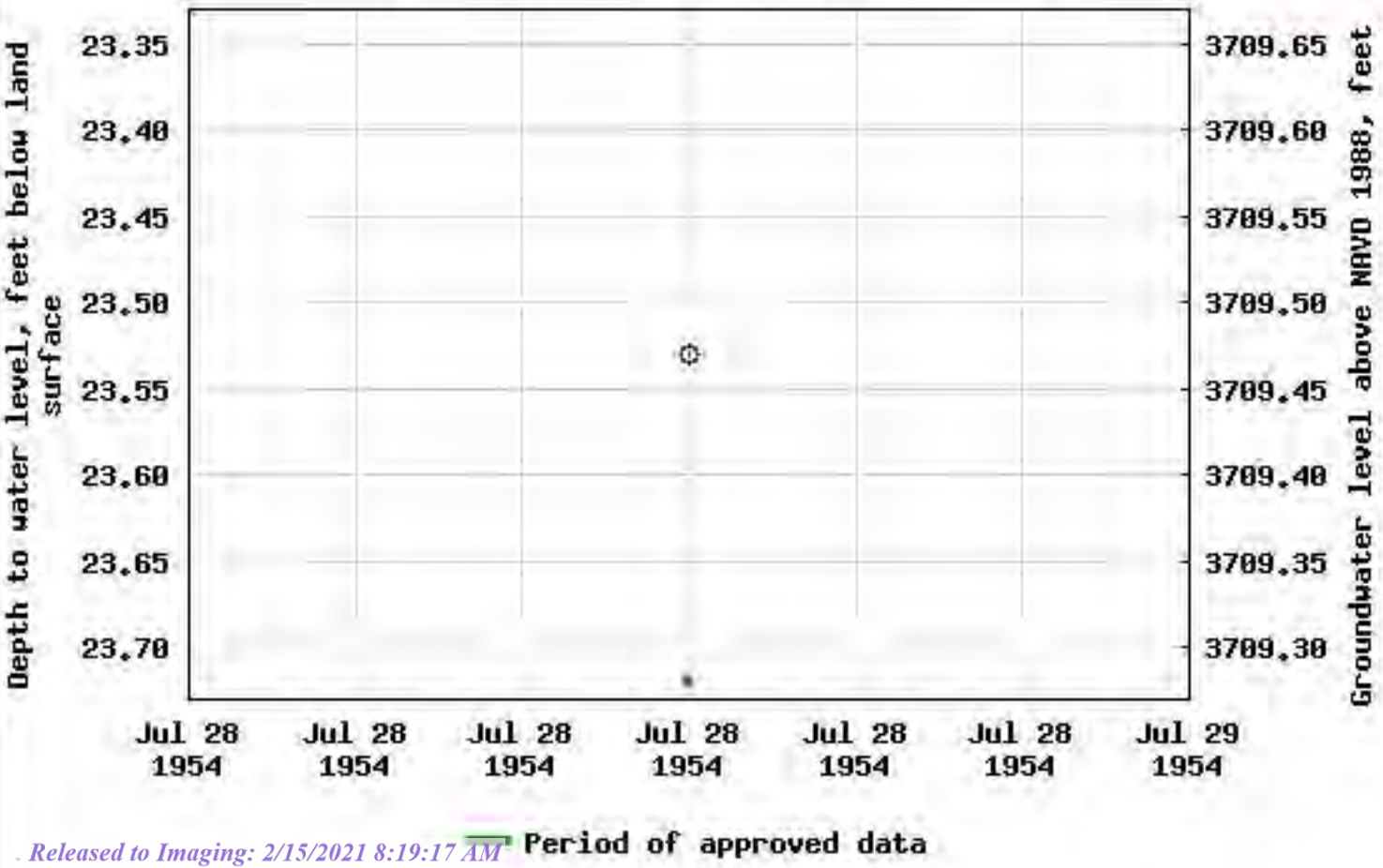
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1954-07-28	1954-07-28	1
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

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

USGS

USGS 323808103265701 19S.35E.22.33423



USGS 323832103264901 19S.35E.22.14341

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°38'32", Longitude 103°26'49" NAD27
Lea County, New Mexico , Hydrologic Unit 13070007
Well depth: 45 feet
Land surface altitude: 3,742 feet above NAVD88.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

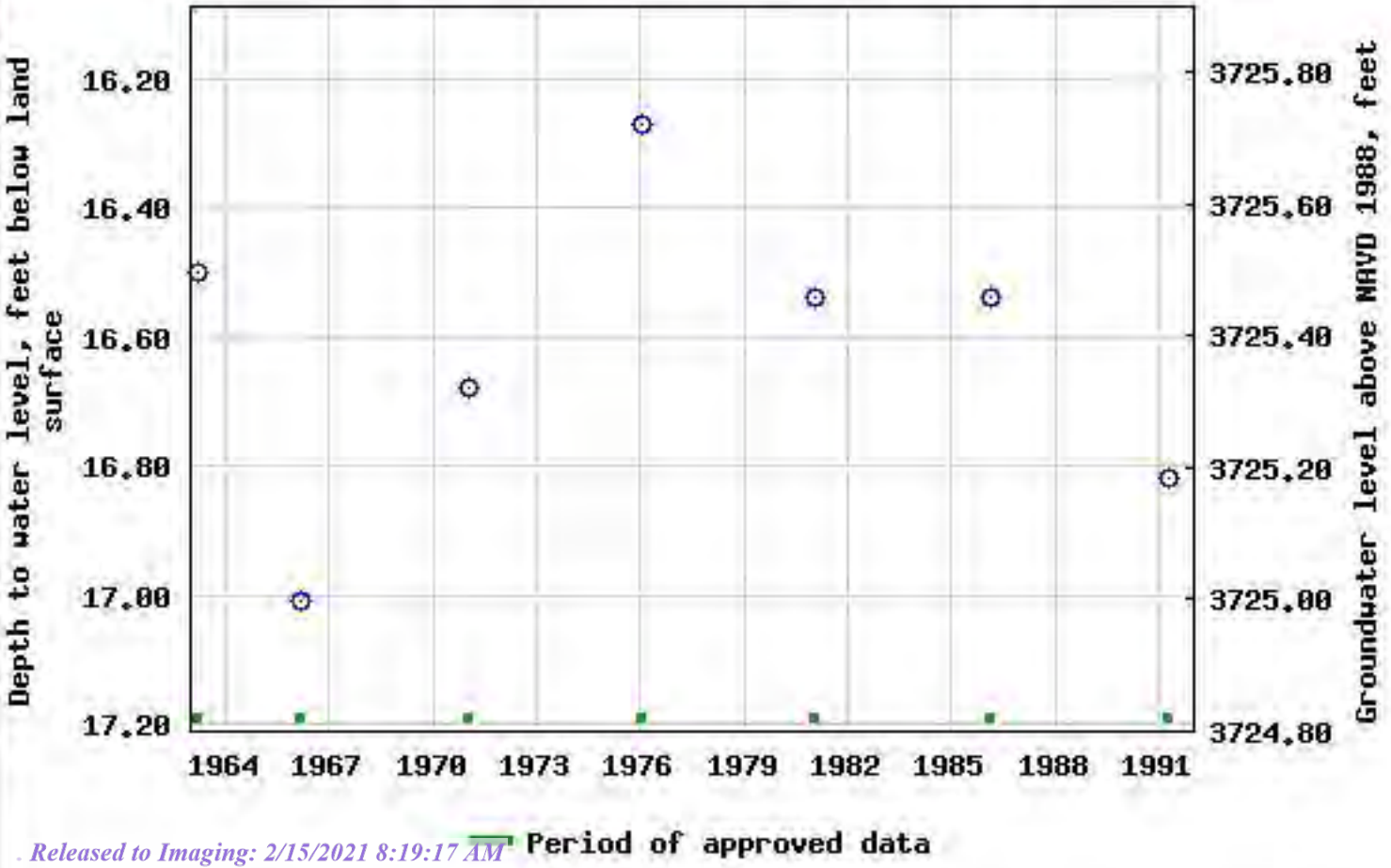
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1963-03-19	1991-04-17	7
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

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

USGS

USGS 323832103264901 19S.35E.22.14341



USGS 323855103294001 19S.35E.19.21110

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°38'55", Longitude 103°29'40" NAD27
Lea County, New Mexico , Hydrologic Unit 13060011
Well depth: not determined.
Land surface altitude: 3,841 feet above NAVD88.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

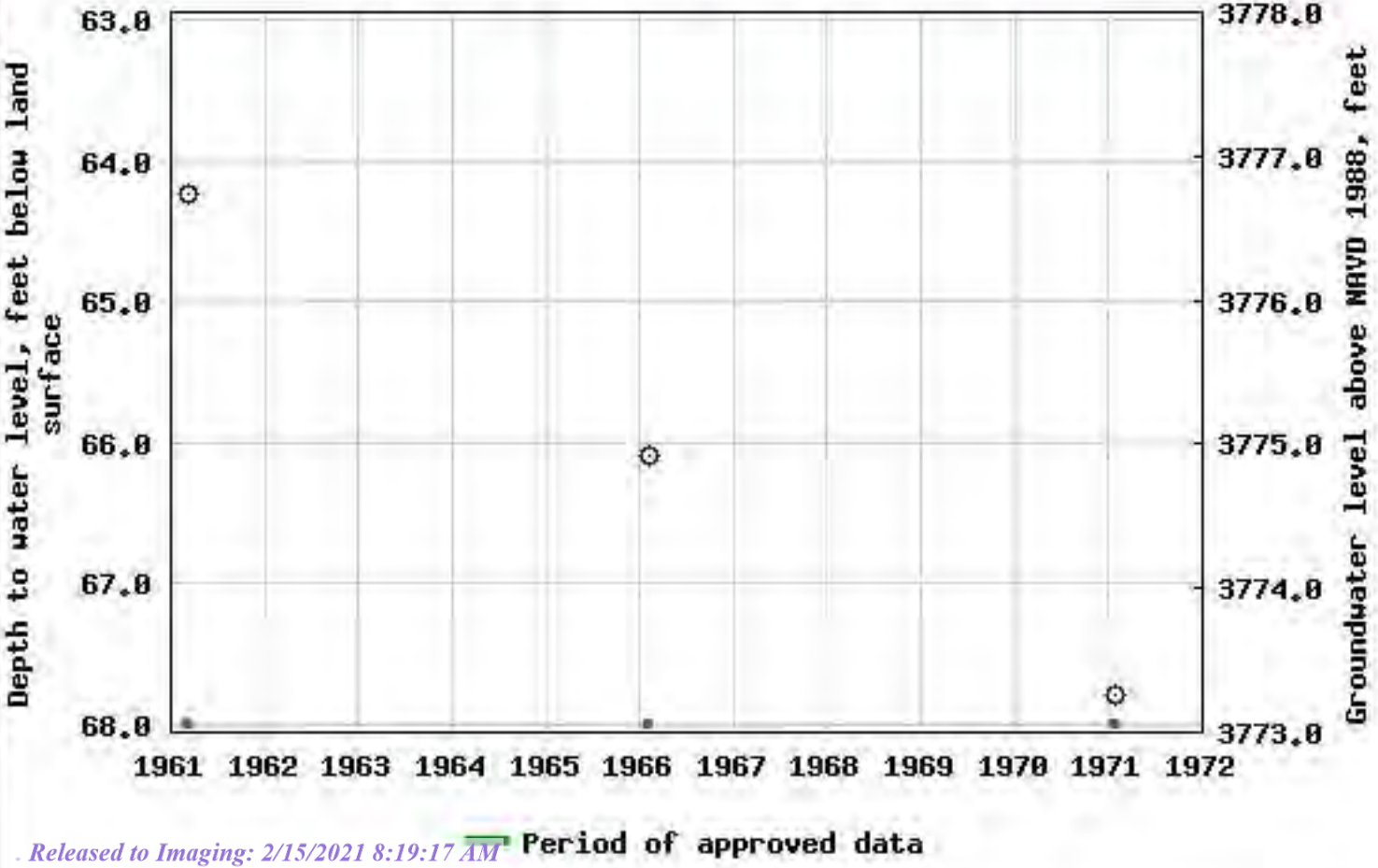
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1961-03-08	1971-01-27	3
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

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

USGS

USGS 323855103294001 19S.35E.19.21110



USGS 323856103265801 19S.35E.15.334424

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°38'56", Longitude 103°26'58" NAD27
Lea County, New Mexico , Hydrologic Unit 13070007
Well depth: not determined.
Land surface altitude: 3,751 feet above NAVD88.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

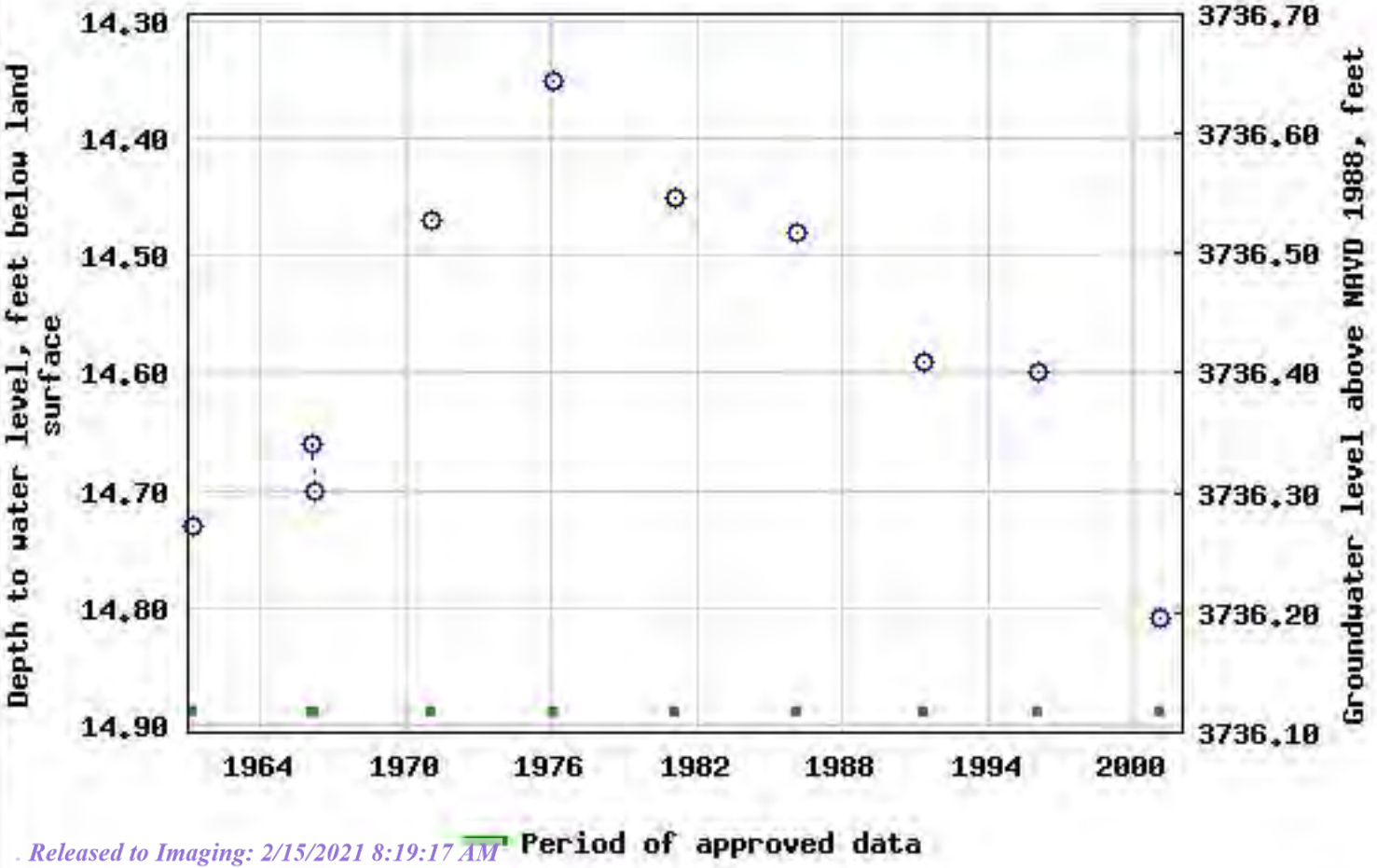
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1961-03-03	2001-01-31	10
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

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

USGS

USGS 323856103265801 19S.35E.15.334424



USGS 323857103265901 19S.35E.15.33434

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°38'57", Longitude 103°26'59" NAD27
Lea County, New Mexico , Hydrologic Unit 13070007
Well depth: not determined.
Land surface altitude: 3,752 feet above NAVD88.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

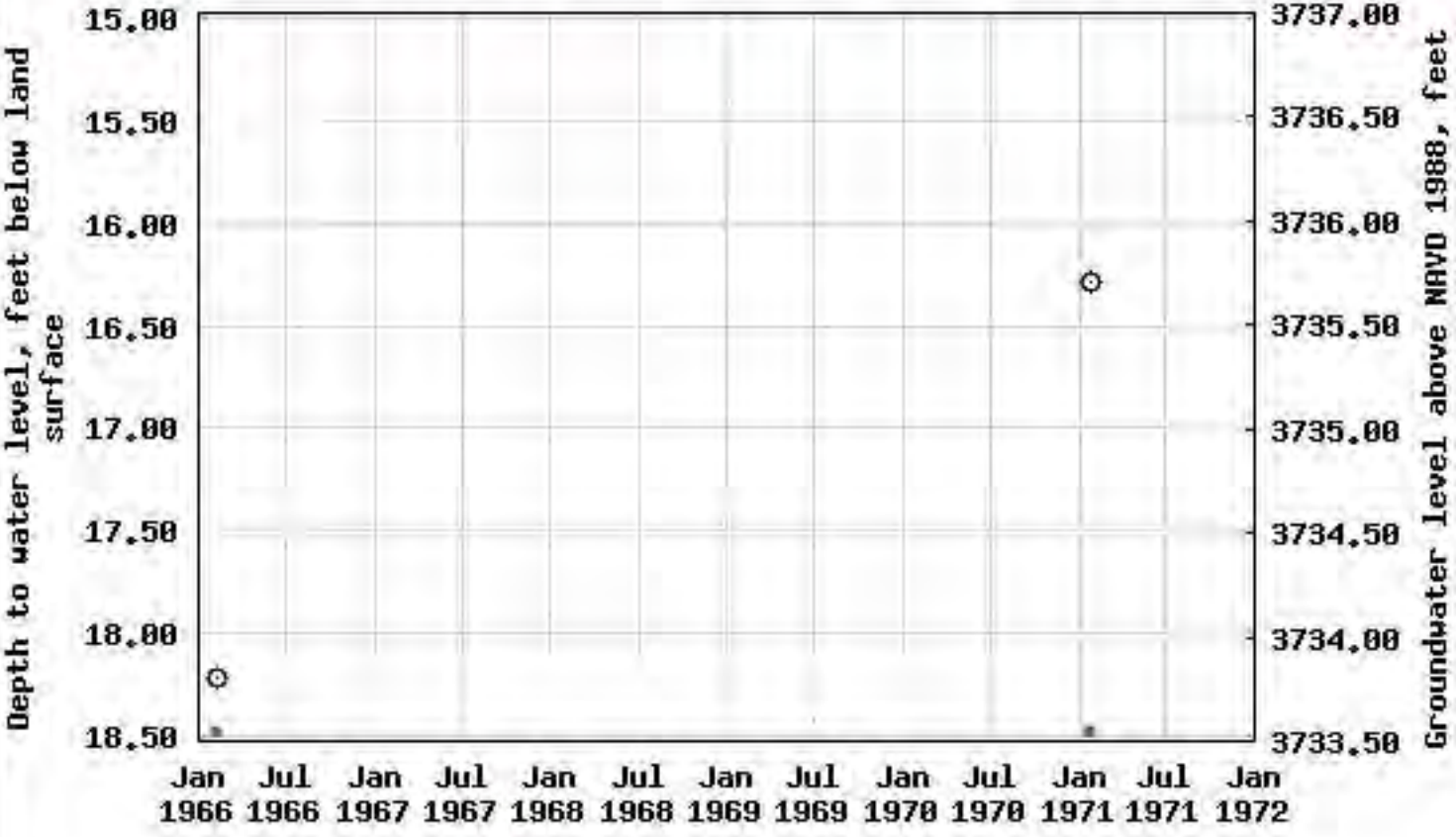
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1966-02-09	1971-01-27	2
Revisions	Unavailable (site:0) (timeseries:0)		

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

USGS

USGS 323857103265901 19S.35E.15.33434



New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	CP 00683 POD1	3	3	4	25	19S	34E	639530	3610685*

x

Driller License:	46	**Driller Company:**	ABBOTT BROTHERS COMPANY		
Driller Name:	MURRELL ABBOTT				
Drill Start Date:	07/18/1985	**Drill Finish Date:**	07/20/1985	**Plug Date:**	
Log File Date:	08/16/1985	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	1 GPM
Casing Size:	4.00	**Depth Well:**	120 feet	**Depth Water:**	28 feet

x

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

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	L 02250	1	3	3	22	19S	35E	645137	3612586*

x

Driller License: 144 **Driller Company:** QUARLES DRILLING COMPANY

Driller Name: QUARLES, O.L.

Drill Start Date: 04/01/1954 **Drill Finish Date:** 04/01/1954 **Plug Date:**

Log File Date: 04/13/1954 **PCW Rcv Date:** **Source:** Shallow

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

Casing Size: 6.00 **Depth Well:** 50 feet **Depth Water:** 20 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	20	40	Sandstone/Gravel/Conglomerate
	40	49	Sandstone/Gravel/Conglomerate

x

Casing Perforations:	Top	Bottom
	20	48

x

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

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	L 03843		3	3	22	19S	35E	645238	3612487*

x

Driller License: 111 **Driller Company:** BURKE, EDWARD B.

Driller Name:

Drill Start Date: 04/22/1958 **Drill Finish Date:** 04/22/1958 **Plug Date:**

Log File Date: 04/30/1958 **PCW Rcv Date:** **Source:** Shallow

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

Casing Size: 7.00 **Depth Well:** 73 feet **Depth Water:** 27 feet

x

Casing Perforations:	Top	Bottom
	47	73

x

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

POINT OF DIVERSION SUMMARY

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	L 03844		1	3	22	19S	35E	645232	3612891*

x

Driller License: 111 **Driller Company:** BURKE, EDWARD B.

Driller Name:

Drill Start Date: 04/23/1958 **Drill Finish Date:** 04/23/1958 **Plug Date:** 05/27/1958

Log File Date: 04/30/1958 **PCW Rcv Date:** **Source:** Shallow

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

Casing Size: 7.00 **Depth Well:** 71 feet **Depth Water:** 27 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	55	59	Sandstone/Gravel/Conglomerate

x

Casing Perforations:	Top	Bottom
	23	64

x

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

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twws	Rng	X	Y
	L 04101		3	3	22	19S	35E	645238	3612487*

x

Driller License: 205 **Driller Company:** WRIGHT, WILLIAM C.

Driller Name:

Drill Start Date: 12/10/1959 **Drill Finish Date:** 12/11/1959 **Plug Date:**

Log File Date: 12/18/1959 **PCW Rcv Date:** **Source:** Shallow

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

Casing Size: 6.63 **Depth Well:** 50 feet **Depth Water:** 35 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	38	48	Sandstone/Gravel/Conglomerate

x

Casing Perforations:	Top	Bottom
	30	50

x

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

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	L 04157		3	3	06	20S	35E	640483	3607561*

x

Driller License: 208 **Driller Company:** VAN NOY, W.L.

Driller Name:

Drill Start Date: 12/12/1959 **Drill Finish Date:** 12/13/1959 **Plug Date:**

Log File Date: 12/18/1959 **PCW Rcv Date:** **Source:** Shallow

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

Casing Size: 5.00 **Depth Well:** 70 feet **Depth Water:** 64 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	65	68	Sandstone/Gravel/Conglomerate

x

Casing Perforations:	Top	Bottom
	50	70

x

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

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	L 04158		2	4	05	20S	35E	643290	3608008*

x

Driller License: 208 **Driller Company:** VAN NOY, W.L.

Driller Name:

Drill Start Date: 12/11/1959 **Drill Finish Date:** 12/12/1959 **Plug Date:**

Log File Date: 12/18/1959 **PCW Rcv Date:** **Source:** Shallow

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

Casing Size: 5.00 **Depth Well:** 70 feet **Depth Water:** 64 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	65	68	Sandstone/Gravel/Conglomerate

x

Casing Perforations:	Top	Bottom
	50	70

x

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

New Mexico Office of the State Engineer

Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	L 04290	3	4	1	22	19S	35E	645528	3613198*

x

Driller License: 111 **Driller Company:** BURKE, EDWARD B.

Driller Name:

Drill Start Date: 09/22/1959 **Drill Finish Date:** 09/22/1959 **Plug Date:**

Log File Date: 10/09/1959 **PCW Rcv Date:** **Source:** Shallow

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

Casing Size: 6.00 **Depth Well:** 45 feet **Depth Water:** 18 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	18	32	Sandstone/Gravel/Conglomerate

x

Casing Perforations:	Top	Bottom
	10	40

x

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

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
NA	L 08941	2	3	3	19	19S	35E	640510	3612523

Driller License: 319 **Driller Company:** NEW MEXICO STATE HIGHWAY DEPT.

Driller Name: LOVELACE

Drill Start Date: 07/08/1982 **Drill Finish Date:** 08/09/1982 **Plug Date:**

Log File Date: 08/30/1982 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 12 GPM

Casing Size: 6.63 **Depth Well:** 600 feet **Depth Water:** 286 feet

Water Bearing Stratifications:

Top	Bottom	Description
280	295	Sandstone/Gravel/Conglomerate
510	560	Other/Unknown

Casing Perforations:

Top	Bottom
281	306
510	530
560	570

Meter Number: 17820 **Meter Make:** TURBINES INC

Meter Serial Number: 08051601 **Meter Multiplier:** 1.0000

Number of Dials: 7 **Meter Type:** Diversion

Unit of Measure: Barrels 42 gal. **Return Flow Percent:**

Usage Multiplier: **Reading Frequency:** Monthly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
03/01/2017	2017	17259	A	ap		0	
12/01/2017	2017	42330	A	ap		3.231	
01/01/2018	2018	42330	A	ap		0	
03/01/2018	2018	50271	A	ap		1.024	
06/01/2018	2018	62582	A	ap		1.587	
07/01/2018	2018	68319	A	ap		0.739	
08/01/2018	2018	69669	A	ap		0.174	
09/01/2018	2018	70515	A	ap		0.109	
11/01/2018	2018	75584	A	ap		0.653	
12/01/2018	2018	78697	A	ap		0.401	

****YTD Meter Amounts:**

Year	Amount
2017	3.231
2018	4.687

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twns	Rng	X	Y
	L 12473 POD1	2	1	2	27	19S	38E	643913	3612109

x

Driller License: 1607 **Driller Company:** DURAN DRILLING

Driller Name: DURAN, LUIS (LD)

Drill Start Date: 10/01/2009 **Drill Finish Date:** 10/05/2009 **Plug Date:**

Log File Date: 10/21/2009 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 200 GPM

Casing Size: 5.00 **Depth Well:** 105 feet **Depth Water:** 60 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	60	83	Sandstone/Gravel/Conglomerate

x

Casing Perforations:	Top	Bottom
	65	105

x

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	L 12746 POD1	4	2	4	27	19S	38E	643913	3612109

x

Driller License: 1626 **Driller Company:** TAYLOR, ROY ALLEN

Driller Name: TAYLOR, ROY ALLEN

Drill Start Date: 04/06/1977 **Drill Finish Date:** 04/08/2011 **Plug Date:**

Log File Date: 05/02/2011 **PCW Rcv Date:** **Source:** Shallow

Pump Type: SUBMER **Pipe Discharge Size:** **Estimated Yield:** 30 GPM

Casing Size: 6.00 **Depth Well:** 128 feet **Depth Water:** 58 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	59	66	Other/Unknown
	66	125	Sandstone/Gravel/Conglomerate

x

Casing Perforations:	Top	Bottom
	68	128

x

POINT OF DIVERSION SUMMARY

ATTACHMENT 2: LITHOLOGIC/ SAMPLING LOG

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

A proud member of WSP

BH or PH Name: PH01	Date: 10-5-20
Site Name: Perla Verde 4	
RP or Incident Number: NRM2022151947	
LTE Job Number:	
Logged By: SL	Method: Backhoe
Lat/Long:	Field Screening: HACH Chloride strips, PID
Hole Diameter: —	Total Depth: 2'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: TD @ 2'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	2186	17.6	N	PH01	1	0 – 1	SP SM	Sand w/ caliche, brown, tan, no odor, no stain, m-f, poorly graded, trace silt
D	<186	13.8	N	PH01A	2	1 – 2	SP SM	Sand, brown, tan, no odor, no stain, m-f, poorly graded, trace silt
						2		TD @ 2'
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

A proud member of WSP

BH or PH Name: BH01	Date: 10.6.20
Site Name: Perla Verde 4	
RP or Incident Number: NRM2022151947	
LTE Job Number:	
Logged By: SC	Method: Hand Auger
Lat/Long:	Field Screening: HACH Chloride strips, PID
Hole Diameter: 2.25"	Total Depth: 2'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: TD @ 2'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	<186	141.2	N	BH01	1	0–1	CCHE	Caliché, odor, no stain, tan brown, offwhite, some sand, m-f, poorly graded
D	<186	32.3	N	BH01A	2	1–2	SP SM	sand, Brown, odor, no stain, m-f, poorly graded, trace silt
						2–3		TD @ 2'
						3–4		
						4–5		
						5–6		
						6–7		
						7–8		
						8–9		
						9–10		
						10–11		
						11–12		

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

BH or PH Name: BH02	Date: 10-6-20
Site Name: Perla Verde 4	
RP or Incident Number: NRM2022151947	
LTE Job Number:	
Logged By: SL	Method: Hand Auger
Lat/Long:	Field Screening: HACH Chloride strips, PID
Hole Diameter: 2.25"	Total Depth: 2'

Comments: TD @ 2'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	186	0.4	N	BH02	1	0–1	CCHE	Caliche, no odor, no stain, tan, off white, brown some sand, m-f, poorly graded
D	269	1.4	N	BH02A	2	1–2	SP SM	Sand, Brown, no odor, no stain, m-f, poorly graded, trace silt
						2		TD @ 2'

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

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BH or PH Name: BH03	Date: 10.8.20
Site Name: Perla Verde 4	
RP or Incident Number: NRM2022151947	
LTE Job Number:	

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:	Field Screening: HACH Chloride strips, PID	Logged By: SL	Method: Hand Auger
		Hole Diameter: 2.25"	Total Depth: 3'

Comments: TD @ 3'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		0-2 OPEN Excavation
						1		
						2		
D	<186	12.2	N	BH03	3	3	SP SW	Sand, Brown, poorly graded, no odor, no stain, trace silt
						4		TD @ 3'
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Photograph 1: Northwest view of staining.

Photograph 2: Western view of staining.

Photograph 3: Southern view of staining.

Photograph 4: Northern view of excavation.

Perla Verde 4
Incident Number NRM2022151947
Photographs Taken: August 19, 2020 – October 6, 2020

A proud member of WSP

PHOTOGRAPHIC LOG

Photograph 5: Western view of excavation.

Photograph 6: Southern view of excavation.

Photograph 7: Western view of backfilled excavation.

Photograph 8: Southwest view of backfilled excavation.

ATTACHMENT 4: LABORATORY ANALYTICAL REPORT

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Certificate of Analysis Summary 670427

LT Environmental, Inc., Arvada, CO

Project Name: Perla Verde 4

Project Id: 012920121
Contact: Dan Moir
Project Location: Lea County

Date Received in Lab: Wed 08.19.2020 12:31
Report Date: 08.21.2020 17:45
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	670427-001		670427-002		670427-003					
	Field Id:	SS01		SS02		SS03					
	Depth:	0.5- ft		0.5- ft		0.5- ft					
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	08.19.2020 09:44		08.19.2020 09:47		08.19.2020 09:50					
BTEX by EPA 8021B	***Extracted:***	08.19.2020 16:00		08.19.2020 16:00		08.19.2020 16:00					
	Analyzed:	08.19.2020 19:49		08.19.2020 20:09		08.19.2020 21:04					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00201	0.00201	<0.100	0.100	<0.100	0.100				
Toluene		<0.00201	0.00201	7.20	0.402	1.47	0.400				
Ethylbenzene		<0.00201	0.00201	12.7	0.402	4.52	0.400				
m,p-Xylenes		<0.00402	0.00402	23.3	0.803	5.72	0.800				
o-Xylene		<0.00201	0.00201	12.0	0.402	3.79	0.400				
Total Xylenes		<0.00201	0.00201	35.3	0.402	9.51	0.400				
Total BTEX		<0.00201	0.00201	55.2	0.100	15.5	0.100				
Chloride by EPA 300	***Extracted:***	08.19.2020 16:31		08.19.2020 16:31		08.19.2020 16:31					
	Analyzed:	08.19.2020 20:21		08.19.2020 20:27		08.19.2020 20:32					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		1050	10.0	337	10.1	2230	50.2				
TPH by SW8015 Mod	***Extracted:***	08.19.2020 16:00		08.19.2020 16:00		08.19.2020 16:00					
	Analyzed:	08.19.2020 18:19		08.19.2020 18:59		08.19.2020 19:19					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	2220	250	934	251				
Diesel Range Organics (DRO)		753	50.0	20800	250	25300 D	501				
Motor Oil Range Hydrocarbons (MRO)		141	50.0	1970	250	3500	251				
Total GRO-DRO		753	50.0	23000	250	26200	251				
Total TPH		894	50.0	25000	250	29700	251				

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 670427

for

LT Environmental, Inc.

Project Manager: Dan Moir

Perla Verde 4

012920121

08.21.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-37), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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08.21.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **670427**
Perla Verde 4
Project Address: Lea County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 670427. 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 Eurofins Xenco, LLC. 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. 670427 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 670427

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	08.19.2020 09:44	0.5 ft	670427-001
SS02	S	08.19.2020 09:47	0.5 ft	670427-002
SS03	S	08.19.2020 09:50	0.5 ft	670427-003

CASE NARRATIVE

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Client Name: LT Environmental, Inc.

Project Name: Perla Verde 4

Project ID: *012920121*
Work Order Number(s): *670427*

Report Date: *08.21.2020*
Date Received: *08.19.2020*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 670427

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	08.19.2020 12:31
Lab Sample Id:	670427-001	Date Collected:	08.19.2020 09:44	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	08.19.2020 16:31	Basis:	Wet Weight
Seq Number:	3135047				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1050**	10.0	mg/kg	08.19.2020 20:21		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	08.19.2020 16:00	Basis:	Wet Weight
Seq Number:	3135054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.19.2020 18:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	**753**	50.0	mg/kg	08.19.2020 18:19		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**141**	50.0	mg/kg	08.19.2020 18:19		1
Total GRO-DRO	PHC628	**753**	50.0	mg/kg	08.19.2020 18:19		1
Total TPH	PHC635	**894**	50.0	mg/kg	08.19.2020 18:19		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	130	%	70-135	08.19.2020 18:19	
o-Terphenyl	84-15-1	121	%	70-135	08.19.2020 18:19	

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Certificate of Analytical Results 670427

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	08.19.2020 12:31
Lab Sample Id:	670427-001	Date Collected:	08.19.2020 09:44	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	08.19.2020 16:00	Basis:	Wet Weight
Seq Number:	3135050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.19.2020 19:49	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.19.2020 19:49	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.19.2020 19:49	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.19.2020 19:49	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.19.2020 19:49	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.19.2020 19:49	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.19.2020 19:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	08.19.2020 19:49	
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.19.2020 19:49	

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Certificate of Analytical Results 670427

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	08.19.2020 12:31
Lab Sample Id:	670427-002	Date Collected:	08.19.2020 09:47	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	08.19.2020 16:31	Basis:	Wet Weight
Seq Number:	3135047				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**337**	10.1	mg/kg	08.19.2020 20:27		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	08.19.2020 16:00	Basis:	Wet Weight
Seq Number:	3135054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**2220**	250	mg/kg	08.19.2020 18:59		5
Diesel Range Organics (DRO)	C10C28DRO	**20800**	250	mg/kg	08.19.2020 18:59		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**1970**	250	mg/kg	08.19.2020 18:59		5
Total GRO-DRO	PHC628	**23000**	250	mg/kg	08.19.2020 18:59		5
Total TPH	PHC635	**25000**	250	mg/kg	08.19.2020 18:59		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	08.19.2020 18:59	
o-Terphenyl	84-15-1	101	%	70-135	08.19.2020 18:59	

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Certificate of Analytical Results 670427

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	08.19.2020 12:31
Lab Sample Id:	670427-002	Date Collected:	08.19.2020 09:47	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	08.19.2020 16:00	Basis:	Wet Weight
Seq Number:	3135050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.100	0.100	mg/kg	08.19.2020 20:09	U	200
Toluene	108-88-3	**7.20**	0.402	mg/kg	08.19.2020 20:09		200
Ethylbenzene	100-41-4	**12.7**	0.402	mg/kg	08.19.2020 20:09		200
m,p-Xylenes	179601-23-1	**23.3**	0.803	mg/kg	08.19.2020 20:09		200
o-Xylene	95-47-6	**12.0**	0.402	mg/kg	08.19.2020 20:09		200
Total Xylenes	1330-20-7	**35.3**	0.402	mg/kg	08.19.2020 20:09		200
Total BTEX		**55.2**	0.100	mg/kg	08.19.2020 20:09		200

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	08.19.2020 20:09	
1,4-Difluorobenzene	540-36-3	95	%	70-130	08.19.2020 20:09	

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Certificate of Analytical Results 670427

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	08.19.2020 12:31
Lab Sample Id:	670427-003	Date Collected:	08.19.2020 09:50	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	08.19.2020 16:31	Basis:	Wet Weight
Seq Number:	3135047				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2230**	50.2	mg/kg	08.19.2020 20:32		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	08.19.2020 16:00	Basis:	Wet Weight
Seq Number:	3135054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**934**	251	mg/kg	08.19.2020 19:19		5
Diesel Range Organics (DRO)	C10C28DRO	**25300**	501	mg/kg	08.20.2020 11:32	D	10
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**3500**	251	mg/kg	08.19.2020 19:19		5
Total GRO-DRO	PHC628	**26200**	251	mg/kg	08.20.2020 11:32		10
Total TPH	PHC635	**29700**	251	mg/kg	08.20.2020 11:32		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	08.19.2020 19:19	
o-Terphenyl	84-15-1	82	%	70-135	08.19.2020 19:19	

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Certificate of Analytical Results 670427

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	08.19.2020 12:31
Lab Sample Id:	670427-003	Date Collected:	08.19.2020 09:50	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	08.19.2020 16:00	Basis:	Wet Weight
Seq Number:	3135050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.100	0.100	mg/kg	08.19.2020 21:04	U	200
Toluene	108-88-3	**1.47**	0.400	mg/kg	08.19.2020 21:04		200
Ethylbenzene	100-41-4	**4.52**	0.400	mg/kg	08.19.2020 21:04		200
m,p-Xylenes	179601-23-1	**5.72**	0.800	mg/kg	08.19.2020 21:04		200
o-Xylene	95-47-6	**3.79**	0.400	mg/kg	08.19.2020 21:04		200
Total Xylenes	1330-20-7	**9.51**	0.400	mg/kg	08.19.2020 21:04		200
Total BTEX		**15.5**	0.100	mg/kg	08.19.2020 21:04		200

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	08.19.2020 21:04	
4-Bromofluorobenzene	460-00-4	99	%	70-130	08.19.2020 21:04	

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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

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QC Summary 670427

LT Environmental, Inc.

Perla Verde 4

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3135047 — Matrix: Solid — Date Prep: 08.19.2020
MB Sample Id: 7709778-1-BLK — LCS Sample Id: 7709778-1-BKS — LCSD Sample Id: 7709778-1-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	269	108	90-110	1	20	mg/kg	08.19.2020 19:42	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3135047 — Matrix: Soil — Date Prep: 08.19.2020
Parent Sample Id: 670385-015 — MS Sample Id: 670385-015 S — MSD Sample Id: 670385-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.96	199	205	103	205	103	90-110	0	20	mg/kg	08.19.2020 19:59	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3135047 — Matrix: Soil — Date Prep: 08.19.2020
Parent Sample Id: 670438-001 — MS Sample Id: 670438-001 S — MSD Sample Id: 670438-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	190	200	393	102	392	101	90-110	0	20	mg/kg	08.19.2020 21:17	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3135054 — Matrix: Solid — Date Prep: 08.19.2020
MB Sample Id: 7709767-1-BLK — LCS Sample Id: 7709767-1-BKS — LCSD Sample Id: 7709767-1-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	1320	132	1070	107	70-135	21	35	mg/kg	08.19.2020 10:52	
Diesel Range Organics (DRO)	<50.0	1000	1120	112	1020	102	70-135	9	35	mg/kg	08.19.2020 10:52	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	132		82		133		70-135	%	08.19.2020 10:52
o-Terphenyl	122		79		108		70-135	%	08.19.2020 10:52

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3135054 — Matrix: Solid — Date Prep: 08.19.2020
MB Sample Id: 7709767-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.19.2020 10:32	

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

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

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

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QC Summary 670427

LT Environmental, Inc.

Perla Verde 4

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3135054 Matrix: Soil Date Prep: 08.19.2020
Parent Sample Id: 670385-015 MS Sample Id: 670385-015 S MSD Sample Id: 670385-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1220	122	1070	107	70-135	13	35	mg/kg	08.19.2020 11:53	
Diesel Range Organics (DRO)	<50.1	1000	1120	112	1030	103	70-135	8	35	mg/kg	08.19.2020 11:53	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	134		119		70-135	%	08.19.2020 11:53
o-Terphenyl	98		97		70-135	%	08.19.2020 11:53

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3135050 Matrix: Solid Date Prep: 08.19.2020
MB Sample Id: 7709774-1-BLK LCS Sample Id: 7709774-1-BKS LCSD Sample Id: 7709774-1-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	0.0945	95	0.0997	100	70-130	5	35	mg/kg	08.19.2020 17:11	
Toluene	<0.00200	0.100	0.0893	89	0.0930	93	70-130	4	35	mg/kg	08.19.2020 17:11	
Ethylbenzene	<0.00200	0.100	0.0957	96	0.0969	97	71-129	1	35	mg/kg	08.19.2020 17:11	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.196	98	70-135	2	35	mg/kg	08.19.2020 17:11	
o-Xylene	<0.00200	0.100	0.0963	96	0.0963	96	71-133	0	35	mg/kg	08.19.2020 17:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	92		97		101		70-130	%	08.19.2020 17:11
4-Bromofluorobenzene	106		99		100		70-130	%	08.19.2020 17:11

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3135050 Matrix: Soil Date Prep: 08.19.2020
Parent Sample Id: 670385-015 MS Sample Id: 670385-015 S MSD Sample Id: 670385-015 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	0.101	101	0.105	105	70-130	4	35	mg/kg	08.19.2020 17:52	
Toluene	<0.00200	0.0998	0.0872	87	0.0993	99	70-130	13	35	mg/kg	08.19.2020 17:52	
Ethylbenzene	<0.00200	0.0998	0.0871	87	0.103	103	71-129	17	35	mg/kg	08.19.2020 17:52	
m,p-Xylenes	<0.00399	0.200	0.174	87	0.204	102	70-135	16	35	mg/kg	08.19.2020 17:52	
o-Xylene	<0.00200	0.0998	0.0859	86	0.101	101	71-133	16	35	mg/kg	08.19.2020 17:52	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		101		70-130	%	08.19.2020 17:52
4-Bromofluorobenzene	100		100		70-130	%	08.19.2020 17:52

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

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

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

Chain of Custody

Work Order No: 670427

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

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

Work Order Comments

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

Project Name:	Perla Verde 4	Turn Around	
Project Number:	12920121	Routine	✓
P.O. Number:	Lea	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	6.2/6.0	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:	3	

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	8/19/2020	9:44	0.5'	1	x	x	x	Composite
SS02	s	8/19/2020	9:47	0.5'	1	x	x	x	Composite
SS03		8/19/2020	9:50	0.5'	1	x	x	x	Composite

ANALYSIS REQUEST

Work Order Notes

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
	Cloe Clifton	8.19.20 12:31	2		
			4		
			6		

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Certificate of Analysis Summary 674817

LT Environmental, Inc., Arvada, CO

Project Name: Perla Verde 4

Project Id: 012920121
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri 10.09.2020 13:40
Report Date: 10.12.2020 16:36
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	674817-001		674817-002			
	Field Id:	PH01		PH01 A			
	Depth:	1- ft		2- ft			
	Matrix:	SOIL		SOIL			
	Sampled:	10.05.2020 10:20		10.05.2020 10:30			
BTEX by EPA 8021B	***Extracted:***	10.09.2020 18:41		10.09.2020 18:41			
	Analyzed:	10.10.2020 00:59		10.10.2020 01:21			
	Units/RL:	mg/kg	RL	mg/kg	RL		
Benzene		<0.00201	0.00201	<0.00201	0.00201		
Toluene		<0.00201	0.00201	<0.00201	0.00201		
Ethylbenzene		<0.00201	0.00201	<0.00201	0.00201		
m,p-Xylenes		<0.00402	0.00402	<0.00402	0.00402		
o-Xylene		<0.00201	0.00201	<0.00201	0.00201		
Total Xylenes		<0.00201	0.00201	<0.00201	0.00201		
Total BTEX		<0.00201	0.00201	<0.00201	0.00201		
Chloride by EPA 300	***Extracted:***	10.09.2020 16:36		10.09.2020 16:36			
	Analyzed:	10.09.2020 17:23		10.09.2020 17:40			
	Units/RL:	mg/kg	RL	mg/kg	RL		
Chloride		51.2	9.94	22.7	10.0		
TPH by SW8015 Mod	***Extracted:***	10.09.2020 17:30		10.09.2020 17:30			
	Analyzed:	10.10.2020 01:44		10.12.2020 11:23			
	Units/RL:	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<50.2	50.2		
Diesel Range Organics (DRO)		<50.1	50.1	<50.2	50.2		
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<50.2	50.2		
Total GRO-DRO		<50.1	50.1	<50.2	50.2		
Total TPH		<50.1	50.1	<50.2	50.2		

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 674817

for

LT Environmental, Inc.

Project Manager: Dan Moir

Perla Verde 4

012920121

10.12.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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10.12.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **674817**
Perla Verde 4
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 Eurofins Xenco, LLC Report Number(s) 674817. 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 Eurofins Xenco, LLC. 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. 674817 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 674817

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	10.05.2020 10:20	1 ft	674817-001
PH01 A	S	10.05.2020 10:30	2 ft	674817-002

CASE NARRATIVE

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Client Name: LT Environmental, Inc.

Project Name: Perla Verde 4

Project ID: *012920121*
Work Order Number(s): *674817*

Report Date: *10.12.2020*
Date Received: *10.09.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 674817

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id: **PH01** Matrix: Soil Date Received:10.09.2020 13:40

Lab Sample Id: 674817-001 Date Collected: 10.05.2020 10:20 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 10.09.2020 16:36 % Moisture:

Seq Number: 3139363 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**51.2**	9.94	mg/kg	10.09.2020 17:23		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DTH

Analyst: DTH Date Prep: 10.09.2020 17:30 % Moisture:

Seq Number: 3139371 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.10.2020 01:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	10.10.2020 01:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	10.10.2020 01:44	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	10.10.2020 01:44	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	10.10.2020 01:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	10.10.2020 01:44	
o-Terphenyl	84-15-1	90	%	70-135	10.10.2020 01:44	

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Certificate of Analytical Results 674817

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674817-001	Date Collected:	10.05.2020 10:20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 18:41	% Moisture:	
Seq Number:	3139372			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.10.2020 00:59	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.10.2020 00:59	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.10.2020 00:59	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.10.2020 00:59	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.10.2020 00:59	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.10.2020 00:59	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.10.2020 00:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	10.10.2020 00:59	
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.10.2020 00:59	

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Certificate of Analytical Results 674817

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**PH01 A**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674817-002	Date Collected:	10.05.2020 10:30	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 16:36	% Moisture:	
Seq Number:	3139363			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**22.7**	10.0	mg/kg	10.09.2020 17:40		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.09.2020 17:30	% Moisture:	
Seq Number:	3139408			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.12.2020 11:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.12.2020 11:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.12.2020 11:23	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.12.2020 11:23	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.12.2020 11:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	10.12.2020 11:23	
o-Terphenyl	84-15-1	77	%	70-135	10.12.2020 11:23	

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Certificate of Analytical Results 674817

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**PH01 A**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674817-002	Date Collected:	10.05.2020 10:30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 18:41	% Moisture:	
Seq Number:	3139372			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.10.2020 01:21	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.10.2020 01:21	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.10.2020 01:21	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.10.2020 01:21	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.10.2020 01:21	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.10.2020 01:21	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.10.2020 01:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	10.10.2020 01:21	
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.10.2020 01:21	

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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 674817

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LT Environmental, Inc.

Perla Verde 4

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139363 — Matrix: Solid — Date Prep: 10.09.2020
MB Sample Id: 7713002-1-BLK — LCS Sample Id: 7713002-1-BKS — LCSD Sample Id: 7713002-1-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	264	106	90-110	1	20	mg/kg	10.09.2020 17:12	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139363 — Matrix: Soil — Date Prep: 10.09.2020
Parent Sample Id: 674817-001 — MS Sample Id: 674817-001 S — MSD Sample Id: 674817-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	51.2	200	259	104	261	105	90-110	1	20	mg/kg	10.09.2020 17:29	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139363 — Matrix: Soil — Date Prep: 10.09.2020
Parent Sample Id: 674822-001 — MS Sample Id: 674822-001 S — MSD Sample Id: 674822-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5080	202	5290	104	5300	110	90-110	0	20	mg/kg	10.09.2020 18:46	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139371 — Matrix: Solid — Date Prep: 10.09.2020
MB Sample Id: 7713057-1-BLK — LCS Sample Id: 7713057-1-BKS — LCSD Sample Id: 7713057-1-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	845	85	863	86	70-135	2	35	mg/kg	10.10.2020 00:43	
Diesel Range Organics (DRO)	<50.0	1000	972	97	1010	101	70-135	4	35	mg/kg	10.10.2020 00:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		129		129		70-135	%	10.10.2020 00:43
o-Terphenyl	104		122		126		70-135	%	10.10.2020 00:43

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139408 — Matrix: Solid — Date Prep: 10.09.2020
MB Sample Id: 7713050-1-BLK — LCS Sample Id: 7713050-1-BKS — LCSD Sample Id: 7713050-1-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	888	89	817	82	70-135	8	35	mg/kg	10.12.2020 10:23	
Diesel Range Organics (DRO)	<50.0	1000	1070	107	917	92	70-135	15	35	mg/kg	10.12.2020 10:23	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		109		113		70-135	%	10.12.2020 10:23
o-Terphenyl	119		99		88		70-135	%	10.12.2020 10:23

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

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

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

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QC Summary 674817

LT Environmental, Inc.

Perla Verde 4

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3139371 Matrix: Solid Date Prep: 10.09.2020
MB Sample Id: 7713057-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.10.2020 01:24	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3139408 Matrix: Solid Date Prep: 10.09.2020
MB Sample Id: 7713050-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.12.2020 13:43	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3139371 Matrix: Soil Date Prep: 10.09.2020
Parent Sample Id: 674817-001 MS Sample Id: 674817-001 S MSD Sample Id: 674817-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	996	879	88	848	85	70-135	4	35	mg/kg	10.10.2020 02:05	
Diesel Range Organics (DRO)	<49.8	996	991	99	982	98	70-135	1	35	mg/kg	10.10.2020 02:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		106		70-135	%	10.10.2020 02:05
o-Terphenyl	101		98		70-135	%	10.10.2020 02:05

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3139408 Matrix: Soil Date Prep: 10.09.2020
Parent Sample Id: 674817-002 MS Sample Id: 674817-002 S MSD Sample Id: 674817-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	849	85	827	83	70-135	3	35	mg/kg	10.12.2020 11:42	
Diesel Range Organics (DRO)	<50.2	1000	953	95	929	93	70-135	3	35	mg/kg	10.12.2020 11:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		89		70-135	%	10.12.2020 11:42
o-Terphenyl	72		73		70-135	%	10.12.2020 11:42

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

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

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

QC Summary 674817

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LT Environmental, Inc.

Perla Verde 4

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3139372 Matrix: Solid Date Prep: 10.09.2020
MB Sample Id: 7713005-1-BLK LCS Sample Id: 7713005-1-BKS LCSD Sample Id: 7713005-1-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	0.101	101	0.0992	99	70-130	2	35	mg/kg	10.09.2020 22:54	
Toluene	<0.00200	0.100	0.0928	93	0.0929	93	70-130	0	35	mg/kg	10.09.2020 22:54	
Ethylbenzene	<0.00200	0.100	0.0942	94	0.0970	97	71-129	3	35	mg/kg	10.09.2020 22:54	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.198	99	70-135	3	35	mg/kg	10.09.2020 22:54	
o-Xylene	<0.00200	0.100	0.0981	98	0.0980	98	71-133	0	35	mg/kg	10.09.2020 22:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		100		102		70-130	%	10.09.2020 22:54
4-Bromofluorobenzene	114		107		110		70-130	%	10.09.2020 22:54

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3139372 Matrix: Soil Date Prep: 10.09.2020
Parent Sample Id: 674817-001 MS Sample Id: 674817-001 S MSD Sample Id: 674817-001 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	0.105	105	0.111	111	70-130	6	35	mg/kg	10.09.2020 23:39	
Toluene	<0.00200	0.0998	0.0976	98	0.103	103	70-130	5	35	mg/kg	10.09.2020 23:39	
Ethylbenzene	<0.00200	0.0998	0.101	101	0.107	107	71-129	6	35	mg/kg	10.09.2020 23:39	
m,p-Xylenes	<0.00399	0.200	0.205	103	0.216	108	70-135	5	35	mg/kg	10.09.2020 23:39	
o-Xylene	<0.00200	0.0998	0.102	102	0.107	107	71-133	5	35	mg/kg	10.09.2020 23:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		99		70-130	%	10.09.2020 23:39
4-Bromofluorobenzene	109		110		70-130	%	10.09.2020 23:39

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

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

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

Chain of Custody

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: 674817

Page 1 of 1

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

Work Order Comments

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

Project Name:	Perla Verde 4	Turn Around	
Project Number:	012920121	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temperature (°C):	2.6 / 2.4	Temp Blank:	(Yes) No
Received Intact:	(Yes) No	Wet Ice:	(Yes) No
Cooler Custody Seals:	Yes No (N/A)	Thermometer ID	T-NM-007
Sample Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
		Total Containers:	2

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH01	S	10/5/2020	1020	1'	1	X	X	X
PH01A	S	10/5/2020	1030	2'	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

Note: 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		Clive Cuffley	10.9.20 15:40	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10.09.2020 01.40.00 PM

Work Order #: 674817

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)?	2.4	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	Samples received in bulk containers.
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**No**	
#18 Water VOC samples have zero headspace?	**N/A**	

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

Analyst: PH Device/Lot#:

Checklist completed by: Cloe Clifton Date: 10.09.2020

Cloe Clifton

Checklist reviewed by: Jessica Kramer Date: 10.12.2020

Jessica Kramer

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Certificate of Analysis Summary 674480

LT Environmental, Inc., Arvada, CO

Project Name: Perla Verde 4

Project Id: 012920121
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue 10.06.2020 17:00
Report Date: 10.08.2020 14:27
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	674480-001		674480-002					
	Field Id:	BH01		BH01 A					
	Depth:	1- ft		2- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	10.06.2020 13:50		10.06.2020 14:00					
BTEX by EPA 8021B	***Extracted:***	10.07.2020 10:15		10.07.2020 10:15					
	Analyzed:	10.07.2020 18:23		10.07.2020 18:45					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00199	0.00199				
Toluene		<0.00200	0.00200	<0.00199	0.00199				
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199				
m,p-Xylenes		<0.00399	0.00399	<0.00398	0.00398				
o-Xylene		<0.00200	0.00200	<0.00199	0.00199				
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199				
Total BTEX		<0.00200	0.00200	<0.00199	0.00199				
Chloride by EPA 300	***Extracted:***	10.07.2020 09:44		10.07.2020 09:44					
	Analyzed:	10.07.2020 13:55		10.07.2020 14:01					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		82.2	50.2	132	50.4				
TPH by SW8015 Mod	***Extracted:***	10.07.2020 10:30		10.07.2020 10:30					
	Analyzed:	10.07.2020 16:39		10.07.2020 16:59					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<50.1	50.1				
Diesel Range Organics (DRO)		62.9	50.1	<50.1	50.1				
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<50.1	50.1				
Total GRO-DRO		62.9	50.1	<50.1	50.1				
Total TPH		62.9	50.1	<50.1	50.1				

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 674480

for

LT Environmental, Inc.

Project Manager: Dan Moir

Perla Verde 4

012920121

10.08.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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10.08.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **674480**
Perla Verde 4
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 Eurofins Xenco, LLC Report Number(s) 674480. 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 Eurofins Xenco, LLC. 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. 674480 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 674480

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	10.06.2020 13:50	1 ft	674480-001
BH01 A	S	10.06.2020 14:00	2 ft	674480-002

CASE NARRATIVE

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Client Name: LT Environmental, Inc.

Project Name: Perla Verde 4

Project ID: *012920121*
Work Order Number(s): *674480*

Report Date: *10.08.2020*
Date Received: *10.06.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 674480

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674480-001	Date Collected:	10.06.2020 13:50	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 09:44	% Moisture:	
Seq Number:	3139067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**82.2**	50.2	mg/kg	10.07.2020 13:55		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.07.2020 10:30	% Moisture:	
Seq Number:	3139079			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.07.2020 16:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	**62.9**	50.1	mg/kg	10.07.2020 16:39		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	10.07.2020 16:39	U	1
Total GRO-DRO	PHC628	**62.9**	50.1	mg/kg	10.07.2020 16:39		1
Total TPH	PHC635	**62.9**	50.1	mg/kg	10.07.2020 16:39		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	10.07.2020 16:39	
o-Terphenyl	84-15-1	92	%	70-135	10.07.2020 16:39	

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Certificate of Analytical Results 674480

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674480-001	Date Collected:	10.06.2020 13:50	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 10:15	% Moisture:	
Seq Number:	3139083			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.07.2020 18:23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.07.2020 18:23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.07.2020 18:23	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.07.2020 18:23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.07.2020 18:23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.07.2020 18:23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.07.2020 18:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	10.07.2020 18:23	
4-Bromofluorobenzene	460-00-4	84	%	70-130	10.07.2020 18:23	

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Certificate of Analytical Results 674480

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id: **BH01 A** Matrix: Soil Date Received:10.06.2020 17:00

Lab Sample Id: 674480-002 Date Collected: 10.06.2020 14:00 Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 10.07.2020 09:44 % Moisture:

Seq Number: 3139067 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**132**	50.4	mg/kg	10.07.2020 14:01		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DTH

Analyst: DTH Date Prep: 10.07.2020 10:30 % Moisture:

Seq Number: 3139079 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.07.2020 16:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	10.07.2020 16:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	10.07.2020 16:59	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	10.07.2020 16:59	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	10.07.2020 16:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	10.07.2020 16:59	
o-Terphenyl	84-15-1	95	%	70-135	10.07.2020 16:59	

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Certificate of Analytical Results 674480

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**BH01 A**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674480-002	Date Collected:	10.06.2020 14:00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 10:15	% Moisture:	
Seq Number:	3139083			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.07.2020 18:45	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.07.2020 18:45	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.07.2020 18:45	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.07.2020 18:45	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.07.2020 18:45	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.07.2020 18:45	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.07.2020 18:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	10.07.2020 18:45	
4-Bromofluorobenzene	460-00-4	97	%	70-130	10.07.2020 18:45	

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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

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QC Summary 674480

LT Environmental, Inc.

Perla Verde 4

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139067 — Matrix: Solid — Date Prep: 10.07.2020
MB Sample Id: 7712782-1-BLK — LCS Sample Id: 7712782-1-BKS — LCSD Sample Id: 7712782-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	260	104	262	105	90-110	1	20	mg/kg	10.07.2020 10:32	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139067 — Matrix: Soil — Date Prep: 10.07.2020
Parent Sample Id: 674474-001 — MS Sample Id: 674474-001 S — MSD Sample Id: 674474-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	568	200	775	104	760	96	90-110	2	20	mg/kg	10.07.2020 11:19	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139067 — Matrix: Soil — Date Prep: 10.07.2020
Parent Sample Id: 674479-005 — MS Sample Id: 674479-005 S — MSD Sample Id: 674479-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	17.0	199	221	103	220	102	90-110	0	20	mg/kg	10.07.2020 13:25	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139079 — Matrix: Solid — Date Prep: 10.07.2020
MB Sample Id: 7712802-1-BLK — LCS Sample Id: 7712802-1-BKS — LCSD Sample Id: 7712802-1-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	908	91	934	93	70-135	3	35	mg/kg	10.07.2020 10:37	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	1040	104	70-135	3	35	mg/kg	10.07.2020 10:37	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		111		114		70-135	%	10.07.2020 10:37
o-Terphenyl	108		102		104		70-135	%	10.07.2020 10:37

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139079 — Matrix: Solid — Date Prep: 10.07.2020
MB Sample Id: 7712802-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.07.2020 11:17	

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

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QC Summary 674480

LT Environmental, Inc.

Perla Verde 4

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3139079 Matrix: Soil Date Prep: 10.07.2020
Parent Sample Id: 674479-001 MS Sample Id: 674479-001 S MSD Sample Id: 674479-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	904	90	908	91	70-135	0	35	mg/kg	10.07.2020 12:18	
Diesel Range Organics (DRO)	<50.1	1000	1010	101	1030	103	70-135	2	35	mg/kg	10.07.2020 12:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		133		70-135	%	10.07.2020 12:18
o-Terphenyl	116		124		70-135	%	10.07.2020 12:18

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3139083 Matrix: Solid Date Prep: 10.07.2020
MB Sample Id: 7712799-1-BLK LCS Sample Id: 7712799-1-BKS LCSD Sample Id: 7712799-1-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	0.110	110	0.111	111	70-130	1	35	mg/kg	10.07.2020 10:10	
Toluene	<0.00200	0.100	0.105	105	0.106	106	70-130	1	35	mg/kg	10.07.2020 10:10	
Ethylbenzene	<0.00200	0.100	0.0970	97	0.0964	96	71-129	1	35	mg/kg	10.07.2020 10:10	
m,p-Xylenes	<0.00400	0.200	0.196	98	0.194	97	70-135	1	35	mg/kg	10.07.2020 10:10	
o-Xylene	<0.00200	0.100	0.0970	97	0.0967	97	71-133	0	35	mg/kg	10.07.2020 10:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		97		70-130	%	10.07.2020 10:10
4-Bromofluorobenzene	85		85		85		70-130	%	10.07.2020 10:10

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3139083 Matrix: Soil Date Prep: 10.07.2020
Parent Sample Id: 674474-001 MS Sample Id: 674474-001 S MSD Sample Id: 674474-001 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	0.100	100	0.124	124	70-130	21	35	mg/kg	10.07.2020 10:55	
Toluene	<0.00200	0.0998	0.0971	97	0.130	130	70-130	29	35	mg/kg	10.07.2020 10:55	
Ethylbenzene	<0.00200	0.0998	0.0910	91	0.123	123	71-129	30	35	mg/kg	10.07.2020 10:55	
m,p-Xylenes	<0.00399	0.200	0.183	92	0.246	122	70-135	29	35	mg/kg	10.07.2020 10:55	
o-Xylene	<0.00200	0.0998	0.0884	89	0.118	118	71-133	29	35	mg/kg	10.07.2020 10:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		97		70-130	%	10.07.2020 10:55
4-Bromofluorobenzene	84		84		70-130	%	10.07.2020 10:55

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

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

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

Chain of Custody

XENCO LABORATORIES

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

Work Order No: 674480

www.xenco.com Page 1 of 1

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

Work Order Comments

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

Project Name:	Perla Verde 4	Turn Around	
Project Number:	01129 20121	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.8 / 0.6	Thermometer ID	TN1007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.7	
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)
BH01	S	10.6.20	1350	1'	1	X	X	X
BH01A	S	10.6.20	1400	2'	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

Note: 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			10/6/20 17:00	2			
3				4			
5				6			

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10.06.2020 05.00.00 PM

Work Order #: 674480

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)?	.6	
#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?	**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**	Samples received in bulk containers.
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**No**	
#18 Water VOC samples have zero headspace?	**N/A**	

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

Analyst: PH Device/Lot#:

Checklist completed by: Cloe Clifton Date: 10.07.2020

Checklist reviewed by: Jessica Kramer Date: 10.08.2020

Jessica Kramer

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Certificate of Analysis Summary 674481

LT Environmental, Inc., Arvada, CO

Project Name: Perla Verde 4

Project Id: 012920121
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue 10.06.2020 17:00
Report Date: 10.08.2020 14:28
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	674481-001		674481-002			
	Field Id:	BH02		BH02 A			
	Depth:	1- ft		2- ft			
	Matrix:	SOIL		SOIL			
	Sampled:	10.06.2020 14:20		10.06.2020 14:30			
BTEX by EPA 8021B	***Extracted:***	10.07.2020 10:15		10.07.2020 10:15			
	Analyzed:	10.07.2020 19:08		10.07.2020 19:30			
	Units/RL:	mg/kg	RL	mg/kg	RL		
Benzene		<0.00202	0.00202	<0.00201	0.00201		
Toluene		<0.00202	0.00202	<0.00201	0.00201		
Ethylbenzene		<0.00202	0.00202	<0.00201	0.00201		
m,p-Xylenes		<0.00404	0.00404	<0.00402	0.00402		
o-Xylene		<0.00202	0.00202	<0.00201	0.00201		
Total Xylenes		<0.00202	0.00202	<0.00201	0.00201		
Total BTEX		<0.00202	0.00202	<0.00201	0.00201		
Chloride by EPA 300	***Extracted:***	10.07.2020 09:44		10.07.2020 09:44			
	Analyzed:	10.07.2020 14:19		10.07.2020 14:25			
	Units/RL:	mg/kg	RL	mg/kg	RL		
Chloride		214	50.1	194	50.0		
TPH by SW8015 Mod	***Extracted:***	10.07.2020 16:00		10.07.2020 16:00			
	Analyzed:	10.07.2020 17:19		10.07.2020 17:39			
	Units/RL:	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0		
Diesel Range Organics (DRO)		<50.0	50.0	<50.0	50.0		
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0		
Total GRO-DRO		<50.0	50.0	<50.0	50.0		
Total TPH		<50.0	50.0	<50.0	50.0		

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 674481

for

LT Environmental, Inc.

Project Manager: Dan Moir

Perla Verde 4

012920121

10.08.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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10.08.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **674481**
Perla Verde 4
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 Eurofins Xenco, LLC Report Number(s) 674481. 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 Eurofins Xenco, LLC. 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. 674481 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 674481

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH02	S	10.06.2020 14:20	1 ft	674481-001
BH02 A	S	10.06.2020 14:30	2 ft	674481-002

CASE NARRATIVE

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Client Name: LT Environmental, Inc.

Project Name: Perla Verde 4

Project ID: *012920121*
Work Order Number(s): *674481*

Report Date: *10.08.2020*
Date Received: *10.06.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 674481

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id: **BH02** Matrix: Soil Date Received:10.06.2020 17:00

Lab Sample Id: 674481-001 Date Collected: 10.06.2020 14:20 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 10.07.2020 09:44 % Moisture:

Seq Number: 3139067 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**214**	50.1	mg/kg	10.07.2020 14:19		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DTH

Analyst: DTH Date Prep: 10.07.2020 16:00 % Moisture:

Seq Number: 3139079 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.07.2020 17:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.07.2020 17:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.07.2020 17:19	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.07.2020 17:19	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.07.2020 17:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	10.07.2020 17:19	
o-Terphenyl	84-15-1	92	%	70-135	10.07.2020 17:19	

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Certificate of Analytical Results 674481

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674481-001	Date Collected:	10.06.2020 14:20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 10:15	% Moisture:	
Seq Number:	3139083			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.07.2020 19:08	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.07.2020 19:08	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.07.2020 19:08	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	10.07.2020 19:08	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.07.2020 19:08	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.07.2020 19:08	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.07.2020 19:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	10.07.2020 19:08	
4-Bromofluorobenzene	460-00-4	88	%	70-130	10.07.2020 19:08	

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Certificate of Analytical Results 674481

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id: **BH02 A** Matrix: Soil Date Received:10.06.2020 17:00

Lab Sample Id: 674481-002 Date Collected: 10.06.2020 14:30 Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 10.07.2020 09:44 % Moisture:

Seq Number: 3139067 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**194**	50.0	mg/kg	10.07.2020 14:25		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DTH

Analyst: DTH Date Prep: 10.07.2020 16:00 % Moisture:

Seq Number: 3139079 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.07.2020 17:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.07.2020 17:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.07.2020 17:39	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.07.2020 17:39	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.07.2020 17:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	10.07.2020 17:39	
o-Terphenyl	84-15-1	88	%	70-135	10.07.2020 17:39	

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Certificate of Analytical Results 674481

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**BH02 A**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674481-002	Date Collected:	10.06.2020 14:30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 10:15	% Moisture:	
Seq Number:	3139083			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.07.2020 19:30	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.07.2020 19:30	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.07.2020 19:30	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.07.2020 19:30	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.07.2020 19:30	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.07.2020 19:30	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.07.2020 19:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.07.2020 19:30	
4-Bromofluorobenzene	460-00-4	89	%	70-130	10.07.2020 19:30	

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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

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QC Summary 674481

LT Environmental, Inc.

Perla Verde 4

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139067 — Matrix: Solid — Date Prep: 10.07.2020
MB Sample Id: 7712782-1-BLK — LCS Sample Id: 7712782-1-BKS — LCSD Sample Id: 7712782-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	260	104	262	105	90-110	1	20	mg/kg	10.07.2020 10:32	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139067 — Matrix: Soil — Date Prep: 10.07.2020
Parent Sample Id: 674474-001 — MS Sample Id: 674474-001 S — MSD Sample Id: 674474-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	568	200	775	104	760	96	90-110	2	20	mg/kg	10.07.2020 11:19	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139067 — Matrix: Soil — Date Prep: 10.07.2020
Parent Sample Id: 674479-005 — MS Sample Id: 674479-005 S — MSD Sample Id: 674479-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	17.0	199	221	103	220	102	90-110	0	20	mg/kg	10.07.2020 13:25	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139079 — Matrix: Solid — Date Prep: 10.07.2020
MB Sample Id: 7712802-1-BLK — LCS Sample Id: 7712802-1-BKS — LCSD Sample Id: 7712802-1-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	908	91	934	93	70-135	3	35	mg/kg	10.07.2020 10:37	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	1040	104	70-135	3	35	mg/kg	10.07.2020 10:37	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		111		114		70-135	%	10.07.2020 10:37
o-Terphenyl	108		102		104		70-135	%	10.07.2020 10:37

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139079 — Matrix: Solid — Date Prep: 10.07.2020
MB Sample Id: 7712802-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.07.2020 11:17	

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

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QC Summary 674481

LT Environmental, Inc.

Perla Verde 4

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3139079 Matrix: Soil Date Prep: 10.07.2020
Parent Sample Id: 674479-001 MS Sample Id: 674479-001 S MSD Sample Id: 674479-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	904	90	908	91	70-135	0	35	mg/kg	10.07.2020 12:18	
Diesel Range Organics (DRO)	<50.1	1000	1010	101	1030	103	70-135	2	35	mg/kg	10.07.2020 12:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		133		70-135	%	10.07.2020 12:18
o-Terphenyl	116		124		70-135	%	10.07.2020 12:18

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3139083 Matrix: Solid Date Prep: 10.07.2020
MB Sample Id: 7712799-1-BLK LCS Sample Id: 7712799-1-BKS LCSD Sample Id: 7712799-1-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	0.110	110	0.111	111	70-130	1	35	mg/kg	10.07.2020 10:10	
Toluene	<0.00200	0.100	0.105	105	0.106	106	70-130	1	35	mg/kg	10.07.2020 10:10	
Ethylbenzene	<0.00200	0.100	0.0970	97	0.0964	96	71-129	1	35	mg/kg	10.07.2020 10:10	
m,p-Xylenes	<0.00400	0.200	0.196	98	0.194	97	70-135	1	35	mg/kg	10.07.2020 10:10	
o-Xylene	<0.00200	0.100	0.0970	97	0.0967	97	71-133	0	35	mg/kg	10.07.2020 10:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		97		70-130	%	10.07.2020 10:10
4-Bromofluorobenzene	85		85		85		70-130	%	10.07.2020 10:10

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3139083 Matrix: Soil Date Prep: 10.07.2020
Parent Sample Id: 674474-001 MS Sample Id: 674474-001 S MSD Sample Id: 674474-001 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	0.100	100	0.124	124	70-130	21	35	mg/kg	10.07.2020 10:55	
Toluene	<0.00200	0.0998	0.0971	97	0.130	130	70-130	29	35	mg/kg	10.07.2020 10:55	
Ethylbenzene	<0.00200	0.0998	0.0910	91	0.123	123	71-129	30	35	mg/kg	10.07.2020 10:55	
m,p-Xylenes	<0.00399	0.200	0.183	92	0.246	122	70-135	29	35	mg/kg	10.07.2020 10:55	
o-Xylene	<0.00200	0.0998	0.0884	89	0.118	118	71-133	29	35	mg/kg	10.07.2020 10:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		97		70-130	%	10.07.2020 10:55
4-Bromofluorobenzene	84		84		70-130	%	10.07.2020 10:55

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

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

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

Chain of Custody

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

Work Order No: 674481

Page 1 of 1

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

Work Order Comments

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

Project Name:	Perla Verde 4	Turn Around	
Project Number:	01292021	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	0.8/0.6	Thermometer ID	TNH007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	2

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
BH02	S	10.6.20	1420	1'	1	X	X	X
BH02A	S	10.6.20	1430	2'	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

Note: 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			10/6/20 17:00	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10.06.2020 05.00.00 PM

Work Order #: 674481

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Cloe Clifton Date: 10.07.2020

Cloe Clifton

Checklist reviewed by: Jessica Kramer Date: 10.08.2020

Jessica Kramer

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Certificate of Analysis Summary 674479

LT Environmental, Inc., Arvada, CO

Project Name: Perla Verde 4

Project Id: 012920121
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue 10.06.2020 17:00
Report Date: 10.08.2020 14:00
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	674479-001		674479-002		674479-003		674479-004		674479-005		674479-006	
	Field Id:	FS01		FS02		FS03		FS04		FS05		FS06	
	Depth:	2- ft		2- ft		2- ft		2- ft		2- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	10.06.2020 12:10		10.06.2020 12:20		10.06.2020 12:30		10.06.2020 12:40		10.06.2020 12:50		10.06.2020 13:00	
BTEX by EPA 8021B	***Extracted:***	10.07.2020 10:15		10.07.2020 10:15		10.07.2020 10:15		10.07.2020 10:15		10.07.2020 10:15		10.07.2020 10:15	
	Analyzed:	10.07.2020 14:27		10.07.2020 14:50		10.07.2020 15:12		10.07.2020 15:35		10.07.2020 16:53		10.07.2020 17:15	
	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	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00400	0.00400	<0.00402	0.00402	<0.00401	0.00401	<0.00403	0.00403	<0.00401	0.00401	<0.00400	0.00400
o-Xylene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300	***Extracted:***	10.07.2020 09:44		10.07.2020 09:44		10.07.2020 09:44		10.07.2020 09:44		10.07.2020 09:44		10.07.2020 09:44	
	Analyzed:	10.07.2020 12:37		10.07.2020 14:43		10.07.2020 12:49		10.07.2020 12:55		10.07.2020 13:19		10.07.2020 13:37	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		11.3	9.98	16.2	10.0	12.6	9.94	30.1	9.98	17.0	10.0	<10.0	10.0
TPH by SW8015 Mod	***Extracted:***	10.07.2020 10:30		10.07.2020 10:30		10.07.2020 10:30		10.07.2020 10:30		10.07.2020 10:30		10.07.2020 10:30	
	Analyzed:	10.07.2020 11:37		10.07.2020 13:58		10.07.2020 14:18		10.07.2020 14:38		10.07.2020 14:59		10.07.2020 15:18	
	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	<50.0	50.0	<50.2	50.2	<50.1	50.1	<50.2	50.2	<49.9	49.9
Diesel Range Organics (DRO)		<50.0	50.0	<50.0	50.0	<50.2	50.2	<50.1	50.1	<50.2	50.2	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<50.2	50.2	<50.1	50.1	<50.2	50.2	<49.9	49.9
Total GRO-DRO		<50.0	50.0	<50.0	50.0	<50.2	50.2	<50.1	50.1	<50.2	50.2	<49.9	49.9
Total TPH		<50.0	50.0	<50.0	50.0	<50.2	50.2	<50.1	50.1	<50.2	50.2	<49.9	49.9

BRL - Below Reporting Limit

Jessica Kramer

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

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Certificate of Analysis Summary 674479

LT Environmental, Inc., Arvada, CO

Project Name: Perla Verde 4

Project Id: 012920121
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue 10.06.2020 17:00
Report Date: 10.08.2020 14:00
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	674479-007		674479-008			
	Field Id:	FS07		FS08			
	Depth:	2- ft		1- ft			
	Matrix:	SOIL		SOIL			
	Sampled:	10.06.2020 13:10		10.06.2020 13:20			
BTEX by EPA 8021B	***Extracted:***	10.07.2020 10:15		10.07.2020 10:15			
	Analyzed:	10.07.2020 17:38		10.07.2020 18:00			
	Units/RL:	mg/kg	RL	mg/kg	RL		
Benzene		<0.00198	0.00198	<0.00200	0.00200		
Toluene		<0.00198	0.00198	<0.00200	0.00200		
Ethylbenzene		<0.00198	0.00198	<0.00200	0.00200		
m,p-Xylenes		<0.00396	0.00396	<0.00399	0.00399		
o-Xylene		<0.00198	0.00198	<0.00200	0.00200		
Total Xylenes		<0.00198	0.00198	<0.00200	0.00200		
Total BTEX		<0.00198	0.00198	<0.00200	0.00200		
Chloride by EPA 300	***Extracted:***	10.07.2020 09:44		10.07.2020 09:44			
	Analyzed:	10.07.2020 13:43		10.07.2020 13:49			
	Units/RL:	mg/kg	RL	mg/kg	RL		
Chloride		69.8	10.1	252	50.0		
TPH by SW8015 Mod	***Extracted:***	10.07.2020 10:30		10.07.2020 10:30			
	Analyzed:	10.07.2020 15:39		10.07.2020 16:19			
	Units/RL:	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<50.0	50.0		
Diesel Range Organics (DRO)		<50.1	50.1	<50.0	50.0		
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<50.0	50.0		
Total GRO-DRO		<50.1	50.1	<50.0	50.0		
Total TPH		<50.1	50.1	<50.0	50.0		

BRL - Below Reporting Limit

Jessica Kramer

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Analytical Report 674479

for

LT Environmental, Inc.

Project Manager: Dan Moir

Perla Verde 4

012920121

10.08.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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10.08.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **674479**
Perla Verde 4
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 Eurofins Xenco, LLC Report Number(s) 674479. 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 Eurofins Xenco, LLC. 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. 674479 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 674479

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	10.06.2020 12:10	2 ft	674479-001
FS02	S	10.06.2020 12:20	2 ft	674479-002
FS03	S	10.06.2020 12:30	2 ft	674479-003
FS04	S	10.06.2020 12:40	2 ft	674479-004
FS05	S	10.06.2020 12:50	2 ft	674479-005
FS06	S	10.06.2020 13:00	2 ft	674479-006
FS07	S	10.06.2020 13:10	2 ft	674479-007
FS08	S	10.06.2020 13:20	1 ft	674479-008

CASE NARRATIVE

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Client Name: LT Environmental, Inc.

Project Name: Perla Verde 4

Project ID: *012920121*
Work Order Number(s): *674479*

Report Date: *10.08.2020*
Date Received: *10.06.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 674479

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674479-001	Date Collected:	10.06.2020 12:10	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 09:44	% Moisture:	
Seq Number:	3139067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.3**	9.98	mg/kg	10.07.2020 12:37		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.07.2020 10:30	% Moisture:	
Seq Number:	3139079			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.07.2020 11:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.07.2020 11:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.07.2020 11:37	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.07.2020 11:37	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.07.2020 11:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	10.07.2020 11:37	
o-Terphenyl	84-15-1	112	%	70-135	10.07.2020 11:37	

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Certificate of Analytical Results 674479

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674479-001	Date Collected:	10.06.2020 12:10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 10:15	% Moisture:	
Seq Number:	3139083			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.07.2020 14:27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.07.2020 14:27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.07.2020 14:27	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.07.2020 14:27	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.07.2020 14:27	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.07.2020 14:27	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.07.2020 14:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	87	%	70-130	10.07.2020 14:27	
1,4-Difluorobenzene	540-36-3	102	%	70-130	10.07.2020 14:27	

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Certificate of Analytical Results 674479

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674479-002	Date Collected:	10.06.2020 12:20	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 09:44	% Moisture:	
Seq Number:	3139067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16.2**	10.0	mg/kg	10.07.2020 14:43		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.07.2020 10:30	% Moisture:	
Seq Number:	3139079			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.07.2020 13:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.07.2020 13:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.07.2020 13:58	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.07.2020 13:58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.07.2020 13:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	10.07.2020 13:58	
o-Terphenyl	84-15-1	116	%	70-135	10.07.2020 13:58	

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Certificate of Analytical Results 674479

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674479-002	Date Collected:	10.06.2020 12:20	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 10:15	% Moisture:	
Seq Number:	3139083			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.07.2020 14:50	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.07.2020 14:50	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.07.2020 14:50	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.07.2020 14:50	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.07.2020 14:50	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.07.2020 14:50	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.07.2020 14:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	87	%	70-130	10.07.2020 14:50	
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.07.2020 14:50	

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Certificate of Analytical Results 674479

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674479-003	Date Collected:	10.06.2020 12:30	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 09:44	% Moisture:	
Seq Number:	3139067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.6**	9.94	mg/kg	10.07.2020 12:49		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.07.2020 10:30	% Moisture:	
Seq Number:	3139079			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.07.2020 14:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.07.2020 14:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.07.2020 14:18	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.07.2020 14:18	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.07.2020 14:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	10.07.2020 14:18	
o-Terphenyl	84-15-1	92	%	70-135	10.07.2020 14:18	

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Certificate of Analytical Results 674479

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674479-003	Date Collected:	10.06.2020 12:30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 10:15	% Moisture:	
Seq Number:	3139083			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.07.2020 15:12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.07.2020 15:12	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.07.2020 15:12	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.07.2020 15:12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.07.2020 15:12	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.07.2020 15:12	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.07.2020 15:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.07.2020 15:12	
4-Bromofluorobenzene	460-00-4	83	%	70-130	10.07.2020 15:12	

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Certificate of Analytical Results 674479

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674479-004	Date Collected:	10.06.2020 12:40	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 09:44	% Moisture:	
Seq Number:	3139067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**30.1**	9.98	mg/kg	10.07.2020 12:55		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.07.2020 10:30	% Moisture:	
Seq Number:	3139079			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.07.2020 14:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	10.07.2020 14:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	10.07.2020 14:38	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	10.07.2020 14:38	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	10.07.2020 14:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	10.07.2020 14:38	
o-Terphenyl	84-15-1	87	%	70-135	10.07.2020 14:38	

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Certificate of Analytical Results 674479

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674479-004	Date Collected:	10.06.2020 12:40	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 10:15	% Moisture:	
Seq Number:	3139083			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.07.2020 15:35	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.07.2020 15:35	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.07.2020 15:35	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	10.07.2020 15:35	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.07.2020 15:35	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.07.2020 15:35	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.07.2020 15:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	87	%	70-130	10.07.2020 15:35	
1,4-Difluorobenzene	540-36-3	100	%	70-130	10.07.2020 15:35	

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Certificate of Analytical Results 674479

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674479-005	Date Collected:	10.06.2020 12:50	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 09:44	% Moisture:	
Seq Number:	3139067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**17.0**	10.0	mg/kg	10.07.2020 13:19		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.07.2020 10:30	% Moisture:	
Seq Number:	3139079			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.07.2020 14:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.07.2020 14:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.07.2020 14:59	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.07.2020 14:59	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.07.2020 14:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	10.07.2020 14:59	
o-Terphenyl	84-15-1	88	%	70-135	10.07.2020 14:59	

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LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674479-005	Date Collected:	10.06.2020 12:50	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 10:15	% Moisture:	
Seq Number:	3139083			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.07.2020 16:53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.07.2020 16:53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.07.2020 16:53	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.07.2020 16:53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.07.2020 16:53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.07.2020 16:53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.07.2020 16:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	86	%	70-130	10.07.2020 16:53	
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.07.2020 16:53	

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LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674479-006	Date Collected:	10.06.2020 13:00	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 09:44	% Moisture:	
Seq Number:	3139067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	10.07.2020 13:37	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.07.2020 10:30	% Moisture:	
Seq Number:	3139079			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.07.2020 15:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.07.2020 15:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.07.2020 15:18	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.07.2020 15:18	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.07.2020 15:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	10.07.2020 15:18	
o-Terphenyl	84-15-1	92	%	70-135	10.07.2020 15:18	

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LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674479-006	Date Collected:	10.06.2020 13:00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 10:15	% Moisture:	
Seq Number:	3139083			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.07.2020 17:15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.07.2020 17:15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.07.2020 17:15	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.07.2020 17:15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.07.2020 17:15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.07.2020 17:15	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.07.2020 17:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	89	%	70-130	10.07.2020 17:15	
1,4-Difluorobenzene	540-36-3	100	%	70-130	10.07.2020 17:15	

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LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674479-007	Date Collected:	10.06.2020 13:10	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 09:44	% Moisture:	
Seq Number:	3139067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**69.8**	10.1	mg/kg	10.07.2020 13:43		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.07.2020 10:30	% Moisture:	
Seq Number:	3139079			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.07.2020 15:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	10.07.2020 15:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	10.07.2020 15:39	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	10.07.2020 15:39	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	10.07.2020 15:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	10.07.2020 15:39	
o-Terphenyl	84-15-1	89	%	70-135	10.07.2020 15:39	

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LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674479-007	Date Collected:	10.06.2020 13:10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 10:15	% Moisture:	
Seq Number:	3139083			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.07.2020 17:38	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.07.2020 17:38	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.07.2020 17:38	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	10.07.2020 17:38	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.07.2020 17:38	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.07.2020 17:38	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.07.2020 17:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	10.07.2020 17:38	
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.07.2020 17:38	

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LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674479-008	Date Collected:	10.06.2020 13:20	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 09:44	% Moisture:	
Seq Number:	3139067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**252**	50.0	mg/kg	10.07.2020 13:49		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.07.2020 10:30	% Moisture:	
Seq Number:	3139079			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.07.2020 16:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.07.2020 16:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.07.2020 16:19	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.07.2020 16:19	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.07.2020 16:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	10.07.2020 16:19	
o-Terphenyl	84-15-1	93	%	70-135	10.07.2020 16:19	

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LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	10.06.2020 17:00
Lab Sample Id:	674479-008	Date Collected:	10.06.2020 13:20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.07.2020 10:15	% Moisture:	
Seq Number:	3139083			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.07.2020 18:00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.07.2020 18:00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.07.2020 18:00	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.07.2020 18:00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.07.2020 18:00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.07.2020 18:00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.07.2020 18:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	87	%	70-130	10.07.2020 18:00	
1,4-Difluorobenzene	540-36-3	100	%	70-130	10.07.2020 18:00	

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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

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QC Summary 674479

LT Environmental, Inc.

Perla Verde 4

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139067 — Matrix: Solid — Date Prep: 10.07.2020
MB Sample Id: 7712782-1-BLK — LCS Sample Id: 7712782-1-BKS — LCSD Sample Id: 7712782-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	260	104	262	105	90-110	1	20	mg/kg	10.07.2020 10:32	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139067 — Matrix: Soil — Date Prep: 10.07.2020
Parent Sample Id: 674474-001 — MS Sample Id: 674474-001 S — MSD Sample Id: 674474-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	568	200	775	104	760	96	90-110	2	20	mg/kg	10.07.2020 11:19	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139067 — Matrix: Soil — Date Prep: 10.07.2020
Parent Sample Id: 674479-005 — MS Sample Id: 674479-005 S — MSD Sample Id: 674479-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	17.0	199	221	103	220	102	90-110	0	20	mg/kg	10.07.2020 13:25	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139079 — Matrix: Solid — Date Prep: 10.07.2020
MB Sample Id: 7712802-1-BLK — LCS Sample Id: 7712802-1-BKS — LCSD Sample Id: 7712802-1-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	908	91	934	93	70-135	3	35	mg/kg	10.07.2020 10:37	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	1040	104	70-135	3	35	mg/kg	10.07.2020 10:37	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		111		114		70-135	%	10.07.2020 10:37
o-Terphenyl	108		102		104		70-135	%	10.07.2020 10:37

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139079 — Matrix: Solid — Date Prep: 10.07.2020
MB Sample Id: 7712802-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.07.2020 11:17	

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

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QC Summary 674479

LT Environmental, Inc.

Perla Verde 4

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3139079 Matrix: Soil Date Prep: 10.07.2020
Parent Sample Id: 674479-001 MS Sample Id: 674479-001 S MSD Sample Id: 674479-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	904	90	908	91	70-135	0	35	mg/kg	10.07.2020 12:18	
Diesel Range Organics (DRO)	<50.1	1000	1010	101	1030	103	70-135	2	35	mg/kg	10.07.2020 12:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		133		70-135	%	10.07.2020 12:18
o-Terphenyl	116		124		70-135	%	10.07.2020 12:18

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3139083 Matrix: Solid Date Prep: 10.07.2020
MB Sample Id: 7712799-1-BLK LCS Sample Id: 7712799-1-BKS LCSD Sample Id: 7712799-1-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	0.110	110	0.111	111	70-130	1	35	mg/kg	10.07.2020 10:10	
Toluene	<0.00200	0.100	0.105	105	0.106	106	70-130	1	35	mg/kg	10.07.2020 10:10	
Ethylbenzene	<0.00200	0.100	0.0970	97	0.0964	96	71-129	1	35	mg/kg	10.07.2020 10:10	
m,p-Xylenes	<0.00400	0.200	0.196	98	0.194	97	70-135	1	35	mg/kg	10.07.2020 10:10	
o-Xylene	<0.00200	0.100	0.0970	97	0.0967	97	71-133	0	35	mg/kg	10.07.2020 10:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		97		70-130	%	10.07.2020 10:10
4-Bromofluorobenzene	85		85		85		70-130	%	10.07.2020 10:10

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3139083 Matrix: Soil Date Prep: 10.07.2020
Parent Sample Id: 674474-001 MS Sample Id: 674474-001 S MSD Sample Id: 674474-001 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	0.100	100	0.124	124	70-130	21	35	mg/kg	10.07.2020 10:55	
Toluene	<0.00200	0.0998	0.0971	97	0.130	130	70-130	29	35	mg/kg	10.07.2020 10:55	
Ethylbenzene	<0.00200	0.0998	0.0910	91	0.123	123	71-129	30	35	mg/kg	10.07.2020 10:55	
m,p-Xylenes	<0.00399	0.200	0.183	92	0.246	122	70-135	29	35	mg/kg	10.07.2020 10:55	
o-Xylene	<0.00200	0.0998	0.0884	89	0.118	118	71-133	29	35	mg/kg	10.07.2020 10:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		97		70-130	%	10.07.2020 10:55
4-Bromofluorobenzene	84		84		70-130	%	10.07.2020 10:55

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

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

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

Chain of Custody

Work Order No: 674479

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)

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

Work Order Comments

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

Project Name:	Perla Verde 4	Turn Around	
Project Number:	01292021	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	0.8 / 0.6	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:	8	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS01	S	10.6.20	1210	2'	1	X	X	X
FS02			1220	2'				
FS03			1230	2'				
FS04			1240	2'				
FS05			1250	2'				
FS06			1300	2'				
FS07			1310	2'				
FS08	↓	↓	1320	1'	↓	↓	↓	↓

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
	Cole Chaffin	10.6.20 17:00	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10.06.2020 05.00.00 PM

Work Order #: 674479

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Cloe Clifton Date: 10.07.2020

Cloe Clifton

Checklist reviewed by: Jessica Kramer Date: 10.07.2020

Jessica Kramer

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Certificate of Analysis Summary 674821

LT Environmental, Inc., Arvada, CO

Project Name: Perla Verde 4

Project Id: 012920121
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri 10.09.2020 13:40
Report Date: 10.12.2020 11:53
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	674821-001					
	Field Id:	BH03					
	Depth:	3- ft					
	Matrix:	SOIL					
	Sampled:	10.08.2020 16:55					
BTEX by EPA 8021B	***Extracted:***	10.09.2020 18:41					
	Analyzed:	10.10.2020 05:40					
	Units/RL:	mg/kg RL					
Benzene		<0.00202 0.00202					
Toluene		<0.00202 0.00202					
Ethylbenzene		<0.00202 0.00202					
m,p-Xylenes		<0.00404 0.00404					
o-Xylene		<0.00202 0.00202					
Total Xylenes		<0.00202 0.00202					
Total BTEX		<0.00202 0.00202					
Chloride by EPA 300	***Extracted:***	10.09.2020 16:36					
	Analyzed:	10.09.2020 18:57					
	Units/RL:	mg/kg RL					
Chloride		185 10.0					
TPH by SW8015 Mod	***Extracted:***	10.09.2020 17:30					
	Analyzed:	10.10.2020 05:08					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9					
Diesel Range Organics (DRO)		<49.9 49.9					
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9					
Total GRO-DRO		<49.9 49.9					
Total TPH		<49.9 49.9					

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 674821

for

LT Environmental, Inc.

Project Manager: Dan Moir

Perla Verde 4

012920121

10.12.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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10.12.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **674821**
Perla Verde 4
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 Eurofins Xenco, LLC Report Number(s) 674821. 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 Eurofins Xenco, LLC. 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. 674821 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 674821

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH03	S	10.08.2020 16:55	3 ft	674821-001

CASE NARRATIVE

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Client Name: LT Environmental, Inc.

Project Name: Perla Verde 4

Project ID: *012920121*
Work Order Number(s): *674821*

Report Date: *10.12.2020*
Date Received: *10.09.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 674821

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674821-001	Date Collected:	10.08.2020 16:55	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 16:36	% Moisture:	
Seq Number:	3139363			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**185**	10.0	mg/kg	10.09.2020 18:57		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.09.2020 17:30	% Moisture:	
Seq Number:	3139371			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.10.2020 05:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.10.2020 05:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.10.2020 05:08	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.10.2020 05:08	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.10.2020 05:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	10.10.2020 05:08	
o-Terphenyl	84-15-1	97	%	70-135	10.10.2020 05:08	

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Certificate of Analytical Results 674821

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674821-001	Date Collected:	10.08.2020 16:55	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 18:41	% Moisture:	
Seq Number:	3139372			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.10.2020 05:40	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.10.2020 05:40	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.10.2020 05:40	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	10.10.2020 05:40	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.10.2020 05:40	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.10.2020 05:40	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.10.2020 05:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	124	%	70-130	10.10.2020 05:40	
1,4-Difluorobenzene	540-36-3	110	%	70-130	10.10.2020 05:40	

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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

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QC Summary 674821

LT Environmental, Inc.

Perla Verde 4

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139363 — Matrix: Solid — Date Prep: 10.09.2020
MB Sample Id: 7713002-1-BLK — LCS Sample Id: 7713002-1-BKS — LCSD Sample Id: 7713002-1-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	264	106	90-110	1	20	mg/kg	10.09.2020 17:12	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139363 — Matrix: Soil — Date Prep: 10.09.2020
Parent Sample Id: 674817-001 — MS Sample Id: 674817-001 S — MSD Sample Id: 674817-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	51.2	200	259	104	261	105	90-110	1	20	mg/kg	10.09.2020 17:29	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139363 — Matrix: Soil — Date Prep: 10.09.2020
Parent Sample Id: 674822-001 — MS Sample Id: 674822-001 S — MSD Sample Id: 674822-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5080	202	5290	104	5300	110	90-110	0	20	mg/kg	10.09.2020 18:46	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139371 — Matrix: Solid — Date Prep: 10.09.2020
MB Sample Id: 7713057-1-BLK — LCS Sample Id: 7713057-1-BKS — LCSD Sample Id: 7713057-1-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	845	85	863	86	70-135	2	35	mg/kg	10.10.2020 00:43	
Diesel Range Organics (DRO)	<50.0	1000	972	97	1010	101	70-135	4	35	mg/kg	10.10.2020 00:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		129		129		70-135	%	10.10.2020 00:43
o-Terphenyl	104		122		126		70-135	%	10.10.2020 00:43

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139371 — Matrix: Solid — Date Prep: 10.09.2020
MB Sample Id: 7713057-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.10.2020 01:24	

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

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QC Summary 674821

LT Environmental, Inc.

Perla Verde 4

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3139371 Matrix: Soil Date Prep: 10.09.2020
Parent Sample Id: 674817-001 MS Sample Id: 674817-001 S MSD Sample Id: 674817-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	996	879	88	848	85	70-135	4	35	mg/kg	10.10.2020 02:05	
Diesel Range Organics (DRO)	<49.8	996	991	99	982	98	70-135	1	35	mg/kg	10.10.2020 02:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		106		70-135	%	10.10.2020 02:05
o-Terphenyl	101		98		70-135	%	10.10.2020 02:05

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3139372 Matrix: Solid Date Prep: 10.09.2020
MB Sample Id: 7713005-1-BLK LCS Sample Id: 7713005-1-BKS LCSD Sample Id: 7713005-1-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	0.101	101	0.0992	99	70-130	2	35	mg/kg	10.09.2020 22:54	
Toluene	<0.00200	0.100	0.0928	93	0.0929	93	70-130	0	35	mg/kg	10.09.2020 22:54	
Ethylbenzene	<0.00200	0.100	0.0942	94	0.0970	97	71-129	3	35	mg/kg	10.09.2020 22:54	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.198	99	70-135	3	35	mg/kg	10.09.2020 22:54	
o-Xylene	<0.00200	0.100	0.0981	98	0.0980	98	71-133	0	35	mg/kg	10.09.2020 22:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		100		102		70-130	%	10.09.2020 22:54
4-Bromofluorobenzene	114		107		110		70-130	%	10.09.2020 22:54

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3139372 Matrix: Soil Date Prep: 10.09.2020
Parent Sample Id: 674817-001 MS Sample Id: 674817-001 S MSD Sample Id: 674817-001 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	0.105	105	0.111	111	70-130	6	35	mg/kg	10.09.2020 23:39	
Toluene	<0.00200	0.0998	0.0976	98	0.103	103	70-130	5	35	mg/kg	10.09.2020 23:39	
Ethylbenzene	<0.00200	0.0998	0.101	101	0.107	107	71-129	6	35	mg/kg	10.09.2020 23:39	
m,p-Xylenes	<0.00399	0.200	0.205	103	0.216	108	70-135	5	35	mg/kg	10.09.2020 23:39	
o-Xylene	<0.00200	0.0998	0.102	102	0.107	107	71-133	5	35	mg/kg	10.09.2020 23:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		99		70-130	%	10.09.2020 23:39
4-Bromofluorobenzene	109		110		70-130	%	10.09.2020 23:39

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

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

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

Chain of Custody

Work Order No: 674821

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

Page 1 of 1

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

Work Order Comments

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

Project Name:	Perla Verde 4	Turn Around	
Project Number:	012920121	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	2.6/2.4	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

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
BH03	S	10/8/2020	1655	3'	1	X	X	X	

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
	Clive Cuthbert	10.9.20 1340	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10.09.2020 01.40.00 PM

Work Order #: 674821

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)?	2.4	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	Samples received in bulk containers.
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**No**	
#18 Water VOC samples have zero headspace?	**N/A**	

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

Analyst: PH Device/Lot#:

Checklist completed by: Cloe Clifton Date: 10.09.2020

Checklist reviewed by: Jessica Kramer Date: 10.12.2020

Jessica Kramer

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Certificate of Analysis Summary 674820

LT Environmental, Inc., Arvada, CO

Project Name: Perla Verde 4

Project Id: 012920121
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri 10.09.2020 13:40
Report Date: 10.14.2020 13:41
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	674820-001		674820-002			
	Field Id:	SW05 A		SW06 B			
	Depth:	1- ft		2- ft			
	Matrix:	SOIL		SOIL			
	Sampled:	10.08.2020 16:35		10.08.2020 16:45			
BTEX by EPA 8021B	***Extracted:***	10.12.2020 13:55		10.12.2020 13:55			
	Analyzed:	10.12.2020 17:54		10.12.2020 18:50			
	Units/RL:	mg/kg	RL	mg/kg	RL		
Benzene		<0.00500	0.00500	<0.00200	0.00200		
Toluene		<0.00500	0.00500	<0.00200	0.00200		
Ethylbenzene		0.126	0.0200	<0.00200	0.00200		
m,p-Xylenes		0.249	0.0400	<0.00400	0.00400		
o-Xylene		0.279	0.0200	<0.00200	0.00200		
Total Xylenes		0.528	0.0200	<0.00200	0.00200		
Total BTEX		0.654	0.00500	<0.00200	0.00200		
Chloride by EPA 300	***Extracted:***	10.09.2020 16:36		10.09.2020 16:36			
	Analyzed:	10.09.2020 18:29		10.09.2020 18:35			
	Units/RL:	mg/kg	RL	mg/kg	RL		
Chloride		116	10.0	31.5	10.0		
TPH by SW8015 Mod	***Extracted:***	10.09.2020 17:30		10.09.2020 17:30			
	Analyzed:	10.10.2020 06:50		10.10.2020 05:28			
	Units/RL:	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		362	50.1	<49.8	49.8		
Diesel Range Organics (DRO)		4770	50.1	69.6	49.8		
Motor Oil Range Hydrocarbons (MRO)		547	50.1	<49.8	49.8		
Total GRO-DRO		5130	50.1	69.6	49.8		
Total TPH		5680	50.1	69.6	49.8		

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 674820

for

LT Environmental, Inc.

Project Manager: Dan Moir

Perla Verde 4

012920121

10.14.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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10.14.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **674820**
Perla Verde 4
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 Eurofins Xenco, LLC Report Number(s) 674820. 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 Eurofins Xenco, LLC. 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. 674820 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 674820

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW05 A	S	10.08.2020 16:35	1 ft	674820-001
SW06 B	S	10.08.2020 16:45	2 ft	674820-002

CASE NARRATIVE

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Client Name: LT Environmental, Inc.

Project Name: Perla Verde 4

Project ID: *012920121*
Work Order Number(s): *674820*

Report Date: *10.14.2020*
Date Received: *10.09.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 674820

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SW05 A**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674820-001	Date Collected:	10.08.2020 16:35	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 16:36	% Moisture:	
Seq Number:	3139363			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**116**	10.0	mg/kg	10.09.2020 18:29		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.09.2020 17:30	% Moisture:	
Seq Number:	3139371			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**362**	50.1	mg/kg	10.10.2020 06:50		1
Diesel Range Organics (DRO)	C10C28DRO	**4770**	50.1	mg/kg	10.10.2020 06:50		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**547**	50.1	mg/kg	10.10.2020 06:50		1
Total GRO-DRO	PHC628	**5130**	50.1	mg/kg	10.10.2020 06:50		1
Total TPH	PHC635	**5680**	50.1	mg/kg	10.10.2020 06:50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	127	%	70-135	10.10.2020 06:50	
o-Terphenyl	84-15-1	102	%	70-135	10.10.2020 06:50	

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Certificate of Analytical Results 674820

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SW05 A**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674820-001	Date Collected:	10.08.2020 16:35	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.12.2020 13:55	% Moisture:	
Seq Number:	3139520			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00500	0.00500	mg/kg	10.12.2020 17:54	U	1
Toluene	108-88-3	<0.00500	0.00500	mg/kg	10.12.2020 17:54	U	1
Ethylbenzene	100-41-4	**0.126**	0.0200	mg/kg	10.12.2020 17:54		1
m,p-Xylenes	179601-23-1	**0.249**	0.0400	mg/kg	10.12.2020 17:54		1
o-Xylene	95-47-6	**0.279**	0.0200	mg/kg	10.12.2020 17:54		1
Total Xylenes	1330-20-7	**0.528**	0.0200	mg/kg	10.12.2020 17:54		1
Total BTEX		**0.654**	0.00500	mg/kg	10.12.2020 17:54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	80	%	70-130	10.12.2020 17:54	
1,4-Difluorobenzene	540-36-3	81	%	70-130	10.12.2020 17:54	

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Certificate of Analytical Results 674820

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SW06 B**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674820-002	Date Collected:	10.08.2020 16:45	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 16:36	% Moisture:	
Seq Number:	3139363			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**31.5**	10.0	mg/kg	10.09.2020 18:35		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.09.2020 17:30	% Moisture:	
Seq Number:	3139371			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.10.2020 05:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	**69.6**	49.8	mg/kg	10.10.2020 05:28		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.10.2020 05:28	U	1
Total GRO-DRO	PHC628	**69.6**	49.8	mg/kg	10.10.2020 05:28		1
Total TPH	PHC635	**69.6**	49.8	mg/kg	10.10.2020 05:28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	10.10.2020 05:28	
o-Terphenyl	84-15-1	97	%	70-135	10.10.2020 05:28	

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Certificate of Analytical Results 674820

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SW06 B**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674820-002	Date Collected:	10.08.2020 16:45	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.12.2020 13:55	% Moisture:	
Seq Number:	3139520			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.12.2020 18:50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.12.2020 18:50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.12.2020 18:50	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.12.2020 18:50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.12.2020 18:50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.12.2020 18:50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.12.2020 18:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	81	%	70-130	10.12.2020 18:50	
1,4-Difluorobenzene	540-36-3	95	%	70-130	10.12.2020 18:50	

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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

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QC Summary 674820

LT Environmental, Inc.

Perla Verde 4

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139363 — Matrix: Solid — Date Prep: 10.09.2020
MB Sample Id: 7713002-1-BLK — LCS Sample Id: 7713002-1-BKS — LCSD Sample Id: 7713002-1-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	264	106	90-110	1	20	mg/kg	10.09.2020 17:12	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139363 — Matrix: Soil — Date Prep: 10.09.2020
Parent Sample Id: 674817-001 — MS Sample Id: 674817-001 S — MSD Sample Id: 674817-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	51.2	200	259	104	261	105	90-110	1	20	mg/kg	10.09.2020 17:29	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139363 — Matrix: Soil — Date Prep: 10.09.2020
Parent Sample Id: 674822-001 — MS Sample Id: 674822-001 S — MSD Sample Id: 674822-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5080	202	5290	104	5300	110	90-110	0	20	mg/kg	10.09.2020 18:46	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139371 — Matrix: Solid — Date Prep: 10.09.2020
MB Sample Id: 7713057-1-BLK — LCS Sample Id: 7713057-1-BKS — LCSD Sample Id: 7713057-1-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	845	85	863	86	70-135	2	35	mg/kg	10.10.2020 00:43	
Diesel Range Organics (DRO)	<50.0	1000	972	97	1010	101	70-135	4	35	mg/kg	10.10.2020 00:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		129		129		70-135	%	10.10.2020 00:43
o-Terphenyl	104		122		126		70-135	%	10.10.2020 00:43

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139371 — Matrix: Solid — Date Prep: 10.09.2020
MB Sample Id: 7713057-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.10.2020 01:24	

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

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

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

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QC Summary 674820

LT Environmental, Inc.

Perla Verde 4

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3139371 Matrix: Soil Date Prep: 10.09.2020
Parent Sample Id: 674817-001 MS Sample Id: 674817-001 S MSD Sample Id: 674817-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	996	879	88	848	85	70-135	4	35	mg/kg	10.10.2020 02:05	
Diesel Range Organics (DRO)	<49.8	996	991	99	982	98	70-135	1	35	mg/kg	10.10.2020 02:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		106		70-135	%	10.10.2020 02:05
o-Terphenyl	101		98		70-135	%	10.10.2020 02:05

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3139520 Matrix: Solid Date Prep: 10.12.2020
MB Sample Id: 7713099-1-BLK LCS Sample Id: 7713099-1-BKS LCSD Sample Id: 7713099-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0997	100	0.107	107	70-130	7	35	mg/kg	10.12.2020 15:06	
Toluene	<0.00200	0.100	0.0966	97	0.103	103	70-130	6	35	mg/kg	10.12.2020 15:06	
Ethylbenzene	<0.00200	0.100	0.0894	89	0.0953	95	71-129	6	35	mg/kg	10.12.2020 15:06	
m,p-Xylenes	<0.00400	0.200	0.181	91	0.193	97	70-135	6	35	mg/kg	10.12.2020 15:06	
o-Xylene	<0.00200	0.100	0.0890	89	0.0947	95	71-133	6	35	mg/kg	10.12.2020 15:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		96		97		70-130	%	10.12.2020 15:06
4-Bromofluorobenzene	84		87		83		70-130	%	10.12.2020 15:06

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3139520 Matrix: Soil Date Prep: 10.12.2020
Parent Sample Id: 674823-001 MS Sample Id: 674823-001 S MSD Sample Id: 674823-001 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	0.112	112	0.101	101	70-130	10	35	mg/kg	10.12.2020 15:51	
Toluene	<0.00200	0.0998	0.110	110	0.0975	98	70-130	12	35	mg/kg	10.12.2020 15:51	
Ethylbenzene	<0.00200	0.0998	0.102	102	0.0902	91	71-129	12	35	mg/kg	10.12.2020 15:51	
m,p-Xylenes	<0.00399	0.200	0.205	103	0.181	91	70-135	12	35	mg/kg	10.12.2020 15:51	
o-Xylene	<0.00200	0.0998	0.102	102	0.0888	89	71-133	14	35	mg/kg	10.12.2020 15:51	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		97		70-130	%	10.12.2020 15:51
4-Bromofluorobenzene	85		87		70-130	%	10.12.2020 15:51

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

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

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

XENCO LABORATORIES

Chain of Custody

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

Work Order No: 674820

www.xenco.com Page 1 of 1

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

Work Order Comments

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

Project Name:	Perla Verde 4	Turn Around	
Project Number:	012920121	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT	Temp Blank: (Yes) No	Wet Ice: (Yes) No
Temperature (°C):	2.6/2.4	Thermometer ID: T-NM-007
Received Intact:	~~Yes~~ No	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor: -0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers: 2

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SW05A	S	10/8/2020	1635	1'	1	X	X	X	
SW05B	S	10/8/2020	1645	2'	1	X	X	X	

Work Order Notes

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

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

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

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	[signature]	[signature]	10-9-20 1340	2			
3				4			
5				6			

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10.09.2020 01.40.00 PM

Work Order #: 674820

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)?	2.4	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	Samples received in bulk containers.
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**No**	
#18 Water VOC samples have zero headspace?	**N/A**	

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

Analyst: PH Device/Lot#:

Checklist completed by: Cloe Clifton Date: 10.09.2020

Cloe Clifton

Checklist reviewed by: Jessica Kramer Date: 10.12.2020

Jessica Kramer

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Certificate of Analysis Summary 674819

LT Environmental, Inc., Arvada, CO

Project Name: Perla Verde 4

Project Id: 012920121
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri 10.09.2020 13:40
Report Date: 10.14.2020 13:40
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	674819-001		674819-002		674819-003		674819-004		674819-005		674819-006	
	Field Id:	SW01		SW02		SW03		SW04		SW05		SW06	
	Depth:	0-2 ft		0-2 ft		0-2 ft		0-1 ft		0-2 ft		0-2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	10.08.2020 15:35		10.08.2020 15:45		10.08.2020 15:55		10.08.2020 16:05		10.08.2020 16:15		10.08.2020 16:25	
BTEX by EPA 8021B	***Extracted:***	10.09.2020 18:41		10.09.2020 18:41		10.09.2020 18:41		10.09.2020 18:41		10.09.2020 18:41		10.09.2020 18:41	
	Analyzed:	10.10.2020 01:44		10.10.2020 02:06		10.10.2020 02:28		10.10.2020 02:51		10.10.2020 03:13		10.10.2020 03:36	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	0.00433	0.00199	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	0.133	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	<0.00401	0.00401	<0.00400	0.00400	<0.00399	0.00399	0.291	0.00398	<0.00399	0.00399
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	0.223	0.00199	<0.00200	0.00200
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	0.514	0.00199	<0.00200	0.00200
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	0.651	0.00199	<0.00200	0.00200
Chloride by EPA 300	***Extracted:***	10.09.2020 16:36		10.09.2020 16:36		10.09.2020 16:36		10.09.2020 16:36		10.09.2020 16:36		10.09.2020 16:36	
	Analyzed:	10.09.2020 17:45		10.09.2020 17:51		10.09.2020 17:56		10.09.2020 18:02		10.09.2020 18:18		10.09.2020 18:24	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		71.7	10.1	12.6	10.0	105	10.0	154	10.1	155	9.96	200	9.94
TPH by SW8015 Mod	***Extracted:***	10.12.2020 12:00		10.12.2020 12:00		10.12.2020 12:00		10.09.2020 17:30		10.09.2020 17:30		10.09.2020 17:30	
	Analyzed:	10.12.2020 17:48		10.12.2020 18:08		10.12.2020 16:48		10.10.2020 04:47		10.10.2020 06:30		10.10.2020 06:10	
	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	<49.9	49.9	<50.2	50.2	<50.2	50.2	176	50.3	<50.1	50.1
Diesel Range Organics (DRO)		<50.0	50.0	<49.9	49.9	<50.2	50.2	<50.2	50.2	3640	50.3	<50.1	50.1
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<50.2	50.2	<50.2	50.2	417	50.3	<50.1	50.1
Total GRO-DRO		<50.0	50.0	<49.9	49.9	<50.2	50.2	<50.2	50.2	3820	50.3	<50.1	50.1
Total TPH		<50.0	50.0	<49.9	49.9	<50.2	50.2	<50.2	50.2	4230	50.3	<50.1	50.1

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 674819

for

LT Environmental, Inc.

Project Manager: Dan Moir

Perla Verde 4

012920121

10.14.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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10.14.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **674819**
Perla Verde 4
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 Eurofins Xenco, LLC Report Number(s) 674819. 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 Eurofins Xenco, LLC. 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. 674819 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 674819

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW01	S	10.08.2020 15:35	0 - 2 ft	674819-001
SW02	S	10.08.2020 15:45	0 - 2 ft	674819-002
SW03	S	10.08.2020 15:55	0 - 2 ft	674819-003
SW04	S	10.08.2020 16:05	0 - 1 ft	674819-004
SW05	S	10.08.2020 16:15	0 - 2 ft	674819-005
SW06	S	10.08.2020 16:25	0 - 2 ft	674819-006

CASE NARRATIVE

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Client Name: LT Environmental, Inc.

Project Name: Perla Verde 4

Project ID: *012920121*
Work Order Number(s): *674819*

Report Date: *10.14.2020*
Date Received: *10.09.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 674819

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674819-001	Date Collected:	10.08.2020 15:35	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 16:36	% Moisture:	
Seq Number:	3139363			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**71.7**	10.1	mg/kg	10.09.2020 17:45		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.12.2020 12:00	% Moisture:	
Seq Number:	3139524			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.12.2020 17:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.12.2020 17:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.12.2020 17:48	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.12.2020 17:48	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.12.2020 17:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	10.12.2020 17:48	
o-Terphenyl	84-15-1	100	%	70-135	10.12.2020 17:48	

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Certificate of Analytical Results 674819

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674819-001	Date Collected:	10.08.2020 15:35	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 18:41	% Moisture:	
Seq Number:	3139372			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.10.2020 01:44	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.10.2020 01:44	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.10.2020 01:44	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.10.2020 01:44	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.10.2020 01:44	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.10.2020 01:44	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.10.2020 01:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	122	%	70-130	10.10.2020 01:44	
1,4-Difluorobenzene	540-36-3	89	%	70-130	10.10.2020 01:44	

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Certificate of Analytical Results 674819

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674819-002	Date Collected:	10.08.2020 15:45	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 16:36	% Moisture:	
Seq Number:	3139363			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.6**	10.0	mg/kg	10.09.2020 17:51		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.12.2020 12:00	% Moisture:	
Seq Number:	3139524			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.12.2020 18:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.12.2020 18:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.12.2020 18:08	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.12.2020 18:08	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.12.2020 18:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	10.12.2020 18:08	
o-Terphenyl	84-15-1	95	%	70-135	10.12.2020 18:08	

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Certificate of Analytical Results 674819

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674819-002	Date Collected:	10.08.2020 15:45	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 18:41	% Moisture:	
Seq Number:	3139372			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.10.2020 02:06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.10.2020 02:06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.10.2020 02:06	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.10.2020 02:06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.10.2020 02:06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.10.2020 02:06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.10.2020 02:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	70-130	10.10.2020 02:06	
1,4-Difluorobenzene	540-36-3	108	%	70-130	10.10.2020 02:06	

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Certificate of Analytical Results 674819

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674819-003	Date Collected:	10.08.2020 15:55	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 16:36	% Moisture:	
Seq Number:	3139363			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**105**	10.0	mg/kg	10.09.2020 17:56		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.12.2020 12:00	% Moisture:	
Seq Number:	3139524			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.12.2020 16:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.12.2020 16:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.12.2020 16:48	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.12.2020 16:48	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.12.2020 16:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	10.12.2020 16:48	
o-Terphenyl	84-15-1	98	%	70-135	10.12.2020 16:48	

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Certificate of Analytical Results 674819

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674819-003	Date Collected:	10.08.2020 15:55	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 18:41	% Moisture:	
Seq Number:	3139372			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.10.2020 02:28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.10.2020 02:28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.10.2020 02:28	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.10.2020 02:28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.10.2020 02:28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.10.2020 02:28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.10.2020 02:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.10.2020 02:28	
4-Bromofluorobenzene	460-00-4	123	%	70-130	10.10.2020 02:28	

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Certificate of Analytical Results 674819

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id: **SW04** Matrix: Soil Date Received:10.09.2020 13:40
Lab Sample Id: 674819-004 Date Collected: 10.08.2020 16:05 Sample Depth: 0 - 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB
Analyst: MAB Date Prep: 10.09.2020 16:36 % Moisture:
Seq Number: 3139363 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**154**	10.1	mg/kg	10.09.2020 18:02		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH
Analyst: DTH Date Prep: 10.09.2020 17:30 % Moisture:
Seq Number: 3139371 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.10.2020 04:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.10.2020 04:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.10.2020 04:47	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.10.2020 04:47	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.10.2020 04:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	10.10.2020 04:47	
o-Terphenyl	84-15-1	91	%	70-135	10.10.2020 04:47	

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Certificate of Analytical Results 674819

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674819-004	Date Collected:	10.08.2020 16:05	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 18:41	% Moisture:	
Seq Number:	3139372			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.10.2020 02:51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.10.2020 02:51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.10.2020 02:51	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.10.2020 02:51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.10.2020 02:51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.10.2020 02:51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.10.2020 02:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	10.10.2020 02:51	
4-Bromofluorobenzene	460-00-4	115	%	70-130	10.10.2020 02:51	

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LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674819-005	Date Collected:	10.08.2020 16:15	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 16:36	% Moisture:	
Seq Number:	3139363			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**155**	9.96	mg/kg	10.09.2020 18:18		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.09.2020 17:30	% Moisture:	
Seq Number:	3139371			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**176**	50.3	mg/kg	10.10.2020 06:30		1
Diesel Range Organics (DRO)	C10C28DRO	**3640**	50.3	mg/kg	10.10.2020 06:30		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**417**	50.3	mg/kg	10.10.2020 06:30		1
Total GRO-DRO	PHC628	**3820**	50.3	mg/kg	10.10.2020 06:30		1
Total TPH	PHC635	**4230**	50.3	mg/kg	10.10.2020 06:30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	10.10.2020 06:30	
o-Terphenyl	84-15-1	113	%	70-135	10.10.2020 06:30	

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LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674819-005	Date Collected:	10.08.2020 16:15	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 18:41	% Moisture:	
Seq Number:	3139372			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.10.2020 03:13	U	1
Toluene	108-88-3	**0.00433**	0.00199	mg/kg	10.10.2020 03:13		1
Ethylbenzene	100-41-4	**0.133**	0.00199	mg/kg	10.10.2020 03:13		1
m,p-Xylenes	179601-23-1	**0.291**	0.00398	mg/kg	10.10.2020 03:13		1
o-Xylene	95-47-6	**0.223**	0.00199	mg/kg	10.10.2020 03:13		1
Total Xylenes	1330-20-7	**0.514**	0.00199	mg/kg	10.10.2020 03:13		1
Total BTEX		**0.651**	0.00199	mg/kg	10.10.2020 03:13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	127	%	70-130	10.10.2020 03:13	
1,4-Difluorobenzene	540-36-3	100	%	70-130	10.10.2020 03:13	

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LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674819-006	Date Collected:	10.08.2020 16:25	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 16:36	% Moisture:	
Seq Number:	3139363			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**200**	9.94	mg/kg	10.09.2020 18:24		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.09.2020 17:30	% Moisture:	
Seq Number:	3139371			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.10.2020 06:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	10.10.2020 06:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	10.10.2020 06:10	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	10.10.2020 06:10	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	10.10.2020 06:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	10.10.2020 06:10	
o-Terphenyl	84-15-1	95	%	70-135	10.10.2020 06:10	

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LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674819-006	Date Collected:	10.08.2020 16:25	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 18:41	% Moisture:	
Seq Number:	3139372			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.10.2020 03:36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.10.2020 03:36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.10.2020 03:36	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.10.2020 03:36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.10.2020 03:36	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.10.2020 03:36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.10.2020 03:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	124	%	70-130	10.10.2020 03:36	
1,4-Difluorobenzene	540-36-3	96	%	70-130	10.10.2020 03:36	

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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

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QC Summary 674819

LT Environmental, Inc.

Perla Verde 4

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139363 — Matrix: Solid — Date Prep: 10.09.2020
MB Sample Id: 7713002-1-BLK — LCS Sample Id: 7713002-1-BKS — LCSD Sample Id: 7713002-1-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	264	106	90-110	1	20	mg/kg	10.09.2020 17:12	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139363 — Matrix: Soil — Date Prep: 10.09.2020
Parent Sample Id: 674817-001 — MS Sample Id: 674817-001 S — MSD Sample Id: 674817-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	51.2	200	259	104	261	105	90-110	1	20	mg/kg	10.09.2020 17:29	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139363 — Matrix: Soil — Date Prep: 10.09.2020
Parent Sample Id: 674822-001 — MS Sample Id: 674822-001 S — MSD Sample Id: 674822-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5080	202	5290	104	5300	110	90-110	0	20	mg/kg	10.09.2020 18:46	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139371 — Matrix: Solid — Date Prep: 10.09.2020
MB Sample Id: 7713057-1-BLK — LCS Sample Id: 7713057-1-BKS — LCSD Sample Id: 7713057-1-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	845	85	863	86	70-135	2	35	mg/kg	10.10.2020 00:43	
Diesel Range Organics (DRO)	<50.0	1000	972	97	1010	101	70-135	4	35	mg/kg	10.10.2020 00:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		129		129		70-135	%	10.10.2020 00:43
o-Terphenyl	104		122		126		70-135	%	10.10.2020 00:43

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139524 — Matrix: Solid — Date Prep: 10.12.2020
MB Sample Id: 7713127-1-BLK — LCS Sample Id: 7713127-1-BKS — LCSD Sample Id: 7713127-1-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	974	97	975	98	70-135	0	35	mg/kg	10.12.2020 16:07	
Diesel Range Organics (DRO)	<50.0	1000	1080	108	1080	108	70-135	0	35	mg/kg	10.12.2020 16:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		121		119		70-135	%	10.12.2020 16:07
o-Terphenyl	129		108		109		70-135	%	10.12.2020 16:07

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

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

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

QC Summary 674819

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LT Environmental, Inc.

Perla Verde 4

Analytical Method: TPH by SW8015 Mod
Seq Number: 3139371
Matrix: Solid
MB Sample Id: 7713057-1-BLK
Prep Method: SW8015P
Date Prep: 10.09.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.10.2020 01:24	

Analytical Method: TPH by SW8015 Mod
Seq Number: 3139524
Matrix: Solid
MB Sample Id: 7713127-1-BLK
Prep Method: SW8015P
Date Prep: 10.12.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.12.2020 15:47	

Analytical Method: TPH by SW8015 Mod
Seq Number: 3139371
Parent Sample Id: 674817-001
Matrix: Soil
MS Sample Id: 674817-001 S
Prep Method: SW8015P
Date Prep: 10.09.2020
MSD Sample Id: 674817-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	996	879	88	848	85	70-135	4	35	mg/kg	10.10.2020 02:05	
Diesel Range Organics (DRO)	<49.8	996	991	99	982	98	70-135	1	35	mg/kg	10.10.2020 02:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		106		70-135	%	10.10.2020 02:05
o-Terphenyl	101		98		70-135	%	10.10.2020 02:05

Analytical Method: TPH by SW8015 Mod
Seq Number: 3139524
Parent Sample Id: 674819-003
Matrix: Soil
MS Sample Id: 674819-003 S
Prep Method: SW8015P
Date Prep: 10.12.2020
MSD Sample Id: 674819-003 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)	<49.9	998	1020	102	1010	100	70-135	1	35	mg/kg	10.12.2020 17:08	
Diesel Range Organics (DRO)	<49.9	998	1120	112	1150	114	70-135	3	35	mg/kg	10.12.2020 17:08	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		120		70-135	%	10.12.2020 17:08
o-Terphenyl	106		108		70-135	%	10.12.2020 17:08

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

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

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

Final 1.000

QC Summary 674819

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LT Environmental, Inc.

Perla Verde 4

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3139372 Matrix: Solid Date Prep: 10.09.2020
MB Sample Id: 7713005-1-BLK LCS Sample Id: 7713005-1-BKS LCSD Sample Id: 7713005-1-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	0.101	101	0.0992	99	70-130	2	35	mg/kg	10.09.2020 22:54	
Toluene	<0.00200	0.100	0.0928	93	0.0929	93	70-130	0	35	mg/kg	10.09.2020 22:54	
Ethylbenzene	<0.00200	0.100	0.0942	94	0.0970	97	71-129	3	35	mg/kg	10.09.2020 22:54	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.198	99	70-135	3	35	mg/kg	10.09.2020 22:54	
o-Xylene	<0.00200	0.100	0.0981	98	0.0980	98	71-133	0	35	mg/kg	10.09.2020 22:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		100		102		70-130	%	10.09.2020 22:54
4-Bromofluorobenzene	114		107		110		70-130	%	10.09.2020 22:54

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3139372 Matrix: Soil Date Prep: 10.09.2020
Parent Sample Id: 674817-001 MS Sample Id: 674817-001 S MSD Sample Id: 674817-001 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	0.105	105	0.111	111	70-130	6	35	mg/kg	10.09.2020 23:39	
Toluene	<0.00200	0.0998	0.0976	98	0.103	103	70-130	5	35	mg/kg	10.09.2020 23:39	
Ethylbenzene	<0.00200	0.0998	0.101	101	0.107	107	71-129	6	35	mg/kg	10.09.2020 23:39	
m,p-Xylenes	<0.00399	0.200	0.205	103	0.216	108	70-135	5	35	mg/kg	10.09.2020 23:39	
o-Xylene	<0.00200	0.0998	0.102	102	0.107	107	71-133	5	35	mg/kg	10.09.2020 23:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		99		70-130	%	10.09.2020 23:39
4-Bromofluorobenzene	109		110		70-130	%	10.09.2020 23:39

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

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

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

Chain of Custody

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: 674819

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Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
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Phone:	(432) 236-3849	Email:	slo@ltenv.com, dmoir@ltenv.com, kkennedy@ltenv.com

Work Order Comments

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

Project Name:	Perla Verde 4	Turn Around	
Project Number:	012920121	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	2.6/2.4	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:	6

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SW01	S	10/8/2020	1535	0-2'	1	X	X	X
SW02	S	10/8/2020	1545	0-2'	1	X	X	X
SW03	S	10/8/2020	1555	0-2'	1	X	X	X
SW04	S	10/8/2020	1605	0-1'	1	X	X	X
SW05	S	10/8/2020	1615	0-2'	1	X	X	X
SW06	S	10/8/2020	1625	0-2'	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

ce: 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
ervice. 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
enco. 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
	Cue Cuplan	10.9.20 1340	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10.09.2020 01.40.00 PM

Work Order #: 674819

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)?	2.4	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	Samples received in bulk containers.
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**No**	
#18 Water VOC samples have zero headspace?	**N/A**	

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

Analyst: PH Device/Lot#:

Checklist completed by: Cloe Clifton Date: 10.09.2020

Cloe Clifton

Checklist reviewed by: Jessica Kramer Date: 10.12.2020

Jessica Kramer

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Certificate of Analysis Summary 674822

LT Environmental, Inc., Arvada, CO

Project Name: Perla Verde 4

Project Id: 012920121
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri 10.09.2020 13:40
Report Date: 10.12.2020 11:54
Project Manager: Jessica Kramer

Analysis Requested								
	Lab Id:	674822-001						
	Field Id:	SS04						
	Depth:	0.5- ft						
	Matrix:	SOIL						
	Sampled:	10.08.2020 15:25						
BTEX by EPA 8021B	***Extracted:***	10.09.2020 18:41						
	Analyzed:	10.10.2020 06:03						
	Units/RL:	mg/kg	RL					
Benzene		<0.00200	0.00200					
Toluene		0.00448	0.00200					
Ethylbenzene		0.0210	0.00200					
m,p-Xylenes		0.0149	0.00400					
o-Xylene		0.0403	0.00200					
Total Xylenes		0.0552	0.00200					
Total BTEX		0.0807	0.00200					
Chloride by EPA 300	***Extracted:***	10.09.2020 16:36						
	Analyzed:	10.09.2020 18:40						
	Units/RL:	mg/kg	RL					
Chloride		5080	49.7					
TPH by SW8015 Mod	***Extracted:***	10.09.2020 17:30						
	Analyzed:	10.10.2020 07:11						
	Units/RL:	mg/kg	RL					
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9					
Diesel Range Organics (DRO)		3330	49.9					
Motor Oil Range Hydrocarbons (MRO)		378	49.9					
Total GRO-DRO		3330	49.9					
Total TPH		3710	49.9					

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 674822

for

LT Environmental, Inc.

Project Manager: Dan Moir

Perla Verde 4

012920121

10.12.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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10.12.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **674822**
Perla Verde 4
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 Eurofins Xenco, LLC Report Number(s) 674822. 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 Eurofins Xenco, LLC. 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. 674822 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 674822

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS04	S	10.08.2020 15:25	0.5 ft	674822-001

CASE NARRATIVE

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Client Name: LT Environmental, Inc.

Project Name: Perla Verde 4

Project ID: *012920121*
Work Order Number(s): *674822*

Report Date: *10.12.2020*
Date Received: *10.09.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 674822

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674822-001	Date Collected:	10.08.2020 15:25	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 16:36	% Moisture:	
Seq Number:	3139363			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5080**	49.7	mg/kg	10.09.2020 18:40		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.09.2020 17:30	% Moisture:	
Seq Number:	3139371			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.10.2020 07:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	**3330**	49.9	mg/kg	10.10.2020 07:11		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**378**	49.9	mg/kg	10.10.2020 07:11		1
Total GRO-DRO	PHC628	**3330**	49.9	mg/kg	10.10.2020 07:11		1
Total TPH	PHC635	**3710**	49.9	mg/kg	10.10.2020 07:11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	10.10.2020 07:11	
o-Terphenyl	84-15-1	114	%	70-135	10.10.2020 07:11	

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Certificate of Analytical Results 674822

LT Environmental, Inc., Arvada, CO

Perla Verde 4

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	10.09.2020 13:40
Lab Sample Id:	674822-001	Date Collected:	10.08.2020 15:25	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.09.2020 18:41	% Moisture:	
Seq Number:	3139372			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.10.2020 06:03	U	1
Toluene	108-88-3	**0.00448**	0.00200	mg/kg	10.10.2020 06:03		1
Ethylbenzene	100-41-4	**0.0210**	0.00200	mg/kg	10.10.2020 06:03		1
m,p-Xylenes	179601-23-1	**0.0149**	0.00400	mg/kg	10.10.2020 06:03		1
o-Xylene	95-47-6	**0.0403**	0.00200	mg/kg	10.10.2020 06:03		1
Total Xylenes	1330-20-7	**0.0552**	0.00200	mg/kg	10.10.2020 06:03		1
Total BTEX		**0.0807**	0.00200	mg/kg	10.10.2020 06:03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.10.2020 06:03	
4-Bromofluorobenzene	460-00-4	99	%	70-130	10.10.2020 06:03	

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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

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QC Summary 674822

LT Environmental, Inc.

Perla Verde 4

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139363 — Matrix: Solid — Date Prep: 10.09.2020
MB Sample Id: 7713002-1-BLK — LCS Sample Id: 7713002-1-BKS — LCSD Sample Id: 7713002-1-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	264	106	90-110	1	20	mg/kg	10.09.2020 17:12	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139363 — Matrix: Soil — Date Prep: 10.09.2020
Parent Sample Id: 674817-001 — MS Sample Id: 674817-001 S — MSD Sample Id: 674817-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	51.2	200	259	104	261	105	90-110	1	20	mg/kg	10.09.2020 17:29	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139363 — Matrix: Soil — Date Prep: 10.09.2020
Parent Sample Id: 674822-001 — MS Sample Id: 674822-001 S — MSD Sample Id: 674822-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5080	202	5290	104	5300	110	90-110	0	20	mg/kg	10.09.2020 18:46	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139371 — Matrix: Solid — Date Prep: 10.09.2020
MB Sample Id: 7713057-1-BLK — LCS Sample Id: 7713057-1-BKS — LCSD Sample Id: 7713057-1-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	845	85	863	86	70-135	2	35	mg/kg	10.10.2020 00:43	
Diesel Range Organics (DRO)	<50.0	1000	972	97	1010	101	70-135	4	35	mg/kg	10.10.2020 00:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		129		129		70-135	%	10.10.2020 00:43
o-Terphenyl	104		122		126		70-135	%	10.10.2020 00:43

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3139371 — Matrix: Solid — Date Prep: 10.09.2020
MB Sample Id: 7713057-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.10.2020 01:24	

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

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QC Summary 674822

LT Environmental, Inc.

Perla Verde 4

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3139371 Matrix: Soil Date Prep: 10.09.2020
Parent Sample Id: 674817-001 MS Sample Id: 674817-001 S MSD Sample Id: 674817-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	996	879	88	848	85	70-135	4	35	mg/kg	10.10.2020 02:05	
Diesel Range Organics (DRO)	<49.8	996	991	99	982	98	70-135	1	35	mg/kg	10.10.2020 02:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		106		70-135	%	10.10.2020 02:05
o-Terphenyl	101		98		70-135	%	10.10.2020 02:05

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3139372 Matrix: Solid Date Prep: 10.09.2020
MB Sample Id: 7713005-1-BLK LCS Sample Id: 7713005-1-BKS LCSD Sample Id: 7713005-1-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	0.101	101	0.0992	99	70-130	2	35	mg/kg	10.09.2020 22:54	
Toluene	<0.00200	0.100	0.0928	93	0.0929	93	70-130	0	35	mg/kg	10.09.2020 22:54	
Ethylbenzene	<0.00200	0.100	0.0942	94	0.0970	97	71-129	3	35	mg/kg	10.09.2020 22:54	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.198	99	70-135	3	35	mg/kg	10.09.2020 22:54	
o-Xylene	<0.00200	0.100	0.0981	98	0.0980	98	71-133	0	35	mg/kg	10.09.2020 22:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		100		102		70-130	%	10.09.2020 22:54
4-Bromofluorobenzene	114		107		110		70-130	%	10.09.2020 22:54

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3139372 Matrix: Soil Date Prep: 10.09.2020
Parent Sample Id: 674817-001 MS Sample Id: 674817-001 S MSD Sample Id: 674817-001 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	0.105	105	0.111	111	70-130	6	35	mg/kg	10.09.2020 23:39	
Toluene	<0.00200	0.0998	0.0976	98	0.103	103	70-130	5	35	mg/kg	10.09.2020 23:39	
Ethylbenzene	<0.00200	0.0998	0.101	101	0.107	107	71-129	6	35	mg/kg	10.09.2020 23:39	
m,p-Xylenes	<0.00399	0.200	0.205	103	0.216	108	70-135	5	35	mg/kg	10.09.2020 23:39	
o-Xylene	<0.00200	0.0998	0.102	102	0.107	107	71-133	5	35	mg/kg	10.09.2020 23:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		99		70-130	%	10.09.2020 23:39
4-Bromofluorobenzene	109		110		70-130	%	10.09.2020 23:39

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

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

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

Chain of Custody

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: 674822

www.xenco.com Page 1 of 1

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

Work Order Comments

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

Project Name:	Perla Verde 4	Turn Around	
Project Number:	012920121	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	2.6/2.4	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)
SS04	S	10/8/2020	1525	0.5'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		10.9.20 1348	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10.09.2020 01.40.00 PM

Work Order #: 674822

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)?	2.4	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	Samples received in bulk containers.
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**No**	
#18 Water VOC samples have zero headspace?	**N/A**	

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

Analyst: PH Device/Lot#:

Checklist completed by: Cloe Clifton Date: 10.09.2020

Cloe Clifton

Checklist reviewed by: Jessica Kramer Date: 10.12.2020

Jessica Kramer

State of New Mexico
Oil Conservation Division

Incident ID	NRM2022151947
District RP	
Facility ID	
Application ID	

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 Supervisor

Signature: Date:

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

OCD Only

Received by: Chad Hensley Date: 2/11/2021

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

Signature: Chad Hensley Date: 2/11/2021

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 10814

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
XTO ENERGY, INC 6401 Holiday Hill Road Building #5 Midland, TX79707	5380	10814	C-141

OCD Reviewer	Condition
chensley	None