

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	NAB1919955454
District RP	2RP-5537
Facility ID	
Application ID	pAB1919955186

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # (assigned by OCD) NAB1919955454
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.150097° Longitude -103.991664°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Pickett Draw Federal #001	Site Type Production Well Facility
Date Release Discovered 6/21/2019	API# (if applicable) 30-015-25767

Unit Letter	Section	Township	Range	County
C	9	25S	29E	Eddy

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

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) 5.96	Volume Recovered (bbls) 5
☒ Produced Water	Volume Released (bbls) 589.58	Volume Recovered (bbls) 495
	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

Flowline failed due to pressure communication with the Pickett Draw Federal #1 from hydraulic frac operations for the Corral Canyon Federal Com 6H well. Fluids were released to the well pad and pasture to the NW (approx 60 ft) and misting to the NE (approx 180 ft). Vacuum trucks recovered free fluids. Additional third party resources have been retained to assist with remediation.

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Was this a major release as defined by 19.15.29.7(A) NMAC?

☒ Yes ☐ No

If YES, for what reason(s) does the responsible party consider this a major release?

An unauthorized release of a volume of 25 barrels or more

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Notice provided by Bryan Foust to Mike Bratcher, Rob Hamlet, Victoria Venegas, and Jim Griswold (NMOCD), and Jim Amos and Deborah McKinney (BLM), on 6/22/2019 by email

Initial Response

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

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

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

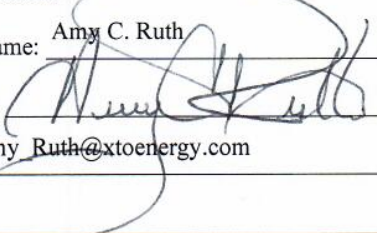
N/A

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

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

Printed Name: Amy C. Ruth

Title: SH&E Coordinator

Signature: 

Date: 7/2/2019

email: Amy_Ruth@xtoenergy.com

Telephone: 575-689-3380

OCD Only

Received by: Amalia Bustamante

Date: 7/18/2019

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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?	51-100 (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.

<u>Characterization Report Checklist:</u> <i>Each of the following items must be included in the report.</i> ☒ 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
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If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141

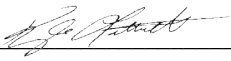
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform 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: _____

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Remediation Plan

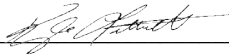
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☐ 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 SupervisorSignature:  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

December 3, 2019

Mr. Mike Bratcher
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210**RE: Deferral Request Addendum
Pickett Draw Federal #001
Remediation Permit Number 2RP-5537
Eddy County, New Mexico**

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following addendum to an original Deferral Request dated September 19, 2019. This addendum provides an update of remediation activities at the Pickett Draw Federal #001 (Site) located in Unit C, Section 9, Township 25 South, Range 29 East, in Eddy County, New Mexico (Figure 1) in response to the denial of the previous Deferral Request by the New Mexico Oil Conservation Division (NMOCD). In the denial, NMOCD suggested XTO advance three additional potholes to further investigate the concentration of chloride in background lithology at the Site. Based on additional work conducted, including new potholes and soil samples, XTO is requesting NMOCD reconsider deferral of the remaining impacted soil until major facility and/or site reconstruction.

BACKGROUND

On September 19, 2019, LTE submitted a Deferral Request to the NMOCD for impacted soil from a June 21, 2019 crude oil and produced water release associated with a failed flowline at the Site. The Remediation Permit (RP) Number is 2RP-5537 and XTO excavated the majority of the impacted soil, an estimated 2,000 cubic yards, within the release area. LTE personnel collected preliminary, delineation, and excavation soil samples within and around the release extent during July and August 2019, to assess the lateral and vertical extent of impacts to soil. The preliminary, delineation, and excavation soil samples are depicted on Figure 2, Figure 3, and Figure 4, respectively. Deferral was requested due to residual impacted soil left in place in the areas of buried former pits and associated protective liners and for compliance with XTO's safety policy regarding earth-moving activities within 10 feet of an active well head and within 2 feet of an active pipeline.

On October 28, 2019, the NMOCD denied deferral, via email, and suggested additional background sampling:





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"The OCD would prefer to see 3 background potholes away from the 4 pads, possibly 50-100 feet south of the road... Average the chlorides on the 3 potholes and use that as your naturally occurring chloride concentrations."

ADDITIONAL SITE ACTIVITIES

On November 8, 2019, LTE conducted additional delineation activities to better characterize naturally occurring chloride concentrations as requested by the NMOCD. Delineation potholes PH16 through PH18 were advanced to a depth of 20 feet bgs and were located an average of 210 feet south of the road. Thirteen delineation soil samples were collected from each pothole. Soil from the potholes 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 each pothole were logged on lithologic/soil sampling logs, which are included in Attachment 2.

The soil samples were then placed directly into pre-cleaned glass jars, labeled with location, date, time, sampler, method of analysis, and immediately placed on ice. The soil samples were shipped at 4 degrees Celsius (°C) under strict chain-of-custody procedures to Xenco Laboratories (Xenco) in Midland, Texas, for analysis of chloride by USEPA Method 300. The potholes were backfilled with the soil removed. The potholes and soil sample locations are depicted on Figure 4. Photographic documentation was conducted during the soil sampling activities. Photographs are included in Attachment 3.

SOIL ANALYTICAL RESULTS

Laboratory analytical results for background soil samples collected from potholes PH16 through PH18, collected at depths ranging from 0.5 foot to 20 feet bgs, indicated naturally occurring chloride concentrations of <9.88 milligrams per kilogram (mg/kg) to 1,550 mg/kg. The range of all background chloride concentrations from PH12 through PH18 is <9.88 mg/kg to 4,330 mg/kg. The average of all background chloride concentrations is 974 mg/kg. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

Comparing the background analytical results to previously collected delineation and excavation confirmation samples, the following samples exceed the average concentration:

- Delineation samples collected from potholes PH06 and PH10;
- Excavation floor samples FS18 through FS25; and
- Excavation sidewall samples SW12 and SW14.





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Soil in areas represented by PH06 and PH10 were excavated and confirmation samples collected near PH06 were compliant with Closure Criteria. Excavation confirmation samples collected in the area represented by PH10 exceeded the average background value of 974 mg/kg, but were below the highest background concentration detected of 4,330 mg/kg. Chloride concentrations in floor samples FS18 through FS25 ranged from 633 mg/kg in FS18 to 3,820 mg/kg in FS22. Floor samples FS20, FS21, and FS24 also exceeded the Closure Criteria for volatile organic compounds.

Excavation sidewall samples SW12 and SW14 are in the southern-most excavation and contain 1,760 mg/kg and 1,450 mg/kg chloride, respectively. Sample SW12 also exceeds Closure Criteria for TPH.

DEFERRAL REQUEST

As argued in the original Deferral Request, due to the risk of compromising buried pits and for compliance with the XTO safety policy regarding earth moving activities within 10 feet of active wellheads and 2 feet of active pipelines, excavation was completed to the maximum extent feasible. A total of approximately 2,000 cubic yards were excavated from the Site; however, residual impacted soil was left in-place in areas that cannot be excavated.

Laboratory analytical results for excavation floor samples collected at depths of 4 feet bgs to 6 feet bgs indicated that TPH concentrations ranging from 146 mg/kg to 2,070 mg/kg were left in place. Further excavation cannot be completed due to the presence of buried lined reserve pits. Excavation would risk encountering the pits and compromising the integrity of the pits and protective liners. Impacted soil near the active wellhead and pipeline was also left in place. The impacted soil left in place is fully delineated vertically is delineated vertically by delineation soil samples PH02A, PH03A, PH04A, PH10A and laterally by excavation sidewall samples SW01 through SW04, SW06 through SW11, and SW13 through SW15.

An estimated 200 cubic yards of soil impacted by the release remain in place bounded by sidewall samples SW05, SW12, and SW14, assuming a maximum 5-foot depth based on samples FS22, FS23, FS31, PH07A, PH08A, PH09A, and PH11A collected at depths of 2.5 feet to 5 feet bgs that were compliant with the TPH closure criteria. The TPH concentrations in the floor samples are below the 2,500 mg/kg Closure Criteria that would be applicable based on depth to groundwater. The 100 mg/kg TPH Closure Criteria is being applied based on the proximity of an intermittent stream/dry wash. The floor samples with TPH concentrations greater than 100 mg/kg that were left in place were collected from depths deeper than the intermittent and losing stream/dry wash and the intermittent surface water present in the wash will not be affected by impacted soil left in place at depth and buried with new caliche. Natural attenuation will occur through biodegradation of residual TPH concentrations. Based on the current and future planned use of the area, the presence of buried pits, depth to groundwater at the Site, and closure of the potential pathway for residual TPH concentrations to impact surface water (through removal of





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impacted shallow soil), natural attenuation of residual TPH in subsurface soil appears to be an effective remedial approach to protecting human health and the environment.

Similarly, all chloride concentrations in the floor, sidewall, and delineation samples are below the 10,000 mg/kg closure criteria that would be applicable based on depth to groundwater. In the majority of the excavation, soil containing elevated chloride in the top four feet of the subsurface has been removed. The chloride concentrations in the all confirmation samples are within the range of the naturally occurring chlorides detected in the area. Near the center of the impacted area, the floor of the excavation, which ranges from 4 to 5 feet bgs, contains chloride concentrations exceeding the average of all background samples collected, but less than the highest background chloride concentration detected. The soil is underlain by buried former pits and associated protective liners, which would prevent potential future vertical migration.

Sidewall samples in the southern excavation contain chloride concentrations exceeding the average of background concentrations, but below the highest detected background concentration. Soil in this area has been removed from the top 2.5 feet of the subsurface, but the sidewalls are too near the active wellhead to remove additional soil. The floor sample in this excavation contains chloride below the average of the background chloride concentrations.

XTO requests to backfill the existing excavations and complete 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. No saturated soil remains in place. Any residual impact meets closure standards established to be protective of groundwater. All impacts have been removed from the top 4 feet of the subsurface, except in the southern excavation, which is adjacent to the wellhead and cannot be safely removed. The remaining hydrocarbon and chloride impacts in the center of the release area are underlain by buried reserve pits, which will impede future vertical migration. XTO requests deferral of final remediation for RP Number 2RP-5537. Upon approval of this deferral request, XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions. An updated NMOCD Form C-141 is included as Attachment 1 and a Photographic Log is included as Attachment 3.

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

Sincerely,





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LT ENVIRONMENTAL, INC.

A handwritten signature in black ink that reads "Carol Ann Whaley".

Carol Ann Whaley
Staff Geologist

A handwritten signature in black ink that reads "Ashley L. Ager".

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

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

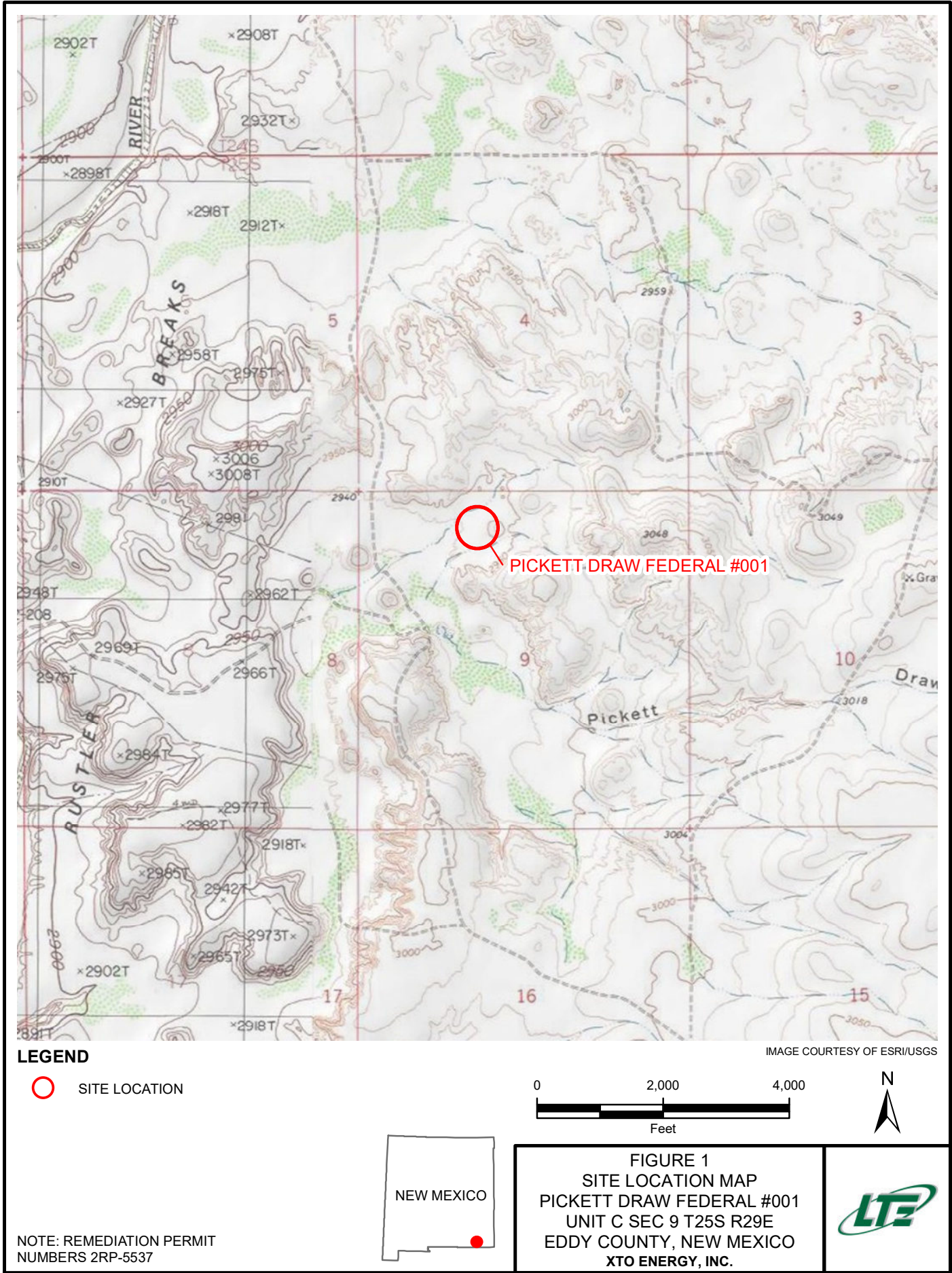
Attachments:

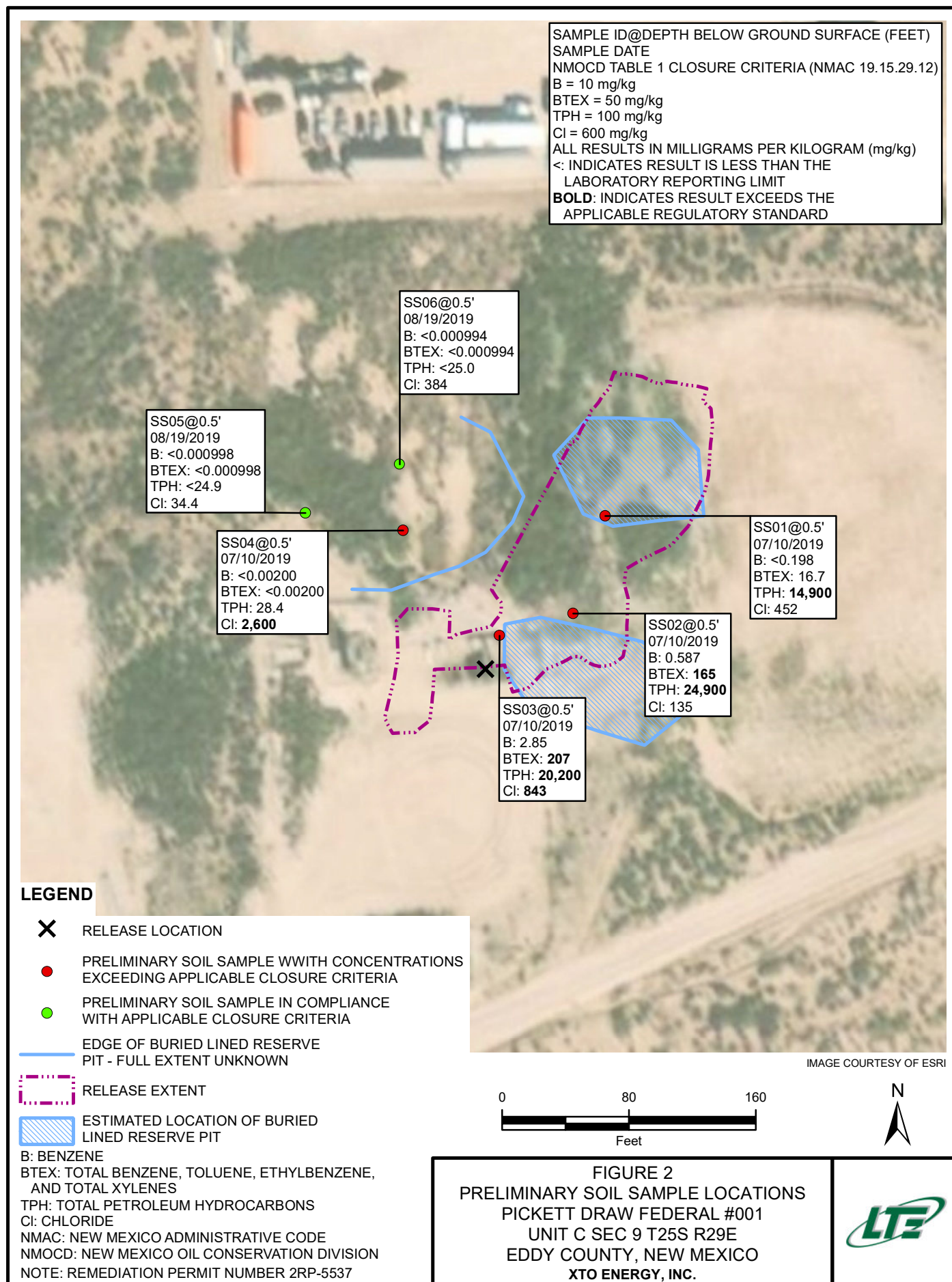
Figure 1 Site Location Map
Figure 2 Preliminary Soil Sample Locations
Figure 3 Excavation Soil Sample Locations
Figure 4 Delineation Soil Sample Locations
Table 1 Laboratory Analytical Results
Attachment 1 Initial/Final NMOCD Form C-141 (2RP-5537)
Attachment 2 Lithologic / Soil Sample Logs
Attachment 3 Photographic Log
Attachment 4 Laboratory Analytical Reports

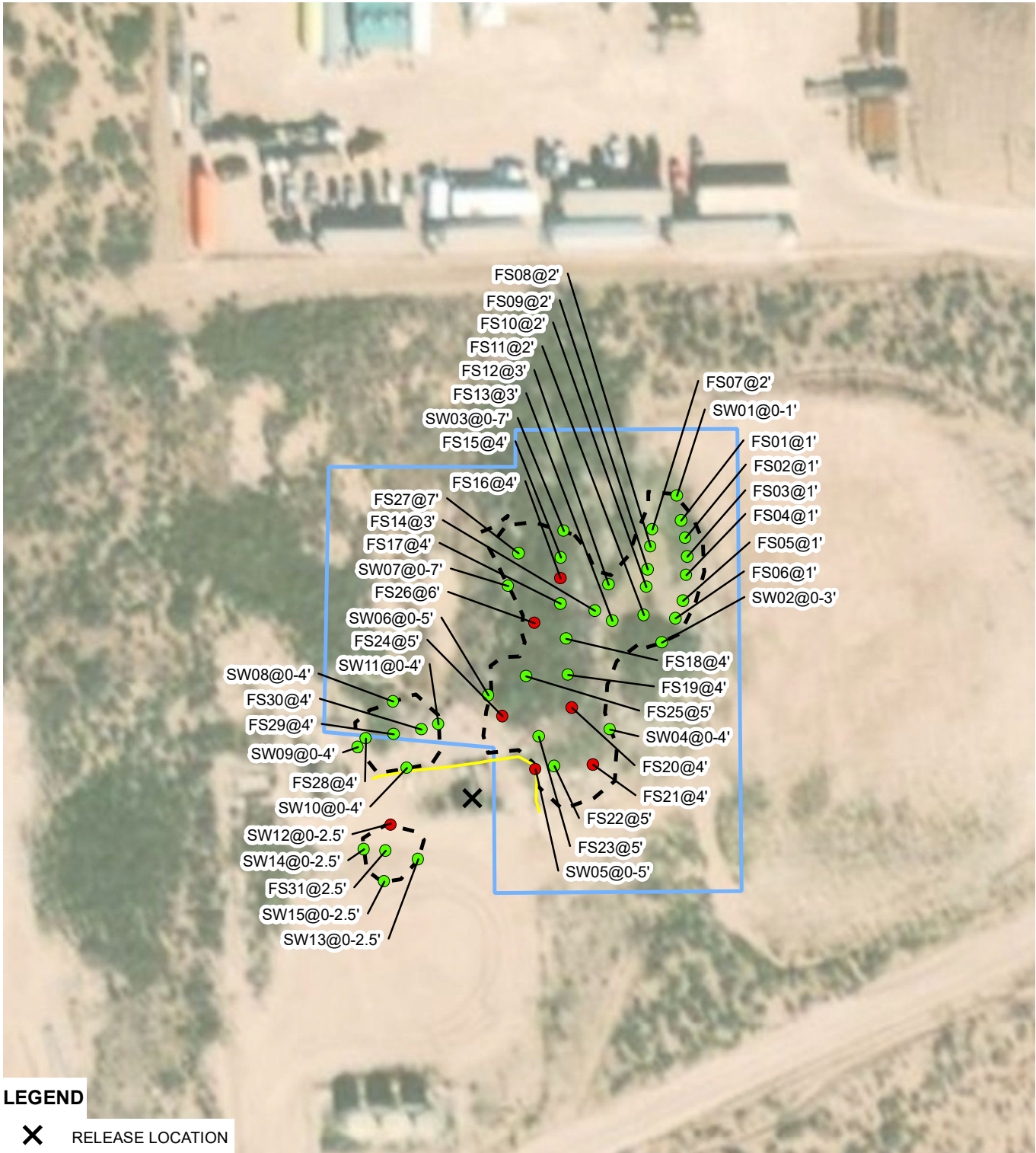


FIGURES









LEGEND

- X RELEASE LOCATION
 - EXCAVATION SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
 - EXCAVATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
 - GAS LINE
 - EXCAVATION EXTENT
 - APPROXIMATE LOCATION OF MULTIPLE FORMER BURIED PITS
- SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
NOTE: REMEDIATION PERMIT NUMBER 2RP-5537

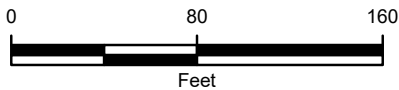
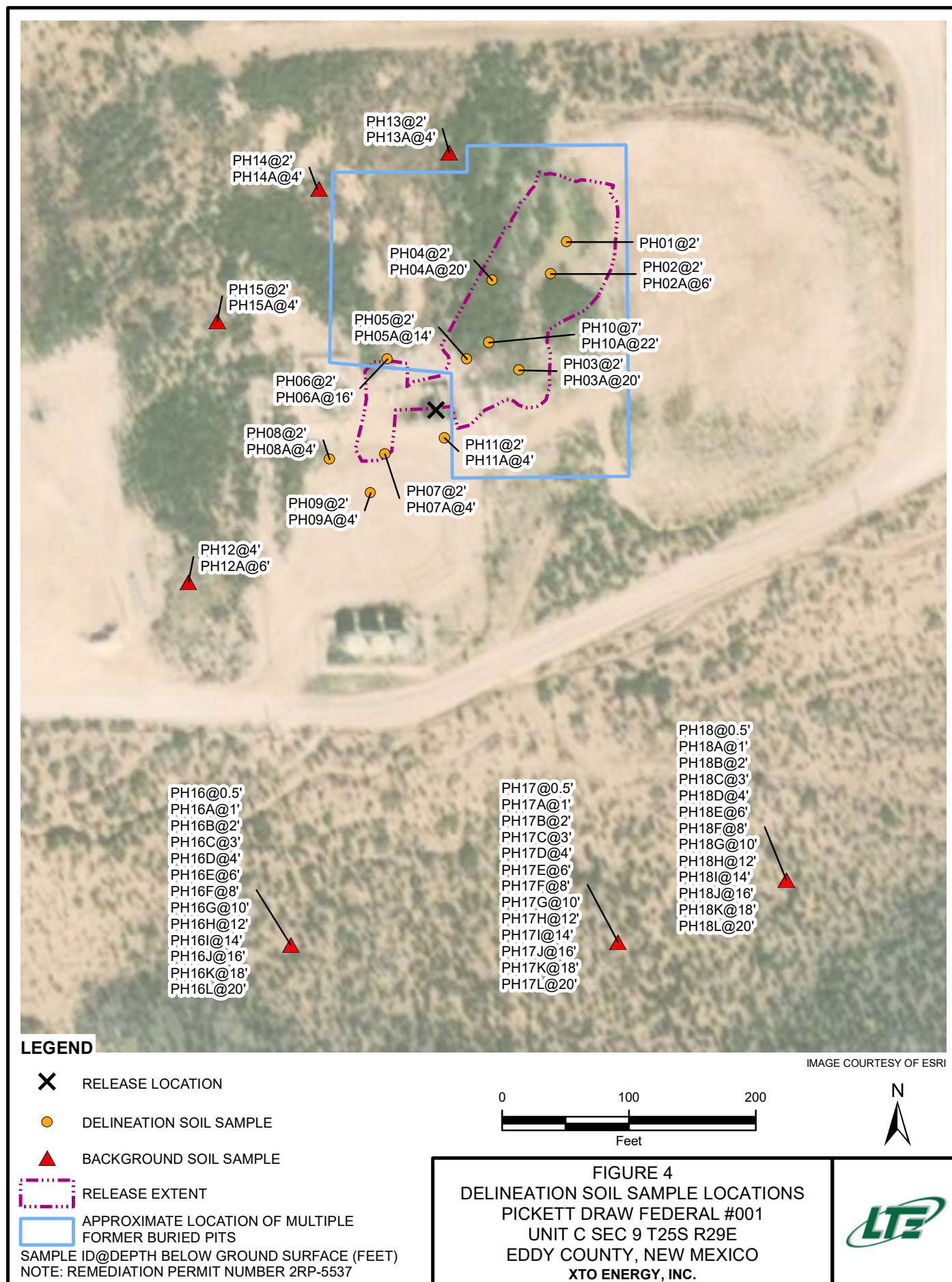


FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
PICKETT DRAW FEDERAL #001
UNIT C SEC 9 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.





TABLE



TABLE 1
SOIL ANALYTICAL RESULTS

PICKETT DRAW FEDERAL #001
REMEDIATION PERMIT NUMBER 2RP-5537
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
SS01	0.5	07/10/2019	<0.198	1.50	1.39	13.8	16.7	1,420	12,800	640	14,200	14,900	452
SS02	0.5	07/10/2019	0.587	18.8	15.1	131	165	4,120	20,000	823	24,100	24,900	135
SS03	0.5	07/10/2019	2.85	50.2	16.7	137	207	5,590	14,000	654	19,600	20,200	843
SS04	0.5	07/10/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	28.4	<15.0	28.4	28.4	2,600
SS05	0.5	08/19/2019	<0.000998	<0.000998	<0.000998	<0.000998	<0.000998	<24.9	<24.9	<24.9	<24.9	<24.9	34.4
SS06	0.5	08/19/2019	<0.000994	<0.000994	<0.000994	<0.000994	<0.000994	<25.0	<25.0	<25.0	<25.0	<25.0	384
PH01	2	08/02/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	875
PH02	2	08/02/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	27.6	<15.0	27.6	27.6	140
PH02A	6	08/02/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	15.0
PH03	2	08/02/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	144	19.3	144	163	1,550
PH03A	20	08/02/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	42.4	<15.0	42.4	42.4	16.4
PH04	2	08/02/2019	0.00626	0.228	0.280	4.05	4.56	526	2,630	283	3,160	3,440	511
PH04A	20	08/05/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	1,750
PH05	2	08/05/2019	0.0863	7.10	5.01	15.4	27.6	2,150	4,720	338	6,870	7,210	123
PH05A	14	08/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	16.7	340	39.5	357	396	813
PH06	2	08/05/2019	<0.00199	0.00372	0.00447	0.0154	0.0236	<15.0	<15.0	<15.0	<15.0	<15.0	420
PH06A	16	08/05/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	5,430
PH07	2	08/05/2019	<0.00200	0.00315	0.00266	0.0124	0.0182	<15.0	323	53.6	323	377	842
PH07A	4	08/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	508
PH08	2	08/05/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	24.4
PH08A	4	08/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	56.7
PH09	2	08/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	145
PH09A	4	08/05/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	311
PH10	7	08/15/2019	<0.000996	<0.000996	<0.000996	<0.000996	<0.000996	<24.9	<24.9	<24.9	<24.9	<24.9	1,380
PH10A	22	08/15/2019	<0.000996	<0.000996	<0.000996	<0.000996	<0.000996	<24.9	<24.9	<24.9	<24.9	<24.9	4,240
PH11	2	08/19/2019	<0.000998	<0.000998	<0.000998	<0.000998	<0.000998	<24.9	<24.9	<24.9	<24.9	<24.9	355
NMOC Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
Background Chloride Concentration Range (mg/kg)												<9.88-4,330	



TABLE 1
SOIL ANALYTICAL RESULTS

PICKETT DRAW FEDERAL #001
REMEDIATION PERMIT NUMBER 2RP-5537
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
PH11A	4	08/19/2019	<0.000996	<0.000996	<0.000996	<0.000996	<0.000996	<24.9	<24.9	<24.9	<24.9	<24.9	265
FS01	1	08/15/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<25.2	<25.2	<25.2	<25.2	<25.2	969
FS02	1	08/15/2019	<0.000990	<0.000990	<0.000990	<0.000990	<0.000990	<25.1	<25.1	<25.1	<25.1	<25.1	142
FS03	1	08/15/2019	<0.000990	<0.000990	<0.000990	<0.000990	<0.000990	<25.1	<25.1	<25.1	<25.1	<25.1	256
FS04	1	08/15/2019	<0.000994	<0.000994	<0.000994	<0.000994	<0.000994	<24.9	<24.9	<24.9	<24.9	<24.9	176
FS05	1	08/15/2019	<0.000996	<0.000996	<0.000996	<0.000996	<0.000996	<24.9	29.2	<24.9	29.2	29.2	196
FS06	1	08/15/2019	<0.000994	<0.000994	<0.000994	<0.000994	<0.000994	<25.0	<25.0	<25.0	<25.0	<25.0	51.8
FS07	2	08/15/2019	<0.000998	<0.000998	<0.000998	<0.000998	<0.000998	<24.9	<24.9	<24.9	<24.9	<24.9	195
FS08	2	08/15/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<25.1	83.7	<25.1	83.7	83.7	189
FS09	2	08/15/2019	<0.000998	<0.000998	<0.000998	<0.000998	<0.000998	<25.1	27.7	<25.1	27.7	27.7	237
FS10	2	08/15/2019	<0.00101	<0.00101	0.00224	<0.00101	0.00224	<25.1	<25.1	<25.1	<25.1	<25.1	74.0
FS11	2	08/15/2019	<0.000994	<0.000994	<0.000994	<0.000994	<0.000994	<24.9	<24.9	<24.9	<24.9	<24.9	350
FS12	3	08/15/2019	<0.000990	<0.000990	<0.000990	<0.000990	<0.000990	<24.9	<24.9	<24.9	<24.9	<24.9	274
FS13	3	08/15/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<25.1	<25.1	<25.1	<25.1	<25.1	319
FS14	3	08/15/2019	<0.000996	<0.000996	<0.000996	<0.000996	<0.000996	<25.0	<25.0	<25.0	<25.0	<25.0	38.2
FS15	4	08/15/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<25.1	152	<25.1	152	152	183
FS16	4	08/15/2019	<0.000994	<0.000994	0.00243	0.0359	0.0383	<25.0	586	<25.0	586	586	161
FS17	4	08/15/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<24.9	57.6	<24.9	57.6	57.6	187
FS18	4	08/15/2019	<0.000998	<0.000998	<0.000998	<0.000998	<0.000998	<24.9	59.0	<24.9	59.0	59.0	633
FS19	4	08/15/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<25.1	42.2	<25.1	42.2	42.2	1,150
FS20	4	08/15/2019	<0.00100	<0.00100	0.00148	0.0183	0.0198	<25.1	190	<25.1	190	190	1,410
FS21	4	08/15/2019	<0.000996	<0.000996	0.00117	0.0111	0.0123	901	1,170	<25.0	2,070	2,070	767
FS22	5	08/19/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<25.0	<25.0	<25.0	<25.0	<25.0	3,820
FS23	5	08/19/2019	<0.000994	<0.000994	<0.000994	<0.000994	<0.000994	<25.0	<25.0	<25.0	<25.0	<25.0	1,450
FS24	5	08/19/2019	<0.00100	<0.00100	0.00341	0.0443	0.0477	<25.0	319	<25.0	319	319	2,240
FS25	5	08/19/2019	<0.000992	<0.000992	<0.000992	<0.000992	<0.000992	<25.0	<25.0	<25.0	<25.0	<25.0	1,050
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
Background Chloride Concntration Range (mg/kg)												<9.88-4,330	



TABLE 1
SOIL ANALYTICAL RESULTS

PICKETT DRAW FEDERAL #001
REMEDIATION PERMIT NUMBER 2RP-5537
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
FS26	6	08/19/2019	<0.000990	<0.000990	<0.000990	<0.000990	<0.000990	<24.9	146	<24.9	146	146	127
FS27	7	08/19/2019	<0.000996	<0.000996	<0.000996	<0.000996	<0.000996	<24.9	<24.9	<24.9	<24.9	<24.9	66.5
FS28	4	08/19/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<25.0	<25.0	<25.0	<25.0	<25.0	894
FS29	4	08/19/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<24.9	<24.9	<24.9	<24.9	<24.9	812
FS30	4	08/19/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<25.1	<25.1	<25.1	<25.1	<25.1	854
FS31	2.5	08/19/2019	<0.000994	<0.000994	<0.000994	<0.000994	<0.000994	<25.1	<25.1	<25.1	<25.1	<25.1	646
SW01	0 - 1	08/15/2019	<0.000998	<0.000998	<0.000998	<0.000998	<0.000998	<25.1	42.3	<25.1	42.3	42.3	723
SW02	0 - 3	08/15/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<25.1	<25.1	<25.1	<25.1	<25.1	512
SW03	0 - 7	08/15/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<25.0	50.1	<25.0	50.1	50.1	504
SW04	0 - 4	08/15/2019	<0.000998	<0.000998	<0.000998	<0.000998	<0.000998	<25.0	<25.0	<25.0	<25.0	<25.0	43.0
SW05	0 - 5	08/19/2019	<0.500	2.08	2.60	28.4	33.0	615	3,810	<25.0	4,430	4,430	188
SW06	0 - 5	08/19/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<24.9	<24.9	<24.9	<24.9	<24.9	56.7
SW07	0 - 7	08/19/2019	<0.000998	0.00107	<0.000998	<0.000998	0.00107	<25.0	<25.0	<25.0	<25.0	<25.0	49.8
SW08	0 - 4	08/19/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<24.9	<24.9	<24.9	<24.9	<24.9	724
SW09	0 - 4	08/19/2019	<0.000994	<0.000994	<0.000994	<0.000994	<0.000994	<25.1	<25.1	<25.1	<25.1	<25.1	42.9
SW10	0 - 4	08/19/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<25.0	86.2	<25.0	86.2	86.2	801
SW11	0 - 4	08/19/2019	<0.000992	<0.000992	<0.000992	<0.000992	<0.000992	<25.1	<25.1	<25.1	<25.1	<25.1	47.0
SW12	0 - 2.5	08/19/2019	<0.000990	<0.000990	<0.000990	<0.000990	<0.000990	<24.9	140	<24.9	140	140	1,760
SW13	0 - 2.5	08/19/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<25.1	<25.1	<25.1	<25.1	<25.1	684
SW14	0 - 2.5	08/19/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<25.0	<25.0	<25.0	<25.0	<25.0	1,450
SW15	0 - 2.5	08/19/2019	<0.000998	<0.000998	<0.000998	<0.000998	<0.000998	<25.1	<25.1	<25.1	<25.1	<25.1	238
Background Soil Samples													
PH12	4	08/19/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,620
PH12A	6	08/19/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,000
PH13	2	08/19/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,390
NMOCDC Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
Background Chloride Concentration Range (mg/kg)													<9.88-4,330



TABLE 1
SOIL ANALYTICAL RESULTS

PICKETT DRAW FEDERAL #001
REMEDIATION PERMIT NUMBER 2RP-5537
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
PH13A	4	08/19/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	903
PH14	2	08/19/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,340
PH14A	4	08/19/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,330
PH15	2	08/19/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,250
PH15A	4	08/19/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,860
PH16	0.5	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<9.88
PH16A	1	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<9.92
PH16B	2	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<10.0
PH16C	3	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	97.9
PH16D	4	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	353
PH16E	6	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	481
PH16F	8	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	921
PH16G	10	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	480
PH16H	12	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	837
PH16I	14	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	552
PH16J	16	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	780
PH16K	18	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	968
PH16L	20	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1070
PH17	0.5	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<10.1
PH17A	1	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<9.94
PH17B	2	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<9.96
PH17C	3	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<9.86
PH17D	4	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<9.94
PH17E	6	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	118
PH17F	8	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	458
PH17G	10	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	704
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
Background Chloride Concntration Range (mg/kg)												<9.88-4,330	



TABLE 1
SOIL ANALYTICAL RESULTS

PICKETT DRAW FEDERAL #001
REMEDIATION PERMIT NUMBER 2RP-5537
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
PH17H	12	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,060
PH17I	14	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,180
PH17J	16	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	225
PH17K	18	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,020
PH17L	20	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	673
PH18	0.5	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<9.96
PH18A	1	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<9.98
PH18B	2	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<10.1
PH18C	3	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	43.9
PH18D	4	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	765
PH18E	6	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,550
PH18F	8	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,490
PH18G	10	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,100
PH18H	12	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,110
PH18I	14	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,020
PH18J	16	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	657
PH18K	18	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	685
PH18L	20	11/08/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	637
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
										Background Chloride Concentration Range (mg/kg)		<9.88-4,330	

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

ORO - motor oil range organics

NMAC - New Mexico Administrative Code

NMOCD - New Mexico Oil Conservation Division

TPH - total petroleum hydrocarbons

NE - not established

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

N/A - not applicable



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	NAB1919955454
District RP	2RP-5537
Facility ID	
Application ID	pAB1919955186

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # (assigned by OCD) NAB1919955454
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.150097° Longitude -103.991664°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Pickett Draw Federal #001	Site Type Production Well Facility
Date Release Discovered 6/21/2019	API# (if applicable) 30-015-25767

Unit Letter	Section	Township	Range	County
C	9	25S	29E	Eddy

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

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) 5.96	Volume Recovered (bbls) 5
☒ Produced Water	Volume Released (bbls) 589.58	Volume Recovered (bbls) 495
	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

Flowline failed due to pressure communication with the Pickett Draw Federal #1 from hydraulic frac operations for the Corral Canyon Federal Com 6H well. Fluids were released to the well pad and pasture to the NW (approx 60 ft) and misting to the NE (approx 180 ft). Vacuum trucks recovered free fluids. Additional third party resources have been retained to assist with remediation.

Form C-141

State of New Mexico
Oil Conservation Division

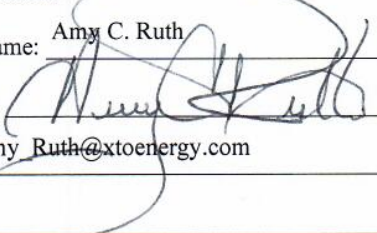
Page 2

Incident ID	NAB1919955454
District RP	2RP-5537
Facility ID	
Application ID	pAB1919955186

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? An unauthorized release of a volume of 25 barrels or more
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Notice provided by Bryan Foust to Mike Bratcher, Rob Hamlet, Victoria Venegas, and Jim Griswold (NMOCD), and Jim Amos and Deborah McKinney (BLM), on 6/22/2019 by email	

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 <u>not</u> been undertaken, explain why: N/A	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Amy C. Ruth</u> Signature:  email: <u>Amy_Ruth@xtoenergy.com</u>	Title: <u>SH&E Coordinator</u> Date: <u>7/2/2019</u> Telephone: <u>575-689-3380</u>
<u>OCD Only</u> Received by: <u>Amalia Bustamante</u> Date: <u>7/18/2019</u>	

Form C-141

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State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	2RP-5537
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?	<u>51-100 (ft bgs)</u>
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☒ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas not on an exploration, development, production, or storage site?	☒ Yes ☐ No

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

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

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

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

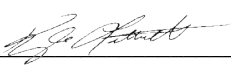
Form C-141

State of New Mexico
Oil Conservation Division

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Incident ID	
District RP	
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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: _____

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State of New Mexico
Oil Conservation Division

Incident ID	
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Remediation Plan

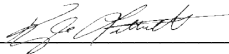
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☐ 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 SupervisorSignature:  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: _____



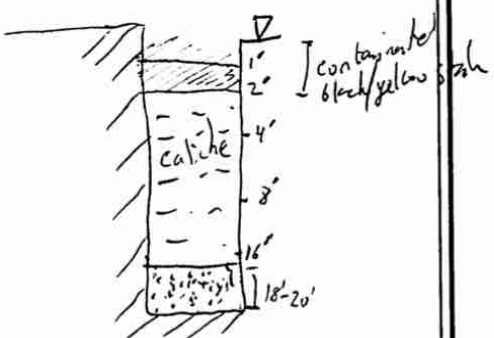
 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: <i>PH01</i> Date: <i>08/02/09</i>
Project Name: <i>Pickett Draw</i> RP Number: <i>2RP-5537</i>		Logged By: <i>L. Launbach</i> Method: <i>trackhoe</i>
Lat/Long: _____ Field Screening: <i>PID, chloride</i> Hole Diameter: <i>2'</i> Total Depth: <i>4'</i>		Comments: _____

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
<i>deep/hoft</i>		<i>29.6</i>	<i>N</i>		<i>1'</i>			<i>SAND, sandy loam, light brown</i>
	<i>648 (4.0)</i>	<i>8.5</i>	<i>N</i>	<i>PH01</i>	<i>2'</i>		<i>SW-SM</i>	
					<i>3</i>			
	<i>488 (3.4)</i>	<i>5.9</i>	<i>N</i>	<i>PH01A</i>	<i>4</i>			
					<i>5</i>			<i>deepest depth</i>
					<i>6</i>			
					<i>7</i>			
					<i>8</i>			
					<i>9</i>			
					<i>10</i>			
					<i>11</i>			
					<i>12</i>			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: <u>PH-2</u> Date: <u>08/02/2019</u>						
Project Name: <u>Pickett Draw Fed 1</u> RP Number: <u>2RP 5537</u>								
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long:	Field Screening: <u>PID, chloride</u>	Logged By: <u>L. Lambush</u> Hole Diameter: <u>2'</u> Method: <u>trackhoe</u> Total Depth: <u>6'</u>						
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
<u>day</u>	<u>648</u> <u>(4.0)</u>	<u>3.8</u>	<u>✓</u>		1			<u>SAND w/ silt, settle quickly, light brown/tan</u>
	<u>128</u> <u>(1.8)</u>	<u>12.7</u>	<u>✓</u>	<u>PH-2</u>	2			<u>sw-sm clay, nodar</u>
					3			
	<u><128</u> <u>(1.2)</u>	<u>13.3</u>	<u>N</u>		4			
					5			
	<u>428</u> <u>(4.2)</u>	<u>3.8</u>	<u>N</u>	<u>PH-2A</u>	6			
					7			<u>deepest depth</u>
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: P/H03 Date: 08/02/2019						
Project Name: Pike tt Draw Feed 1		RP Number: 2RP-5537						
Logged By: L. Laumbach		Method: track hoe						
Hole Diameter: 2'		Total Depth: 26'						
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long:		Field Screening: PER, chloride strips						
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	1147	715.000	X	1	0			
dry	1144 (5.4)	715.000	Y	(P/H03)	1			SW-SM SAND, sandy loam, silt, clay, odor
dry	1420 (6.0)	715.000	Y		2			CALICHE, clay, rocky, odor
dry	768 (4.4)	715.000	N		3			CALICHE
dry	708 (4.2)	715.000	N		4			
dry	884 (5.0)	143.2	N		5			
dry	980	715.000	N		6			
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: <i>P/H04</i> Project Name: <i>Pickett Draw Fed 1</i>	Date: <i>08/02/2019</i> RP Number: <i>2RP-5537</i>					
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: <i>L. Lammbruch</i> Hole Diameter: <i>2'</i>	Method: <i>track hoe</i> Total Depth: <i>20'</i>					
Lat/Long:		Field Screening: <i>PTD, chloride strips</i>						
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
					1			
<i>dry</i>	<i>352 (2.8)</i>	<i>>15000</i>	<i>Y</i>	<i>P/H04</i>	2		<i>CALICHE</i>	<i>CALICHE, dry yellow/stain, odor</i>
					3			
<i>dry</i>	<i><128 (<1)</i>	<i>>15000</i>	<i>N</i>		4			<i>CALICHE, dry, white/tan odor</i>
					5			
<i>dry</i>	<i><128 (<1)</i>	<i>>15000</i>	<i>N</i>		6			
					7			
<i>dry</i>	<i><128 (<1)</i>	<i>>15000</i>	<i>N</i>		8			<i>CALICHE, white, damp, odor</i>
					9			
	<i><128 (<1)</i>	<i>>15000</i>	<i>N</i>		10			
					11			
	<i><128 (<1)</i>	<i>>15000</i>	<i>N</i>		12			



contains black/yellow stain

(21)

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation					Identifier: <i>PH04 ctd</i>		Date: <i>08/05/2019</i>	
					Project Name: <i>Pickett Draw Fed #001</i>		RP Number: <i>2RP 5537</i>	
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long:			Field Screening: <i>PIP, chlorides</i>		Logged By: <i>L. Lambach</i>		Method: <i>trackhoe</i>	
					Hole Diameter: <i>2'</i>		Total Depth: <i>20'</i>	
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
<i>dry</i>	<i><128</i>	<i>>15000</i>	<i>N</i>		<i>0</i>			
					<i>16'</i>			<i>CALICHE, rocky 1/8", odor white dry</i>
					<i>2</i>			
<i>dry</i>	<i><128</i>	<i>>15000</i>	<i>N</i>		<i>18'</i>		<i>SP</i>	<i>SAND, coarse <10% fines, pink hue, dry</i>
					<i>4</i>			
<i>dry</i>	<i><128</i>	<i>>15000</i>	<i>N</i>	<i>PH04A</i>	<i>20'</i>			<i>↓</i>
<i>deepest trackhoe depth</i>								
6								
7								
8								
9								
10								
11								
12								

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: PHOS	Date: 08/05/2019					
		Project Name: Pickett Draw Fed 1	RP Number: 2RP 5537					
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: L. Lumberg	Method: trackhoe					
Lat/Long:		Field Screening: PE17, chloride strips	Hole Diameter: 2'					
Comments:		Total Depth: 14'						
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
					1		swsm	topsoil SAND
	<128 (<1)	>15000	N	PHOS	2			caliche SAND, brown, odor ~ visible staining ~ 70ppm offgassing from around pothole odor similar to spray paint
	180 (0.8)	>15000	N		4			
	276 (7.0) (2.0)	>15000 22.1	N		5		caliche	4.5' caliche, broken/sharded light tan / off white, odor
	—	>15000	N		8			
		>15000	N		10			
	908 (4.8)	>15000	N		12			
715000 PHOS 14'					trackhoe refusal			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: PH-6 Date: 08/05/2019						
Project Name: Pickett Draw Fed #1 RP Number: ZRP-5537								
Logged By: L. Laumbach Method: backhoe								
Hole Diameter: 2' Total Depth: 20'								
Field Screening: PIP, chlorides								
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
					1			
damp	36 (3.0)	67.2	N	PH-6	2		SW-SH	N odor SAND, silty vegetation still alive nonplastic, brown
					3			
damp	648 (4.0)	59.3	N		4			
					5			caliche, damp, cobbly noder light tan/yellow
moist	2016 (7.0)	22.1	N		6		CLAYE	
					7			
damp	7242 (8.6)		N		8			
					9			
damp	72492 (9.0)	44.7	N		10			
					11			
damp	72492 (9.0)	24.1	N		12			sand, pink hue damp



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

Compliance · Engineering · Remediation

Identifier: *PH06 contd*

Date: *08/05/2019*

Project Name: *Pickett Draw Fed #1*

RP Number: *2 RP-5537*

Logged By: *L. Laumbach*

Method: *trackhoe*

Hole Diameter: *2'*

Total Depth: *20'*

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: *PID, chlorides*

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
	<i>72492 (4.2)</i>	<i>21.4</i>		<i>PH-6A</i>	<i>20'</i>			<i>CALICHE, shards - rocky deepest depth</i>
					0			
					1			
					2			
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

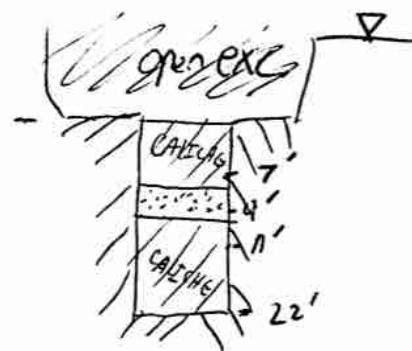
 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: <u>PH-7</u> Date: <u>08/05/2019</u>							
Project Name: <u>Pickett Draw Fed #1</u> RP Number: <u>ZRP 5537</u>									
Logged By: <u>L. Laumbach</u> Method: <u>truckhoe</u>									
Hole Diameter: <u>2'</u> Total Depth: <u>6'</u>									
Lat/Long: _____ Field Screening: <u>PID, chlorides</u>									
Comments: _____									
LITHOLOGIC / SOIL SAMPLING LOG									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks	
					0				
					1				
dry	836 (4.6)	1622		PH-7	2'		Surf (5m)	SAND, silty, >30% fines, no odor brown	
					3				
dry	312 (2.6)	122			4				
					5				
dry	396 (3.0)	9.4		PH-7A	6			chalk, no odor, white	
					7			deepest depth	
					8				
					9				
					10				
					11				
					12				

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: <u>PH08</u> Date: <u>08/05/2019</u>						
Project Name: <u>Pickett Draw Fed #1</u> RP Number: <u>2RP 5537</u>								
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long:	Field Screening: <u>PEI, chlorides</u>	Logged By: <u>L. Laumbach</u> Hole Diameter: <u>2'</u>						
Method: <u>truckbox</u> Total Depth: <u>6'</u>								
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			<u>CALICHE - pad</u>
					1			
<u>dry</u>	<u>128</u>	<u>10.2</u>	<u>N</u>	<u>PH08</u>	2		<u>slt-silt</u>	<u>SAND, silty, No odor, brown</u>
					3			
<u>dry</u>	<u>128</u>	<u>13.0</u>	<u>N</u>		4			<u>CALICHE, white, off-white, No odor</u>
					5			
<u>dry</u>	<u>128</u>	<u>14.2</u>	<u>N</u>	<u>PH08A</u>	6			
<u>deeper depth</u>								
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: <i>PH29</i> Date: <i>08/05/2019</i>						
Project Name: <i>Pickett Draw Fed #001</i> RP Number: <i>2RP 5537</i>								
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: <i>L. Laumbach</i> Method: <i>trackhoe</i>						
Lat/Long:	Field Screening: <i>PID, chlorides</i> Hole Diameter: <i>2'</i> Total Depth: <i>4'</i>							
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
					1			
<i>dry</i>	<i><128</i>	<i>30.1</i>	<i>N</i>	<i>PH29</i>	<i>(2')</i>		<i>Slv-Sm SAND, s-lty, nodar brown</i>	
					3			<i>↓</i>
<i>dry</i>	<i>164</i>	<i>16.9</i>	<i>N</i>	<i>PH29A</i>	<i>(4')</i>			<i>↓</i>
					5			<i>deepest depth</i>
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: PH112	Date: 08/15/2019					
		Project Name: Pickett Draw Fed #1	RP Number: ZRP 5537					
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: L. Lambach	Method: trouble					
Lat/Long: 32.150207, -103.991581		Field Screening: PFD	Hole Diameter: 2'					
Total Depth: 4' 8"								
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
					1			
					2			
					3			Open excavation
					4			
					5			
					6			
dry (3.4)		73.2		PH10	7			CALICHE, odor
					8			
dry		58.5			9			↓ +SP CALICHE, sand mix, odor, white/tan + light brown
					10			
dry (4.6)		14.9			11			CALICHE No odor, white/tan
					12			

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: <u>PH10 cat'd</u>		Date: <u>08/15/2019</u>		
Project Name: <u>Pickett Draw Fed #1</u>		RP Number: <u>2RP 5537</u>		Logged By: <u>L. Lambach</u>		Method: <u>trackhoe</u>		
LITHOLOGIC / SOIL SAMPLING LOG				Field Screening: <u>PID</u>		Hole Diameter:		
Lat/Long:		Comments:		Total Depth:				
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
<u>dry</u>	<u>(6.4)</u>	<u>23.4</u>			0			
					1			
					2	<u>15'</u>		← CALICHE, white, nodular hard to dig through
					3			
					4			
					5			
<u>dry</u>	<u>(6.4)</u>	<u>17.7</u>			6	<u>19'</u>		
					7			
					8			
<u>dry</u>	<u>(6.4)</u>	<u>9.2</u>		<u>PH10A</u>	9	<u>22'</u>		
					10			
					11			
					12			
								Trackhoe rock





LT Environmental, Inc.

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



Compliance · Engineering · Remediation

Identifier:

PH11

Date:

08/19/2015

Project Name:

Pickett Draw Fed 1

RP Number:

2RP-5537

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: L. Lamberth

Method: trackhoe

Lat/Long:

32.150061008, -103.4916796

Field Screening:

PID, chlorides

Hole Diameter:

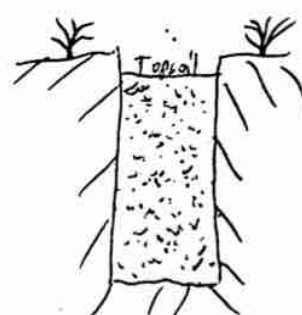
2'

Total Depth:

4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm) ^(PID)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			CALICHE, non reactive
					1			
dry		7			2'			SAND, silt, no odor
					3			
dry		23.1			4'			SAND, silt
					5			deepest depth
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: PH12 Project Name: Pickett Draw Fed 1	Date: 08/19/2019 RP Number: 2RP 5537					
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long: 32.1497486, -103.9923859		Field Screening: PEP, chlorides	Logged By: L. Laumbach					
		Hole Diameter: 2'	Method: trackhoe Total Depth: 8'					
Comments: A background sample								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			Topsoil, Brown
					1			
Dry		0.0	—		2'		SP	SAND, reddish yellow, No odor/No stain non plastic, dry ~1" rocks, interspersed
					3			
Dry	1420	23.1 0.0	—	PH12	4'			SAND
					5			
Dry		0.0	—		6'			SAND
					7			
Dry	1636	0.0	—	PH12A	8'			SAND
								
deepest depth								
								
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: PH13	Date: 08/19/2019					
		Project Name: Pickett Draw Fed #1	RP Number: 2RP 5537					
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: L. Leunberch	Method: trackhoe					
Lat/Long: 32.15067003, -103.991479	Field Screening: PID	Hole Diameter: 2'	Total Depth: 4'					
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
					1			
dry	/	3.7	/	PH13	2		SM	SAND, silty, brown, nodular
					3			
dry	/	3.4	/	PH13A	4		SM	↓
					5			deepest depth
					6			
					7			
					8			
					9			
					10			
					11			
					12			

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: PH14 Date: 08/19/2019				
Lat/Long: 32.15049295, -103.99178549		Field Screening: PID		Project Name: Pickett Draw Fed #1 RP Number: 2RP 5537				
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: L. Lamm bach Method: trackhoe				
Comments:				Hole Diameter: 2' Total Depth: 4'				
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
					1			
dry	—	0.9	—	PH14	(2)		SM	SAND, s.Hy, brown, nodular
					3			
dry	—	0.0	—	PH14A	(4)		SM	↓
deepest depth								
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation				Identifier: PH15		Date: 08/19/2019		
				Project Name: Pickett Drive Fed #1		RP Number: 2RP-5537		
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: L. Lambrich		Method: trackhoe		
Lat/Long: 32.150314, -103.9922586				Field Screening: PID		Hole Diameter: 2'		
Total Depth: 4'								
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
					1			
dry	—	0.0	N	PH15	(2)		SM	SAND, silty, brown, nodular
					3			
dry	—	0.0	N	PH15A	(4)		SM	↓
					5			deepest depth
					6			
					7			
					8			
					9			
					10			
					11			
					12			



LT Environmental, Inc.
 508 West Stevens Street
 Carlsbad, New Mexico 88220
 Compliance · Engineering · Remediation

Identifier: Background PH01

Date: 11/8/19

 Project Name:
 Pickett Draw Federal #001

RP Number: 2RP-5537

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: Anna Byers

Method: Track Hoe

Lat/Long: Refer to Collector

Field Screening:

Hole Diameter: N/A

Total Depth: 20 feet

PID and HACH Choride Test Strips

Comments: Chloride tests were performed with an aliquot of a 1 part soil: 4 parts distilled water mixture

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
DRY	<112	0	NO	PH01		0.5 ft	SP-sm	light brown poorly graded sand (m.) with silt & gravel, no plasticity, no odor with trace organics
DRY	<112	0	NO	PH01A	1	1.0 ft	SP-sm	
DRY	<112	0	NO	PH01B	2	2.0 ft	SP-sm	
DRY	112	0	NO	PH01C	3	3.0 ft	SP-sm	
DRY	388	0	NO	PH01D	4	4.0 ft	SP	(m.) brown poorly graded sand with silt, no plasticity, no odor
					5			
DRY	580	0	NO	PH01E	6	6.0 ft	SP	brown poorly graded sand (m.), no plasticity, no odor
					7			
DRY	820	0	NO	PH01F	8	8.0 ft	caliche	
					9			
DRY	692	0	NO	PH01G	10	10.0 ft	caliche	light tan, poorly cemented sandy (F-c.) matrix
					11			
DRY	432	0	NO	PH01H	12	12.0 ft	SP	brown poorly graded sand (m.), no plasticity, no odor

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: Background PH01 Date: 11/8/19					
		Project Name: Pickett Draw Federal #001		RP Number: 2RP-5537					
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: Anna Byers Method: Track Hoe					
Lat/Long: Refer to Collector		Field Screening: PID and HACH Choride Test Strips		Hole Diameter: N/A Total Depth: 20 feet					
Comments: Chloride tests were performed with an aliquot of a 1 part soil: 4 parts distilled water mixture									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks	
DRY	524	0	NO	PH01 I	13	14.0 ft	SP	brown poorly graded sand (c.f.) with gravel, no plasticity, no odor	
DRY	756	0	NO	PH01 J	16	16.0 ft	caliche	light tan, poorly-moderately cemented sandy (f.-m.) matrix	
DRY	1040	0	NO	PH01 K	18	18.0 ft	caliche	tan poorly-moderately cemented sandy (f.-m.) matrix	
DRY	1388	0	NO	PH01 L	20	20.0 ft	caliche	↓	
					TOTAL DEPTH				
					21				
					22				
					23				
					24				
					25				

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: Background PH02 Date: 11/8/19				
Project Name: Pickett Draw Federal #001		RP Number: 2RP-5537						
SOIL SAMPLING LOG				Logged By: Anna Byers Method: Track Hoe				
Lat/Long: Refer to Collector		Field Screening: PID and HACH Choride Test Strips		Hole Diameter: N/A Total Depth: 20 feet				
Comments: Chloride tests were performed with an aliquot of a 1 part soil: 4 parts distilled water mixture								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
DRY	ND	0	NO	PH02A	0	0.5 ft	SP-sm	brown poorly graded sand (m.) with gravel, no plasticity, no odor with trace organics ↓ brown poorly graded sand (m.), no plasticity, no odor with trace organics ↓ brown poorly graded sand (m.) with gravel (5mm-15mm), no plasticity, no odor ↓ brown, poorly graded sand (m.) with gravel (5mm-15mm), no plasticity, no odor ↓ lt. brown well graded sand (m-c.), no plasticity, no odor ↓ lt. brown well graded sand (m-c.) with gravel (10mm-20mm), no plasticity, no odor
DRY	ND	0	NO	PH02A	1	1.0 ft	SP-sm	
DRY	ND	0	NO	PH02B	2	2.0 ft	SP	
DRY	ND	0	NO	PH02C	3	3.0 ft	SP	
DRY	ND	0	NO	PH02D	4	4.0 ft	SP	
DRY	496	0	NO	PH02E	6	6.0 ft	SP	
DRY	ND	0	NO	PH02F	8	8.0 ft	SP	
DRY	600	0	NO	PH02G	10	10.0 ft	SW	
DRY	896	0	NO	PH02H	12	12.0 ft	SW	

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: Background PH02 Date: 11/8/19						
Project Name: Pickett Draw Federal #001		RP Number: 2RP-5537						
SOIL SAMPLING LOG		Logged By: Anna Byers Method: Track Hoe						
Lat/Long: Refer to Collector		Field Screening: PID and HACH Choride Test Strips						
Hole Diameter: N/A		Total Depth: 20 feet						
Comments: Chloride tests were performed with an aliquot of a 1 part soil: 4 parts distilled water mixture								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
DRY	896	0	NO	PH02I	13	14.0 ft	caliche	light tan, moderately cemented sandy (m.) matrix
DRY	896	0	NO	PH02J	15	16.0 ft	caliche	white, moderately cemented sandy (m.) matrix
DRY	712	0	NO	PH02K	17	18.0 ft	caliche	light tan, moderately cemented sandy (m.) matrix
DRY	896	0	NO	PH02L	19	20.0 ft	caliche	light tan, poorly cemented sandy (m.) matrix
TOTAL DEPTH								
					21			
					22			
					23			
					24			
					25			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: Background PH03	Date: 11/8/19					
		Project Name: Pickett Draw Federal #001	RP Number: 2RP-5537					
SOIL SAMPLING LOG		Logged By: Anna Byers	Method: Track Hoe					
Lat/Long: Refer to Collector		Field Screening: PID and HACH Choride Test Strips	Hole Diameter: N/A					
Total Depth: 20 feet								
Comments: Chloride tests were performed with an aliquot of a 1 part soil: 4 parts distilled water mixture								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
DRY	ND	0	NO	PH03A	0	0.5 ft	SP-SM	brown poorly graded sand (m.) with silt, no plasticity, no odor with trace organics
DRY	ND	0	NO	PH03B	1	1.0 ft	SP-SM	
DRY	ND	0	NO	PH03C	2	2.0 ft	SP-SM	
DRY	ND	0	NO	PH03D	3	3.0 ft	SP-SM	
DRY	600	0	NO	PH03E	4	4.0 ft	SP-SM	
DRY	1184	0	NO	PH03F	5	6.0 ft	SW	light brown well graded sand (f.-c.) with gravel (4.75-10mm), no plasticity, no odor with trace organics
DRY	1348	0	NO	PH03G	8	8.0 ft	caliche	light tan, moderately cemented sandy (m.) matrix
DRY	832	0	NO	PH03H	10	10.0 ft	caliche	light tan, well cemented sandy (m.) matrix
DRY	896	0	NO	PH03I	12	12.0 ft	caliche	

 LT Environmental, Inc. 		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: Background PH03 Date: 11/8/19				
		Project Name: Pickett Draw Federal #001		RP Number: 2RP-5537				
SOIL SAMPLING LOG				Logged By: Anna Byers Method: Track Hoe				
Lat/Long: Refer to Collector		Field Screening: PID and HACH Choride Test Strips		Hole Diameter: N/A Total Depth: 20 feet				
Comments: Chloride tests were performed with an aliquot of a 1 part soil: 4 parts distilled water mixture and back-calculated with a 4x dilution factor ND: Not detected on Hach Chloride Test Strips (Low Range)								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
DRY	896	0	NO	PH03I	13			
					14	14.0 ft	caliche	light tan, well cemented sandy (m.) matrix
					15			
DRY	544	0	NO	PH03J	16	16.0 ft	SW	light brown well graded sand (m.c.) no plasticity, no odor
					17			
DRY	652	0	NO	PH03K	18	18.0 ft	caliche	light tan, poorly cemented sandy (m.) matrix
					19			
DRY	712	0	NO	PH03L	20	20.0 ft	SP	light tan, poorly graded sand (m.), no plasticity, no odor TOTAL DEPTH
					21			
					22			
					23			
					24			
					25			

ATTACHMENT 3: PHOTOGRAPHIC LOG





View of track-mounted backhoe advancing pothole PH16 during background soil sampling activities.

Project: 012919150	XTO Energy, Inc. Pickett Draw Federal #001	 Advancing Opportunity
November 8, 2019	Photographic Log	



View of pothole PH20 completed at depth 20 feet bgs during background soil sampling activities.

Project: 012919150	XTO Energy, Inc. Pickett Draw Federal #001	 Advancing Opportunity
November 8, 2019	Photographic Log	

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS



Analytical Report 630592

**for
LT Environmental, Inc.**

Project Manager: Dan Moir

Pickett Draw Fed #001

16-JUL-19

Collected By: Client



**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)



16-JUL-19

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **630592**

Pickett Draw Fed #001

Project Address: Delaware Basin

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 630592. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 630592 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

**Sample Cross Reference 630592****LT Environmental, Inc., Arvada, CO**

Pickett Draw Fed #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	07-10-19 00:00	0.5 ft	630592-001
SS02	S	07-10-19 00:00	0.5 ft	630592-002
SS03	S	07-10-19 00:00	0.5 ft	630592-003
SS04	S	07-10-19 00:00	0.5 ft	630592-004

**CASE NARRATIVE****Client Name: LT Environmental, Inc.****Project Name: Pickett Draw Fed #001**

Project ID:

Work Order Number(s): 630592

Report Date: 16-JUL-19

Date Received: 07/11/2019

Sample receipt non conformances and comments:None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3095299 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected.

Samples affected are: 630592-001,630592-003,630592-002.

Batch: LBA-3095416 Chloride by EPA 300

Lab Sample ID 630592-002 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 630592-001, -002, -003, -004.

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

Batch: LBA-3095520 BTEX by EPA 8021B

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

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 630592-001,630592-003,630592-002.



Certificate of Analysis Summary 630592

LT Environmental, Inc., Arvada, CO

Project Name: Pickett Draw Fed #001

Project Id:

Contact: Dan Moir

Project Location: Delaware Basin

Date Received in Lab: Thu Jul-11-19 12:48 pm

Report Date: 16-JUL-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	630592-001	630592-002	630592-003	630592-004		
	<i>Field Id:</i>	SS01	SS02	SS03	SS04		
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Jul-10-19 00:00	Jul-10-19 00:00	Jul-10-19 00:00	Jul-10-19 00:00		
BTEX by EPA 8021B SUB: T104704400-18-16	<i>Extracted:</i>	Jul-13-19 15:20	Jul-13-19 15:20	Jul-13-19 15:20	Jul-13-19 15:20		
	<i>Analyzed:</i>	Jul-15-19 02:44	Jul-15-19 03:06	Jul-15-19 03:28	Jul-15-19 05:29		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.198 0.198	0.587 0.399	2.85 0.397	<0.00200 0.00200		
Toluene		1.50 0.198	18.8 0.399	50.2 0.397	<0.00200 0.00200		
Ethylbenzene		1.39 0.198	15.1 0.399	16.7 0.397	<0.00200 0.00200		
m,p-Xylenes		10.1 0.395	97.3 0.798	96.2 0.794	<0.00399 0.00399		
o-Xylene		3.67 0.198	33.3 0.399	41.0 0.397	<0.00200 0.00200		
Total Xylenes		13.8 0.198	131 0.399	137 0.397	<0.00200 0.00200		
Total BTEX		16.7 0.198	165 0.399	207 0.397	<0.00200 0.00200		
Chloride by EPA 300 SUB: T104704400-18-16	<i>Extracted:</i>	Jul-15-19 11:00	Jul-15-19 11:00	Jul-15-19 11:00	Jul-15-19 11:00		
	<i>Analyzed:</i>	Jul-15-19 14:07	Jul-15-19 15:54	Jul-15-19 16:44	Jul-15-19 16:52		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		452 4.98	135 5.00	843 5.00	2600 24.8		
TPH by SW8015 Mod SUB: T104704400-18-16	<i>Extracted:</i>	Jul-13-19 10:00	Jul-13-19 10:00	Jul-13-19 10:00	Jul-13-19 10:00		
	<i>Analyzed:</i>	Jul-14-19 05:29	Jul-14-19 05:53	Jul-14-19 06:16	Jul-14-19 06:40		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		1420 74.9	4120 74.8	5590 74.7	<15.0 15.0		
Diesel Range Organics (DRO)		12800 74.9	20000 74.8	14000 74.7	28.4 15.0		
Motor Oil Range Hydrocarbons (MRO)		640 74.9	823 74.8	654 74.7	<15.0 15.0		
Total TPH		14900 74.9	24900 74.8	20200 74.7	28.4 15.0		
Total GRO-DRO		14200 74.9	24100 74.8	19600 74.7	28.4 15.0		

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

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

Jessica Kramer
Project Assistant



Certificate of Analytical Results 630592

LT Environmental, Inc., Arvada, CO

Pickett Draw Fed #001

Sample Id: SS01	Matrix: Soil	Date Received: 07.11.19 12.48
Lab Sample Id: 630592-001	Date Collected: 07.10.19 00.00	Sample Depth: 0.5 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 07.15.19 11.00	Basis: Wet Weight
Seq Number: 3095416		SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	452	4.98	mg/kg	07.15.19 14.07		1

Analytical Method: TPH by SW8015 Mod	Prep Method: TX1005P
Tech: DVM	% Moisture:
Analyst: ARM	Basis: Wet Weight
Seq Number: 3095299	SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	1420	74.9	mg/kg	07.14.19 05.29		5
Diesel Range Organics (DRO)	C10C28DRO	12800	74.9	mg/kg	07.14.19 05.29		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	640	74.9	mg/kg	07.14.19 05.29		5
Total TPH	PHC635	14900	74.9	mg/kg	07.14.19 05.29		5
Total GRO-DRO	PHC628	14200	74.9	mg/kg	07.14.19 05.29		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	07.14.19 05.29	
o-Terphenyl	84-15-1	236	%	70-135	07.14.19 05.29	**



Certificate of Analytical Results 630592

LT Environmental, Inc., Arvada, CO

Pickett Draw Fed #001

Sample Id: SS01	Matrix: Soil	Date Received: 07.11.19 12.48
Lab Sample Id: 630592-001	Date Collected: 07.10.19 00.00	Sample Depth: 0.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: AMB		% Moisture:
Analyst: AMB	Date Prep: 07.13.19 15.20	Basis: Wet Weight
Seq Number: 3095520		SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.198	0.198	mg/kg	07.15.19 02.44	U	100
Toluene	108-88-3	1.50	0.198	mg/kg	07.15.19 02.44		100
Ethylbenzene	100-41-4	1.39	0.198	mg/kg	07.15.19 02.44		100
m,p-Xylenes	179601-23-1	10.1	0.395	mg/kg	07.15.19 02.44		100
o-Xylene	95-47-6	3.67	0.198	mg/kg	07.15.19 02.44		100
Total Xylenes	1330-20-7	13.8	0.198	mg/kg	07.15.19 02.44		100
Total BTEX		16.7	0.198	mg/kg	07.15.19 02.44		100
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	149		%	70-130	07.15.19 02.44	**
1,4-Difluorobenzene	540-36-3	95		%	70-130	07.15.19 02.44	



Certificate of Analytical Results 630592

LT Environmental, Inc., Arvada, CO

Pickett Draw Fed #001

Sample Id: **SS02** Matrix: Soil Date Received: 07.11.19 12.48
 Lab Sample Id: 630592-002 Date Collected: 07.10.19 00.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 07.15.19 11.00 Basis: Wet Weight
 Seq Number: 3095416 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	135	5.00	mg/kg	07.15.19 15.54		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 07.13.19 10.00 Basis: Wet Weight
 Seq Number: 3095299 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	4120	74.8	mg/kg	07.14.19 05.53		5
Diesel Range Organics (DRO)	C10C28DRO	20000	74.8	mg/kg	07.14.19 05.53		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	823	74.8	mg/kg	07.14.19 05.53		5
Total TPH	PHC635	24900	74.8	mg/kg	07.14.19 05.53		5
Total GRO-DRO	PHC628	24100	74.8	mg/kg	07.14.19 05.53		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	07.14.19 05.53	
o-Terphenyl	84-15-1	281	%	70-135	07.14.19 05.53	**



Certificate of Analytical Results 630592

LT Environmental, Inc., Arvada, CO

Pickett Draw Fed #001

Sample Id: SS02	Matrix: Soil	Date Received: 07.11.19 12.48
Lab Sample Id: 630592-002	Date Collected: 07.10.19 00.00	Sample Depth: 0.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: AMB		% Moisture:
Analyst: AMB	Date Prep: 07.13.19 15.20	Basis: Wet Weight
Seq Number: 3095520		SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.587	0.399	mg/kg	07.15.19 03.06		200
Toluene	108-88-3	18.8	0.399	mg/kg	07.15.19 03.06		200
Ethylbenzene	100-41-4	15.1	0.399	mg/kg	07.15.19 03.06		200
m,p-Xylenes	179601-23-1	97.3	0.798	mg/kg	07.15.19 03.06		200
o-Xylene	95-47-6	33.3	0.399	mg/kg	07.15.19 03.06		200
Total Xylenes	1330-20-7	131	0.399	mg/kg	07.15.19 03.06		200
Total BTEX		165	0.399	mg/kg	07.15.19 03.06		200
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	07.15.19 03.06		
4-Bromofluorobenzene	460-00-4	197	%	70-130	07.15.19 03.06	**	



Certificate of Analytical Results 630592

LT Environmental, Inc., Arvada, CO

Pickett Draw Fed #001

Sample Id: **SS03** Matrix: Soil Date Received: 07.11.19 12.48
 Lab Sample Id: 630592-003 Date Collected: 07.10.19 00.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 07.15.19 11.00 Basis: Wet Weight
 Seq Number: 3095416 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	843	5.00	mg/kg	07.15.19 16.44		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 07.13.19 10.00 Basis: Wet Weight
 Seq Number: 3095299 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	5590	74.7	mg/kg	07.14.19 06.16		5
Diesel Range Organics (DRO)	C10C28DRO	14000	74.7	mg/kg	07.14.19 06.16		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	654	74.7	mg/kg	07.14.19 06.16		5
Total TPH	PHC635	20200	74.7	mg/kg	07.14.19 06.16		5
Total GRO-DRO	PHC628	19600	74.7	mg/kg	07.14.19 06.16		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	07.14.19 06.16	
o-Terphenyl	84-15-1	233	%	70-135	07.14.19 06.16	**



Certificate of Analytical Results 630592

LT Environmental, Inc., Arvada, CO

Pickett Draw Fed #001

Sample Id: SS03	Matrix: Soil	Date Received: 07.11.19 12.48
Lab Sample Id: 630592-003	Date Collected: 07.10.19 00.00	Sample Depth: 0.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: AMB		% Moisture:
Analyst: AMB	Date Prep: 07.13.19 15.20	Basis: Wet Weight
Seq Number: 3095520		SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	2.85	0.397	mg/kg	07.15.19 03.28		200
Toluene	108-88-3	50.2	0.397	mg/kg	07.15.19 03.28		200
Ethylbenzene	100-41-4	16.7	0.397	mg/kg	07.15.19 03.28		200
m,p-Xylenes	179601-23-1	96.2	0.794	mg/kg	07.15.19 03.28		200
o-Xylene	95-47-6	41.0	0.397	mg/kg	07.15.19 03.28		200
Total Xylenes	1330-20-7	137	0.397	mg/kg	07.15.19 03.28		200
Total BTEX		207	0.397	mg/kg	07.15.19 03.28		200
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	70-130	07.15.19 03.28		
4-Bromofluorobenzene	460-00-4	212	%	70-130	07.15.19 03.28	**	



Certificate of Analytical Results 630592

LT Environmental, Inc., Arvada, CO

Pickett Draw Fed #001

Sample Id: SS04	Matrix: Soil	Date Received: 07.11.19 12.48
Lab Sample Id: 630592-004	Date Collected: 07.10.19 00.00	Sample Depth: 0.5 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 07.15.19 11.00	Basis: Wet Weight
Seq Number: 3095416		SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2600	24.8	mg/kg	07.15.19 16.52		5

Analytical Method: TPH by SW8015 Mod	Prep Method: TX1005P
Tech: DVM	% Moisture:
Analyst: ARM	Basis: Wet Weight
Seq Number: 3095299	SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.14.19 06.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	28.4	15.0	mg/kg	07.14.19 06.40		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.14.19 06.40	U	1
Total TPH	PHC635	28.4	15.0	mg/kg	07.14.19 06.40		1
Total GRO-DRO	PHC628	28.4	15.0	mg/kg	07.14.19 06.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	07.14.19 06.40	
o-Terphenyl	84-15-1	100	%	70-135	07.14.19 06.40	



Certificate of Analytical Results 630592

LT Environmental, Inc., Arvada, CO

Pickett Draw Fed #001

Sample Id: SS04	Matrix: Soil	Date Received: 07.11.19 12.48
Lab Sample Id: 630592-004	Date Collected: 07.10.19 00.00	Sample Depth: 0.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: AMB		% Moisture:
Analyst: AMB	Date Prep: 07.13.19 15.20	Basis: Wet Weight
Seq Number: 3095520		SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.15.19 05.29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.15.19 05.29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.15.19 05.29	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.15.19 05.29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.15.19 05.29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.15.19 05.29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.15.19 05.29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	07.15.19 05.29		
1,4-Difluorobenzene	540-36-3	91	%	70-130	07.15.19 05.29		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

PQL Practical Quantitation Limit **SQL** 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 630592

LT Environmental, Inc.

Pickett Draw Fed #001

Analytical Method: Chloride by EPA 300

Seq Number: 3095416

MB Sample Id: 7682025-1-BLK

Matrix: Solid

LCS Sample Id: 7682025-1-BKS

Prep Method: E300P

Date Prep: 07.15.19

LCSD Sample Id: 7682025-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	240	96	240	96	90-110	0	20	mg/kg	07.15.19 13:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3095416

Parent Sample Id: 630592-001

Matrix: Soil

MS Sample Id: 630592-001 S

Prep Method: E300P

Date Prep: 07.15.19

MSD Sample Id: 630592-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	452	249	671	88	672	88	90-110	0	20	mg/kg	07.15.19 14:19	X

Analytical Method: Chloride by EPA 300

Seq Number: 3095416

Parent Sample Id: 630592-002

Matrix: Soil

MS Sample Id: 630592-002 S

Prep Method: E300P

Date Prep: 07.15.19

MSD Sample Id: 630592-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	135	250	367	93	367	93	90-110	0	20	mg/kg	07.15.19 16:01	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3095299

MB Sample Id: 7681985-1-BLK

Matrix: Solid

LCS Sample Id: 7681985-1-BKS

Prep Method: TX1005P

Date Prep: 07.13.19

LCSD Sample Id: 7681985-1-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)	<8.00	1000	1160	116	1150	115	70-135	1	20	mg/kg	07.13.19 21:28	
Diesel Range Organics (DRO)	<8.13	1000	1120	112	1180	118	70-135	5	20	mg/kg	07.13.19 21:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		97		94		70-135	%	07.13.19 21:28
o-Terphenyl	108		104		111		70-135	%	07.13.19 21:28

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

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

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

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



QC Summary 630592

LT Environmental, Inc.

Pickett Draw Fed #001

Analytical Method: TPH by SW8015 Mod

Seq Number: 3095299

Parent Sample Id: 630566-032

Matrix: Soil

MS Sample Id: 630566-032 S

Prep Method: TX1005P

Date Prep: 07.13.19

MSD Sample Id: 630566-032 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)	9.89	997	1040	103	1070	106	70-135	3	20	mg/kg	07.13.19 22:41	
Diesel Range Organics (DRO)	<8.10	997	1080	108	1070	107	70-135	1	20	mg/kg	07.13.19 22:41	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		97		70-135	%	07.13.19 22:41
o-Terphenyl	110		107		70-135	%	07.13.19 22:41

Analytical Method: BTEX by EPA 8021B

Seq Number: 3095520

MB Sample Id: 7681948-1-BLK

Matrix: Solid

LCS Sample Id: 7681948-1-BKS

Prep Method: SW5030B

Date Prep: 07.13.19

LCSD Sample Id: 7681948-1-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	0.0743	74	0.0815	82	70-130	9	35	mg/kg	07.15.19 09:54	
Toluene	<0.00200	0.100	0.0861	86	0.0948	95	70-130	10	35	mg/kg	07.15.19 09:54	
Ethylbenzene	<0.00200	0.100	0.0853	85	0.0959	96	70-130	12	35	mg/kg	07.15.19 09:54	
m,p-Xylenes	<0.00400	0.200	0.174	87	0.195	98	70-130	11	35	mg/kg	07.15.19 09:54	
o-Xylene	<0.00200	0.100	0.0827	83	0.0923	92	70-130	11	35	mg/kg	07.15.19 09:54	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	92		90		94		70-130	%	07.15.19 09:54
4-Bromofluorobenzene	101		97		103		70-130	%	07.15.19 09:54

Analytical Method: BTEX by EPA 8021B

Seq Number: 3095520

Parent Sample Id: 630566-039

Matrix: Soil

MS Sample Id: 630566-039 S

Prep Method: SW5030B

Date Prep: 07.13.19

MSD Sample Id: 630566-039 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0901	90	0.0759	76	70-130	17	35	mg/kg	07.16.19 11:43	
Toluene	<0.00199	0.0996	0.0861	86	0.0881	88	70-130	2	35	mg/kg	07.16.19 11:43	
Ethylbenzene	<0.00199	0.0996	0.0933	94	0.0821	82	70-130	13	35	mg/kg	07.16.19 11:43	
m,p-Xylenes	<0.00398	0.199	0.189	95	0.165	83	70-130	14	35	mg/kg	07.16.19 11:43	
o-Xylene	0.0716	0.0996	0.0887	17	0.0797	8	70-130	11	35	mg/kg	07.16.19 11:43	X

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		70-130	%	07.16.19 11:43
4-Bromofluorobenzene	114		125		70-130	%	07.16.19 11:43

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

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

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

Phone Order No: 41305992

known to play a key role in the development of the brain, and is also involved in the regulation of the immune system. It is therefore a key player in the development of the immune system, and is also involved in the regulation of the immune system.

Project Manager John Miller				Bill No. / Address 101 N. 1st Street				City / State / Zip 101 N. 1st Street			
Company Name 1.1 Environmental, Inc. (Project Office)				Company Name 101 N. 1st Street				City / State / Zip 101 N. 1st Street			
Address 101 N. 1st Street				City / State / Zip 101 N. 1st Street				City / State / Zip 101 N. 1st Street			
City / State / Zip 101 N. 1st Street				City / State / Zip 101 N. 1st Street				City / State / Zip 101 N. 1st Street			
Phone 402-204-5118				Phone 402-204-5118				Phone 402-204-5118			

		AVAL VHS REQUEST	Invt Order Notes
Copier Name:	Fidelity Public Conf Room		
Digipos Number:			
PID Member:			
Sampler's Name:	Brent Jirchoe		
Date Date:			

[illegible]

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	Time at Site	Area of Sample	Comments
5-402	5	8/1/2018		0.5'	1	1	1	
5-403					1	1	1	
5-404					1	1	1	

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[illegible][illegible][illegible]



Inter-Office Shipment

Page 1 of 1

IOS Number **43261**

Date/Time: 07/11/19 14:38

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 775692882670

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
630592-001	S	SS01	07/10/19 00:00	E300_CL	Chloride by EPA 300	07/15/19	01/06/20	JKR	CL	
630592-001	S	SS01	07/10/19 00:00	SW8015MOD_NM	TPH by SW8015 Mod	07/15/19	07/24/19	JKR	GRO-DRO PHCC10C28 PI	
630592-001	S	SS01	07/10/19 00:00	SW8021B	BTEX by EPA 8021B	07/15/19	07/24/19	JKR	BR4FBZ BZ BZME EBZ X	
630592-002	S	SS02	07/10/19 00:00	SW8021B	BTEX by EPA 8021B	07/15/19	07/24/19	JKR	BR4FBZ BZ BZME EBZ X	
630592-002	S	SS02	07/10/19 00:00	SW8015MOD_NM	TPH by SW8015 Mod	07/15/19	07/24/19	JKR	GRO-DRO PHCC10C28 PI	
630592-002	S	SS02	07/10/19 00:00	E300_CL	Chloride by EPA 300	07/15/19	01/06/20	JKR	CL	
630592-003	S	SS03	07/10/19 00:00	SW8021B	BTEX by EPA 8021B	07/15/19	07/24/19	JKR	BR4FBZ BZ BZME EBZ X	
630592-003	S	SS03	07/10/19 00:00	SW8015MOD_NM	TPH by SW8015 Mod	07/15/19	07/24/19	JKR	GRO-DRO PHCC10C28 PI	
630592-003	S	SS03	07/10/19 00:00	E300_CL	Chloride by EPA 300	07/15/19	01/06/20	JKR	CL	
630592-004	S	SS04	07/10/19 00:00	SW8021B	BTEX by EPA 8021B	07/15/19	07/24/19	JKR	BR4FBZ BZ BZME EBZ X	
630592-004	S	SS04	07/10/19 00:00	E300_CL	Chloride by EPA 300	07/15/19	01/06/20	JKR	CL	
630592-004	S	SS04	07/10/19 00:00	SW8015MOD_NM	TPH by SW8015 Mod	07/15/19	07/24/19	JKR	GRO-DRO PHCC10C28 PI	

Inter Office Shipment or Sample Comments:

Relinquished By:

Elizabeth McClellan

Date Relinquished: 07/11/2019

Received By:

Brianna Teel

Date Received: 07/12/2019 11:42

Cooler Temperature: 0.4



XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 43261

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sent By: Elizabeth McClellan

Date Sent: 07/11/2019 02:38 PM

Received By: Brianna Teel

Date Received: 07/12/2019 11:42 AM

Sample Receipt Checklist

Comments

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

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Brianna Teel

Date: 07/12/2019



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: LT Environmental, Inc.

Date/ Time Received: 07/11/2019 12:48:00 PM

Work Order #: 630592

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)?	2.8	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	No	
#5 Custody Seals intact on sample bottles?	No	
#6* Custody Seals Signed and dated?	N/A	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	Yes	Subbed to Xenco Midland.
#18 Water VOC samples have zero headspace?	N/A	

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 07/11/2019

Checklist reviewed by:

Jessica Kramer

Date: 07/12/2019

Analytical Report 633270

**for
LT Environmental, Inc.**

Project Manager: Dan Moir

Pickett Draw Federal #001

012919150

14-AUG-19

Collected By: Client



**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)



14-AUG-19

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **633270**

Pickett Draw Federal #001

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 633270. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 633270 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

**Sample Cross Reference 633270****LT Environmental, Inc., Arvada, CO**

Pickett Draw Federal #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	08-02-19 10:50	2 ft	633270-001
PH02	S	08-02-19 11:10	2 ft	633270-002
PH02A	S	08-02-19 11:25	6 ft	633270-003
PH03	S	08-02-19 11:40	2 ft	633270-004
PH04	S	08-02-19 13:20	2 ft	633270-005
PH05	S	08-05-19 10:15	2 ft	633270-006
PH06	S	08-05-19 10:40	2 ft	633270-007
PH07	S	08-05-19 12:55	2 ft	633270-008
PH07A	S	08-05-19 13:00	4 ft	633270-009
PH08	S	08-05-19 13:50	2 ft	633270-010
PH08A	S	08-05-19 14:00	4 ft	633270-011
PH09	S	08-05-19 14:10	2 ft	633270-012
PH09A	S	08-05-19 14:20	4 ft	633270-013



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Pickett Draw Federal #001

Project ID: 012919150

Work Order Number(s): 633270

Report Date: 14-AUG-19

Date Received: 08/06/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3098324 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 633270-005,633270-006.

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



Certificate of Analysis Summary 633270

LT Environmental, Inc., Arvada, CO

Project Name: Pickett Draw Federal #001

Project Id: 012919150
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Aug-06-19 04:24 pm

Report Date: 14-AUG-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	633270-001	633270-002	633270-003	633270-004	633270-005	633270-006
	<i>Field Id:</i>	PH01	PH02	PH02A	PH03	PH04	PH05
	<i>Depth:</i>	2- ft	2- ft	6- ft	2- ft	2- ft	2- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Aug-02-19 10:50	Aug-02-19 11:10	Aug-02-19 11:25	Aug-02-19 11:40	Aug-02-19 13:20	Aug-05-19 10:15
BTEX by EPA 8021B SUB: T104704400-18-16	<i>Extracted:</i>	Aug-09-19 11:30	Aug-09-19 11:30	Aug-09-19 11:30	Aug-09-19 11:30	Aug-09-19 11:30	Aug-09-19 11:30
	<i>Analyzed:</i>	Aug-11-19 16:38	Aug-11-19 16:58	Aug-11-19 17:18	Aug-11-19 17:39	Aug-11-19 17:59	Aug-11-19 18:19
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	0.00626 0.00199	0.0863 0.00198
Toluene		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	0.228 0.00199	7.10 D 0.0495
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	0.280 0.00199	5.01 D 0.0495
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398	<0.00402 0.00402	<0.00400 0.00400	2.16 D 0.0398	7.59 0.00396
o-Xylene		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	1.89 D 0.0199	7.84 D 0.0495
Total Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	4.05 0.0199	15.4 0.00396
Total BTEX		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	4.56 0.00199	27.6 0.00198
Chloride by EPA 300 SUB: T104704400-18-16	<i>Extracted:</i>	Aug-08-19 14:40	Aug-08-19 15:00	Aug-08-19 15:00	Aug-08-19 15:00	Aug-08-19 15:00	Aug-08-19 15:00
	<i>Analyzed:</i>	Aug-09-19 11:15	Aug-08-19 17:46	Aug-08-19 18:05	Aug-08-19 18:12	Aug-08-19 18:18	Aug-08-19 18:24
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		875 5.02	140 5.04	15.0 4.96	1550 24.9	511 4.95	123 5.02
TPH by SW8015 Mod SUB: T104704400-18-16	<i>Extracted:</i>	Aug-08-19 14:00	Aug-08-19 14:00	Aug-08-19 14:00	Aug-08-19 14:00	Aug-08-19 14:00	Aug-08-19 14:00
	<i>Analyzed:</i>	Aug-12-19 18:35	Aug-12-19 18:54	Aug-12-19 19:13	Aug-12-19 19:51	Aug-12-19 20:09	Aug-12-19 20:28
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	526 15.0	2150 15.0
Diesel Range Organics (DRO)		<15.0 15.0	27.6 15.0	<15.0 15.0	144 15.0	2630 15.0	4720 15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	19.3 15.0	283 15.0	338 15.0
Total TPH		<15.0 15.0	27.6 15.0	<15.0 15.0	163 15.0	3440 15.0	7210 15.0
Total GRO-DRO		<15.0 15.0	27.6 15.0	<15.0 15.0	144 15.0	3160 15.0	6870 15.0

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

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

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 633270

LT Environmental, Inc., Arvada, CO

Project Name: Pickett Draw Federal #001

Project Id: 012919150
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Aug-06-19 04:24 pm

Report Date: 14-AUG-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	633270-007	633270-008	633270-009	633270-010	633270-011	633270-012
	<i>Field Id:</i>	PH06	PH07	PH07A	PH08	PH08A	PH09
	<i>Depth:</i>	2- ft	2- ft	4- ft	2- ft	4- ft	2- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Aug-05-19 10:40	Aug-05-19 12:55	Aug-05-19 13:00	Aug-05-19 13:50	Aug-05-19 14:00	Aug-05-19 14:10
BTEX by EPA 8021B SUB: T104704400-18-16	<i>Extracted:</i>	Aug-09-19 11:30	Aug-09-19 11:30	Aug-09-19 11:30	Aug-09-19 11:30	Aug-09-19 11:30	Aug-09-19 11:30
	<i>Analyzed:</i>	Aug-11-19 18:39	Aug-11-19 18:59	Aug-11-19 19:19	Aug-11-19 19:39	Aug-11-19 20:39	Aug-11-19 20:59
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Toluene		0.00372 0.00199	0.00315 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		0.00447 0.00199	0.00266 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		0.00888 0.00398	0.00773 0.00399	<0.00400 0.00400	<0.00398 0.00398	<0.00400 0.00400	<0.00399 0.00399
o-Xylene		0.00655 0.00199	0.00465 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		0.0154 0.00199	0.0124 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		0.0236 0.00199	0.0182 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300 SUB: T104704400-18-16	<i>Extracted:</i>	Aug-08-19 15:00	Aug-08-19 15:00	Aug-08-19 15:00	Aug-08-19 15:00	Aug-08-19 15:00	Aug-08-19 15:00
	<i>Analyzed:</i>	Aug-08-19 18:43	Aug-08-19 18:50	Aug-08-19 18:56	Aug-08-19 19:02	Aug-08-19 19:09	Aug-08-19 19:15
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		420 5.00	842 4.96	508 5.05	24.4 5.05	56.7 5.05	145 4.98
TPH by SW8015 Mod SUB: T104704400-18-16	<i>Extracted:</i>	Aug-08-19 14:00	Aug-08-19 14:00	Aug-08-19 14:00	Aug-08-19 14:00	Aug-08-19 14:00	Aug-08-19 14:00
	<i>Analyzed:</i>	Aug-12-19 20:47	Aug-12-19 21:06	Aug-12-19 21:25	Aug-12-19 21:44	Aug-12-19 22:02	Aug-12-19 22:21
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	323 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0 15.0	53.6 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	377 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0
Total GRO-DRO		<15.0 15.0	323 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0

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

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

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 633270

LT Environmental, Inc., Arvada, CO

Project Name: Pickett Draw Federal #001

Project Id: 012919150
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Aug-06-19 04:24 pm
Report Date: 14-AUG-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 633270-013 Field Id: PH09A Depth: 4- ft Matrix: SOIL Sampled: Aug-05-19 14:20					
BTEX by EPA 8021B SUB: T104704400-18-16	Extracted: Aug-09-19 11:30 Analyzed: Aug-11-19 21:19 Units/RL: mg/kg RL					
Benzene	<0.00198 0.00198					
Toluene	<0.00198 0.00198					
Ethylbenzene	<0.00198 0.00198					
m,p-Xylenes	<0.00397 0.00397					
o-Xylene	<0.00198 0.00198					
Total Xylenes	<0.00198 0.00198					
Total BTEX	<0.00198 0.00198					
Chloride by EPA 300 SUB: T104704400-18-16	Extracted: Aug-08-19 15:00 Analyzed: Aug-08-19 19:34 Units/RL: mg/kg RL					
Chloride	311 5.00					
TPH by SW8015 Mod SUB: T104704400-18-16	Extracted: Aug-08-19 14:00 Analyzed: Aug-12-19 22:40 Units/RL: mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<15.0 15.0					
Diesel Range Organics (DRO)	<15.0 15.0					
Motor Oil Range Hydrocarbons (MRO)	<15.0 15.0					
Total TPH	<15.0 15.0					
Total GRO-DRO	<15.0 15.0					

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

Jessica Kramer
Project Assistant



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH01** Matrix: Soil Date Received: 08.06.19 16.24
 Lab Sample Id: 633270-001 Date Collected: 08.02.19 10.50 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.08.19 14.40 Basis: Wet Weight
 Seq Number: 3098080 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	875	5.02	mg/kg	08.09.19 11.15		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.08.19 14.00 Basis: Wet Weight
 Seq Number: 3098275 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.19 18.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.19 18.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 18.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.19 18.35	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.12.19 18.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	08.12.19 18.35	
o-Terphenyl	84-15-1	94	%	70-135	08.12.19 18.35	



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: PH01	Matrix: Soil	Date Received: 08.06.19 16.24
Lab Sample Id: 633270-001	Date Collected: 08.02.19 10.50	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: KTL		% Moisture:
Analyst: ALG	Date Prep: 08.09.19 11.30	Basis: Wet Weight
Seq Number: 3098324		SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.11.19 16.38	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.11.19 16.38	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.11.19 16.38	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.11.19 16.38	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.11.19 16.38	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.11.19 16.38	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.11.19 16.38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	08.11.19 16.38		
4-Bromofluorobenzene	460-00-4	107	%	70-130	08.11.19 16.38		



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: PH02	Matrix: Soil	Date Received: 08.06.19 16.24
Lab Sample Id: 633270-002	Date Collected: 08.02.19 11.10	Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 08.08.19 15.00	Basis: Wet Weight
Seq Number: 3097992		SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	140	5.04	mg/kg	08.08.19 17.46		1

Analytical Method: TPH by SW8015 Mod	Prep Method: TX1005P
Tech: DVM	% Moisture:
Analyst: ARM	Basis: Wet Weight
Seq Number: 3098275	SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.19 18.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	27.6	15.0	mg/kg	08.12.19 18.54		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 18.54	U	1
Total TPH	PHC635	27.6	15.0	mg/kg	08.12.19 18.54		1
Total GRO-DRO	PHC628	27.6	15.0	mg/kg	08.12.19 18.54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	08.12.19 18.54	
o-Terphenyl	84-15-1	98	%	70-135	08.12.19 18.54	



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH02**

Matrix: Soil

Date Received: 08.06.19 16.24

Lab Sample Id: 633270-002

Date Collected: 08.02.19 11.10

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: ALG

Date Prep: 08.09.19 11.30

Basis: Wet Weight

Seq Number: 3098324

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.11.19 16.58	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.11.19 16.58	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.11.19 16.58	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.11.19 16.58	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.11.19 16.58	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.11.19 16.58	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.11.19 16.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	114	%	70-130	08.11.19 16.58		
1,4-Difluorobenzene	540-36-3	102	%	70-130	08.11.19 16.58		



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH02A**
Lab Sample Id: 633270-003

Matrix: Soil
Date Collected: 08.02.19 11.25

Date Received: 08.06.19 16.24
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3097992

Date Prep: 08.08.19 15.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15.0	4.96	mg/kg	08.08.19 18.05		1

Analytical Method: TPH by SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3098275

Date Prep: 08.08.19 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.19 19.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.19 19.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 19.13	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.19 19.13	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.12.19 19.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.12.19 19.13	
o-Terphenyl	84-15-1	92	%	70-135	08.12.19 19.13	



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH02A**

Matrix: Soil

Date Received: 08.06.19 16.24

Lab Sample Id: 633270-003

Date Collected: 08.02.19 11.25

Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: ALG

Date Prep: 08.09.19 11.30

Basis: Wet Weight

Seq Number: 3098324

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.11.19 17.18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.11.19 17.18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.11.19 17.18	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.11.19 17.18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.11.19 17.18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.11.19 17.18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.11.19 17.18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.11.19 17.18		
1,4-Difluorobenzene	540-36-3	106	%	70-130	08.11.19 17.18		



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH03** Matrix: Soil Date Received: 08.06.19 16.24
 Lab Sample Id: 633270-004 Date Collected: 08.02.19 11.40 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.08.19 15.00 Basis: Wet Weight
 Seq Number: 3097992 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1550	24.9	mg/kg	08.08.19 18.12		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.08.19 14.00 Basis: Wet Weight
 Seq Number: 3098275 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.19 19.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	144	15.0	mg/kg	08.12.19 19.51		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	19.3	15.0	mg/kg	08.12.19 19.51		1
Total TPH	PHC635	163	15.0	mg/kg	08.12.19 19.51		1
Total GRO-DRO	PHC628	144	15.0	mg/kg	08.12.19 19.51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	08.12.19 19.51	
o-Terphenyl	84-15-1	96	%	70-135	08.12.19 19.51	



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH03**

Matrix: Soil

Date Received: 08.06.19 16.24

Lab Sample Id: 633270-004

Date Collected: 08.02.19 11.40

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: ALG

Date Prep: 08.09.19 11.30

Basis: Wet Weight

Seq Number: 3098324

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.11.19 17.39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.11.19 17.39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.11.19 17.39	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.11.19 17.39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.11.19 17.39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.11.19 17.39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.11.19 17.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	70-130	08.11.19 17.39		
1,4-Difluorobenzene	540-36-3	108	%	70-130	08.11.19 17.39		



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH04** Matrix: Soil Date Received: 08.06.19 16.24
 Lab Sample Id: 633270-005 Date Collected: 08.02.19 13.20 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.08.19 15.00 Basis: Wet Weight
 Seq Number: 3097992 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	511	4.95	mg/kg	08.08.19 18.18		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.08.19 14.00 Basis: Wet Weight
 Seq Number: 3098275 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	526	15.0	mg/kg	08.12.19 20.09		1
Diesel Range Organics (DRO)	C10C28DRO	2630	15.0	mg/kg	08.12.19 20.09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	283	15.0	mg/kg	08.12.19 20.09		1
Total TPH	PHC635	3440	15.0	mg/kg	08.12.19 20.09		1
Total GRO-DRO	PHC628	3160	15.0	mg/kg	08.12.19 20.09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	08.12.19 20.09	
o-Terphenyl	84-15-1	88	%	70-135	08.12.19 20.09	



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH04**

Matrix: Soil

Date Received: 08.06.19 16.24

Lab Sample Id: 633270-005

Date Collected: 08.02.19 13.20

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: ALG

Date Prep: 08.09.19 11.30

Basis: Wet Weight

Seq Number: 3098324

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00626	0.00199	mg/kg	08.11.19 17.59		1
Toluene	108-88-3	0.228	0.00199	mg/kg	08.11.19 17.59		1
Ethylbenzene	100-41-4	0.280	0.00199	mg/kg	08.11.19 17.59		1
m,p-Xylenes	179601-23-1	2.16	0.0398	mg/kg	08.13.19 20.14	D	10
o-Xylene	95-47-6	1.89	0.0199	mg/kg	08.13.19 20.14	D	10
Total Xylenes	1330-20-7	4.05	0.0199	mg/kg	08.13.19 20.14		10
Total BTEX		4.56	0.00199	mg/kg	08.13.19 20.14		10
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	188	%	70-130	08.11.19 17.59	**	
1,4-Difluorobenzene	540-36-3	121	%	70-130	08.11.19 17.59		



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: PH05	Matrix: Soil	Date Received: 08.06.19 16.24
Lab Sample Id: 633270-006	Date Collected: 08.05.19 10.15	Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 08.08.19 15.00	Basis: Wet Weight
Seq Number: 3097992		SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	123	5.02	mg/kg	08.08.19 18.24		1

Analytical Method: TPH by SW8015 Mod		Prep Method: TX1005P
Tech: DVM		% Moisture:
Analyst: ARM	Date Prep: 08.08.19 14.00	Basis: Wet Weight
Seq Number: 3098275		SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	2150	15.0	mg/kg	08.12.19 20.28		1
Diesel Range Organics (DRO)	C10C28DRO	4720	15.0	mg/kg	08.12.19 20.28		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	338	15.0	mg/kg	08.12.19 20.28		1
Total TPH	PHC635	7210	15.0	mg/kg	08.12.19 20.28		1
Total GRO-DRO	PHC628	6870	15.0	mg/kg	08.12.19 20.28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	08.12.19 20.28	
o-Terphenyl	84-15-1	112	%	70-135	08.12.19 20.28	



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: PH05	Matrix: Soil	Date Received: 08.06.19 16.24
Lab Sample Id: 633270-006	Date Collected: 08.05.19 10.15	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: KTL		% Moisture:
Analyst: ALG	Date Prep: 08.09.19 11.30	Basis: Wet Weight
Seq Number: 3098324		SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0863	0.00198	mg/kg	08.11.19 18.19		1
Toluene	108-88-3	7.10	0.0495	mg/kg	08.13.19 20.35	D	25
Ethylbenzene	100-41-4	5.01	0.0495	mg/kg	08.13.19 20.35	D	25
m,p-Xylenes	179601-23-1	7.59	0.00396	mg/kg	08.11.19 18.19		1
o-Xylene	95-47-6	7.84	0.0495	mg/kg	08.13.19 20.35	D	25
Total Xylenes	1330-20-7	15.4	0.00396	mg/kg	08.13.19 20.35		25
Total BTEX		27.6	0.00198	mg/kg	08.13.19 20.35		25
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	1400	%	70-130	08.11.19 18.19	**	
1,4-Difluorobenzene	540-36-3	83	%	70-130	08.11.19 18.19		



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: PH06	Matrix: Soil	Date Received: 08.06.19 16.24
Lab Sample Id: 633270-007	Date Collected: 08.05.19 10.40	Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 08.08.19 15.00	Basis: Wet Weight
Seq Number: 3097992		SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	420	5.00	mg/kg	08.08.19 18.43		1

Analytical Method: TPH by SW8015 Mod	Prep Method: TX1005P
Tech: DVM	% Moisture:
Analyst: ARM	Basis: Wet Weight
Seq Number: 3098275	SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.19 20.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.19 20.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 20.47	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.19 20.47	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.12.19 20.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	08.12.19 20.47	
o-Terphenyl	84-15-1	95	%	70-135	08.12.19 20.47	



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH06**

Matrix: Soil

Date Received: 08.06.19 16.24

Lab Sample Id: 633270-007

Date Collected: 08.05.19 10.40

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: ALG

Date Prep: 08.09.19 11.30

Basis: Wet Weight

Seq Number: 3098324

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.11.19 18.39	U	1
Toluene	108-88-3	0.00372	0.00199	mg/kg	08.11.19 18.39		1
Ethylbenzene	100-41-4	0.00447	0.00199	mg/kg	08.11.19 18.39		1
m,p-Xylenes	179601-23-1	0.00888	0.00398	mg/kg	08.11.19 18.39		1
o-Xylene	95-47-6	0.00655	0.00199	mg/kg	08.11.19 18.39		1
Total Xylenes	1330-20-7	0.0154	0.00199	mg/kg	08.11.19 18.39		1
Total BTEX		0.0236	0.00199	mg/kg	08.11.19 18.39		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	08.11.19 18.39		
4-Bromofluorobenzene	460-00-4	108	%	70-130	08.11.19 18.39		



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH07** Matrix: Soil Date Received: 08.06.19 16.24
 Lab Sample Id: 633270-008 Date Collected: 08.05.19 12.55 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.08.19 15.00 Basis: Wet Weight
 Seq Number: 3097992 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	842	4.96	mg/kg	08.08.19 18.50		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.08.19 14.00 Basis: Wet Weight
 Seq Number: 3098275 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.19 21.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	323	15.0	mg/kg	08.12.19 21.06		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	53.6	15.0	mg/kg	08.12.19 21.06		1
Total TPH	PHC635	377	15.0	mg/kg	08.12.19 21.06		1
Total GRO-DRO	PHC628	323	15.0	mg/kg	08.12.19 21.06		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	08.12.19 21.06	
o-Terphenyl	84-15-1	95	%	70-135	08.12.19 21.06	



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: PH07	Matrix: Soil	Date Received: 08.06.19 16.24
Lab Sample Id: 633270-008	Date Collected: 08.05.19 12.55	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: KTL		% Moisture:
Analyst: ALG	Date Prep: 08.09.19 11.30	Basis: Wet Weight
Seq Number: 3098324		SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.11.19 18.59	U	1
Toluene	108-88-3	0.00315	0.00200	mg/kg	08.11.19 18.59		1
Ethylbenzene	100-41-4	0.00266	0.00200	mg/kg	08.11.19 18.59		1
m,p-Xylenes	179601-23-1	0.00773	0.00399	mg/kg	08.11.19 18.59		1
o-Xylene	95-47-6	0.00465	0.00200	mg/kg	08.11.19 18.59		1
Total Xylenes	1330-20-7	0.0124	0.00200	mg/kg	08.11.19 18.59		1
Total BTEX		0.0182	0.00200	mg/kg	08.11.19 18.59		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	08.11.19 18.59		
4-Bromofluorobenzene	460-00-4	108	%	70-130	08.11.19 18.59		



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH07A**
Lab Sample Id: 633270-009

Matrix: Soil
Date Collected: 08.05.19 13.00

Date Received: 08.06.19 16.24
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3097992

Date Prep: 08.08.19 15.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	508	5.05	mg/kg	08.08.19 18.56		1

Analytical Method: TPH by SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3098275

Date Prep: 08.08.19 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.19 21.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.19 21.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 21.25	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.19 21.25	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.12.19 21.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.12.19 21.25	
o-Terphenyl	84-15-1	92	%	70-135	08.12.19 21.25	



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH07A**

Matrix: Soil

Date Received: 08.06.19 16.24

Lab Sample Id: 633270-009

Date Collected: 08.05.19 13.00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: ALG

Date Prep: 08.09.19 11.30

Basis: Wet Weight

Seq Number: 3098324

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.11.19 19.19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.11.19 19.19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.11.19 19.19	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.11.19 19.19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.11.19 19.19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.11.19 19.19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.11.19 19.19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	08.11.19 19.19		
1,4-Difluorobenzene	540-36-3	106	%	70-130	08.11.19 19.19		



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH08**

Matrix: Soil

Date Received: 08.06.19 16.24

Lab Sample Id: 633270-010

Date Collected: 08.05.19 13.50

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.08.19 15.00

Basis: Wet Weight

Seq Number: 3097992

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	24.4	5.05	mg/kg	08.08.19 19.02		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 08.08.19 14.00

Basis: Wet Weight

Seq Number: 3098275

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	08.12.19 21.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	08.12.19 21.44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	08.12.19 21.44	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	08.12.19 21.44	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	08.12.19 21.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	08.12.19 21.44	
o-Terphenyl	84-15-1	87	%	70-135	08.12.19 21.44	



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH08**

Matrix: Soil

Date Received: 08.06.19 16.24

Lab Sample Id: 633270-010

Date Collected: 08.05.19 13.50

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: ALG

Date Prep: 08.09.19 11.30

Basis: Wet Weight

Seq Number: 3098324

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.11.19 19.39	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.11.19 19.39	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.11.19 19.39	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.11.19 19.39	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.11.19 19.39	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.11.19 19.39	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.11.19 19.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	08.11.19 19.39		
4-Bromofluorobenzene	460-00-4	110	%	70-130	08.11.19 19.39		



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH08A**
Lab Sample Id: 633270-011

Matrix: Soil
Date Collected: 08.05.19 14.00

Date Received: 08.06.19 16.24
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3097992

Date Prep: 08.08.19 15.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	56.7	5.05	mg/kg	08.08.19 19.09		1

Analytical Method: TPH by SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3098275

Date Prep: 08.08.19 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.19 22.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.19 22.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 22.02	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.19 22.02	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.12.19 22.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	08.12.19 22.02	
o-Terphenyl	84-15-1	91	%	70-135	08.12.19 22.02	



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH08A**

Matrix: Soil

Date Received: 08.06.19 16.24

Lab Sample Id: 633270-011

Date Collected: 08.05.19 14.00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: ALG

Date Prep: 08.09.19 11.30

Basis: Wet Weight

Seq Number: 3098324

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.11.19 20.39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.11.19 20.39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.11.19 20.39	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.11.19 20.39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.11.19 20.39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.11.19 20.39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.11.19 20.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.11.19 20.39		
1,4-Difluorobenzene	540-36-3	106	%	70-130	08.11.19 20.39		



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH09** Matrix: Soil Date Received: 08.06.19 16.24
 Lab Sample Id: 633270-012 Date Collected: 08.05.19 14.10 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.08.19 15.00 Basis: Wet Weight
 Seq Number: 3097992 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	145	4.98	mg/kg	08.08.19 19.15		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.08.19 14.00 Basis: Wet Weight
 Seq Number: 3098275 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.19 22.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.19 22.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 22.21	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.19 22.21	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.12.19 22.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	08.12.19 22.21	
o-Terphenyl	84-15-1	90	%	70-135	08.12.19 22.21	



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH09**

Matrix: Soil

Date Received: 08.06.19 16.24

Lab Sample Id: 633270-012

Date Collected: 08.05.19 14.10

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: ALG

Date Prep: 08.09.19 11.30

Basis: Wet Weight

Seq Number: 3098324

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.11.19 20.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.11.19 20.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.11.19 20.59	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.11.19 20.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.11.19 20.59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.11.19 20.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.11.19 20.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	08.11.19 20.59		
4-Bromofluorobenzene	460-00-4	102	%	70-130	08.11.19 20.59		



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: PH09A	Matrix: Soil	Date Received: 08.06.19 16.24
Lab Sample Id: 633270-013	Date Collected: 08.05.19 14.20	Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 08.08.19 15.00	Basis: Wet Weight
Seq Number: 3097992		SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	311	5.00	mg/kg	08.08.19 19.34		1

Analytical Method: TPH by SW8015 Mod	Prep Method: TX1005P
Tech: DVM	% Moisture:
Analyst: ARM	Basis: Wet Weight
Seq Number: 3098275	SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.19 22.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.19 22.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 22.40	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.19 22.40	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.12.19 22.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.12.19 22.40	
o-Terphenyl	84-15-1	90	%	70-135	08.12.19 22.40	



Certificate of Analytical Results 633270

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH09A**

Matrix: Soil

Date Received: 08.06.19 16.24

Lab Sample Id: 633270-013

Date Collected: 08.05.19 14.20

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: ALG

Date Prep: 08.09.19 11.30

Basis: Wet Weight

Seq Number: 3098324

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.11.19 21.19	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.11.19 21.19	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.11.19 21.19	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.11.19 21.19	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.11.19 21.19	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.11.19 21.19	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.11.19 21.19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	88	%	70-130	08.11.19 21.19		
4-Bromofluorobenzene	460-00-4	105	%	70-130	08.11.19 21.19		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

PQL Practical Quantitation Limit **SQL** 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 633270

LT Environmental, Inc.

Pickett Draw Federal #001

Analytical Method: Chloride by EPA 300

Seq Number: 3098080

MB Sample Id: 7683802-1-BLK

Matrix: Solid

LCS Sample Id: 7683802-1-BKS

Prep Method: E300P

Date Prep: 08.08.19

LCSD Sample Id: 7683802-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	261	104	261	104	90-110	0	20	mg/kg	08.09.19 08:12	

Analytical Method: Chloride by EPA 300

Seq Number: 3097992

MB Sample Id: 7683833-1-BLK

Matrix: Solid

LCS Sample Id: 7683833-1-BKS

Prep Method: E300P

Date Prep: 08.08.19

LCSD Sample Id: 7683833-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	252	101	251	100	90-110	0	20	mg/kg	08.08.19 17:34	

Analytical Method: Chloride by EPA 300

Seq Number: 3098080

Parent Sample Id: 633244-003

Matrix: Soil

MS Sample Id: 633244-003 S

Prep Method: E300P

Date Prep: 08.08.19

MSD Sample Id: 633244-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10.2	250	267	103	267	103	90-110	0	20	mg/kg	08.09.19 09:59	

Analytical Method: Chloride by EPA 300

Seq Number: 3098080

Parent Sample Id: 633426-001

Matrix: Sludge

MS Sample Id: 633426-001 S

Prep Method: E300P

Date Prep: 08.08.19

MSD Sample Id: 633426-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	198	253	456	102	456	102	90-110	0	20	mg/kg	08.09.19 08:31	

Analytical Method: Chloride by EPA 300

Seq Number: 3097992

Parent Sample Id: 633270-002

Matrix: Soil

MS Sample Id: 633270-002 S

Prep Method: E300P

Date Prep: 08.08.19

MSD Sample Id: 633270-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	140	252	395	101	395	101	90-110	0	20	mg/kg	08.08.19 17:53	

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

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

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

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



QC Summary 633270

LT Environmental, Inc.

Pickett Draw Federal #001

Analytical Method: Chloride by EPA 300

Seq Number: 3097992

Parent Sample Id: 633270-012

Matrix: Soil

MS Sample Id: 633270-012 S

Prep Method: E300P

Date Prep: 08.08.19

MSD Sample Id: 633270-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	145	249	404	104	403	104	90-110	0	20	mg/kg	08.08.19 19:21	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3098275

MB Sample Id: 7683831-1-BLK

Matrix: Solid

LCS Sample Id: 7683831-1-BKS

Prep Method: TX1005P

Date Prep: 08.08.19

LCSD Sample Id: 7683831-1-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)	<8.00	1000	989	99	1020	102	70-135	3	20	mg/kg	08.12.19 15:04	
Diesel Range Organics (DRO)	<8.13	1000	985	99	963	96	70-135	2	20	mg/kg	08.12.19 15:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		114		114		70-135	%	08.12.19 15:04
o-Terphenyl	98		99		99		70-135	%	08.12.19 15:04

Analytical Method: TPH by SW8015 Mod

Seq Number: 3098275

Parent Sample Id: 633262-001

Matrix: Soil

MS Sample Id: 633262-001 S

Prep Method: TX1005P

Date Prep: 08.08.19

MSD Sample Id: 633262-001 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)	<7.98	997	1100	110	1160	116	70-135	5	20	mg/kg	08.12.19 16:01	
Diesel Range Organics (DRO)	48.3	997	1130	108	1130	109	70-135	0	20	mg/kg	08.12.19 16:01	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	120		122		70-135	%	08.12.19 16:01
o-Terphenyl	100		104		70-135	%	08.12.19 16:01

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

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

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

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



QC Summary 633270

LT Environmental, Inc.

Pickett Draw Federal #001

Analytical Method: BTEX by EPA 8021B

Seq Number: 3098324

MB Sample Id: 7683899-1-BLK

Matrix: Solid

LCS Sample Id: 7683899-1-BKS

Prep Method: SW5030B

Date Prep: 08.09.19

LCSD Sample Id: 7683899-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.103	103	0.0882	88	70-130	15	35	mg/kg	08.11.19 14:38	
Toluene	<0.000456	0.100	0.0904	90	0.0799	80	70-130	12	35	mg/kg	08.11.19 14:38	
Ethylbenzene	<0.00200	0.100	0.0875	88	0.0781	78	70-130	11	35	mg/kg	08.11.19 14:38	
m,p-Xylenes	<0.00101	0.200	0.172	86	0.155	78	70-130	10	35	mg/kg	08.11.19 14:38	
o-Xylene	<0.000344	0.100	0.0907	91	0.0826	83	70-130	9	35	mg/kg	08.11.19 14:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		102		103		70-130	%	08.11.19 14:38
4-Bromofluorobenzene	99		99		104		70-130	%	08.11.19 14:38

Analytical Method: BTEX by EPA 8021B

Seq Number: 3098324

Parent Sample Id: 633270-001

Matrix: Soil

MS Sample Id: 633270-001 S

Prep Method: SW5030B

Date Prep: 08.09.19

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.0933	94	70-130	mg/kg	08.11.19 15:19	
Toluene	0.000538	0.0992	0.0813	81	70-130	mg/kg	08.11.19 15:19	
Ethylbenzene	<0.00198	0.0992	0.0771	78	70-130	mg/kg	08.11.19 15:19	
m,p-Xylenes	<0.00101	0.198	0.147	74	70-130	mg/kg	08.11.19 15:19	
o-Xylene	0.000349	0.0992	0.0844	85	70-130	mg/kg	08.11.19 15:19	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		70-130	%	08.11.19 15:19
4-Bromofluorobenzene	115		70-130	%	08.11.19 15:19

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

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

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

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



Chain of Custody

Work Order No: 103-227-D

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1000

Project Manager:	Dan Rose	Bid by / received:	Open / closed
Company Name:	J. J. Environmental Inc. - Florida office	Company Name:	OTD Energy
Address:	1000 North A Street Maitland, FL 32751	Address:	
Ceiling Area:	1400 sq ft	Ceiling Area:	
Notes:	1400 sq ft	Notes:	

Program Settings: ☐ Job ☐ Download ☒ PC ☐ Keyboard

Name of Project:

Reporting Unit: ☐ New ☐ Private ☐ Public ☐

Estimate ID: ☐ Add ☐ Close

Project Name				Phase/Order Request #001				Time Allowed				ANALYSIS REQUIRED												Work Order Notes	
Project Number				123456789				Location																	
P.O. Number				Early County				State																	
Contract Name				123456789				Date																	
SAMPLE RECEIPT				Sample		Date		Time		Depth															
Concentration (%)				4%		12/1/01		10:00		10'															
Revised value				6%		12/1/01		10:00		10'															
Current Current Depth				Yes		No		Corrected factor		-0.2															
Current Current Area				Yes		No		Total Correction		0															
Sample Identification				Moist		Date		Time		Depth															
P-1				1		12/1/01		10:00		10'															
P-2				1		12/1/01		10:00		10'															
P-3				1		12/1/01		10:00		10'															
P-4				1		12/1/01		10:00		10'															
P-5				1		12/1/01		10:00		10'															
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P-8				1		12/1/01		10:00		10'															
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P-10				1		12/1/01		10:00		10'															
P-11				1		12/1/01		10:00		10'															
P-12				1		12/1/01		10:00		10'															
P-13				1		12/1/01		10:00		10'															
P-14				1		12/1/01		10:00		10'															
P-15				1		12/1/01		10:00		10'															
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P-17				1		12/1/01		10:00		10'															
P-18				1		12/1/01		10:00		10'															
P-19				1		12/1/01		10:00		10'															
P-20				1		12/1/01		10:00		10'															
P-21				1		12/1/01		10:00		10'															
P-22				1		12/1/01		10:00		10'															
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P-28				1		12/1/01		10:00		10'															
P-29				1		12/1/01		10:00		10'															
P-30				1		12/1/01		10:00		10'															
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P-36				1		12/1/01		10:00		10'															
P-37				1		12/1/01		10:00		10'															
P-38				1		12/1/01		10:00		10'															
P																									

1. **Author(s)** / **Editor(s)** : 2024-06-26
 2. **Article Title** : **Chronic Anemia and Its Impact on the Body**
 3. **Abstract** : Chronic anemia is a condition characterized by a long-term deficiency of red blood cells (RBCs) and hemoglobin (Hb) in the blood. This leads to a reduced capacity of the blood to carry oxygen, which can result in various symptoms and complications. The most common cause of chronic anemia is iron deficiency, but other causes include chronic kidney disease, liver disease, and certain types of cancer. The impact of chronic anemia on the body is multifaceted, affecting both physical and mental health. It can lead to fatigue, weakness, and shortness of breath, which can significantly impact a person's quality of life. Additionally, chronic anemia can increase the risk of heart disease, stroke, and other serious health conditions. The severity of the symptoms and complications associated with chronic anemia depends on the underlying cause and the extent of the anemia. In some cases, the condition may be mild and asymptomatic, while in others, it can be severe and life-threatening. Therefore, it is crucial to identify the cause of chronic anemia and seek appropriate medical treatment to manage the condition and prevent further complications.

4. **Keywords** : Chronic anemia, Iron deficiency, Hemoglobin, Red blood cells, Fatigue, Weakness, Shortness of breath, Heart disease, Stroke, Quality of life.

5. **Introduction** : Anemia is a common medical condition that affects millions of people worldwide. It is characterized by a low level of hemoglobin in the blood, which is responsible for carrying oxygen to the body's tissues. There are many different types of anemia, but the most common is iron deficiency anemia. This type of anemia occurs when the body does not have enough iron to produce hemoglobin. Iron is a vital mineral that is essential for the production of hemoglobin. Without enough iron, the body cannot produce enough hemoglobin, which leads to a decrease in the number of red blood cells in the blood. This, in turn, results in a reduced capacity of the blood to carry oxygen, which can cause a variety of symptoms and complications. Chronic anemia, which is a long-term condition, can have a significant impact on a person's health and quality of life. It can lead to fatigue, weakness, and shortness of breath, which can make it difficult to perform daily activities. Additionally, chronic anemia can increase the risk of heart disease, stroke, and other serious health conditions. The severity of the symptoms and complications associated with chronic anemia depends on the underlying cause and the extent of the anemia. In some cases, the condition may be mild and asymptomatic, while in others, it can be severe and life-threatening. Therefore, it is crucial to identify the cause of chronic anemia and seek appropriate medical treatment to manage the condition and prevent further complications.

6. **Conclusion** : Chronic anemia is a complex condition that can have a significant impact on a person's health and quality of life. It is caused by a variety of factors, including iron deficiency, chronic kidney disease, liver disease, and certain types of cancer. The symptoms and complications associated with chronic anemia are multifaceted, affecting both physical and mental health. It is crucial to identify the cause of chronic anemia and seek appropriate medical treatment to manage the condition and prevent further complications.

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10

Keywords: child sexual abuse; disclosure; social support

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Verbal Output

Chlorine Dioxide

20

2007-07-19



Chain of Custody

Work Order No. 173270

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[illegible]

Order Number	12818150	Ordering Building	X
P.O. Number	Italy County	Order Building	
Sample's Name	12001 Laboratory	Order Date	

SARAFIM RECEIPT				
Temperature (°C)	Temp. Range	Yes No	Yes No	Yes No
Receptor Used	4			
Order Country Code	Yes No	Yes No	Yes No	Yes No
Sample Country Data	Yes No	Yes No	Yes No	Yes No

of Containers									
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Sample Identification	Metric	Date Sampled	Total Sampled	Depth
P20-8A	f	10/10/19	11:00	4'
P20-8B	f	10/10/19	11:10	2'
P20-8C	f	10/10/19	11:20	4'

Handwritten notes:

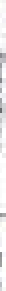
- Under "Metric": f, f, f
- Under "Date Sampled": 10/10/19, 10/10/19, 10/10/19
- Under "Total Sampled": 11:00, 11:10, 11:20
- Under "Depth": 4', 2', 4'

Additional handwritten notes at the bottom of the page:

- NO. 7 - prepared by a 20cm
- Sample Description

1000 2007/10/16 2023/10/06
 Ceres Database and Metadata File Analysis
 BRCHN 1 20706 Team 11 At Sp As Ba Be B Cn Co Cr Cu Fe Pb Sg Sm Sn Sr Ti U V Zn
 TGLP / BRCHN-0016 BRCHN 50 At Ba Be Bi B Cn Co Cr Cu Fe Mn Mo N Os Og Ti U
 7631 / 2007/10/09 7747 / 16

As a consequence of this decision, the system of sample collection is used previously from other sampling in Brazil. In addition, the administration of sample standard items are conducted. Items are not made only for the use of samples but also for returns (especially for any items or equipment owned by the client) both items are not to be considered beyond the control limits. A previous sample of 1000 will be applied to each sample with a change in it for each sample submitted to work, but not really. These items will be ordered when previously specified.

 (Received by: Signature)	Date/Time	(Requested by: Signature)	(Received by: Signature)	Date/Time
 Dr. H. S. Garg	21/11/2020	 Dr. H. S. Garg	 Dr. H. S. Garg	21/11/2020

[illegible]



Inter-Office Shipment

Page 1 of 2

IOS Number **45749**

Date/Time: 08/07/19 11:19

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 7759305855567

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
633270-001	S	PH01	08/02/19 10:50	SW8021B	BTEX by EPA 8021B	08/12/19	08/16/19	JKR	BR4FBZ BZ BZME EBZ X	
633270-001	S	PH01	08/02/19 10:50	E300_CL	Chloride by EPA 300	08/12/19	01/29/20	JKR	CL	
633270-001	S	PH01	08/02/19 10:50	SW8015MOD_NM	TPH by SW8015 Mod	08/12/19	08/16/19	JKR	GRO-DRO PHCC10C28 PI	
633270-002	S	PH02	08/02/19 11:10	E300_CL	Chloride by EPA 300	08/12/19	01/29/20	JKR	CL	
633270-002	S	PH02	08/02/19 11:10	SW8015MOD_NM	TPH by SW8015 Mod	08/12/19	08/16/19	JKR	GRO-DRO PHCC10C28 PI	
633270-002	S	PH02	08/02/19 11:10	SW8021B	BTEX by EPA 8021B	08/12/19	08/16/19	JKR	BR4FBZ BZ BZME EBZ X	
633270-003	S	PH02A	08/02/19 11:25	E300_CL	Chloride by EPA 300	08/12/19	01/29/20	JKR	CL	
633270-003	S	PH02A	08/02/19 11:25	SW8015MOD_NM	TPH by SW8015 Mod	08/12/19	08/16/19	JKR	GRO-DRO PHCC10C28 PI	
633270-003	S	PH02A	08/02/19 11:25	SW8021B	BTEX by EPA 8021B	08/12/19	08/16/19	JKR	BR4FBZ BZ BZME EBZ X	
633270-004	S	PH03	08/02/19 11:40	E300_CL	Chloride by EPA 300	08/12/19	01/29/20	JKR	CL	
633270-004	S	PH03	08/02/19 11:40	SW8015MOD_NM	TPH by SW8015 Mod	08/12/19	08/16/19	JKR	GRO-DRO PHCC10C28 PI	
633270-004	S	PH03	08/02/19 11:40	SW8021B	BTEX by EPA 8021B	08/12/19	08/16/19	JKR	BR4FBZ BZ BZME EBZ X	
633270-005	S	PH04	08/02/19 13:20	SW8015MOD_NM	TPH by SW8015 Mod	08/12/19	08/16/19	JKR	GRO-DRO PHCC10C28 PI	
633270-005	S	PH04	08/02/19 13:20	SW8021B	BTEX by EPA 8021B	08/12/19	08/16/19	JKR	BR4FBZ BZ BZME EBZ X	
633270-005	S	PH04	08/02/19 13:20	E300_CL	Chloride by EPA 300	08/12/19	01/29/20	JKR	CL	
633270-006	S	PH05	08/05/19 10:15	E300_CL	Chloride by EPA 300	08/12/19	02/01/20	JKR	CL	
633270-006	S	PH05	08/05/19 10:15	SW8015MOD_NM	TPH by SW8015 Mod	08/12/19	08/19/19	JKR	GRO-DRO PHCC10C28 PI	
633270-006	S	PH05	08/05/19 10:15	SW8021B	BTEX by EPA 8021B	08/12/19	08/19/19	JKR	BR4FBZ BZ BZME EBZ X	
633270-007	S	PH06	08/05/19 10:40	SW8015MOD_NM	TPH by SW8015 Mod	08/12/19	08/19/19	JKR	GRO-DRO PHCC10C28 PI	
633270-007	S	PH06	08/05/19 10:40	SW8021B	BTEX by EPA 8021B	08/12/19	08/19/19	JKR	BR4FBZ BZ BZME EBZ X	
633270-007	S	PH06	08/05/19 10:40	E300_CL	Chloride by EPA 300	08/12/19	02/01/20	JKR	CL	
633270-008	S	PH07	08/05/19 12:55	E300_CL	Chloride by EPA 300	08/12/19	02/01/20	JKR	CL	
633270-008	S	PH07	08/05/19 12:55	SW8021B	BTEX by EPA 8021B	08/12/19	08/19/19	JKR	BR4FBZ BZ BZME EBZ X	
633270-008	S	PH07	08/05/19 12:55	SW8015MOD_NM	TPH by SW8015 Mod	08/12/19	08/19/19	JKR	GRO-DRO PHCC10C28 PI	
633270-009	S	PH07A	08/05/19 13:00	SW8021B	BTEX by EPA 8021B	08/12/19	08/19/19	JKR	BR4FBZ BZ BZME EBZ X	



Inter-Office Shipment

Page 2 of 2

IOS Number **45749**

Date/Time: 08/07/19 11:19

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 7759305855567

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
633270-009	S	PH07A	08/05/19 13:00	E300_CL	Chloride by EPA 300	08/12/19	02/01/20	JKR	CL	
633270-009	S	PH07A	08/05/19 13:00	SW8015MOD_NM	TPH by SW8015 Mod	08/12/19	08/19/19	JKR	GRO-DRO PHCC10C28 PI	
633270-010	S	PH08	08/05/19 13:50	E300_CL	Chloride by EPA 300	08/12/19	02/01/20	JKR	CL	
633270-010	S	PH08	08/05/19 13:50	SW8021B	BTEX by EPA 8021B	08/12/19	08/19/19	JKR	BR4FBZ BZ BZME EBZ X	
633270-010	S	PH08	08/05/19 13:50	SW8015MOD_NM	TPH by SW8015 Mod	08/12/19	08/19/19	JKR	GRO-DRO PHCC10C28 PI	
633270-011	S	PH08A	08/05/19 14:00	SW8021B	BTEX by EPA 8021B	08/12/19	08/19/19	JKR	BR4FBZ BZ BZME EBZ X	
633270-011	S	PH08A	08/05/19 14:00	SW8015MOD_NM	TPH by SW8015 Mod	08/12/19	08/19/19	JKR	GRO-DRO PHCC10C28 PI	
633270-011	S	PH08A	08/05/19 14:00	E300_CL	Chloride by EPA 300	08/12/19	02/01/20	JKR	CL	
633270-012	S	PH09	08/05/19 14:10	SW8021B	BTEX by EPA 8021B	08/12/19	08/19/19	JKR	BR4FBZ BZ BZME EBZ X	
633270-012	S	PH09	08/05/19 14:10	SW8015MOD_NM	TPH by SW8015 Mod	08/12/19	08/19/19	JKR	GRO-DRO PHCC10C28 PI	
633270-012	S	PH09	08/05/19 14:10	E300_CL	Chloride by EPA 300	08/12/19	02/01/20	JKR	CL	
633270-013	S	PH09A	08/05/19 14:20	E300_CL	Chloride by EPA 300	08/12/19	02/01/20	JKR	CL	
633270-013	S	PH09A	08/05/19 14:20	SW8021B	BTEX by EPA 8021B	08/12/19	08/19/19	JKR	BR4FBZ BZ BZME EBZ X	
633270-013	S	PH09A	08/05/19 14:20	SW8015MOD_NM	TPH by SW8015 Mod	08/12/19	08/19/19	JKR	GRO-DRO PHCC10C28 PI	

Inter Office Shipment or Sample Comments:

Relinquished By:

Elizabeth McClellan

Date Relinquished: 08/07/2019

Received By:

Brianna Teel

Date Received: 08/08/2019 11:05

Cooler Temperature: 0.5



XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 45749

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sent By: Elizabeth McClellan

Date Sent: 08/07/2019 11:19 AM

Received By: Brianna Teel

Date Received: 08/08/2019 11:05 AM

Sample Receipt Checklist

Comments

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

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Brianna Teel

Date: 08/08/2019



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: LT Environmental, Inc.

Date/ Time Received: 08/06/2019 04:24:00 PM

Work Order #: 633270

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	No
#5 Custody Seals intact on sample bottles?	No
#6* Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Subbed to Xenco Midland.
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 08/07/2019

Checklist reviewed by:

Kalei Stout

Date: 08/08/2019

Analytical Report 633408

for
LT Environmental, Inc.

Project Manager: Dan Moir

Pickett Draw Federal #001

12919150

12-AUG-19

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)



12-AUG-19

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **633408**

Pickett Draw Federal #001

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 633408. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 633408 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

**Sample Cross Reference 633408****LT Environmental, Inc., Arvada, CO**

Pickett Draw Federal #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH03A	S	08-02-19 13:00	20 ft	633408-001
PH04A	S	08-05-19 09:55	20 ft	633408-002
PH05A	S	08-05-19 10:25	14 ft	633408-003
PH06A	S	08-05-19 12:00	16 ft	633408-004



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Pickett Draw Federal #001

Project ID: 12919150

Work Order Number(s): 633408

Report Date: 12-AUG-19

Date Received: 08/08/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3098269 BTEX by EPA 8021B

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



Certificate of Analysis Summary 633408

LT Environmental, Inc., Arvada, CO

Project Name: Pickett Draw Federal #001



Project Id: 12919150
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Thu Aug-08-19 11:05 am

Report Date: 12-AUG-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	633408-001	633408-002	633408-003	633408-004		
	<i>Field Id:</i>	PH03A	PH04A	PH05A	PH06A		
	<i>Depth:</i>	20- ft	20- ft	14- ft	16- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Aug-02-19 13:00	Aug-05-19 09:55	Aug-05-19 10:25	Aug-05-19 12:00		
BTEX by EPA 8021B	<i>Extracted:</i>	Aug-08-19 15:16	Aug-08-19 15:16	Aug-08-19 15:16	Aug-08-19 15:16		
	<i>Analyzed:</i>	Aug-10-19 11:42	Aug-10-19 12:03	Aug-10-19 12:23	Aug-10-19 12:43		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199		
Toluene		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199		
Ethylbenzene		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199		
m,p-Xylenes		<0.00397 0.00397	<0.00396 0.00396	<0.00399 0.00399	<0.00398 0.00398		
o-Xylene		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199		
Total Xylenes		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199		
Total BTEX		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199		
Chloride by EPA 300	<i>Extracted:</i>	Aug-08-19 13:30	Aug-08-19 13:30	Aug-08-19 13:30	Aug-08-19 13:30		
	<i>Analyzed:</i>	Aug-08-19 14:09	Aug-08-19 15:19	Aug-08-19 15:25	Aug-08-19 15:31		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		16.4 5.00	1750 24.8	813 5.00	5430 50.2		
TPH by SW8015 Mod	<i>Extracted:</i>	Aug-09-19 15:00	Aug-09-19 15:00	Aug-09-19 15:00	Aug-09-19 15:00		
	<i>Analyzed:</i>	Aug-11-19 04:55	Aug-11-19 05:14	Aug-11-19 05:33	Aug-11-19 05:51		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	16.7 14.9	<15.0 15.0		
Diesel Range Organics (DRO)		42.4 15.0	<15.0 15.0	340 14.9	<15.0 15.0		
Motor Oil Range Hydrocarbons (MRO)		<15.0 15.0	<15.0 15.0	39.5 14.9	<15.0 15.0		
Total TPH		42.4 15.0	<15.0 15.0	396 14.9	<15.0 15.0		
Total GRO-DRO		42.4 15.0	<15.0 15.0	357 14.9	<15.0 15.0		

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

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

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analytical Results 633408



LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH03A**
Lab Sample Id: 633408-001

Matrix: Soil
Date Collected: 08.02.19 13.00

Date Received: 08.08.19 11.05
Sample Depth: 20 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3097977

Date Prep: 08.08.19 13.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.4	5.00	mg/kg	08.08.19 14.09		1

Analytical Method: TPH by SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3098133

Date Prep: 08.09.19 15.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.11.19 04.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	42.4	15.0	mg/kg	08.11.19 04.55		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 04.55	U	1
Total TPH	PHC635	42.4	15.0	mg/kg	08.11.19 04.55		1
Total GRO-DRO	PHC628	42.4	15.0	mg/kg	08.11.19 04.55		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	08.11.19 04.55	
o-Terphenyl	84-15-1	95	%	70-135	08.11.19 04.55	



Certificate of Analytical Results 633408



LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH03A**
Lab Sample Id: 633408-001

Matrix: Soil
Date Collected: 08.02.19 13.00

Date Received: 08.08.19 11.05
Sample Depth: 20 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: ALG

Date Prep: 08.08.19 15.16

Basis: Wet Weight

Seq Number: 3098269

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.10.19 11.42	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.10.19 11.42	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.10.19 11.42	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.10.19 11.42	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.10.19 11.42	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.10.19 11.42	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.10.19 11.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	70-130	08.10.19 11.42		
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.10.19 11.42		



Certificate of Analytical Results 633408



LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH04A** Matrix: Soil Date Received: 08.08.19 11.05
 Lab Sample Id: 633408-002 Date Collected: 08.05.19 09.55 Sample Depth: 20 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.08.19 13.30 Basis: Wet Weight
 Seq Number: 3097977

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1750	24.8	mg/kg	08.08.19 15.19		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.09.19 15.00 Basis: Wet Weight
 Seq Number: 3098133

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.11.19 05.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 05.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 05.14	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 05.14	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 05.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	08.11.19 05.14	
o-Terphenyl	84-15-1	88	%	70-135	08.11.19 05.14	



Certificate of Analytical Results 633408



LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH04A**
Lab Sample Id: 633408-002

Matrix: Soil
Date Collected: 08.05.19 09.55

Date Received: 08.08.19 11.05
Sample Depth: 20 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: ALG

Date Prep: 08.08.19 15.16

Basis: Wet Weight

Seq Number: 3098269

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.10.19 12.03	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.10.19 12.03	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.10.19 12.03	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	08.10.19 12.03	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.10.19 12.03	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.10.19 12.03	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.10.19 12.03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	08.10.19 12.03		
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.10.19 12.03		



Certificate of Analytical Results 633408



LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH05A** Matrix: Soil Date Received: 08.08.19 11.05
 Lab Sample Id: 633408-003 Date Collected: 08.05.19 10.25 Sample Depth: 14 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.08.19 13.30 Basis: Wet Weight
 Seq Number: 3097977

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	813	5.00	mg/kg	08.08.19 15.25		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.09.19 15.00 Basis: Wet Weight
 Seq Number: 3098133

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	16.7	14.9	mg/kg	08.11.19 05.33		1
Diesel Range Organics (DRO)	C10C28DRO	340	14.9	mg/kg	08.11.19 05.33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	39.5	14.9	mg/kg	08.11.19 05.33		1
Total TPH	PHC635	396	14.9	mg/kg	08.11.19 05.33		1
Total GRO-DRO	PHC628	357	14.9	mg/kg	08.11.19 05.33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	08.11.19 05.33	
o-Terphenyl	84-15-1	99	%	70-135	08.11.19 05.33	



Certificate of Analytical Results 633408



LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH05A**

Matrix: Soil

Date Received: 08.08.19 11.05

Lab Sample Id: 633408-003

Date Collected: 08.05.19 10.25

Sample Depth: 14 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: ALG

Date Prep: 08.08.19 15.16

Basis: Wet Weight

Seq Number: 3098269

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.10.19 12.23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.10.19 12.23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.10.19 12.23	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.10.19 12.23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.10.19 12.23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.10.19 12.23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.10.19 12.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	93	%	70-130	08.10.19 12.23		
4-Bromofluorobenzene	460-00-4	122	%	70-130	08.10.19 12.23		



Certificate of Analytical Results 633408



LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH06A** Matrix: Soil Date Received: 08.08.19 11.05
 Lab Sample Id: 633408-004 Date Collected: 08.05.19 12.00 Sample Depth: 16 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.08.19 13.30 Basis: Wet Weight
 Seq Number: 3097977

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5430	50.2	mg/kg	08.08.19 15.31		10

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.09.19 15.00 Basis: Wet Weight
 Seq Number: 3098133

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.11.19 05.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 05.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 05.51	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 05.51	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 05.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.11.19 05.51	
o-Terphenyl	84-15-1	93	%	70-135	08.11.19 05.51	



Certificate of Analytical Results 633408



LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH06A**

Matrix: Soil

Date Received: 08.08.19 11.05

Lab Sample Id: 633408-004

Date Collected: 08.05.19 12.00

Sample Depth: 16 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: ALG

Date Prep: 08.08.19 15.16

Basis: Wet Weight

Seq Number: 3098269

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.10.19 12.43	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.10.19 12.43	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.10.19 12.43	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.10.19 12.43	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.10.19 12.43	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.10.19 12.43	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.10.19 12.43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	08.10.19 12.43		
4-Bromofluorobenzene	460-00-4	116	%	70-130	08.10.19 12.43		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

PQL Practical Quantitation Limit **SQL** 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 633408

LT Environmental, Inc.

Pickett Draw Federal #001

Analytical Method: Chloride by EPA 300

Seq Number: 3097977

MB Sample Id: 7683800-1-BLK

Matrix: Solid

LCS Sample Id: 7683800-1-BKS

Prep Method: E300P

Date Prep: 08.08.19

LCSD Sample Id: 7683800-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	251	100	249	100	90-110	1	20	mg/kg	08.08.19 13:56	

Analytical Method: Chloride by EPA 300

Seq Number: 3097977

Parent Sample Id: 633408-001

Matrix: Soil

MS Sample Id: 633408-001 S

Prep Method: E300P

Date Prep: 08.08.19

MSD Sample Id: 633408-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	16.4	250	266	100	266	100	90-110	0	20	mg/kg	08.08.19 14:15	

Analytical Method: Chloride by EPA 300

Seq Number: 3097977

Parent Sample Id: 633409-003

Matrix: Soil

MS Sample Id: 633409-003 S

Prep Method: E300P

Date Prep: 08.08.19

MSD Sample Id: 633409-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	15.3	248	258	98	258	98	90-110	0	20	mg/kg	08.08.19 15:44	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3098133

MB Sample Id: 7683942-1-BLK

Matrix: Solid

LCS Sample Id: 7683942-1-BKS

Prep Method: TX1005P

Date Prep: 08.09.19

LCSD Sample Id: 7683942-1-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)	<8.00	1000	1100	110	1130	113	70-135	3	20	mg/kg	08.11.19 02:06	
Diesel Range Organics (DRO)	<8.13	1000	993	99	1030	103	70-135	4	20	mg/kg	08.11.19 02:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	90		120		124		70-135	%	08.11.19 02:06
o-Terphenyl	91		98		107		70-135	%	08.11.19 02:06

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

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

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

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



QC Summary 633408

LT Environmental, Inc.

Pickett Draw Federal #001

Analytical Method: TPH by SW8015 Mod

Seq Number: 3098133

Parent Sample Id: 633251-001

Matrix: Soil

MS Sample Id: 633251-001 S

Prep Method: TX1005P

Date Prep: 08.09.19

MSD Sample Id: 633251-001 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)	<7.98	997	1190	119	1150	115	70-135	3	20	mg/kg	08.11.19 03:02	
Diesel Range Organics (DRO)	<8.10	997	1150	115	1170	117	70-135	2	20	mg/kg	08.11.19 03:02	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		126		70-135	%	08.11.19 03:02
o-Terphenyl	116		118		70-135	%	08.11.19 03:02

Analytical Method: BTEX by EPA 8021B

Seq Number: 3098269

MB Sample Id: 7683824-1-BLK

Matrix: Solid

LCS Sample Id: 7683824-1-BKS

Prep Method: SW5030B

Date Prep: 08.08.19

LCSD Sample Id: 7683824-1-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	0.0789	79	0.0848	85	70-130	7	35	mg/kg	08.10.19 08:19	
Toluene	<0.00200	0.100	0.0776	78	0.0810	81	70-130	4	35	mg/kg	08.10.19 08:19	
Ethylbenzene	<0.00200	0.100	0.0876	88	0.0911	91	70-130	4	35	mg/kg	08.10.19 08:19	
m,p-Xylenes	<0.00400	0.200	0.176	88	0.183	92	70-130	4	35	mg/kg	08.10.19 08:19	
o-Xylene	<0.00200	0.100	0.0859	86	0.0891	89	70-130	4	35	mg/kg	08.10.19 08:19	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		102		70-130	%	08.10.19 08:19
4-Bromofluorobenzene	103		113		121		70-130	%	08.10.19 08:19

Analytical Method: BTEX by EPA 8021B

Seq Number: 3098269

Parent Sample Id: 633407-021

Matrix: Soil

MS Sample Id: 633407-021 S

Prep Method: SW5030B

Date Prep: 08.08.19

MSD Sample Id: 633407-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.0923	93	0.0917	92	70-130	1	35	mg/kg	08.10.19 09:00	
Toluene	<0.00198	0.0992	0.0861	87	0.0866	87	70-130	1	35	mg/kg	08.10.19 09:00	
Ethylbenzene	<0.00198	0.0992	0.0951	96	0.0932	93	70-130	2	35	mg/kg	08.10.19 09:00	
m,p-Xylenes	<0.00397	0.198	0.193	97	0.188	94	70-130	3	35	mg/kg	08.10.19 09:00	
o-Xylene	<0.00198	0.0992	0.0970	98	0.0931	93	70-130	4	35	mg/kg	08.10.19 09:00	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		103		70-130	%	08.10.19 09:00
4-Bromofluorobenzene	127		119		70-130	%	08.10.19 09:00

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

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

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:

63463

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

Work Order Comments	
Program: UST/PST	☐ RP ☐ Growfields ☐ RC ☐ \$perfund ☐
State of Project:	
Reporting Level II	☐ Level III ☐ \$TVUST ☐ RP ☐ \$vel IV ☐
Deliverables: EDD	☐ ADAPT ☐ Other:

Project Name:	Pickett Draw Federal #001	Turn Around
Project Number:	12919150	Routine ☐
P.O. Number:	Eddy County	Rush: <i>1 Day</i>
Sampler's Name:	Lynda Laumbach	Due Date: <i>6/1/00</i>

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	6.7°C	Thermometer ID					
Received intact:	Yes	No					
Cooler Custody Seals:	Yes	No			Correction Factor:		
Sample Custody Seals:	Yes	No			Total Containers:		

[illegible]

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 Aq SiO2 Na Sr Ti 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 Ti U

1631 / 245.1 / 7470 / 7471 : Hq

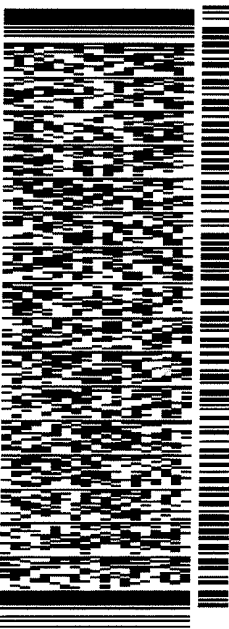
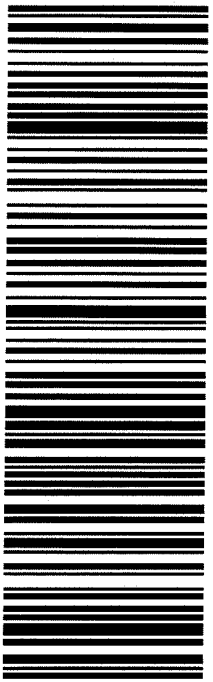
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility 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

_____	Cume Bayers	8/6/14 @ 11:00	Cume Bayers	_____	8/6/14 10:20
_____	feed 5x	8/7/14 1:00		_____	8/20/14 1:00
				_____	11:05

8/7/2019

FedEx Ship Manager - Print Your Label(s)

ORIGIN ID:CAOA (281) 240-4200 SAMPLE CUSTODY XENCO LABORATORIES NM 1089 N CANAL ST CARLSBAD, NM 88220 UNITED STATES US		SHIP DATE: 07AUG19 ACTWTG: 48.00 LB CAD: 114488676/NET 4160 DIMS: 24x10x10 IN BILL SENDER	
TO SAMPLE RECEIVING			
3600 S COUNTY ROAD 1276 MIDLAND TX 79706 (432) 704-5440 REF:			
PO:		DEPT:	
			
			
TRK# 0201 7759 3058 5567		THU - 08 AUG HOLD PRIORITY OVERNIGHT HLD 79706 TX-US LBB	
			

567J3/E9E7/05A2

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: LT Environmental, Inc.

Date/ Time Received: 08/08/2019 11:05:00 AM

Work Order #: 633408

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

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

Brianna Teel

Date: 08/08/2019

Checklist reviewed by:

Jessica Kramer

Date: 08/08/2019

Analytical Report 634583

**for
LT Environmental, Inc.**

Project Manager: Dan Moir

Pickett Draw Federal #001

012919150

22-AUG-19

Collected By: Client



**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)



22-AUG-19

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **634583**

Pickett Draw Federal #001

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 634583. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 634583 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

**Sample Cross Reference 634583****LT Environmental, Inc., Arvada, CO**

Pickett Draw Federal #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH10	S	08-15-19 10:05	7 ft	634583-001
PH10A	S	08-15-19 15:25	22 ft	634583-002
PH11	S	08-19-19 10:25	2 ft	634583-003
PH11A	S	08-19-19 10:30	4 ft	634583-004
PH12	S	08-19-19 11:00	4 ft	634583-005
PH12A	S	08-19-19 11:05	6 ft	634583-006
PH13	S	08-19-19 11:30	2 ft	634583-007
PH13A	S	08-19-19 11:35	4 ft	634583-008
PH14	S	08-19-19 11:45	2 ft	634583-009
PH14A	S	08-19-19 11:50	4 ft	634583-010
PH15	S	08-19-19 13:10	2 ft	634583-011
PH15A	S	08-19-19 13:15	4 ft	634583-012
SS05	S	08-19-19 14:20	0.5 ft	634583-013
SS06	S	08-19-19 14:35	0.5 ft	634583-014



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Pickett Draw Federal #001

Project ID: 012919150

Work Order Number(s): 634583

Report Date: 22-AUG-19

Date Received: 08/20/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3099039 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.

Samples affected are: 634583-011.

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



Certificate of Analysis Summary 634583

LT Environmental, Inc., Arvada, CO

Project Name: Pickett Draw Federal #001

Project Id: 012919150
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Aug-20-19 12:50 pm

Report Date: 22-AUG-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	634583-001	634583-002	634583-003	634583-004	634583-005	634583-006
	<i>Field Id:</i>	PH10	PH10A	PH11	PH11A	PH12	PH12A
	<i>Depth:</i>	7- ft	22- ft	2- ft	4- ft	4- ft	6- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Aug-15-19 10:05	Aug-15-19 15:25	Aug-19-19 10:25	Aug-19-19 10:30	Aug-19-19 11:00	Aug-19-19 11:05
BTEX by EPA 8021B	<i>Extracted:</i>	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49
	<i>Analyzed:</i>	Aug-20-19 16:34	Aug-20-19 16:53	Aug-20-19 17:13	Aug-20-19 17:33	Aug-20-19 17:53	Aug-20-19 18:12
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.000996 0.000996	<0.000996 0.000996	<0.000998 0.000998	<0.000996 0.000996	<0.00100 0.00100	<0.000996 0.000996
Toluene		<0.000996 0.000996	<0.000996 0.000996	<0.000998 0.000998	<0.000996 0.000996	<0.00100 0.00100	<0.000996 0.000996
Ethylbenzene		<0.000996 0.000996	<0.000996 0.000996	<0.000998 0.000998	<0.000996 0.000996	<0.00100 0.00100	<0.000996 0.000996
m,p-Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
o-Xylene		<0.000996 0.000996	<0.000996 0.000996	<0.000998 0.000998	<0.000996 0.000996	<0.00100 0.00100	<0.000996 0.000996
Total Xylenes		<0.000996 0.000996	<0.000996 0.000996	<0.000998 0.000998	<0.000996 0.000996	<0.00100 0.00100	<0.000996 0.000996
Total BTEX		<0.000996 0.000996	<0.000996 0.000996	<0.000998 0.000998	<0.000996 0.000996	<0.00100 0.00100	<0.000996 0.000996
Chloride by EPA 300	<i>Extracted:</i>	Aug-20-19 16:08	Aug-20-19 16:08	Aug-20-19 16:08	Aug-20-19 16:08	Aug-20-19 16:08	Aug-20-19 16:08
	<i>Analyzed:</i>	Aug-20-19 18:46	Aug-20-19 19:14	Aug-20-19 19:21	Aug-20-19 19:27	Aug-20-19 19:34	Aug-20-19 19:54
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1380 98.4	4240 100	355 9.84	265 10.0	1620 50.3	2000 50.0
TPH by SW8015 Mod	<i>Extracted:</i>	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49
	<i>Analyzed:</i>	Aug-20-19 17:03	Aug-20-19 17:23	Aug-20-19 17:44	Aug-20-19 18:04	Aug-20-19 18:25	Aug-20-19 18:46
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<24.9 24.9	<24.9 24.9	<24.9 24.9	<24.9 24.9	<24.9 24.9	<25.0 25.0
Diesel Range Organics (DRO)		<24.9 24.9	<24.9 24.9	<24.9 24.9	<24.9 24.9	<24.9 24.9	<25.0 25.0
Motor Oil Range Hydrocarbons (MRO)		<24.9 24.9	<24.9 24.9	<24.9 24.9	<24.9 24.9	<24.9 24.9	<25.0 25.0
Total TPH		<24.9 24.9	<24.9 24.9	<24.9 24.9	<24.9 24.9	<24.9 24.9	<25.0 25.0
Total GRO-DRO		<24.9 24.9	<24.9 24.9	<24.9 24.9	<24.9 24.9	<24.9 24.9	<25.0 25.0

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

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

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 634583

LT Environmental, Inc., Arvada, CO

Project Name: Pickett Draw Federal #001

Project Id: 012919150
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Aug-20-19 12:50 pm

Report Date: 22-AUG-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	634583-007	634583-008	634583-009	634583-010	634583-011	634583-012
	<i>Field Id:</i>	PH13	PH13A	PH14	PH14A	PH15	PH15A
	<i>Depth:</i>	2- ft	4- ft	2- ft	4- ft	2- ft	4- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Aug-19-19 11:30	Aug-19-19 11:35	Aug-19-19 11:45	Aug-19-19 11:50	Aug-19-19 13:10	Aug-19-19 13:15
BTEX by EPA 8021B	<i>Extracted:</i>	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49
	<i>Analyzed:</i>	Aug-20-19 18:32	Aug-20-19 18:53	Aug-20-19 19:13	Aug-20-19 19:33	Aug-20-19 20:32	Aug-20-19 20:52
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.000994 0.000994	<0.000996 0.000996	<0.000994 0.000994	<0.000996 0.000996	<0.000990 0.000990	<0.000994 0.000994
Toluene		<0.000994 0.000994	<0.000996 0.000996	<0.000994 0.000994	<0.000996 0.000996	<0.000990 0.000990	<0.000994 0.000994
Ethylbenzene		<0.000994 0.000994	<0.000996 0.000996	<0.000994 0.000994	<0.000996 0.000996	<0.000990 0.000990	<0.000994 0.000994
m,p-Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00199 0.00199
o-Xylene		<0.000994 0.000994	<0.000996 0.000996	<0.000994 0.000994	<0.000996 0.000996	<0.000990 0.000990	<0.000994 0.000994
Total Xylenes		<0.000994 0.000994	<0.000996 0.000996	<0.000994 0.000994	<0.000996 0.000996	<0.000990 0.000990	<0.000994 0.000994
Total BTEX		<0.000994 0.000994	<0.000996 0.000996	<0.000994 0.000994	<0.000996 0.000996	<0.000990 0.000990	<0.000994 0.000994
Chloride by EPA 300	<i>Extracted:</i>	Aug-20-19 16:08	Aug-20-19 16:08	Aug-20-19 16:08	Aug-20-19 16:08	Aug-20-19 16:08	Aug-20-19 16:08
	<i>Analyzed:</i>	Aug-20-19 20:00	Aug-20-19 20:07	Aug-20-19 20:13	Aug-20-19 20:20	Aug-20-19 20:27	Aug-20-19 20:46
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1390 49.2	903 49.7	3340 98.2	4330 100	1250 50.0	1860 49.2
TPH by SW8015 Mod	<i>Extracted:</i>	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49
	<i>Analyzed:</i>	Aug-20-19 19:07	Aug-20-19 19:28	Aug-20-19 19:49	Aug-20-19 20:10	Aug-20-19 20:51	Aug-20-19 21:12
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<25.0 25.0	<24.9 24.9	<24.9 24.9	<24.9 24.9	<25.0 25.0	<25.0 25.0
Diesel Range Organics (DRO)		<25.0 25.0	<24.9 24.9	<24.9 24.9	<24.9 24.9	<25.0 25.0	<25.0 25.0
Motor Oil Range Hydrocarbons (MRO)		<25.0 25.0	<24.9 24.9	<24.9 24.9	<24.9 24.9	<25.0 25.0	<25.0 25.0
Total TPH		<25.0 25.0	<24.9 24.9	<24.9 24.9	<24.9 24.9	<25.0 25.0	<25.0 25.0
Total GRO-DRO		<25.0 25.0	<24.9 24.9	<24.9 24.9	<24.9 24.9	<25.0 25.0	<25.0 25.0

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Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 634583

LT Environmental, Inc., Arvada, CO

Project Name: Pickett Draw Federal #001

Project Id: 012919150
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Aug-20-19 12:50 pm
Report Date: 22-AUG-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	634583-013	634583-014				
	Field Id:	SS05	SS06				
	Depth:	0.5- ft	0.5- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	Aug-19-19 14:20	Aug-19-19 14:35				
BTEX by EPA 8021B	Extracted:	Aug-20-19 14:49	Aug-20-19 14:49				
	Analyzed:	Aug-20-19 21:12	Aug-20-19 21:32				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.000998 0.000998	<0.000994 0.000994				
Toluene		<0.000998 0.000998	<0.000994 0.000994				
Ethylbenzene		<0.000998 0.000998	<0.000994 0.000994				
m,p-Xylenes		<0.00200 0.00200	<0.00199 0.00199				
o-Xylene		<0.000998 0.000998	<0.000994 0.000994				
Total Xylenes		<0.000998 0.000998	<0.000994 0.000994				
Total BTEX		<0.000998 0.000998	<0.000994 0.000994				
Chloride by EPA 300	Extracted:	Aug-20-19 16:08	Aug-20-19 16:08				
	Analyzed:	Aug-20-19 20:53	Aug-20-19 21:12				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		34.4 10.0	384 10.0				
TPH by SW8015 Mod	Extracted:	Aug-20-19 14:49	Aug-20-19 14:49				
	Analyzed:	Aug-20-19 21:32	Aug-20-19 21:53				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<24.9 24.9	<25.0 25.0				
Diesel Range Organics (DRO)		<24.9 24.9	<25.0 25.0				
Motor Oil Range Hydrocarbons (MRO)		<24.9 24.9	<25.0 25.0				
Total TPH		<24.9 24.9	<25.0 25.0				
Total GRO-DRO		<24.9 24.9	<25.0 25.0				

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

Jessica Kramer
Project Assistant



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH10** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634583-001 Date Collected: 08.15.19 10.05 Sample Depth: 7 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.20.19 16.08 Basis: Wet Weight
 Seq Number: 3099290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1380	98.4	mg/kg	08.20.19 18.46		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.20.19 14.49 Basis: Wet Weight
 Seq Number: 3099052

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.20.19 17.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<24.9	24.9	mg/kg	08.20.19 17.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.20.19 17.03	U	1
Total TPH	PHC635	<24.9	24.9	mg/kg	08.20.19 17.03	U	1
Total GRO-DRO	PHC628	<24.9	24.9	mg/kg	08.20.19 17.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	08.20.19 17.03	
o-Terphenyl	84-15-1	108	%	70-135	08.20.19 17.03	



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH10**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634583-001

Date Collected: 08.15.19 10.05

Sample Depth: 7 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.20.19 14.49

Basis: Wet Weight

Seq Number: 3099039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000996	0.000996	mg/kg	08.20.19 16.34	U	1
Toluene	108-88-3	<0.000996	0.000996	mg/kg	08.20.19 16.34	U	1
Ethylbenzene	100-41-4	<0.000996	0.000996	mg/kg	08.20.19 16.34	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	08.20.19 16.34	U	1
o-Xylene	95-47-6	<0.000996	0.000996	mg/kg	08.20.19 16.34	U	1
Total Xylenes	1330-20-7	<0.000996	0.000996	mg/kg	08.20.19 16.34	U	1
Total BTEX		<0.000996	0.000996	mg/kg	08.20.19 16.34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	80-120	08.20.19 16.34		
1,4-Difluorobenzene	540-36-3	92	%	80-120	08.20.19 16.34		



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH10A** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634583-002 Date Collected: 08.15.19 15.25 Sample Depth: 22 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.20.19 16.08 Basis: Wet Weight
 Seq Number: 3099290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4240	100	mg/kg	08.20.19 19.14		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.20.19 14.49 Basis: Wet Weight
 Seq Number: 3099052

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.20.19 17.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<24.9	24.9	mg/kg	08.20.19 17.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.20.19 17.23	U	1
Total TPH	PHC635	<24.9	24.9	mg/kg	08.20.19 17.23	U	1
Total GRO-DRO	PHC628	<24.9	24.9	mg/kg	08.20.19 17.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	08.20.19 17.23	
o-Terphenyl	84-15-1	108	%	70-135	08.20.19 17.23	



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH10A**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634583-002

Date Collected: 08.15.19 15.25

Sample Depth: 22 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.20.19 14.49

Basis: Wet Weight

Seq Number: 3099039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000996	0.000996	mg/kg	08.20.19 16.53	U	1
Toluene	108-88-3	<0.000996	0.000996	mg/kg	08.20.19 16.53	U	1
Ethylbenzene	100-41-4	<0.000996	0.000996	mg/kg	08.20.19 16.53	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	08.20.19 16.53	U	1
o-Xylene	95-47-6	<0.000996	0.000996	mg/kg	08.20.19 16.53	U	1
Total Xylenes	1330-20-7	<0.000996	0.000996	mg/kg	08.20.19 16.53	U	1
Total BTEX		<0.000996	0.000996	mg/kg	08.20.19 16.53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	89	%	80-120	08.20.19 16.53		
4-Bromofluorobenzene	460-00-4	107	%	80-120	08.20.19 16.53		



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH11** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634583-003 Date Collected: 08.19.19 10.25 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.20.19 16.08 Basis: Wet Weight
 Seq Number: 3099290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	355	9.84	mg/kg	08.20.19 19.21		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.20.19 14.49 Basis: Wet Weight
 Seq Number: 3099052

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.20.19 17.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<24.9	24.9	mg/kg	08.20.19 17.44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.20.19 17.44	U	1
Total TPH	PHC635	<24.9	24.9	mg/kg	08.20.19 17.44	U	1
Total GRO-DRO	PHC628	<24.9	24.9	mg/kg	08.20.19 17.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	08.20.19 17.44	
o-Terphenyl	84-15-1	107	%	70-135	08.20.19 17.44	



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH11**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634583-003

Date Collected: 08.19.19 10.25

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.20.19 14.49

Basis: Wet Weight

Seq Number: 3099039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000998	0.000998	mg/kg	08.20.19 17.13	U	1
Toluene	108-88-3	<0.000998	0.000998	mg/kg	08.20.19 17.13	U	1
Ethylbenzene	100-41-4	<0.000998	0.000998	mg/kg	08.20.19 17.13	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	08.20.19 17.13	U	1
o-Xylene	95-47-6	<0.000998	0.000998	mg/kg	08.20.19 17.13	U	1
Total Xylenes	1330-20-7	<0.000998	0.000998	mg/kg	08.20.19 17.13	U	1
Total BTEX		<0.000998	0.000998	mg/kg	08.20.19 17.13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	80-120	08.20.19 17.13		
4-Bromofluorobenzene	460-00-4	90	%	80-120	08.20.19 17.13		



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH11A** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634583-004 Date Collected: 08.19.19 10.30 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.20.19 16.08 Basis: Wet Weight
 Seq Number: 3099290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	265	10.0	mg/kg	08.20.19 19.27		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.20.19 14.49 Basis: Wet Weight
 Seq Number: 3099052

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.20.19 18.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<24.9	24.9	mg/kg	08.20.19 18.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.20.19 18.04	U	1
Total TPH	PHC635	<24.9	24.9	mg/kg	08.20.19 18.04	U	1
Total GRO-DRO	PHC628	<24.9	24.9	mg/kg	08.20.19 18.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	08.20.19 18.04	
o-Terphenyl	84-15-1	111	%	70-135	08.20.19 18.04	



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH11A**
Lab Sample Id: 634583-004

Matrix: Soil
Date Collected: 08.19.19 10.30

Date Received: 08.20.19 12.50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.20.19 14.49

Basis: Wet Weight

Seq Number: 3099039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000996	0.000996	mg/kg	08.20.19 17.33	U	1
Toluene	108-88-3	<0.000996	0.000996	mg/kg	08.20.19 17.33	U	1
Ethylbenzene	100-41-4	<0.000996	0.000996	mg/kg	08.20.19 17.33	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	08.20.19 17.33	U	1
o-Xylene	95-47-6	<0.000996	0.000996	mg/kg	08.20.19 17.33	U	1
Total Xylenes	1330-20-7	<0.000996	0.000996	mg/kg	08.20.19 17.33	U	1
Total BTEX		<0.000996	0.000996	mg/kg	08.20.19 17.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	93	%	80-120	08.20.19 17.33		
4-Bromofluorobenzene	460-00-4	94	%	80-120	08.20.19 17.33		



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH12** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634583-005 Date Collected: 08.19.19 11.00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.20.19 16.08 Basis: Wet Weight
 Seq Number: 3099290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1620	50.3	mg/kg	08.20.19 19.34		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.20.19 14.49 Basis: Wet Weight
 Seq Number: 3099052

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.20.19 18.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<24.9	24.9	mg/kg	08.20.19 18.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.20.19 18.25	U	1
Total TPH	PHC635	<24.9	24.9	mg/kg	08.20.19 18.25	U	1
Total GRO-DRO	PHC628	<24.9	24.9	mg/kg	08.20.19 18.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	08.20.19 18.25	
o-Terphenyl	84-15-1	109	%	70-135	08.20.19 18.25	



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH12**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634583-005

Date Collected: 08.19.19 11.00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.20.19 14.49

Basis: Wet Weight

Seq Number: 3099039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	08.20.19 17.53	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	08.20.19 17.53	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	08.20.19 17.53	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	08.20.19 17.53	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	08.20.19 17.53	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	08.20.19 17.53	U	1
Total BTEX		<0.00100	0.00100	mg/kg	08.20.19 17.53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	80-120	08.20.19 17.53		
1,4-Difluorobenzene	540-36-3	98	%	80-120	08.20.19 17.53		



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: PH12A	Matrix: Soil	Date Received: 08.20.19 12.50
Lab Sample Id: 634583-006	Date Collected: 08.19.19 11.05	Sample Depth: 6 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.20.19 16.08	Basis: Wet Weight
Seq Number: 3099290		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2000	50.0	mg/kg	08.20.19 19.54		5

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DTH	% Moisture:
Analyst: DTH	Basis: Wet Weight
Seq Number: 3099052	

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.20.19 18.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	08.20.19 18.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.20.19 18.46	U	1
Total TPH	PHC635	<25.0	25.0	mg/kg	08.20.19 18.46	U	1
Total GRO-DRO	PHC628	<25.0	25.0	mg/kg	08.20.19 18.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	08.20.19 18.46	
o-Terphenyl	84-15-1	108	%	70-135	08.20.19 18.46	



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH12A**
Lab Sample Id: 634583-006

Matrix: Soil
Date Collected: 08.19.19 11.05

Date Received: 08.20.19 12.50
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.20.19 14.49

Basis: Wet Weight

Seq Number: 3099039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000996	0.000996	mg/kg	08.20.19 18.12	U	1
Toluene	108-88-3	<0.000996	0.000996	mg/kg	08.20.19 18.12	U	1
Ethylbenzene	100-41-4	<0.000996	0.000996	mg/kg	08.20.19 18.12	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	08.20.19 18.12	U	1
o-Xylene	95-47-6	<0.000996	0.000996	mg/kg	08.20.19 18.12	U	1
Total Xylenes	1330-20-7	<0.000996	0.000996	mg/kg	08.20.19 18.12	U	1
Total BTEX		<0.000996	0.000996	mg/kg	08.20.19 18.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	92	%	80-120	08.20.19 18.12		
4-Bromofluorobenzene	460-00-4	96	%	80-120	08.20.19 18.12		



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH13** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634583-007 Date Collected: 08.19.19 11.30 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.20.19 16.08 Basis: Wet Weight
 Seq Number: 3099290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1390	49.2	mg/kg	08.20.19 20.00		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.20.19 14.49 Basis: Wet Weight
 Seq Number: 3099052

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.20.19 19.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	08.20.19 19.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.20.19 19.07	U	1
Total TPH	PHC635	<25.0	25.0	mg/kg	08.20.19 19.07	U	1
Total GRO-DRO	PHC628	<25.0	25.0	mg/kg	08.20.19 19.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	08.20.19 19.07	
o-Terphenyl	84-15-1	106	%	70-135	08.20.19 19.07	



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH13**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634583-007

Date Collected: 08.19.19 11.30

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.20.19 14.49

Basis: Wet Weight

Seq Number: 3099039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	08.20.19 18.32	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	08.20.19 18.32	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	08.20.19 18.32	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	08.20.19 18.32	U	1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	08.20.19 18.32	U	1
Total Xylenes	1330-20-7	<0.000994	0.000994	mg/kg	08.20.19 18.32	U	1
Total BTEX		<0.000994	0.000994	mg/kg	08.20.19 18.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	95	%	80-120	08.20.19 18.32		
4-Bromofluorobenzene	460-00-4	96	%	80-120	08.20.19 18.32		



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH13A** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634583-008 Date Collected: 08.19.19 11.35 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.20.19 16.08 Basis: Wet Weight
 Seq Number: 3099290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	903	49.7	mg/kg	08.20.19 20.07		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.20.19 14.49 Basis: Wet Weight
 Seq Number: 3099052

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.20.19 19.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<24.9	24.9	mg/kg	08.20.19 19.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.20.19 19.28	U	1
Total TPH	PHC635	<24.9	24.9	mg/kg	08.20.19 19.28	U	1
Total GRO-DRO	PHC628	<24.9	24.9	mg/kg	08.20.19 19.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	08.20.19 19.28	
o-Terphenyl	84-15-1	108	%	70-135	08.20.19 19.28	



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH13A**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634583-008

Date Collected: 08.19.19 11.35

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.20.19 14.49

Basis: Wet Weight

Seq Number: 3099039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000996	0.000996	mg/kg	08.20.19 18.53	U	1
Toluene	108-88-3	<0.000996	0.000996	mg/kg	08.20.19 18.53	U	1
Ethylbenzene	100-41-4	<0.000996	0.000996	mg/kg	08.20.19 18.53	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	08.20.19 18.53	U	1
o-Xylene	95-47-6	<0.000996	0.000996	mg/kg	08.20.19 18.53	U	1
Total Xylenes	1330-20-7	<0.000996	0.000996	mg/kg	08.20.19 18.53	U	1
Total BTEX		<0.000996	0.000996	mg/kg	08.20.19 18.53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	80-120	08.20.19 18.53		
1,4-Difluorobenzene	540-36-3	97	%	80-120	08.20.19 18.53		



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH14** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634583-009 Date Collected: 08.19.19 11.45 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.20.19 16.08 Basis: Wet Weight
 Seq Number: 3099290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3340	98.2	mg/kg	08.20.19 20.13		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.20.19 14.49 Basis: Wet Weight
 Seq Number: 3099052

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.20.19 19.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<24.9	24.9	mg/kg	08.20.19 19.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.20.19 19.49	U	1
Total TPH	PHC635	<24.9	24.9	mg/kg	08.20.19 19.49	U	1
Total GRO-DRO	PHC628	<24.9	24.9	mg/kg	08.20.19 19.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	08.20.19 19.49	
o-Terphenyl	84-15-1	109	%	70-135	08.20.19 19.49	



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH14**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634583-009

Date Collected: 08.19.19 11.45

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.20.19 14.49

Basis: Wet Weight

Seq Number: 3099039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	08.20.19 19.13	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	08.20.19 19.13	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	08.20.19 19.13	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	08.20.19 19.13	U	1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	08.20.19 19.13	U	1
Total Xylenes	1330-20-7	<0.000994	0.000994	mg/kg	08.20.19 19.13	U	1
Total BTEX		<0.000994	0.000994	mg/kg	08.20.19 19.13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	80-120	08.20.19 19.13		
4-Bromofluorobenzene	460-00-4	99	%	80-120	08.20.19 19.13		



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH14A** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634583-010 Date Collected: 08.19.19 11.50 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.20.19 16.08 Basis: Wet Weight
 Seq Number: 3099290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4330	100	mg/kg	08.20.19 20.20		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.20.19 14.49 Basis: Wet Weight
 Seq Number: 3099052

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.20.19 20.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<24.9	24.9	mg/kg	08.20.19 20.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.20.19 20.10	U	1
Total TPH	PHC635	<24.9	24.9	mg/kg	08.20.19 20.10	U	1
Total GRO-DRO	PHC628	<24.9	24.9	mg/kg	08.20.19 20.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	08.20.19 20.10	
o-Terphenyl	84-15-1	117	%	70-135	08.20.19 20.10	



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH14A**
Lab Sample Id: 634583-010

Matrix: Soil
Date Collected: 08.19.19 11.50

Date Received: 08.20.19 12.50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.20.19 14.49

Basis: Wet Weight

Seq Number: 3099039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000996	0.000996	mg/kg	08.20.19 19.33	U	1
Toluene	108-88-3	<0.000996	0.000996	mg/kg	08.20.19 19.33	U	1
Ethylbenzene	100-41-4	<0.000996	0.000996	mg/kg	08.20.19 19.33	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	08.20.19 19.33	U	1
o-Xylene	95-47-6	<0.000996	0.000996	mg/kg	08.20.19 19.33	U	1
Total Xylenes	1330-20-7	<0.000996	0.000996	mg/kg	08.20.19 19.33	U	1
Total BTEX		<0.000996	0.000996	mg/kg	08.20.19 19.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	90	%	80-120	08.20.19 19.33		
1,4-Difluorobenzene	540-36-3	91	%	80-120	08.20.19 19.33		



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH15** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634583-011 Date Collected: 08.19.19 13.10 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.20.19 16.08 Basis: Wet Weight
 Seq Number: 3099290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1250	50.0	mg/kg	08.20.19 20.27		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.20.19 14.49 Basis: Wet Weight
 Seq Number: 3099052

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.20.19 20.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	08.20.19 20.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.20.19 20.51	U	1
Total TPH	PHC635	<25.0	25.0	mg/kg	08.20.19 20.51	U	1
Total GRO-DRO	PHC628	<25.0	25.0	mg/kg	08.20.19 20.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	08.20.19 20.51	
o-Terphenyl	84-15-1	110	%	70-135	08.20.19 20.51	



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH15**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634583-011

Date Collected: 08.19.19 13.10

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.20.19 14.49

Basis: Wet Weight

Seq Number: 3099039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000990	0.000990	mg/kg	08.20.19 20.32	U	1
Toluene	108-88-3	<0.000990	0.000990	mg/kg	08.20.19 20.32	U	1
Ethylbenzene	100-41-4	<0.000990	0.000990	mg/kg	08.20.19 20.32	U	1
m,p-Xylenes	179601-23-1	<0.00198	0.00198	mg/kg	08.20.19 20.32	U	1
o-Xylene	95-47-6	<0.000990	0.000990	mg/kg	08.20.19 20.32	U	1
Total Xylenes	1330-20-7	<0.000990	0.000990	mg/kg	08.20.19 20.32	U	1
Total BTEX		<0.000990	0.000990	mg/kg	08.20.19 20.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	126	%	80-120	08.20.19 20.32	**	
1,4-Difluorobenzene	540-36-3	87	%	80-120	08.20.19 20.32		



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH15A** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634583-012 Date Collected: 08.19.19 13.15 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.20.19 16.08 Basis: Wet Weight
 Seq Number: 3099290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1860	49.2	mg/kg	08.20.19 20.46		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.20.19 14.49 Basis: Wet Weight
 Seq Number: 3099052

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.20.19 21.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	08.20.19 21.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.20.19 21.12	U	1
Total TPH	PHC635	<25.0	25.0	mg/kg	08.20.19 21.12	U	1
Total GRO-DRO	PHC628	<25.0	25.0	mg/kg	08.20.19 21.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	08.20.19 21.12	
o-Terphenyl	84-15-1	109	%	70-135	08.20.19 21.12	



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **PH15A**
Lab Sample Id: 634583-012

Matrix: Soil
Date Collected: 08.19.19 13.15

Date Received: 08.20.19 12.50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.20.19 14.49

Basis: Wet Weight

Seq Number: 3099039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	08.20.19 20.52	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	08.20.19 20.52	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	08.20.19 20.52	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	08.20.19 20.52	U	1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	08.20.19 20.52	U	1
Total Xylenes	1330-20-7	<0.000994	0.000994	mg/kg	08.20.19 20.52	U	1
Total BTEX		<0.000994	0.000994	mg/kg	08.20.19 20.52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	80-120	08.20.19 20.52		
1,4-Difluorobenzene	540-36-3	95	%	80-120	08.20.19 20.52		



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **SS05** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634583-013 Date Collected: 08.19.19 14.20 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.20.19 16.08 Basis: Wet Weight
 Seq Number: 3099290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	34.4	10.0	mg/kg	08.20.19 20.53		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.20.19 14.49 Basis: Wet Weight
 Seq Number: 3099052

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.20.19 21.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<24.9	24.9	mg/kg	08.20.19 21.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.20.19 21.32	U	1
Total TPH	PHC635	<24.9	24.9	mg/kg	08.20.19 21.32	U	1
Total GRO-DRO	PHC628	<24.9	24.9	mg/kg	08.20.19 21.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	08.20.19 21.32	
o-Terphenyl	84-15-1	109	%	70-135	08.20.19 21.32	



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: SS05

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634583-013

Date Collected: 08.19.19 14.20

Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.20.19 14.49

Basis: Wet Weight

Seq Number: 3099039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000998	0.000998	mg/kg	08.20.19 21.12	U	1
Toluene	108-88-3	<0.000998	0.000998	mg/kg	08.20.19 21.12	U	1
Ethylbenzene	100-41-4	<0.000998	0.000998	mg/kg	08.20.19 21.12	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	08.20.19 21.12	U	1
o-Xylene	95-47-6	<0.000998	0.000998	mg/kg	08.20.19 21.12	U	1
Total Xylenes	1330-20-7	<0.000998	0.000998	mg/kg	08.20.19 21.12	U	1
Total BTEX		<0.000998	0.000998	mg/kg	08.20.19 21.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	92	%	80-120	08.20.19 21.12		
4-Bromofluorobenzene	460-00-4	92	%	80-120	08.20.19 21.12		



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **SS06** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634583-014 Date Collected: 08.19.19 14.35 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.20.19 16.08 Basis: Wet Weight
 Seq Number: 3099290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	384	10.0	mg/kg	08.20.19 21.12		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.20.19 14.49 Basis: Wet Weight
 Seq Number: 3099052

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.20.19 21.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	08.20.19 21.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.20.19 21.53	U	1
Total TPH	PHC635	<25.0	25.0	mg/kg	08.20.19 21.53	U	1
Total GRO-DRO	PHC628	<25.0	25.0	mg/kg	08.20.19 21.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	08.20.19 21.53	
o-Terphenyl	84-15-1	113	%	70-135	08.20.19 21.53	



Certificate of Analytical Results 634583

LT Environmental, Inc., Arvada, CO

Pickett Draw Federal #001

Sample Id: **SS06**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634583-014

Date Collected: 08.19.19 14.35

Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.20.19 14.49

Basis: Wet Weight

Seq Number: 3099039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	08.20.19 21.32	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	08.20.19 21.32	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	08.20.19 21.32	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	08.20.19 21.32	U	1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	08.20.19 21.32	U	1
Total Xylenes	1330-20-7	<0.000994	0.000994	mg/kg	08.20.19 21.32	U	1
Total BTEX		<0.000994	0.000994	mg/kg	08.20.19 21.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	90	%	80-120	08.20.19 21.32		
1,4-Difluorobenzene	540-36-3	94	%	80-120	08.20.19 21.32		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

PQL Practical Quantitation Limit **SQL** Sample 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 634583

LT Environmental, Inc.

Pickett Draw Federal #001

Analytical Method: Chloride by EPA 300

Seq Number: 3099290

MB Sample Id: 7684654-1-BLK

Matrix: Solid

LCS Sample Id: 7684654-1-BKS

Prep Method: E300P

Date Prep: 08.20.19

LCSD Sample Id: 7684654-1-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	300	300	100	301	100	80-120	0	20	mg/kg	08.20.19 18:32	

Analytical Method: Chloride by EPA 300

Seq Number: 3099290

Parent Sample Id: 634583-001

Matrix: Soil

MS Sample Id: 634583-001 S

Prep Method: E300P

Date Prep: 08.20.19

MSD Sample Id: 634583-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1380	2470	4020	107	4040	107	80-120	0	20	mg/kg	08.20.19 18:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3099290

Parent Sample Id: 634583-011

Matrix: Soil

MS Sample Id: 634583-011 S

Prep Method: E300P

Date Prep: 08.20.19

MSD Sample Id: 634583-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1250	1250	2670	114	2600	108	80-120	3	20	mg/kg	08.20.19 20:33	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3099052

MB Sample Id: 7684595-1-BLK

Matrix: Solid

LCS Sample Id: 7684595-1-BKS

Prep Method: SW8015P

Date Prep: 08.20.19

LCSD Sample Id: 7684595-1-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)	<9.90	1000	1000	100	974	98	70-135	3	35	mg/kg	08.20.19 11:28	
Diesel Range Organics (DRO)	<9.90	1000	1030	103	992	100	70-135	4	35	mg/kg	08.20.19 11:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	130		115		115		70-135	%	08.20.19 11:28
o-Terphenyl	128		118		116		70-135	%	08.20.19 11:28

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

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

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

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



QC Summary 634583

LT Environmental, Inc.

Pickett Draw Federal #001

Analytical Method: TPH by SW8015 Mod

Seq Number: 3099052

Parent Sample Id: 634529-001

Matrix: Soil

MS Sample Id: 634529-001 S

Prep Method: SW8015P

Date Prep: 08.20.19

MSD Sample Id: 634529-001 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)	<9.91	1000	951	95	964	96	70-135	1	35	mg/kg	08.20.19 12:29	
Diesel Range Organics (DRO)	<9.91	1000	974	97	988	99	70-135	1	35	mg/kg	08.20.19 12:29	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		108		70-135	%	08.20.19 12:29
o-Terphenyl	122		112		70-135	%	08.20.19 12:29

Analytical Method: BTEX by EPA 8021B

Seq Number: 3099039

MB Sample Id: 7684594-1-BLK

Matrix: Solid

LCS Sample Id: 7684594-1-BKS

Prep Method: SW5030B

Date Prep: 08.20.19

LCSD Sample Id: 7684594-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00101	0.101	0.0926	92	0.0944	95	70-130	2	35	mg/kg	08.20.19 10:59	
Toluene	<0.00101	0.101	0.0906	90	0.0948	95	70-130	5	35	mg/kg	08.20.19 10:59	
Ethylbenzene	<0.000503	0.101	0.0920	91	0.0956	96	71-129	4	35	mg/kg	08.20.19 10:59	
m,p-Xylenes	<0.00101	0.201	0.189	94	0.193	97	70-135	2	35	mg/kg	08.20.19 10:59	
o-Xylene	<0.000503	0.101	0.0951	94	0.0962	97	71-133	1	35	mg/kg	08.20.19 10:59	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		103		98		80-120	%	08.20.19 10:59
4-Bromofluorobenzene	93		110		103		80-120	%	08.20.19 10:59

Analytical Method: BTEX by EPA 8021B

Seq Number: 3099039

Parent Sample Id: 634529-001

Matrix: Soil

MS Sample Id: 634529-001 S

Prep Method: SW5030B

Date Prep: 08.20.19

MSD Sample Id: 634529-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000990	0.0990	0.0979	99	0.0923	93	70-130	6	35	mg/kg	08.20.19 12:38	
Toluene	<0.000990	0.0990	0.0932	94	0.0912	92	70-130	2	35	mg/kg	08.20.19 12:38	
Ethylbenzene	<0.000990	0.0990	0.0956	97	0.0941	95	71-129	2	35	mg/kg	08.20.19 12:38	
m,p-Xylenes	<0.000990	0.198	0.195	98	0.191	96	70-135	2	35	mg/kg	08.20.19 12:38	
o-Xylene	<0.000990	0.0990	0.0968	98	0.0948	95	71-133	2	35	mg/kg	08.20.19 12:38	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		106		80-120	%	08.20.19 12:38
4-Bromofluorobenzene	109		110		80-120	%	08.20.19 12:38

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

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

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



Work Order No: 15715 157

Received 16 July 2004; revised 18 August 2004; accepted 19 August 2004
Published online 10 September 2004 in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/for.10007

[illegible]

1

Project Manager		Don Moore	Site ID / Survey		Page Label
Company Name		12 Environmental, Inc. (Member Office)	Company Name		0010 Envtl
Address		2000 North A Street	Address		
City, State Zip		Madison, TN 37035	City, State Zip		
Phone		(615) 298-3940	Email		donmoore@12env.com
Project Name		Palmer Dam Failure Root	Type Allowed		☒ Positive ☐ Push
Project Number		00000110	Project Number		
P.O. Number		Body County	Date Date		
Contract Name		Leitch Leitch	Date Date		
SAMPLE RECEIPT					
Sample ID(s)			Transmittal ID		
Received from		Yes No	Received from		Yes No
Client/Company Name		Yes No	Contract Field		
Sample Quantity/Units		Yes No	Total Containers		
Sample Identification		Mass	Date Sampled	Time Sampled	Depth
PR10		3	8/18/17	14:05	7'
PR10A		3	8/18/17	15:03	2.5'
PR11		3	8/18/17	16:05	2'
PR11A		3	8/18/17	16:34	4'
PR12		3	8/18/17	16:06	7'
PR12A		3	8/18/17	11:45	2'
PR13		3	8/18/17	16:30	2'
PR13A		3	8/18/17	11:45	4'
PR14		3	8/18/17	11:50	2'
PR14A		3	8/18/17	11:50	9'
Number of Containers					
TPE (EPA 808)					
BTEX (EPA 8-8001)					
Chloride (EPA 806.6)					
ANALYSIS REQUEST					
Method Order Number					
Program: Standard (70) [] Qualitative (10) [] Standard (10) []					
State of Project					
Reporting Level: [] Prelim [] Prelim [] Prelim [] Prelim []					
Comments: ETO [] Acet [] Other []					

Work Order No: 1034502

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1



WOLF DOLL COMPANY	
Program: 001-001	☐ Yes ☐ No ☐ Partial ☐
Date of Project:	
Reporting Level: 1	☐ Dept II ☐ Div III ☐ Corp ☐ Other ☐
Department: 1000	☐ ACCT ☐ CRMT

[illegible][illegible][illegible][illegible]

to women. Men are not likely to be the ones to benefit and need no assistance, especially for any form of support required for the child if such means are not inconsistent beyond the child's. A woman's change of status will be applied to each project and a change of status will require additional to those, but not required. They have all to ensure women are always supported.

Requisitioned by (Signature)	Received by (Signature)	Date/Time	Requisitioned by (Signature)	Received by (Signature)	Date/Time
		08/05/2019 13:30			



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: LT Environmental, Inc.

Date/ Time Received: 08/20/2019 12:50:00 PM

Work Order #: 634583

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	No
#5 Custody Seals intact on sample bottles?	No
#6* Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 08/21/2019

Checklist reviewed by:

Jessica Kramer

Date: 08/21/2019

Analytical Report 634606

**for
LT Environmental, Inc.**

Project Manager: Dan Moir

Picket Draw Federal #001

012919150

26-AUG-19

Collected By: Client



**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)



26-AUG-19

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **634606**

Picket Draw Federal #001

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 634606. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 634606 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	08-15-19 10:40	1 ft	634606-001
FS02	S	08-15-19 10:45	1 ft	634606-002
FS03	S	08-15-19 10:50	1 ft	634606-003
FS04	S	08-15-19 11:00	1 ft	634606-004
FS05	S	08-15-19 11:05	1 ft	634606-005
FS06	S	08-15-19 11:10	1 ft	634606-006
FS07	S	08-15-19 11:20	2 ft	634606-007
FS08	S	08-15-19 11:25	2 ft	634606-008
FS09	S	08-15-19 11:30	2 ft	634606-009
FS10	S	08-15-19 11:35	2 ft	634606-010
FS11	S	08-15-19 11:45	2 ft	634606-011
FS12	S	08-15-19 11:55	3 ft	634606-012
SW01	S	08-15-19 12:05	0 - 1 ft	634606-013
SW02	S	08-15-19 12:10	0 - 3 ft	634606-014
FS13	S	08-15-19 12:20	3 ft	634606-015
SW03	S	08-15-19 12:30	0 - 7 ft	634606-016
SW04	S	08-15-19 13:00	0 - 4 ft	634606-017
FS14	S	08-15-19 13:20	3 ft	634606-018
FS15	S	08-15-19 14:15	4 ft	634606-019
FS16	S	08-15-19 14:25	4 ft	634606-020
FS17	S	08-15-19 14:35	4 ft	634606-021
FS18	S	08-15-19 14:45	4 ft	634606-022
FS19	S	08-15-19 14:55	4 ft	634606-023
FS20	S	08-15-19 15:10	4 ft	634606-024
FS21	S	08-15-19 15:20	4 ft	634606-025
FS22	S	08-19-19 12:00	5 ft	634606-026
FS23	S	08-19-19 12:10	5 ft	634606-027
FS24	S	08-19-19 12:15	5 ft	634606-028
FS25	S	08-19-19 13:10	5 ft	634606-029
FS26	S	08-19-19 13:15	6 ft	634606-030
FS27	S	08-19-19 13:25	7 ft	634606-031
SW05	S	08-19-19 13:30	0 - 5 ft	634606-032
SW06	S	08-19-19 13:45	0 - 5 ft	634606-033
FS28	S	08-19-19 13:55	4 ft	634606-034
FS29	S	08-19-19 14:00	4 ft	634606-035
FS30	S	08-19-19 14:10	4 ft	634606-036
SW07	S	08-19-19 14:20	0 - 7 ft	634606-037
SW08	S	08-19-19 14:30	0 - 4 ft	634606-038
FS31	S	08-19-19 14:40	2.5 ft	634606-039
SW09	S	08-19-19 14:50	0 - 4 ft	634606-040
SW10	S	08-19-19 15:00	0 - 4 ft	634606-041
SW11	S	08-19-19 15:10	0 - 4 ft	634606-042
SW12	S	08-19-19 15:20	0 - 2.5 ft	634606-043



Sample Cross Reference 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

SW13	S	08-19-19 15:30	0 - 2.5 ft	634606-044
SW14	S	08-19-19 15:40	0 - 2.5 ft	634606-045
SW15	S	08-19-19 15:50	0 - 2.5 ft	634606-046

**CASE NARRATIVE****Client Name: LT Environmental, Inc.****Project Name: Picket Draw Federal #001**

Project ID: 012919150
Work Order Number(s): 634606

Report Date: 26-AUG-19
Date Received: 08/20/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3099039 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.

Samples affected are: 634606-003.

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

Batch: LBA-3099358 TPH by SW8015 Mod

Surrogate 1-Chlorooctane, Surrogate o-Terphenyl recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7684790-1-BKS.

Batch: LBA-3099361 BTEX by EPA 8021B

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

Surrogate 4-Bromofluorobenzene recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7684795-1-BKS, 634606-006 S, 634606-006 SD, 634606-013.

Batch: LBA-3099404 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 634606-024, 634606-020.

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

Batch: LBA-3099498 TPH by SW8015 Mod

Lab Sample ID 634606-025 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).

Diesel Range Organics (DRO), Analyst missed to spike MSD. Samples in the analytical batch are:

634606-025, -026, -027, -028, -029, -030.

The Laboratory Control Sample for Gasoline Range Hydrocarbons (GRO), Diesel Range Organics (DRO) is within laboratory Control Limits, therefore the data was accepted.



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Picket Draw Federal #001

Project ID: 012919150
Work Order Number(s): 634606

Report Date: 26-AUG-19
Date Received: 08/20/2019

Batch: LBA-3099530 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 634606-032.

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

Batch: LBA-3099584 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 634606-032,634606-044,634606-045,634606-046.

Surrogate 1-Chlorooctane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 634606-042,634606-044,634606-045,634606-046.



Certificate of Analysis Summary 634606

LT Environmental, Inc., Arvada, CO

Project Name: Picket Draw Federal #001

Project Id: 012919150
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Aug-20-19 12:50 pm

Report Date: 26-AUG-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	634606-001	634606-002	634606-003	634606-004	634606-005	634606-006
	<i>Field Id:</i>	FS01	FS02	FS03	FS04	FS05	FS06
	<i>Depth:</i>	1- ft	1- ft	1- ft	1- ft	1- ft	1- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Aug-15-19 10:40	Aug-15-19 10:45	Aug-15-19 10:50	Aug-15-19 11:00	Aug-15-19 11:05	Aug-15-19 11:10
BTEX by EPA 8021B	<i>Extracted:</i>	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49	Aug-21-19 10:08
	<i>Analyzed:</i>	Aug-20-19 21:52	Aug-20-19 22:12	Aug-20-19 22:32	Aug-20-19 22:51	Aug-20-19 23:11	Aug-21-19 12:01
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00101 0.00101	<0.000990 0.000990	<0.000990 0.000990	<0.000994 0.000994	<0.000996 0.000996	<0.000994 0.000994
Toluene		<0.00101 0.00101	<0.000990 0.000990	<0.000990 0.000990	<0.000994 0.000994	<0.000996 0.000996	<0.000994 0.000994
Ethylbenzene		<0.00101 0.00101	<0.000990 0.000990	<0.000990 0.000990	<0.000994 0.000994	<0.000996 0.000996	<0.000994 0.000994
m,p-Xylenes		<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199
o-Xylene		<0.00101 0.00101	<0.000990 0.000990	<0.000990 0.000990	<0.000994 0.000994	<0.000996 0.000996	<0.000994 0.000994
Total Xylenes		<0.00101 0.00101	<0.000990 0.000990	<0.000990 0.000990	<0.000994 0.000994	<0.000996 0.000996	<0.000994 0.000994
Total BTEX		<0.00101 0.00101	<0.000990 0.000990	<0.000990 0.000990	<0.000994 0.000994	<0.000996 0.000996	<0.000994 0.000994
Chloride by EPA 300	<i>Extracted:</i>	Aug-20-19 16:08	Aug-20-19 16:08	Aug-20-19 16:08	Aug-20-19 16:08	Aug-20-19 16:08	Aug-20-19 16:08
	<i>Analyzed:</i>	Aug-20-19 21:19	Aug-20-19 21:26	Aug-20-19 21:32	Aug-20-19 21:39	Aug-20-19 21:45	Aug-20-19 21:52
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		969 20.0	142 10.0	256 10.1	176 9.96	196 9.94	51.8 20.0
TPH by SW8015 Mod	<i>Extracted:</i>	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49	Aug-20-19 14:49	Aug-21-19 10:08
	<i>Analyzed:</i>	Aug-20-19 22:13	Aug-20-19 22:33	Aug-20-19 22:54	Aug-20-19 23:14	Aug-20-19 23:34	Aug-21-19 13:51
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<25.2 25.2	<25.1 25.1	<25.1 25.1	<24.9 24.9	<24.9 24.9	<25.0 25.0
Diesel Range Organics (DRO)		<25.2 25.2	<25.1 25.1	<25.1 25.1	<24.9 24.9	29.2 24.9	<25.0 25.0
Motor Oil Range Hydrocarbons (MRO)		<25.2 25.2	<25.1 25.1	<25.1 25.1	<24.9 24.9	<24.9 24.9	<25.0 25.0
Total TPH		<25.2 25.2	<25.1 25.1	<25.1 25.1	<24.9 24.9	29.2 24.9	<25.0 25.0
Total GRO-DRO		<25.2 25.2	<25.1 25.1	<25.1 25.1	<24.9 24.9	29.2 24.9	<25.0 25.0

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

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

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 634606

LT Environmental, Inc., Arvada, CO

Project Name: Picket Draw Federal #001

Project Id: 012919150
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Aug-20-19 12:50 pm

Report Date: 26-AUG-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	634606-007	634606-008	634606-009	634606-010	634606-011	634606-012
	<i>Field Id:</i>	FS07	FS08	FS09	FS10	FS11	FS12
	<i>Depth:</i>	2- ft	2- ft	2- ft	2- ft	2- ft	3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Aug-15-19 11:20	Aug-15-19 11:25	Aug-15-19 11:30	Aug-15-19 11:35	Aug-15-19 11:45	Aug-15-19 11:55
BTEX by EPA 8021B	<i>Extracted:</i>	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08
	<i>Analyzed:</i>	Aug-21-19 13:20	Aug-21-19 13:40	Aug-21-19 14:00	Aug-21-19 14:19	Aug-21-19 14:39	Aug-21-19 14:58
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.000998 0.000998	<0.00101 0.00101	<0.000998 0.000998	<0.00101 0.00101	<0.000994 0.000994	<0.000990 0.000990
Toluene		<0.000998 0.000998	<0.00101 0.00101	<0.000998 0.000998	<0.00101 0.00101	<0.000994 0.000994	<0.000990 0.000990
Ethylbenzene		<0.000998 0.000998	<0.00101 0.00101	<0.000998 0.000998	0.00224 0.00101	<0.000994 0.000994	<0.000990 0.000990
m,p-Xylenes		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00198 0.00198
o-Xylene		<0.000998 0.000998	<0.00101 0.00101	<0.000998 0.000998	<0.00101 0.00101	<0.000994 0.000994	<0.000990 0.000990
Total Xylenes		<0.000998 0.000998	<0.00101 0.00101	<0.000998 0.000998	<0.00101 0.00101	<0.000994 0.000994	<0.000990 0.000990
Total BTEX		<0.000998 0.000998	<0.00101 0.00101	<0.000998 0.000998	0.00224 0.00101	<0.000994 0.000994	<0.000990 0.000990
Chloride by EPA 300	<i>Extracted:</i>	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08
	<i>Analyzed:</i>	Aug-21-19 20:24	Aug-21-19 20:43	Aug-21-19 20:50	Aug-21-19 20:56	Aug-21-19 21:03	Aug-21-19 21:23
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		195 9.94	189 10.0	237 10.1	74.0 10.0	350 9.98	274 10.0
TPH by SW8015 Mod	<i>Extracted:</i>	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08
	<i>Analyzed:</i>	Aug-21-19 15:00	Aug-21-19 15:20	Aug-21-19 15:40	Aug-21-19 16:01	Aug-21-19 16:21	Aug-21-19 16:42
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<24.9 24.9	<25.1 25.1	<25.1 25.1	<25.1 25.1	<24.9 24.9	<24.9 24.9
Diesel Range Organics (DRO)		<24.9 24.9	83.7 25.1	27.7 25.1	<25.1 25.1	<24.9 24.9	<24.9 24.9
Motor Oil Range Hydrocarbons (MRO)		<24.9 24.9	<25.1 25.1	<25.1 25.1	<25.1 25.1	<24.9 24.9	<24.9 24.9
Total TPH		<24.9 24.9	83.7 25.1	27.7 25.1	<25.1 25.1	<24.9 24.9	<24.9 24.9
Total GRO-DRO		<24.9 24.9	83.7 25.1	27.7 25.1	<25.1 25.1	<24.9 24.9	<24.9 24.9

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

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

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 634606

LT Environmental, Inc., Arvada, CO

Project Name: Picket Draw Federal #001

Project Id: 012919150
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Aug-20-19 12:50 pm

Report Date: 26-AUG-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	634606-013	634606-014	634606-015	634606-016	634606-017	634606-018
	<i>Field Id:</i>	SW01	SW02	FS13	SW03	SW04	FS14
	<i>Depth:</i>	0-1 ft	0-3 ft	3- ft	0-7 ft	0-4 ft	3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Aug-15-19 12:05	Aug-15-19 12:10	Aug-15-19 12:20	Aug-15-19 12:30	Aug-15-19 13:00	Aug-15-19 13:20
BTEX by EPA 8021B	<i>Extracted:</i>	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-22-19 09:08	Aug-21-19 10:08	Aug-22-19 09:08
	<i>Analyzed:</i>	Aug-21-19 15:18	Aug-21-19 15:38	Aug-21-19 16:58	Aug-22-19 19:00	Aug-21-19 17:38	Aug-22-19 19:20
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.000998 0.000998	<0.00100 0.00100	<0.00100 0.00100	<0.00100 0.00100	<0.000998 0.000998	<0.000996 0.000996
Toluene		<0.000998 0.000998	<0.00100 0.00100	<0.00100 0.00100	<0.00100 0.00100	<0.000998 0.000998	<0.000996 0.000996
Ethylbenzene		<0.000998 0.000998	<0.00100 0.00100	<0.00100 0.00100	<0.00100 0.00100	<0.000998 0.000998	<0.000996 0.000996
m,p-Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
o-Xylene		<0.000998 0.000998	<0.00100 0.00100	<0.00100 0.00100	<0.00100 0.00100	<0.000998 0.000998	<0.000996 0.000996
Total Xylenes		<0.000998 0.000998	<0.00100 0.00100	<0.00100 0.00100	<0.00100 0.00100	<0.000998 0.000998	<0.000996 0.000996
Total BTEX		<0.000998 0.000998	<0.00100 0.00100	<0.00100 0.00100	<0.00100 0.00100	<0.000998 0.000998	<0.000996 0.000996
Chloride by EPA 300	<i>Extracted:</i>	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08
	<i>Analyzed:</i>	Aug-21-19 21:29	Aug-21-19 21:36	Aug-21-19 21:42	Aug-21-19 21:49	Aug-21-19 21:55	Aug-21-19 22:15
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		723 10.0	512 10.0	319 10.0	504 10.0	43.0 9.90	38.2 9.84
TPH by SW8015 Mod	<i>Extracted:</i>	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08
	<i>Analyzed:</i>	Aug-21-19 17:03	Aug-21-19 17:24	Aug-21-19 18:26	Aug-21-19 18:46	Aug-21-19 19:07	Aug-21-19 19:27
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<25.1 25.1	<25.1 25.1	<25.1 25.1	<25.0 25.0	<25.0 25.0	<25.0 25.0
Diesel Range Organics (DRO)		42.3 25.1	<25.1 25.1	<25.1 25.1	50.1 25.0	<25.0 25.0	<25.0 25.0
Motor Oil Range Hydrocarbons (MRO)		<25.1 25.1	<25.1 25.1	<25.1 25.1	<25.0 25.0	<25.0 25.0	<25.0 25.0
Total TPH		42.3 25.1	<25.1 25.1	<25.1 25.1	50.1 25.0	<25.0 25.0	<25.0 25.0
Total GRO-DRO		42.3 25.1	<25.1 25.1	<25.1 25.1	50.1 25.0	<25.0 25.0	<25.0 25.0

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

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 634606

LT Environmental, Inc., Arvada, CO

Project Name: Picket Draw Federal #001

Project Id: 012919150
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Aug-20-19 12:50 pm

Report Date: 26-AUG-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	634606-019	634606-020	634606-021	634606-022	634606-023	634606-024
	<i>Field Id:</i>	FS15	FS16	FS17	FS18	FS19	FS20
	<i>Depth:</i>	4- ft	4- ft	4- ft	4- ft	4- ft	4- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Aug-15-19 14:15	Aug-15-19 14:25	Aug-15-19 14:35	Aug-15-19 14:45	Aug-15-19 14:55	Aug-15-19 15:10
BTEX by EPA 8021B	<i>Extracted:</i>	Aug-21-19 10:08	Aug-22-19 09:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-22-19 09:08
	<i>Analyzed:</i>	Aug-21-19 18:17	Aug-22-19 19:40	Aug-21-19 18:57	Aug-21-19 19:17	Aug-21-19 19:37	Aug-22-19 20:00
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00100 0.00100	<0.000994 0.000994	<0.00100 0.00100	<0.000998 0.000998	<0.00100 0.00100	<0.00100 0.00100
Toluene		<0.00100 0.00100	<0.000994 0.000994	<0.00100 0.00100	<0.000998 0.000998	<0.00100 0.00100	<0.00100 0.00100
Ethylbenzene		<0.00100 0.00100	0.00243 0.000994	<0.00100 0.00100	<0.000998 0.000998	<0.00100 0.00100	0.00148 0.00100
m,p-Xylenes		<0.00200 0.00200	0.0255 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	0.0104 0.00200
o-Xylene		<0.00100 0.00100	0.0104 0.000994	<0.00100 0.00100	<0.000998 0.000998	<0.00100 0.00100	0.00791 0.00100
Total Xylenes		<0.00100 0.00100	0.0359 0.000994	<0.00100 0.00100	<0.000998 0.000998	<0.00100 0.00100	0.0183 0.00100
Total BTEX		<0.00100 0.00100	0.0383 0.000994	<0.00100 0.00100	<0.000998 0.000998	<0.00100 0.00100	0.0198 0.00100
Chloride by EPA 300	<i>Extracted:</i>	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08
	<i>Analyzed:</i>	Aug-21-19 22:22	Aug-21-19 22:28	Aug-21-19 22:48	Aug-21-19 22:54	Aug-21-19 23:01	Aug-21-19 23:08
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		183 10.0	161 9.82	187 49.7	633 49.8	1150 99.8	1410 50.0
TPH by SW8015 Mod	<i>Extracted:</i>	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08
	<i>Analyzed:</i>	Aug-21-19 19:48	Aug-21-19 20:08	Aug-21-19 20:28	Aug-21-19 20:49	Aug-21-19 21:09	Aug-21-19 21:29
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<25.1 25.1	<25.0 25.0	<24.9 24.9	<24.9 24.9	<25.1 25.1	<25.1 25.1
Diesel Range Organics (DRO)		152 25.1	586 25.0	57.6 24.9	59.0 24.9	42.2 25.1	190 25.1
Motor Oil Range Hydrocarbons (MRO)		<25.1 25.1	<25.0 25.0	<24.9 24.9	<24.9 24.9	<25.1 25.1	<25.1 25.1
Total TPH		152 25.1	586 25.0	57.6 24.9	59.0 24.9	42.2 25.1	190 25.1
Total GRO-DRO		152 25.1	586 25.0	57.6 24.9	59.0 24.9	42.2 25.1	190 25.1

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Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 634606

LT Environmental, Inc., Arvada, CO

Project Name: Picket Draw Federal #001

Project Id: 012919150
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Aug-20-19 12:50 pm

Report Date: 26-AUG-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	634606-025	634606-026	634606-027	634606-028	634606-029	634606-030
	<i>Field Id:</i>	FS21	FS22	FS23	FS24	FS25	FS26
	<i>Depth:</i>	4- ft	5- ft	5- ft	5- ft	5- ft	6- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Aug-15-19 15:20	Aug-19-19 12:00	Aug-19-19 12:10	Aug-19-19 12:15	Aug-19-19 13:10	Aug-19-19 13:15
BTEX by EPA 8021B	<i>Extracted:</i>	Aug-22-19 09:08	Aug-22-19 09:08	Aug-22-19 09:08	Aug-22-19 09:08	Aug-22-19 09:08	Aug-22-19 09:08
	<i>Analyzed:</i>	Aug-22-19 11:10	Aug-22-19 11:29	Aug-22-19 11:49	Aug-22-19 12:09	Aug-22-19 12:29	Aug-22-19 12:49
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.000996 0.000996	<0.00101 0.00101	<0.000994 0.000994	<0.00100 0.00100	<0.000992 0.000992	<0.000990 0.000990
Toluene		<0.000996 0.000996	<0.00101 0.00101	<0.000994 0.000994	<0.00100 0.00100	<0.000992 0.000992	<0.000990 0.000990
Ethylbenzene		0.00117 0.000996	<0.00101 0.00101	<0.000994 0.000994	0.00341 0.00100	<0.000992 0.000992	<0.000990 0.000990
m,p-Xylenes		0.00576 0.00199	<0.00201 0.00201	<0.00199 0.00199	0.0260 0.00200	<0.00198 0.00198	<0.00198 0.00198
o-Xylene		0.00533 0.000996	<0.00101 0.00101	<0.000994 0.000994	0.0183 0.00100	<0.000992 0.000992	<0.000990 0.000990
Total Xylenes		0.0111 0.000996	<0.00101 0.00101	<0.000994 0.000994	0.0443 0.00100	<0.000992 0.000992	<0.000990 0.000990
Total BTEX		0.0123 0.000996	<0.00101 0.00101	<0.000994 0.000994	0.0477 0.00100	<0.000992 0.000992	<0.000990 0.000990
Chloride by EPA 300	<i>Extracted:</i>	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08
	<i>Analyzed:</i>	Aug-21-19 23:14	Aug-22-19 23:42	Aug-22-19 09:48	Aug-22-19 10:07	Aug-22-19 10:13	Aug-22-19 10:19
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		767 49.8	3820 99.8	1450 99.4	2240 99.8	1050 49.7	127 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	Aug-22-19 09:30	Aug-22-19 09:30	Aug-22-19 09:30	Aug-22-19 09:30	Aug-22-19 09:30	Aug-22-19 09:30
	<i>Analyzed:</i>	Aug-22-19 12:06	Aug-22-19 13:09	Aug-22-19 13:29	Aug-22-19 13:49	Aug-22-19 14:09	Aug-22-19 14:29
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		901 25.0	<25.0 25.0	<25.0 25.0	<25.0 25.0	<25.0 25.0	<24.9 24.9
Diesel Range Organics (DRO)		1170 25.0	<25.0 25.0	<25.0 25.0	319 25.0	<25.0 25.0	146 24.9
Motor Oil Range Hydrocarbons (MRO)		<25.0 25.0	<25.0 25.0	<25.0 25.0	<25.0 25.0	<25.0 25.0	<24.9 24.9
Total TPH		2070 25.0	<25.0 25.0	<25.0 25.0	319 25.0	<25.0 25.0	146 24.9
Total GRO-DRO		2070 25.0	<25.0 25.0	<25.0 25.0	319 25.0	<25.0 25.0	146 24.9

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Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 634606

LT Environmental, Inc., Arvada, CO

Project Name: Picket Draw Federal #001

Project Id: 012919150
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Aug-20-19 12:50 pm

Report Date: 26-AUG-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	634606-031	634606-032	634606-033	634606-034	634606-035	634606-036
	<i>Field Id:</i>	FS27	SW05	SW06	FS28	FS29	FS30
	<i>Depth:</i>	7- ft	0-5 ft	0-5 ft	4- ft	4- ft	4- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Aug-19-19 13:25	Aug-19-19 13:30	Aug-19-19 13:45	Aug-19-19 13:55	Aug-19-19 14:00	Aug-19-19 14:10
BTEX by EPA 8021B	<i>Extracted:</i>	Aug-22-19 09:08	Aug-23-19 14:08	Aug-23-19 14:08	Aug-23-19 14:08	Aug-22-19 09:08	Aug-22-19 09:08
	<i>Analyzed:</i>	Aug-22-19 13:08	Aug-24-19 16:13	Aug-24-19 15:33	Aug-24-19 15:53	Aug-22-19 15:48	Aug-22-19 16:08
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.000996 0.000996	<0.500 0.500	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	<0.00100 0.00100
Toluene		<0.000996 0.000996	2.08 0.500	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	<0.00100 0.00100
Ethylbenzene		<0.000996 0.000996	2.60 0.500	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	<0.00100 0.00100
m,p-Xylenes		<0.00199 0.00199	19.3 1.00	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201
o-Xylene		<0.000996 0.000996	9.06 0.500	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	<0.00100 0.00100
Total Xylenes		<0.000996 0.000996	28.4 0.500	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	<0.00100 0.00100
Total BTEX		<0.000996 0.000996	33.0 0.500	<0.00100 0.00100	<0.00100 0.00100	<0.00101 0.00101	<0.00100 0.00100
Chloride by EPA 300	<i>Extracted:</i>	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08
	<i>Analyzed:</i>	Aug-22-19 11:03	Aug-22-19 11:09	Aug-22-19 11:16	Aug-22-19 11:22	Aug-22-19 11:28	Aug-22-19 11:35
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		66.5 10.0	188 10.0	56.7 10.0	894 49.4	812 49.8	854 50.1
TPH by SW8015 Mod	<i>Extracted:</i>	Aug-23-19 10:00	Aug-23-19 10:00	Aug-23-19 10:00	Aug-23-19 10:00	Aug-23-19 10:00	Aug-23-19 10:00
	<i>Analyzed:</i>	Aug-23-19 13:30	Aug-23-19 13:50	Aug-23-19 14:10	Aug-23-19 14:30	Aug-23-19 14:50	Aug-23-19 15:10
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<24.9 24.9	615 25.0	<24.9 24.9	<25.0 25.0	<24.9 24.9	<25.1 25.1
Diesel Range Organics (DRO)		<24.9 24.9	3810 25.0	<24.9 24.9	<25.0 25.0	<24.9 24.9	<25.1 25.1
Motor Oil Range Hydrocarbons (MRO)		<24.9 24.9	<25.0 25.0	<24.9 24.9	<25.0 25.0	<24.9 24.9	<25.1 25.1
Total TPH		<24.9 24.9	4430 25.0	<24.9 24.9	<25.0 25.0	<24.9 24.9	<25.1 25.1
Total GRO-DRO		<24.9 24.9	4430 25.0	<24.9 24.9	<25.0 25.0	<24.9 24.9	<25.1 25.1

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 634606

LT Environmental, Inc., Arvada, CO

Project Name: Picket Draw Federal #001

Project Id: 012919150
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Aug-20-19 12:50 pm

Report Date: 26-AUG-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	634606-037	634606-038	634606-039	634606-040	634606-041	634606-042
	<i>Field Id:</i>	SW07	SW08	FS31	SW09	SW10	SW11
	<i>Depth:</i>	0-7 ft	0-4 ft	2.5- ft	0-4 ft	0-4 ft	0-4 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Aug-19-19 14:20	Aug-19-19 14:30	Aug-19-19 14:40	Aug-19-19 14:50	Aug-19-19 15:00	Aug-19-19 15:10
BTEX by EPA 8021B	<i>Extracted:</i>	Aug-22-19 09:08	Aug-22-19 09:08	Aug-22-19 09:08	Aug-22-19 09:08	Aug-23-19 14:08	Aug-23-19 14:08
	<i>Analyzed:</i>	Aug-22-19 16:48	Aug-22-19 17:07	Aug-22-19 18:21	Aug-22-19 18:41	Aug-24-19 13:34	Aug-24-19 13:54
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.000998 0.000998	<0.00101 0.00101	<0.000994 0.000994	<0.000994 0.000994	<0.00100 0.00100	<0.000992 0.000992
Toluene		0.00107 0.000998	<0.00101 0.00101	<0.000994 0.000994	<0.000994 0.000994	<0.00100 0.00100	<0.000992 0.000992
Ethylbenzene		<0.000998 0.000998	<0.00101 0.00101	<0.000994 0.000994	<0.000994 0.000994	<0.00100 0.00100	<0.000992 0.000992
m,p-Xylenes		<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
o-Xylene		<0.000998 0.000998	<0.00101 0.00101	<0.000994 0.000994	<0.000994 0.000994	<0.00100 0.00100	<0.000992 0.000992
Total Xylenes		<0.000998 0.000998	<0.00101 0.00101	<0.000994 0.000994	<0.000994 0.000994	<0.00100 0.00100	<0.000992 0.000992
Total BTEX		0.00107 0.000998	<0.00101 0.00101	<0.000994 0.000994	<0.000994 0.000994	<0.00100 0.00100	<0.000992 0.000992
Chloride by EPA 300	<i>Extracted:</i>	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08
	<i>Analyzed:</i>	Aug-22-19 11:41	Aug-22-19 12:00	Aug-22-19 12:25	Aug-22-19 12:32	Aug-22-19 12:38	Aug-22-19 12:44
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		49.8 10.0	724 50.1	646 50.0	42.9 9.94	801 49.9	47.0 9.92
TPH by SW8015 Mod	<i>Extracted:</i>	Aug-23-19 10:00	Aug-23-19 10:00	Aug-23-19 10:00	Aug-23-19 10:00	Aug-23-19 10:00	Aug-23-19 10:00
	<i>Analyzed:</i>	Aug-23-19 15:30	Aug-23-19 16:10	Aug-23-19 16:30	Aug-23-19 16:50	Aug-23-19 17:10	Aug-23-19 17:30
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<25.0 25.0	<24.9 24.9	<25.1 25.1	<25.1 25.1	<25.0 25.0	<25.1 25.1
Diesel Range Organics (DRO)		<25.0 25.0	<24.9 24.9	<25.1 25.1	<25.1 25.1	86.2 25.0	<25.1 25.1
Motor Oil Range Hydrocarbons (MRO)		<25.0 25.0	<24.9 24.9	<25.1 25.1	<25.1 25.1	<25.0 25.0	<25.1 25.1
Total TPH		<25.0 25.0	<24.9 24.9	<25.1 25.1	<25.1 25.1	86.2 25.0	<25.1 25.1
Total GRO-DRO		<25.0 25.0	<24.9 24.9	<25.1 25.1	<25.1 25.1	86.2 25.0	<25.1 25.1

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Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 634606

LT Environmental, Inc., Arvada, CO

Project Name: Picket Draw Federal #001

Project Id: 012919150
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Aug-20-19 12:50 pm

Report Date: 26-AUG-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	634606-043	634606-044	634606-045	634606-046		
	<i>Field Id:</i>	SW12	SW13	SW14	SW15		
	<i>Depth:</i>	0-2.5 ft	0-2.5 ft	0-2.5 ft	0-2.5 ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Aug-19-19 15:20	Aug-19-19 15:30	Aug-19-19 15:40	Aug-19-19 15:50		
BTEX by EPA 8021B	<i>Extracted:</i>	Aug-23-19 14:08	Aug-23-19 14:08	Aug-23-19 14:08	Aug-23-19 14:08		
	<i>Analyzed:</i>	Aug-24-19 14:13	Aug-24-19 14:33	Aug-24-19 14:54	Aug-24-19 15:14		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.000990 0.000990	<0.00100 0.00100	<0.00100 0.00100	<0.000998 0.000998		
Toluene		<0.000990 0.000990	<0.00100 0.00100	<0.00100 0.00100	<0.000998 0.000998		
Ethylbenzene		<0.000990 0.000990	<0.00100 0.00100	<0.00100 0.00100	<0.000998 0.000998		
m,p-Xylenes		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200		
o-Xylene		<0.000990 0.000990	<0.00100 0.00100	<0.00100 0.00100	<0.000998 0.000998		
Total Xylenes		<0.000990 0.000990	<0.00100 0.00100	<0.00100 0.00100	<0.000998 0.000998		
Total BTEX		<0.000990 0.000990	<0.00100 0.00100	<0.00100 0.00100	<0.000998 0.000998		
Chloride by EPA 300	<i>Extracted:</i>	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08	Aug-21-19 10:08		
	<i>Analyzed:</i>	Aug-22-19 12:51	Aug-22-19 12:57	Aug-22-19 13:04	Aug-22-19 13:10		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		1760 49.7	684 49.7	1450 49.8	238 9.94		
TPH by SW8015 Mod	<i>Extracted:</i>	Aug-23-19 10:00	Aug-23-19 10:00	Aug-23-19 10:00	Aug-23-19 10:00		
	<i>Analyzed:</i>	Aug-23-19 17:50	Aug-23-19 18:11	Aug-23-19 18:31	Aug-23-19 18:51		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<24.9 24.9	<25.1 25.1	<25.0 25.0	<25.1 25.1		
Diesel Range Organics (DRO)		140 24.9	<25.1 25.1	<25.0 25.0	<25.1 25.1		
Motor Oil Range Hydrocarbons (MRO)		<24.9 24.9	<25.1 25.1	<25.0 25.0	<25.1 25.1		
Total TPH		140 24.9	<25.1 25.1	<25.0 25.0	<25.1 25.1		
Total GRO-DRO		140 24.9	<25.1 25.1	<25.0 25.0	<25.1 25.1		

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Jessica Kramer
Project Assistant



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS01** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-001 Date Collected: 08.15.19 10.40 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.20.19 16.08 Basis: Wet Weight
 Seq Number: 3099290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	969	20.0	mg/kg	08.20.19 21.19		2

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.20.19 14.49 Basis: Wet Weight
 Seq Number: 3099052

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.2	25.2	mg/kg	08.20.19 22.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.2	25.2	mg/kg	08.20.19 22.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.2	25.2	mg/kg	08.20.19 22.13	U	1
Total TPH	PHC635	<25.2	25.2	mg/kg	08.20.19 22.13	U	1
Total GRO-DRO	PHC628	<25.2	25.2	mg/kg	08.20.19 22.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	08.20.19 22.13	
o-Terphenyl	84-15-1	111	%	70-135	08.20.19 22.13	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS01**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-001

Date Collected: 08.15.19 10.40

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.20.19 14.49

Basis: Wet Weight

Seq Number: 3099039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	08.20.19 21.52	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	08.20.19 21.52	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	08.20.19 21.52	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	08.20.19 21.52	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	08.20.19 21.52	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	08.20.19 21.52	U	1
Total BTEX		<0.00101	0.00101	mg/kg	08.20.19 21.52	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		95	%	80-120	08.20.19 21.52	
4-Bromofluorobenzene	460-00-4		95	%	80-120	08.20.19 21.52	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS02** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-002 Date Collected: 08.15.19 10.45 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.20.19 16.08 Basis: Wet Weight
 Seq Number: 3099290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	142	10.0	mg/kg	08.20.19 21.26		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.20.19 14.49 Basis: Wet Weight
 Seq Number: 3099052

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	08.20.19 22.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.1	25.1	mg/kg	08.20.19 22.33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	08.20.19 22.33	U	1
Total TPH	PHC635	<25.1	25.1	mg/kg	08.20.19 22.33	U	1
Total GRO-DRO	PHC628	<25.1	25.1	mg/kg	08.20.19 22.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	08.20.19 22.33	
o-Terphenyl	84-15-1	111	%	70-135	08.20.19 22.33	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS02**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-002

Date Collected: 08.15.19 10.45

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.20.19 14.49

Basis: Wet Weight

Seq Number: 3099039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000990	0.000990	mg/kg	08.20.19 22.12	U	1
Toluene	108-88-3	<0.000990	0.000990	mg/kg	08.20.19 22.12	U	1
Ethylbenzene	100-41-4	<0.000990	0.000990	mg/kg	08.20.19 22.12	U	1
m,p-Xylenes	179601-23-1	<0.00198	0.00198	mg/kg	08.20.19 22.12	U	1
o-Xylene	95-47-6	<0.000990	0.000990	mg/kg	08.20.19 22.12	U	1
Total Xylenes	1330-20-7	<0.000990	0.000990	mg/kg	08.20.19 22.12	U	1
Total BTEX		<0.000990	0.000990	mg/kg	08.20.19 22.12	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		95	%	80-120	08.20.19 22.12	
1,4-Difluorobenzene	540-36-3		96	%	80-120	08.20.19 22.12	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS03** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-003 Date Collected: 08.15.19 10.50 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.20.19 16.08 Basis: Wet Weight
 Seq Number: 3099290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	256	10.1	mg/kg	08.20.19 21.32		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.20.19 14.49 Basis: Wet Weight
 Seq Number: 3099052

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	08.20.19 22.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.1	25.1	mg/kg	08.20.19 22.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	08.20.19 22.54	U	1
Total TPH	PHC635	<25.1	25.1	mg/kg	08.20.19 22.54	U	1
Total GRO-DRO	PHC628	<25.1	25.1	mg/kg	08.20.19 22.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	08.20.19 22.54	
o-Terphenyl	84-15-1	123	%	70-135	08.20.19 22.54	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS03**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-003

Date Collected: 08.15.19 10.50

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.20.19 14.49

Basis: Wet Weight

Seq Number: 3099039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000990	0.000990	mg/kg	08.20.19 22.32	U	1
Toluene	108-88-3	<0.000990	0.000990	mg/kg	08.20.19 22.32	U	1
Ethylbenzene	100-41-4	<0.000990	0.000990	mg/kg	08.20.19 22.32	U	1
m,p-Xylenes	179601-23-1	<0.00198	0.00198	mg/kg	08.20.19 22.32	U	1
o-Xylene	95-47-6	<0.000990	0.000990	mg/kg	08.20.19 22.32	U	1
Total Xylenes	1330-20-7	<0.000990	0.000990	mg/kg	08.20.19 22.32	U	1
Total BTEX		<0.000990	0.000990	mg/kg	08.20.19 22.32	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	125	%	80-120	08.20.19 22.32	**	
1,4-Difluorobenzene	540-36-3	101	%	80-120	08.20.19 22.32		



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS04** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-004 Date Collected: 08.15.19 11.00 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.20.19 16.08 Basis: Wet Weight
 Seq Number: 3099290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	176	9.96	mg/kg	08.20.19 21.39		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.20.19 14.49 Basis: Wet Weight
 Seq Number: 3099052

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.20.19 23.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<24.9	24.9	mg/kg	08.20.19 23.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.20.19 23.14	U	1
Total TPH	PHC635	<24.9	24.9	mg/kg	08.20.19 23.14	U	1
Total GRO-DRO	PHC628	<24.9	24.9	mg/kg	08.20.19 23.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	08.20.19 23.14	
o-Terphenyl	84-15-1	119	%	70-135	08.20.19 23.14	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS04**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-004

Date Collected: 08.15.19 11.00

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.20.19 14.49

Basis: Wet Weight

Seq Number: 3099039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	08.20.19 22.51	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	08.20.19 22.51	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	08.20.19 22.51	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	08.20.19 22.51	U	1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	08.20.19 22.51	U	1
Total Xylenes	1330-20-7	<0.000994	0.000994	mg/kg	08.20.19 22.51	U	1
Total BTEX		<0.000994	0.000994	mg/kg	08.20.19 22.51	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	80-120	08.20.19 22.51		
1,4-Difluorobenzene	540-36-3	100	%	80-120	08.20.19 22.51		



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: FS05	Matrix: Soil	Date Received: 08.20.19 12.50
Lab Sample Id: 634606-005	Date Collected: 08.15.19 11.05	Sample Depth: 1 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.20.19 16.08	Basis: Wet Weight
Seq Number: 3099290		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	196	9.94	mg/kg	08.20.19 21.45		1

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DTH	% Moisture:
Analyst: DTH	Basis: Wet Weight
Seq Number: 3099052	

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.20.19 23.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	29.2	24.9	mg/kg	08.20.19 23.34		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.20.19 23.34	U	1
Total TPH	PHC635	29.2	24.9	mg/kg	08.20.19 23.34		1
Total GRO-DRO	PHC628	29.2	24.9	mg/kg	08.20.19 23.34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	08.20.19 23.34	
o-Terphenyl	84-15-1	115	%	70-135	08.20.19 23.34	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS05**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-005

Date Collected: 08.15.19 11.05

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.20.19 14.49

Basis: Wet Weight

Seq Number: 3099039

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000996	0.000996	mg/kg	08.20.19 23.11	U	1
Toluene	108-88-3	<0.000996	0.000996	mg/kg	08.20.19 23.11	U	1
Ethylbenzene	100-41-4	<0.000996	0.000996	mg/kg	08.20.19 23.11	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	08.20.19 23.11	U	1
o-Xylene	95-47-6	<0.000996	0.000996	mg/kg	08.20.19 23.11	U	1
Total Xylenes	1330-20-7	<0.000996	0.000996	mg/kg	08.20.19 23.11	U	1
Total BTEX		<0.000996	0.000996	mg/kg	08.20.19 23.11	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	80-120	08.20.19 23.11		
4-Bromofluorobenzene	460-00-4	106	%	80-120	08.20.19 23.11		



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS06** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-006 Date Collected: 08.15.19 11.10 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.20.19 16.08 Basis: Wet Weight
 Seq Number: 3099290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	51.8	20.0	mg/kg	08.20.19 21.52		2

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.21.19 13.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	08.21.19 13.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.21.19 13.51	U	1
Total TPH	PHC635	<25.0	25.0	mg/kg	08.21.19 13.51	U	1
Total GRO-DRO	PHC628	<25.0	25.0	mg/kg	08.21.19 13.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	08.21.19 13.51	
o-Terphenyl	84-15-1	117	%	70-135	08.21.19 13.51	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS06**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-006

Date Collected: 08.15.19 11.10

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.21.19 10.08

Basis: Wet Weight

Seq Number: 3099361

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	08.21.19 12.01	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	08.21.19 12.01	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	08.21.19 12.01	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	08.21.19 12.01	U	1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	08.21.19 12.01	U	1
Total Xylenes	1330-20-7	<0.000994	0.000994	mg/kg	08.21.19 12.01	U	1
Total BTEX		<0.000994	0.000994	mg/kg	08.21.19 12.01	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	80-120	08.21.19 12.01		
1,4-Difluorobenzene	540-36-3	102	%	80-120	08.21.19 12.01		



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS07** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-007 Date Collected: 08.15.19 11.20 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099263

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	195	9.94	mg/kg	08.21.19 20.24		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.21.19 15.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<24.9	24.9	mg/kg	08.21.19 15.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.21.19 15.00	U	1
Total TPH	PHC635	<24.9	24.9	mg/kg	08.21.19 15.00	U	1
Total GRO-DRO	PHC628	<24.9	24.9	mg/kg	08.21.19 15.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	08.21.19 15.00	
o-Terphenyl	84-15-1	111	%	70-135	08.21.19 15.00	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS07**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-007

Date Collected: 08.15.19 11.20

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.21.19 10.08

Basis: Wet Weight

Seq Number: 3099361

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000998	0.000998	mg/kg	08.21.19 13.20	U	1
Toluene	108-88-3	<0.000998	0.000998	mg/kg	08.21.19 13.20	U	1
Ethylbenzene	100-41-4	<0.000998	0.000998	mg/kg	08.21.19 13.20	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	08.21.19 13.20	U	1
o-Xylene	95-47-6	<0.000998	0.000998	mg/kg	08.21.19 13.20	U	1
Total Xylenes	1330-20-7	<0.000998	0.000998	mg/kg	08.21.19 13.20	U	1
Total BTEX		<0.000998	0.000998	mg/kg	08.21.19 13.20	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	80-120	08.21.19 13.20		
4-Bromofluorobenzene	460-00-4	116	%	80-120	08.21.19 13.20		



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS08** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-008 Date Collected: 08.15.19 11.25 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099263

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	189	10.0	mg/kg	08.21.19 20.43		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	08.21.19 15.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	83.7	25.1	mg/kg	08.21.19 15.20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	08.21.19 15.20	U	1
Total TPH	PHC635	83.7	25.1	mg/kg	08.21.19 15.20		1
Total GRO-DRO	PHC628	83.7	25.1	mg/kg	08.21.19 15.20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	08.21.19 15.20	
o-Terphenyl	84-15-1	115	%	70-135	08.21.19 15.20	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS08**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-008

Date Collected: 08.15.19 11.25

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.21.19 10.08

Basis: Wet Weight

Seq Number: 3099361

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	08.21.19 13.40	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	08.21.19 13.40	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	08.21.19 13.40	U	1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	08.21.19 13.40	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	08.21.19 13.40	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	08.21.19 13.40	U	1
Total BTEX		<0.00101	0.00101	mg/kg	08.21.19 13.40	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		109	%	80-120	08.21.19 13.40	
1,4-Difluorobenzene	540-36-3		101	%	80-120	08.21.19 13.40	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: FS09	Matrix: Soil	Date Received: 08.20.19 12.50
Lab Sample Id: 634606-009	Date Collected: 08.15.19 11.30	Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.21.19 10.08	Basis: Wet Weight
Seq Number: 3099263		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	237	10.1	mg/kg	08.21.19 20.50		1

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DTH	% Moisture:
Analyst: DTH	Basis: Wet Weight
Seq Number: 3099358	

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	08.21.19 15.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	27.7	25.1	mg/kg	08.21.19 15.40		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	08.21.19 15.40	U	1
Total TPH	PHC635	27.7	25.1	mg/kg	08.21.19 15.40		1
Total GRO-DRO	PHC628	27.7	25.1	mg/kg	08.21.19 15.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	08.21.19 15.40	
o-Terphenyl	84-15-1	120	%	70-135	08.21.19 15.40	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS09**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-009

Date Collected: 08.15.19 11.30

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.21.19 10.08

Basis: Wet Weight

Seq Number: 3099361

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000998	0.000998	mg/kg	08.21.19 14.00	U	1
Toluene	108-88-3	<0.000998	0.000998	mg/kg	08.21.19 14.00	U	1
Ethylbenzene	100-41-4	<0.000998	0.000998	mg/kg	08.21.19 14.00	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	08.21.19 14.00	U	1
o-Xylene	95-47-6	<0.000998	0.000998	mg/kg	08.21.19 14.00	U	1
Total Xylenes	1330-20-7	<0.000998	0.000998	mg/kg	08.21.19 14.00	U	1
Total BTEX		<0.000998	0.000998	mg/kg	08.21.19 14.00	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	80-120	08.21.19 14.00		
4-Bromofluorobenzene	460-00-4	103	%	80-120	08.21.19 14.00		



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS10** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-010 Date Collected: 08.15.19 11.35 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099263

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	74.0	10.0	mg/kg	08.21.19 20.56		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	08.21.19 16.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.1	25.1	mg/kg	08.21.19 16.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	08.21.19 16.01	U	1
Total TPH	PHC635	<25.1	25.1	mg/kg	08.21.19 16.01	U	1
Total GRO-DRO	PHC628	<25.1	25.1	mg/kg	08.21.19 16.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	08.21.19 16.01	
o-Terphenyl	84-15-1	113	%	70-135	08.21.19 16.01	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: FS10	Matrix: Soil	Date Received: 08.20.19 12.50
Lab Sample Id: 634606-010	Date Collected: 08.15.19 11.35	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.21.19 10.08	Basis: Wet Weight
Seq Number: 3099361		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	08.21.19 14.19	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	08.21.19 14.19	U	1
Ethylbenzene	100-41-4	0.00224	0.00101	mg/kg	08.21.19 14.19		1
m,p-Xylenes	179601-23-1	<0.00202	0.00202	mg/kg	08.21.19 14.19	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	08.21.19 14.19	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	08.21.19 14.19	U	1
Total BTEX		0.00224	0.00101	mg/kg	08.21.19 14.19		1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		119	%	80-120	08.21.19 14.19	
1,4-Difluorobenzene	540-36-3		102	%	80-120	08.21.19 14.19	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS11** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-011 Date Collected: 08.15.19 11.45 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099263

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	350	9.98	mg/kg	08.21.19 21.03		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.21.19 16.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<24.9	24.9	mg/kg	08.21.19 16.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.21.19 16.21	U	1
Total TPH	PHC635	<24.9	24.9	mg/kg	08.21.19 16.21	U	1
Total GRO-DRO	PHC628	<24.9	24.9	mg/kg	08.21.19 16.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	08.21.19 16.21	
o-Terphenyl	84-15-1	111	%	70-135	08.21.19 16.21	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS11**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-011

Date Collected: 08.15.19 11.45

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.21.19 10.08

Basis: Wet Weight

Seq Number: 3099361

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	08.21.19 14.39	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	08.21.19 14.39	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	08.21.19 14.39	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	08.21.19 14.39	U	1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	08.21.19 14.39	U	1
Total Xylenes	1330-20-7	<0.000994	0.000994	mg/kg	08.21.19 14.39	U	1
Total BTEX		<0.000994	0.000994	mg/kg	08.21.19 14.39	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		101	%	80-120	08.21.19 14.39	
4-Bromofluorobenzene	460-00-4		110	%	80-120	08.21.19 14.39	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS12** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-012 Date Collected: 08.15.19 11.55 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099263

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	274	10.0	mg/kg	08.21.19 21.23		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.21.19 16.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<24.9	24.9	mg/kg	08.21.19 16.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.21.19 16.42	U	1
Total TPH	PHC635	<24.9	24.9	mg/kg	08.21.19 16.42	U	1
Total GRO-DRO	PHC628	<24.9	24.9	mg/kg	08.21.19 16.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	08.21.19 16.42	
o-Terphenyl	84-15-1	117	%	70-135	08.21.19 16.42	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS12**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-012

Date Collected: 08.15.19 11.55

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.21.19 10.08

Basis: Wet Weight

Seq Number: 3099361

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000990	0.000990	mg/kg	08.21.19 14.58	U	1
Toluene	108-88-3	<0.000990	0.000990	mg/kg	08.21.19 14.58	U	1
Ethylbenzene	100-41-4	<0.000990	0.000990	mg/kg	08.21.19 14.58	U	1
m,p-Xylenes	179601-23-1	<0.00198	0.00198	mg/kg	08.21.19 14.58	U	1
o-Xylene	95-47-6	<0.000990	0.000990	mg/kg	08.21.19 14.58	U	1
Total Xylenes	1330-20-7	<0.000990	0.000990	mg/kg	08.21.19 14.58	U	1
Total BTEX		<0.000990	0.000990	mg/kg	08.21.19 14.58	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		105	%	80-120	08.21.19 14.58	
4-Bromofluorobenzene	460-00-4		117	%	80-120	08.21.19 14.58	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: SW01	Matrix: Soil	Date Received: 08.20.19 12.50
Lab Sample Id: 634606-013	Date Collected: 08.15.19 12.05	Sample Depth: 0 - 1 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.21.19 10.08	Basis: Wet Weight
Seq Number: 3099263		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	723	10.0	mg/kg	08.21.19 21.29		1

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DTH	% Moisture:
Analyst: DTH	Basis: Wet Weight
Seq Number: 3099358	

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	08.21.19 17.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	42.3	25.1	mg/kg	08.21.19 17.03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	08.21.19 17.03	U	1
Total TPH	PHC635	42.3	25.1	mg/kg	08.21.19 17.03		1
Total GRO-DRO	PHC628	42.3	25.1	mg/kg	08.21.19 17.03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	08.21.19 17.03	
o-Terphenyl	84-15-1	112	%	70-135	08.21.19 17.03	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW01**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-013

Date Collected: 08.15.19 12.05

Sample Depth: 0 - 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.21.19 10.08

Basis: Wet Weight

Seq Number: 3099361

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000998	0.000998	mg/kg	08.21.19 15.18	U	1
Toluene	108-88-3	<0.000998	0.000998	mg/kg	08.21.19 15.18	U	1
Ethylbenzene	100-41-4	<0.000998	0.000998	mg/kg	08.21.19 15.18	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	08.21.19 15.18	U	1
o-Xylene	95-47-6	<0.000998	0.000998	mg/kg	08.21.19 15.18	U	1
Total Xylenes	1330-20-7	<0.000998	0.000998	mg/kg	08.21.19 15.18	U	1
Total BTEX		<0.000998	0.000998	mg/kg	08.21.19 15.18	U	1
% Recovery							
Surrogate	Cas Number		%	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		94	%	80-120	08.21.19 15.18	
4-Bromofluorobenzene	460-00-4		124	%	80-120	08.21.19 15.18	**



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW02** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-014 Date Collected: 08.15.19 12.10 Sample Depth: 0 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099263

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	512	10.0	mg/kg	08.21.19 21.36		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	08.21.19 17.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.1	25.1	mg/kg	08.21.19 17.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	08.21.19 17.24	U	1
Total TPH	PHC635	<25.1	25.1	mg/kg	08.21.19 17.24	U	1
Total GRO-DRO	PHC628	<25.1	25.1	mg/kg	08.21.19 17.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	08.21.19 17.24	
o-Terphenyl	84-15-1	110	%	70-135	08.21.19 17.24	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW02**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-014

Date Collected: 08.15.19 12.10

Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.21.19 10.08

Basis: Wet Weight

Seq Number: 3099361

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	08.21.19 15.38	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	08.21.19 15.38	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	08.21.19 15.38	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	08.21.19 15.38	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	08.21.19 15.38	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	08.21.19 15.38	U	1
Total BTEX		<0.00100	0.00100	mg/kg	08.21.19 15.38	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		111	%	80-120	08.21.19 15.38	
1,4-Difluorobenzene	540-36-3		96	%	80-120	08.21.19 15.38	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS13** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-015 Date Collected: 08.15.19 12.20 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099263

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	319	10.0	mg/kg	08.21.19 21.42		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	08.21.19 18.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.1	25.1	mg/kg	08.21.19 18.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	08.21.19 18.26	U	1
Total TPH	PHC635	<25.1	25.1	mg/kg	08.21.19 18.26	U	1
Total GRO-DRO	PHC628	<25.1	25.1	mg/kg	08.21.19 18.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	08.21.19 18.26	
o-Terphenyl	84-15-1	111	%	70-135	08.21.19 18.26	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS13**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-015

Date Collected: 08.15.19 12.20

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.21.19 10.08

Basis: Wet Weight

Seq Number: 3099361

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	08.21.19 16.58	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	08.21.19 16.58	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	08.21.19 16.58	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	08.21.19 16.58	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	08.21.19 16.58	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	08.21.19 16.58	U	1
Total BTEX		<0.00100	0.00100	mg/kg	08.21.19 16.58	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	80-120	08.21.19 16.58		
4-Bromofluorobenzene	460-00-4	118	%	80-120	08.21.19 16.58		



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW03** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-016 Date Collected: 08.15.19 12.30 Sample Depth: 0 - 7 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099263

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	504	10.0	mg/kg	08.21.19 21.49		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.21.19 18.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	50.1	25.0	mg/kg	08.21.19 18.46		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.21.19 18.46	U	1
Total TPH	PHC635	50.1	25.0	mg/kg	08.21.19 18.46		1
Total GRO-DRO	PHC628	50.1	25.0	mg/kg	08.21.19 18.46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	08.21.19 18.46	
o-Terphenyl	84-15-1	114	%	70-135	08.21.19 18.46	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW03**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-016

Date Collected: 08.15.19 12.30

Sample Depth: 0 - 7 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.22.19 09.08

Basis: Wet Weight

Seq Number: 3099404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	08.22.19 19.00	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	08.22.19 19.00	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	08.22.19 19.00	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	08.22.19 19.00	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	08.22.19 19.00	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	08.22.19 19.00	U	1
Total BTEX		<0.00100	0.00100	mg/kg	08.22.19 19.00	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		115	%	80-120	08.22.19 19.00	
1,4-Difluorobenzene	540-36-3		107	%	80-120	08.22.19 19.00	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW04** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-017 Date Collected: 08.15.19 13.00 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099263

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	43.0	9.90	mg/kg	08.21.19 21.55		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.21.19 19.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	08.21.19 19.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.21.19 19.07	U	1
Total TPH	PHC635	<25.0	25.0	mg/kg	08.21.19 19.07	U	1
Total GRO-DRO	PHC628	<25.0	25.0	mg/kg	08.21.19 19.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	08.21.19 19.07	
o-Terphenyl	84-15-1	100	%	70-135	08.21.19 19.07	



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LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW04**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-017

Date Collected: 08.15.19 13.00

Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.21.19 10.08

Basis: Wet Weight

Seq Number: 3099361

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000998	0.000998	mg/kg	08.21.19 17.38	U	1
Toluene	108-88-3	<0.000998	0.000998	mg/kg	08.21.19 17.38	U	1
Ethylbenzene	100-41-4	<0.000998	0.000998	mg/kg	08.21.19 17.38	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	08.21.19 17.38	U	1
o-Xylene	95-47-6	<0.000998	0.000998	mg/kg	08.21.19 17.38	U	1
Total Xylenes	1330-20-7	<0.000998	0.000998	mg/kg	08.21.19 17.38	U	1
Total BTEX		<0.000998	0.000998	mg/kg	08.21.19 17.38	U	1
% Recovery							
Surrogate	Cas Number		% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		115	%	80-120	08.21.19 17.38	
1,4-Difluorobenzene	540-36-3		103	%	80-120	08.21.19 17.38	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS14** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-018 Date Collected: 08.15.19 13.20 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099263

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	38.2	9.84	mg/kg	08.21.19 22.15		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.21.19 19.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	08.21.19 19.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.21.19 19.27	U	1
Total TPH	PHC635	<25.0	25.0	mg/kg	08.21.19 19.27	U	1
Total GRO-DRO	PHC628	<25.0	25.0	mg/kg	08.21.19 19.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	08.21.19 19.27	
o-Terphenyl	84-15-1	101	%	70-135	08.21.19 19.27	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS14**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-018

Date Collected: 08.15.19 13.20

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.22.19 09.08

Basis: Wet Weight

Seq Number: 3099404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000996	0.000996	mg/kg	08.22.19 19.20	U	1
Toluene	108-88-3	<0.000996	0.000996	mg/kg	08.22.19 19.20	U	1
Ethylbenzene	100-41-4	<0.000996	0.000996	mg/kg	08.22.19 19.20	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	08.22.19 19.20	U	1
o-Xylene	95-47-6	<0.000996	0.000996	mg/kg	08.22.19 19.20	U	1
Total Xylenes	1330-20-7	<0.000996	0.000996	mg/kg	08.22.19 19.20	U	1
Total BTEX		<0.000996	0.000996	mg/kg	08.22.19 19.20	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		120	%	80-120	08.22.19 19.20	
1,4-Difluorobenzene	540-36-3		107	%	80-120	08.22.19 19.20	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS15** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-019 Date Collected: 08.15.19 14.15 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099263

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	183	10.0	mg/kg	08.21.19 22.22		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	08.21.19 19.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	152	25.1	mg/kg	08.21.19 19.48		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	08.21.19 19.48	U	1
Total TPH	PHC635	152	25.1	mg/kg	08.21.19 19.48		1
Total GRO-DRO	PHC628	152	25.1	mg/kg	08.21.19 19.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	08.21.19 19.48	
o-Terphenyl	84-15-1	116	%	70-135	08.21.19 19.48	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: FS15	Matrix: Soil	Date Received: 08.20.19 12.50
Lab Sample Id: 634606-019	Date Collected: 08.15.19 14.15	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.21.19 10.08	Basis: Wet Weight
Seq Number: 3099361		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	08.21.19 18.17	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	08.21.19 18.17	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	08.21.19 18.17	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	08.21.19 18.17	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	08.21.19 18.17	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	08.21.19 18.17	U	1
Total BTEX		<0.00100	0.00100	mg/kg	08.21.19 18.17	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		104	%	80-120	08.21.19 18.17	
1,4-Difluorobenzene	540-36-3		96	%	80-120	08.21.19 18.17	



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LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: FS16	Matrix: Soil	Date Received: 08.20.19 12.50
Lab Sample Id: 634606-020	Date Collected: 08.15.19 14.25	Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.21.19 10.08	Basis: Wet Weight
Seq Number: 3099263		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	161	9.82	mg/kg	08.21.19 22.28		1

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DTH	% Moisture:
Analyst: DTH	Basis: Wet Weight
Seq Number: 3099358	

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.21.19 20.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	586	25.0	mg/kg	08.21.19 20.08		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.21.19 20.08	U	1
Total TPH	PHC635	586	25.0	mg/kg	08.21.19 20.08		1
Total GRO-DRO	PHC628	586	25.0	mg/kg	08.21.19 20.08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	08.21.19 20.08	
o-Terphenyl	84-15-1	128	%	70-135	08.21.19 20.08	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS16**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-020

Date Collected: 08.15.19 14.25

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.22.19 09.08

Basis: Wet Weight

Seq Number: 3099404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	08.22.19 19.40	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	08.22.19 19.40	U	1
Ethylbenzene	100-41-4	0.00243	0.000994	mg/kg	08.22.19 19.40		1
m,p-Xylenes	179601-23-1	0.0255	0.00199	mg/kg	08.22.19 19.40		1
o-Xylene	95-47-6	0.0104	0.000994	mg/kg	08.22.19 19.40		1
Total Xylenes	1330-20-7	0.0359	0.000994	mg/kg	08.22.19 19.40		1
Total BTEX		0.0383	0.000994	mg/kg	08.22.19 19.40		1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		155	%	80-120	08.22.19 19.40	**
1,4-Difluorobenzene	540-36-3		113	%	80-120	08.22.19 19.40	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS17** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-021 Date Collected: 08.15.19 14.35 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099263

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	187	49.7	mg/kg	08.21.19 22.48		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.21.19 20.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	57.6	24.9	mg/kg	08.21.19 20.28		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.21.19 20.28	U	1
Total TPH	PHC635	57.6	24.9	mg/kg	08.21.19 20.28		1
Total GRO-DRO	PHC628	57.6	24.9	mg/kg	08.21.19 20.28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	08.21.19 20.28	
o-Terphenyl	84-15-1	112	%	70-135	08.21.19 20.28	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS17**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-021

Date Collected: 08.15.19 14.35

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.21.19 10.08

Basis: Wet Weight

Seq Number: 3099361

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	08.21.19 18.57	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	08.21.19 18.57	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	08.21.19 18.57	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	08.21.19 18.57	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	08.21.19 18.57	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	08.21.19 18.57	U	1
Total BTEX		<0.00100	0.00100	mg/kg	08.21.19 18.57	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		107	%	80-120	08.21.19 18.57	
1,4-Difluorobenzene	540-36-3		109	%	80-120	08.21.19 18.57	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS18** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-022 Date Collected: 08.15.19 14.45 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099263

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	633	49.8	mg/kg	08.21.19 22.54		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.21.19 20.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	59.0	24.9	mg/kg	08.21.19 20.49		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.21.19 20.49	U	1
Total TPH	PHC635	59.0	24.9	mg/kg	08.21.19 20.49		1
Total GRO-DRO	PHC628	59.0	24.9	mg/kg	08.21.19 20.49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	08.21.19 20.49	
o-Terphenyl	84-15-1	125	%	70-135	08.21.19 20.49	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: FS18	Matrix: Soil	Date Received: 08.20.19 12.50
Lab Sample Id: 634606-022	Date Collected: 08.15.19 14.45	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.21.19 10.08	Basis: Wet Weight
Seq Number: 3099361		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000998	0.000998	mg/kg	08.21.19 19.17	U	1
Toluene	108-88-3	<0.000998	0.000998	mg/kg	08.21.19 19.17	U	1
Ethylbenzene	100-41-4	<0.000998	0.000998	mg/kg	08.21.19 19.17	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	08.21.19 19.17	U	1
o-Xylene	95-47-6	<0.000998	0.000998	mg/kg	08.21.19 19.17	U	1
Total Xylenes	1330-20-7	<0.000998	0.000998	mg/kg	08.21.19 19.17	U	1
Total BTEX		<0.000998	0.000998	mg/kg	08.21.19 19.17	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	80-120	08.21.19 19.17		
4-Bromofluorobenzene	460-00-4	110	%	80-120	08.21.19 19.17		



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS19** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-023 Date Collected: 08.15.19 14.55 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099263

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1150	99.8	mg/kg	08.21.19 23.01		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	08.21.19 21.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	42.2	25.1	mg/kg	08.21.19 21.09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	08.21.19 21.09	U	1
Total TPH	PHC635	42.2	25.1	mg/kg	08.21.19 21.09		1
Total GRO-DRO	PHC628	42.2	25.1	mg/kg	08.21.19 21.09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	08.21.19 21.09	
o-Terphenyl	84-15-1	102	%	70-135	08.21.19 21.09	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS19**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-023

Date Collected: 08.15.19 14.55

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.21.19 10.08

Basis: Wet Weight

Seq Number: 3099361

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	08.21.19 19.37	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	08.21.19 19.37	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	08.21.19 19.37	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	08.21.19 19.37	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	08.21.19 19.37	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	08.21.19 19.37	U	1
Total BTEX		<0.00100	0.00100	mg/kg	08.21.19 19.37	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		99	%	80-120	08.21.19 19.37	
4-Bromofluorobenzene	460-00-4		108	%	80-120	08.21.19 19.37	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS20** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-024 Date Collected: 08.15.19 15.10 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099263

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1410	50.0	mg/kg	08.21.19 23.08		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	08.21.19 21.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	190	25.1	mg/kg	08.21.19 21.29		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	08.21.19 21.29	U	1
Total TPH	PHC635	190	25.1	mg/kg	08.21.19 21.29		1
Total GRO-DRO	PHC628	190	25.1	mg/kg	08.21.19 21.29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	08.21.19 21.29	
o-Terphenyl	84-15-1	107	%	70-135	08.21.19 21.29	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS20**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-024

Date Collected: 08.15.19 15.10

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.22.19 09.08

Basis: Wet Weight

Seq Number: 3099404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	08.22.19 20.00	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	08.22.19 20.00	U	1
Ethylbenzene	100-41-4	0.00148	0.00100	mg/kg	08.22.19 20.00		1
m,p-Xylenes	179601-23-1	0.0104	0.00200	mg/kg	08.22.19 20.00		1
o-Xylene	95-47-6	0.00791	0.00100	mg/kg	08.22.19 20.00		1
Total Xylenes	1330-20-7	0.0183	0.00100	mg/kg	08.22.19 20.00		1
Total BTEX		0.0198	0.00100	mg/kg	08.22.19 20.00		1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		129	%	80-120	08.22.19 20.00	**
1,4-Difluorobenzene	540-36-3		116	%	80-120	08.22.19 20.00	



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LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS21** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-025 Date Collected: 08.15.19 15.20 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099263

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	767	49.8	mg/kg	08.21.19 23.14		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.22.19 09.30 Basis: Wet Weight
 Seq Number: 3099498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	901	25.0	mg/kg	08.22.19 12.06		1
Diesel Range Organics (DRO)	C10C28DRO	1170	25.0	mg/kg	08.22.19 12.06		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.22.19 12.06	U	1
Total TPH	PHC635	2070	25.0	mg/kg	08.22.19 12.06		1
Total GRO-DRO	PHC628	2070	25.0	mg/kg	08.22.19 12.06		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	08.22.19 12.06	
o-Terphenyl	84-15-1	116	%	70-135	08.22.19 12.06	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: FS21	Matrix: Soil	Date Received: 08.20.19 12.50
Lab Sample Id: 634606-025	Date Collected: 08.15.19 15.20	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.22.19 09.08	Basis: Wet Weight
Seq Number: 3099404		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000996	0.000996	mg/kg	08.22.19 11.10	U	1
Toluene	108-88-3	<0.000996	0.000996	mg/kg	08.22.19 11.10	U	1
Ethylbenzene	100-41-4	0.00117	0.000996	mg/kg	08.22.19 11.10		1
m,p-Xylenes	179601-23-1	0.00576	0.00199	mg/kg	08.22.19 11.10		1
o-Xylene	95-47-6	0.00533	0.000996	mg/kg	08.22.19 11.10		1
Total Xylenes	1330-20-7	0.0111	0.000996	mg/kg	08.22.19 11.10		1
Total BTEX		0.0123	0.000996	mg/kg	08.22.19 11.10		1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		118	%	80-120	08.22.19 11.10	
1,4-Difluorobenzene	540-36-3		104	%	80-120	08.22.19 11.10	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS22** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-026 Date Collected: 08.19.19 12.00 Sample Depth: 5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099263

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3820	99.8	mg/kg	08.22.19 23.42		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.22.19 09.30 Basis: Wet Weight
 Seq Number: 3099498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.22.19 13.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	08.22.19 13.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.22.19 13.09	U	1
Total TPH	PHC635	<25.0	25.0	mg/kg	08.22.19 13.09	U	1
Total GRO-DRO	PHC628	<25.0	25.0	mg/kg	08.22.19 13.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	08.22.19 13.09	
o-Terphenyl	84-15-1	89	%	70-135	08.22.19 13.09	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS22**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-026

Date Collected: 08.19.19 12.00

Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.22.19 09.08

Basis: Wet Weight

Seq Number: 3099404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	08.22.19 11.29	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	08.22.19 11.29	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	08.22.19 11.29	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	08.22.19 11.29	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	08.22.19 11.29	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	08.22.19 11.29	U	1
Total BTEX		<0.00101	0.00101	mg/kg	08.22.19 11.29	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		112	%	80-120	08.22.19 11.29	
1,4-Difluorobenzene	540-36-3		99	%	80-120	08.22.19 11.29	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: FS23	Matrix: Soil	Date Received: 08.20.19 12.50
Lab Sample Id: 634606-027	Date Collected: 08.19.19 12.10	Sample Depth: 5 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.21.19 10.08	Basis: Wet Weight
Seq Number: 3099406		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1450	99.4	mg/kg	08.22.19 09.48		10

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DTH	% Moisture:
Analyst: DTH	Basis: Wet Weight
Seq Number: 3099498	

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.22.19 13.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	08.22.19 13.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.22.19 13.29	U	1
Total TPH	PHC635	<25.0	25.0	mg/kg	08.22.19 13.29	U	1
Total GRO-DRO	PHC628	<25.0	25.0	mg/kg	08.22.19 13.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	08.22.19 13.29	
o-Terphenyl	84-15-1	91	%	70-135	08.22.19 13.29	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS23**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-027

Date Collected: 08.19.19 12.10

Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.22.19 09.08

Basis: Wet Weight

Seq Number: 3099404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	08.22.19 11.49	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	08.22.19 11.49	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	08.22.19 11.49	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	08.22.19 11.49	U	1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	08.22.19 11.49	U	1
Total Xylenes	1330-20-7	<0.000994	0.000994	mg/kg	08.22.19 11.49	U	1
Total BTEX		<0.000994	0.000994	mg/kg	08.22.19 11.49	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		104	%	80-120	08.22.19 11.49	
4-Bromofluorobenzene	460-00-4		120	%	80-120	08.22.19 11.49	



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LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS24** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-028 Date Collected: 08.19.19 12.15 Sample Depth: 5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099406

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2240	99.8	mg/kg	08.22.19 10.07		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.22.19 09.30 Basis: Wet Weight
 Seq Number: 3099498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.22.19 13.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	319	25.0	mg/kg	08.22.19 13.49		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.22.19 13.49	U	1
Total TPH	PHC635	319	25.0	mg/kg	08.22.19 13.49		1
Total GRO-DRO	PHC628	319	25.0	mg/kg	08.22.19 13.49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.22.19 13.49	
o-Terphenyl	84-15-1	101	%	70-135	08.22.19 13.49	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS24**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-028

Date Collected: 08.19.19 12.15

Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.22.19 09.08

Basis: Wet Weight

Seq Number: 3099404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	08.22.19 12.09	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	08.22.19 12.09	U	1
Ethylbenzene	100-41-4	0.00341	0.00100	mg/kg	08.22.19 12.09		1
m,p-Xylenes	179601-23-1	0.0260	0.00200	mg/kg	08.22.19 12.09		1
o-Xylene	95-47-6	0.0183	0.00100	mg/kg	08.22.19 12.09		1
Total Xylenes	1330-20-7	0.0443	0.00100	mg/kg	08.22.19 12.09		1
Total BTEX		0.0477	0.00100	mg/kg	08.22.19 12.09		1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		118	%	80-120	08.22.19 12.09	
1,4-Difluorobenzene	540-36-3		105	%	80-120	08.22.19 12.09	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS25** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-029 Date Collected: 08.19.19 13.10 Sample Depth: 5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099406

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1050	49.7	mg/kg	08.22.19 10.13		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.22.19 09.30 Basis: Wet Weight
 Seq Number: 3099498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.22.19 14.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	08.22.19 14.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.22.19 14.09	U	1
Total TPH	PHC635	<25.0	25.0	mg/kg	08.22.19 14.09	U	1
Total GRO-DRO	PHC628	<25.0	25.0	mg/kg	08.22.19 14.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	08.22.19 14.09	
o-Terphenyl	84-15-1	101	%	70-135	08.22.19 14.09	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS25**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-029

Date Collected: 08.19.19 13.10

Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.22.19 09.08

Basis: Wet Weight

Seq Number: 3099404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000992	0.000992	mg/kg	08.22.19 12.29	U	1
Toluene	108-88-3	<0.000992	0.000992	mg/kg	08.22.19 12.29	U	1
Ethylbenzene	100-41-4	<0.000992	0.000992	mg/kg	08.22.19 12.29	U	1
m,p-Xylenes	179601-23-1	<0.00198	0.00198	mg/kg	08.22.19 12.29	U	1
o-Xylene	95-47-6	<0.000992	0.000992	mg/kg	08.22.19 12.29	U	1
Total Xylenes	1330-20-7	<0.000992	0.000992	mg/kg	08.22.19 12.29	U	1
Total BTEX		<0.000992	0.000992	mg/kg	08.22.19 12.29	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	80-120	08.22.19 12.29		
1,4-Difluorobenzene	540-36-3	100	%	80-120	08.22.19 12.29		



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS26** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-030 Date Collected: 08.19.19 13.15 Sample Depth: 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099406

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	127	9.98	mg/kg	08.22.19 10.19		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.22.19 09.30 Basis: Wet Weight
 Seq Number: 3099498

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.22.19 14.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	146	24.9	mg/kg	08.22.19 14.29		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.22.19 14.29	U	1
Total TPH	PHC635	146	24.9	mg/kg	08.22.19 14.29		1
Total GRO-DRO	PHC628	146	24.9	mg/kg	08.22.19 14.29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	08.22.19 14.29	
o-Terphenyl	84-15-1	110	%	70-135	08.22.19 14.29	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS26**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-030

Date Collected: 08.19.19 13.15

Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.22.19 09.08

Basis: Wet Weight

Seq Number: 3099404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000990	0.000990	mg/kg	08.22.19 12.49	U	1
Toluene	108-88-3	<0.000990	0.000990	mg/kg	08.22.19 12.49	U	1
Ethylbenzene	100-41-4	<0.000990	0.000990	mg/kg	08.22.19 12.49	U	1
m,p-Xylenes	179601-23-1	<0.00198	0.00198	mg/kg	08.22.19 12.49	U	1
o-Xylene	95-47-6	<0.000990	0.000990	mg/kg	08.22.19 12.49	U	1
Total Xylenes	1330-20-7	<0.000990	0.000990	mg/kg	08.22.19 12.49	U	1
Total BTEX		<0.000990	0.000990	mg/kg	08.22.19 12.49	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		119	%	80-120	08.22.19 12.49	
1,4-Difluorobenzene	540-36-3		104	%	80-120	08.22.19 12.49	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS27** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-031 Date Collected: 08.19.19 13.25 Sample Depth: 7 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099406

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	66.5	10.0	mg/kg	08.22.19 11.03		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.23.19 10.00 Basis: Wet Weight
 Seq Number: 3099584

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.23.19 13.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<24.9	24.9	mg/kg	08.23.19 13.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.23.19 13.30	U	1
Total TPH	PHC635	<24.9	24.9	mg/kg	08.23.19 13.30	U	1
Total GRO-DRO	PHC628	<24.9	24.9	mg/kg	08.23.19 13.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	08.23.19 13.30	
o-Terphenyl	84-15-1	103	%	70-135	08.23.19 13.30	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS27**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-031

Date Collected: 08.19.19 13.25

Sample Depth: 7 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.22.19 09.08

Basis: Wet Weight

Seq Number: 3099404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000996	0.000996	mg/kg	08.22.19 13.08	U	1
Toluene	108-88-3	<0.000996	0.000996	mg/kg	08.22.19 13.08	U	1
Ethylbenzene	100-41-4	<0.000996	0.000996	mg/kg	08.22.19 13.08	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	08.22.19 13.08	U	1
o-Xylene	95-47-6	<0.000996	0.000996	mg/kg	08.22.19 13.08	U	1
Total Xylenes	1330-20-7	<0.000996	0.000996	mg/kg	08.22.19 13.08	U	1
Total BTEX		<0.000996	0.000996	mg/kg	08.22.19 13.08	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		111	%	80-120	08.22.19 13.08	
4-Bromofluorobenzene	460-00-4		120	%	80-120	08.22.19 13.08	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW05** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-032 Date Collected: 08.19.19 13.30 Sample Depth: 0 - 5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099406

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	188	10.0	mg/kg	08.22.19 11.09		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.23.19 10.00 Basis: Wet Weight
 Seq Number: 3099584

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	615	25.0	mg/kg	08.23.19 13.50		1
Diesel Range Organics (DRO)	C10C28DRO	3810	25.0	mg/kg	08.23.19 13.50		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.23.19 13.50	U	1
Total TPH	PHC635	4430	25.0	mg/kg	08.23.19 13.50		1
Total GRO-DRO	PHC628	4430	25.0	mg/kg	08.23.19 13.50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	128	%	70-135	08.23.19 13.50	
o-Terphenyl	84-15-1	156	%	70-135	08.23.19 13.50	**



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW05**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-032

Date Collected: 08.19.19 13.30

Sample Depth: 0 - 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 08.23.19 14.08

Basis: Wet Weight

Seq Number: 3099530

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.500	0.500	mg/kg	08.24.19 16.13	U	500
Toluene	108-88-3	2.08	0.500	mg/kg	08.24.19 16.13		500
Ethylbenzene	100-41-4	2.60	0.500	mg/kg	08.24.19 16.13		500
m,p-Xylenes	179601-23-1	19.3	1.00	mg/kg	08.24.19 16.13		500
o-Xylene	95-47-6	9.06	0.500	mg/kg	08.24.19 16.13		500
Total Xylenes	1330-20-7	28.4	0.500	mg/kg	08.24.19 16.13		500
Total BTEX		33.0	0.500	mg/kg	08.24.19 16.13		500
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		104	%	80-120	08.24.19 16.13	
4-Bromofluorobenzene	460-00-4		139	%	80-120	08.24.19 16.13	**



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW06** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-033 Date Collected: 08.19.19 13.45 Sample Depth: 0 - 5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099406

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	56.7	10.0	mg/kg	08.22.19 11.16		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.23.19 10.00 Basis: Wet Weight
 Seq Number: 3099584

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.23.19 14.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<24.9	24.9	mg/kg	08.23.19 14.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.23.19 14.10	U	1
Total TPH	PHC635	<24.9	24.9	mg/kg	08.23.19 14.10	U	1
Total GRO-DRO	PHC628	<24.9	24.9	mg/kg	08.23.19 14.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.23.19 14.10	
o-Terphenyl	84-15-1	84	%	70-135	08.23.19 14.10	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW06**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-033

Date Collected: 08.19.19 13.45

Sample Depth: 0 - 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 08.23.19 14.08

Basis: Wet Weight

Seq Number: 3099530

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	08.24.19 15.33	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	08.24.19 15.33	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	08.24.19 15.33	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	08.24.19 15.33	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	08.24.19 15.33	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	08.24.19 15.33	U	1
Total BTEX		<0.00100	0.00100	mg/kg	08.24.19 15.33	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		107	%	80-120	08.24.19 15.33	
1,4-Difluorobenzene	540-36-3		104	%	80-120	08.24.19 15.33	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS28** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-034 Date Collected: 08.19.19 13.55 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099406

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	894	49.4	mg/kg	08.22.19 11.22		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.23.19 10.00 Basis: Wet Weight
 Seq Number: 3099584

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.23.19 14.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	08.23.19 14.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.23.19 14.30	U	1
Total TPH	PHC635	<25.0	25.0	mg/kg	08.23.19 14.30	U	1
Total GRO-DRO	PHC628	<25.0	25.0	mg/kg	08.23.19 14.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	08.23.19 14.30	
o-Terphenyl	84-15-1	99	%	70-135	08.23.19 14.30	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS28**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-034

Date Collected: 08.19.19 13.55

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 08.23.19 14.08

Basis: Wet Weight

Seq Number: 3099530

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	08.24.19 15.53	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	08.24.19 15.53	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	08.24.19 15.53	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	08.24.19 15.53	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	08.24.19 15.53	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	08.24.19 15.53	U	1
Total BTEX		<0.00100	0.00100	mg/kg	08.24.19 15.53	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		100	%	80-120	08.24.19 15.53	
4-Bromofluorobenzene	460-00-4		107	%	80-120	08.24.19 15.53	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS29** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-035 Date Collected: 08.19.19 14.00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099406

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	812	49.8	mg/kg	08.22.19 11.28		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.23.19 10.00 Basis: Wet Weight
 Seq Number: 3099584

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.23.19 14.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<24.9	24.9	mg/kg	08.23.19 14.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.23.19 14.50	U	1
Total TPH	PHC635	<24.9	24.9	mg/kg	08.23.19 14.50	U	1
Total GRO-DRO	PHC628	<24.9	24.9	mg/kg	08.23.19 14.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.23.19 14.50	
o-Terphenyl	84-15-1	92	%	70-135	08.23.19 14.50	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS29**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-035

Date Collected: 08.19.19 14.00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.22.19 09.08

Basis: Wet Weight

Seq Number: 3099404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	08.22.19 15.48	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	08.22.19 15.48	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	08.22.19 15.48	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	08.22.19 15.48	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	08.22.19 15.48	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	08.22.19 15.48	U	1
Total BTEX		<0.00101	0.00101	mg/kg	08.22.19 15.48	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		102	%	80-120	08.22.19 15.48	
4-Bromofluorobenzene	460-00-4		108	%	80-120	08.22.19 15.48	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS30** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-036 Date Collected: 08.19.19 14.10 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099406

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	854	50.1	mg/kg	08.22.19 11.35		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.23.19 10.00 Basis: Wet Weight
 Seq Number: 3099584

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	08.23.19 15.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.1	25.1	mg/kg	08.23.19 15.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	08.23.19 15.10	U	1
Total TPH	PHC635	<25.1	25.1	mg/kg	08.23.19 15.10	U	1
Total GRO-DRO	PHC628	<25.1	25.1	mg/kg	08.23.19 15.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	08.23.19 15.10	
o-Terphenyl	84-15-1	93	%	70-135	08.23.19 15.10	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: FS30	Matrix: Soil	Date Received: 08.20.19 12.50
Lab Sample Id: 634606-036	Date Collected: 08.19.19 14.10	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.22.19 09.08	Basis: Wet Weight
Seq Number: 3099404		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	08.22.19 16.08	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	08.22.19 16.08	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	08.22.19 16.08	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	08.22.19 16.08	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	08.22.19 16.08	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	08.22.19 16.08	U	1
Total BTEX		<0.00100	0.00100	mg/kg	08.22.19 16.08	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		120	%	80-120	08.22.19 16.08	
1,4-Difluorobenzene	540-36-3		110	%	80-120	08.22.19 16.08	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW07** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-037 Date Collected: 08.19.19 14.20 Sample Depth: 0 - 7 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099406

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	49.8	10.0	mg/kg	08.22.19 11.41		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.23.19 10.00 Basis: Wet Weight
 Seq Number: 3099584

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.23.19 15.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	08.23.19 15.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.23.19 15.30	U	1
Total TPH	PHC635	<25.0	25.0	mg/kg	08.23.19 15.30	U	1
Total GRO-DRO	PHC628	<25.0	25.0	mg/kg	08.23.19 15.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	08.23.19 15.30	
o-Terphenyl	84-15-1	85	%	70-135	08.23.19 15.30	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW07**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-037

Date Collected: 08.19.19 14.20

Sample Depth: 0 - 7 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.22.19 09.08

Basis: Wet Weight

Seq Number: 3099404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000998	0.000998	mg/kg	08.22.19 16.48	U	1
Toluene	108-88-3	0.00107	0.000998	mg/kg	08.22.19 16.48		1
Ethylbenzene	100-41-4	<0.000998	0.000998	mg/kg	08.22.19 16.48	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	08.22.19 16.48	U	1
o-Xylene	95-47-6	<0.000998	0.000998	mg/kg	08.22.19 16.48	U	1
Total Xylenes	1330-20-7	<0.000998	0.000998	mg/kg	08.22.19 16.48	U	1
Total BTEX		0.00107	0.000998	mg/kg	08.22.19 16.48		1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		117	%	80-120	08.22.19 16.48	
4-Bromofluorobenzene	460-00-4		119	%	80-120	08.22.19 16.48	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW08** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-038 Date Collected: 08.19.19 14.30 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099406

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	724	50.1	mg/kg	08.22.19 12.00		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.23.19 10.00 Basis: Wet Weight
 Seq Number: 3099584

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.23.19 16.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<24.9	24.9	mg/kg	08.23.19 16.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.23.19 16.10	U	1
Total TPH	PHC635	<24.9	24.9	mg/kg	08.23.19 16.10	U	1
Total GRO-DRO	PHC628	<24.9	24.9	mg/kg	08.23.19 16.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.23.19 16.10	
o-Terphenyl	84-15-1	87	%	70-135	08.23.19 16.10	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW08**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-038

Date Collected: 08.19.19 14.30

Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.22.19 09.08

Basis: Wet Weight

Seq Number: 3099404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00101	0.00101	mg/kg	08.22.19 17.07	U	1
Toluene	108-88-3	<0.00101	0.00101	mg/kg	08.22.19 17.07	U	1
Ethylbenzene	100-41-4	<0.00101	0.00101	mg/kg	08.22.19 17.07	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	08.22.19 17.07	U	1
o-Xylene	95-47-6	<0.00101	0.00101	mg/kg	08.22.19 17.07	U	1
Total Xylenes	1330-20-7	<0.00101	0.00101	mg/kg	08.22.19 17.07	U	1
Total BTEX		<0.00101	0.00101	mg/kg	08.22.19 17.07	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		110	%	80-120	08.22.19 17.07	
4-Bromofluorobenzene	460-00-4		119	%	80-120	08.22.19 17.07	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS31** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-039 Date Collected: 08.19.19 14.40 Sample Depth: 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099406

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	646	50.0	mg/kg	08.22.19 12.25		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.23.19 10.00 Basis: Wet Weight
 Seq Number: 3099584

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	08.23.19 16.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.1	25.1	mg/kg	08.23.19 16.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	08.23.19 16.30	U	1
Total TPH	PHC635	<25.1	25.1	mg/kg	08.23.19 16.30	U	1
Total GRO-DRO	PHC628	<25.1	25.1	mg/kg	08.23.19 16.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	08.23.19 16.30	
o-Terphenyl	84-15-1	101	%	70-135	08.23.19 16.30	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **FS31**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-039

Date Collected: 08.19.19 14.40

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.22.19 09.08

Basis: Wet Weight

Seq Number: 3099404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	08.22.19 18.21	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	08.22.19 18.21	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	08.22.19 18.21	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	08.22.19 18.21	U	1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	08.22.19 18.21	U	1
Total Xylenes	1330-20-7	<0.000994	0.000994	mg/kg	08.22.19 18.21	U	1
Total BTEX		<0.000994	0.000994	mg/kg	08.22.19 18.21	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		97	%	80-120	08.22.19 18.21	
4-Bromofluorobenzene	460-00-4		116	%	80-120	08.22.19 18.21	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: SW09	Matrix: Soil	Date Received: 08.20.19 12.50
Lab Sample Id: 634606-040	Date Collected: 08.19.19 14.50	Sample Depth: 0 - 4 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.21.19 10.08	Basis: Wet Weight
Seq Number: 3099406		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	42.9	9.94	mg/kg	08.22.19 12.32		1

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DTH	% Moisture:
Analyst: DTH	Basis: Wet Weight
Seq Number: 3099584	

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	08.23.19 16.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.1	25.1	mg/kg	08.23.19 16.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	08.23.19 16.50	U	1
Total TPH	PHC635	<25.1	25.1	mg/kg	08.23.19 16.50	U	1
Total GRO-DRO	PHC628	<25.1	25.1	mg/kg	08.23.19 16.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	08.23.19 16.50	
o-Terphenyl	84-15-1	85	%	70-135	08.23.19 16.50	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW09**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-040

Date Collected: 08.19.19 14.50

Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.22.19 09.08

Basis: Wet Weight

Seq Number: 3099404

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000994	0.000994	mg/kg	08.22.19 18.41	U	1
Toluene	108-88-3	<0.000994	0.000994	mg/kg	08.22.19 18.41	U	1
Ethylbenzene	100-41-4	<0.000994	0.000994	mg/kg	08.22.19 18.41	U	1
m,p-Xylenes	179601-23-1	<0.00199	0.00199	mg/kg	08.22.19 18.41	U	1
o-Xylene	95-47-6	<0.000994	0.000994	mg/kg	08.22.19 18.41	U	1
Total Xylenes	1330-20-7	<0.000994	0.000994	mg/kg	08.22.19 18.41	U	1
Total BTEX		<0.000994	0.000994	mg/kg	08.22.19 18.41	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	80-120	08.22.19 18.41		
1,4-Difluorobenzene	540-36-3	108	%	80-120	08.22.19 18.41		



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW10** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-041 Date Collected: 08.19.19 15.00 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099406

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	801	49.9	mg/kg	08.22.19 12.38		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.23.19 10.00 Basis: Wet Weight
 Seq Number: 3099584

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.23.19 17.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	86.2	25.0	mg/kg	08.23.19 17.10		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.23.19 17.10	U	1
Total TPH	PHC635	86.2	25.0	mg/kg	08.23.19 17.10		1
Total GRO-DRO	PHC628	86.2	25.0	mg/kg	08.23.19 17.10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	08.23.19 17.10	
o-Terphenyl	84-15-1	89	%	70-135	08.23.19 17.10	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW10**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-041

Date Collected: 08.19.19 15.00

Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 08.23.19 14.08

Basis: Wet Weight

Seq Number: 3099530

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	08.24.19 13.34	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	08.24.19 13.34	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	08.24.19 13.34	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	08.24.19 13.34	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	08.24.19 13.34	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	08.24.19 13.34	U	1
Total BTEX		<0.00100	0.00100	mg/kg	08.24.19 13.34	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		107	%	80-120	08.24.19 13.34	
1,4-Difluorobenzene	540-36-3		103	%	80-120	08.24.19 13.34	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW11** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-042 Date Collected: 08.19.19 15.10 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099406

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	47.0	9.92	mg/kg	08.22.19 12.44		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.23.19 10.00 Basis: Wet Weight
 Seq Number: 3099584

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	08.23.19 17.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.1	25.1	mg/kg	08.23.19 17.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	08.23.19 17.30	U	1
Total TPH	PHC635	<25.1	25.1	mg/kg	08.23.19 17.30	U	1
Total GRO-DRO	PHC628	<25.1	25.1	mg/kg	08.23.19 17.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	140	%	70-135	08.23.19 17.30	**
o-Terphenyl	84-15-1	123	%	70-135	08.23.19 17.30	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW11**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-042

Date Collected: 08.19.19 15.10

Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 08.23.19 14.08

Basis: Wet Weight

Seq Number: 3099530

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000992	0.000992	mg/kg	08.24.19 13.54	U	1
Toluene	108-88-3	<0.000992	0.000992	mg/kg	08.24.19 13.54	U	1
Ethylbenzene	100-41-4	<0.000992	0.000992	mg/kg	08.24.19 13.54	U	1
m,p-Xylenes	179601-23-1	<0.00198	0.00198	mg/kg	08.24.19 13.54	U	1
o-Xylene	95-47-6	<0.000992	0.000992	mg/kg	08.24.19 13.54	U	1
Total Xylenes	1330-20-7	<0.000992	0.000992	mg/kg	08.24.19 13.54	U	1
Total BTEX		<0.000992	0.000992	mg/kg	08.24.19 13.54	U	1
% Recovery							
Surrogate	Cas Number		% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		107	%	80-120	08.24.19 13.54	
4-Bromofluorobenzene	460-00-4		104	%	80-120	08.24.19 13.54	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW12** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-043 Date Collected: 08.19.19 15.20 Sample Depth: 0 - 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099406

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1760	49.7	mg/kg	08.22.19 12.51		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.23.19 10.00 Basis: Wet Weight
 Seq Number: 3099584

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.23.19 17.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	140	24.9	mg/kg	08.23.19 17.50		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<24.9	24.9	mg/kg	08.23.19 17.50	U	1
Total TPH	PHC635	140	24.9	mg/kg	08.23.19 17.50		1
Total GRO-DRO	PHC628	140	24.9	mg/kg	08.23.19 17.50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	126	%	70-135	08.23.19 17.50	
o-Terphenyl	84-15-1	129	%	70-135	08.23.19 17.50	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW12**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-043

Date Collected: 08.19.19 15.20

Sample Depth: 0 - 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 08.23.19 14.08

Basis: Wet Weight

Seq Number: 3099530

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000990	0.000990	mg/kg	08.24.19 14.13	U	1
Toluene	108-88-3	<0.000990	0.000990	mg/kg	08.24.19 14.13	U	1
Ethylbenzene	100-41-4	<0.000990	0.000990	mg/kg	08.24.19 14.13	U	1
m,p-Xylenes	179601-23-1	<0.00198	0.00198	mg/kg	08.24.19 14.13	U	1
o-Xylene	95-47-6	<0.000990	0.000990	mg/kg	08.24.19 14.13	U	1
Total Xylenes	1330-20-7	<0.000990	0.000990	mg/kg	08.24.19 14.13	U	1
Total BTEX		<0.000990	0.000990	mg/kg	08.24.19 14.13	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	80-120	08.24.19 14.13		
1,4-Difluorobenzene	540-36-3	105	%	80-120	08.24.19 14.13		



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: SW13	Matrix: Soil	Date Received: 08.20.19 12.50
Lab Sample Id: 634606-044	Date Collected: 08.19.19 15.30	Sample Depth: 0 - 2.5 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.21.19 10.08	Basis: Wet Weight
Seq Number: 3099406		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	684	49.7	mg/kg	08.22.19 12.57		5

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DTH	% Moisture:
Analyst: DTH	Basis: Wet Weight
Seq Number: 3099584	

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	08.23.19 18.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.1	25.1	mg/kg	08.23.19 18.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	08.23.19 18.11	U	1
Total TPH	PHC635	<25.1	25.1	mg/kg	08.23.19 18.11	U	1
Total GRO-DRO	PHC628	<25.1	25.1	mg/kg	08.23.19 18.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	174	%	70-135	08.23.19 18.11	**
o-Terphenyl	84-15-1	160	%	70-135	08.23.19 18.11	**



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW13**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-044

Date Collected: 08.19.19 15.30

Sample Depth: 0 - 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 08.23.19 14.08

Basis: Wet Weight

Seq Number: 3099530

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	08.24.19 14.33	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	08.24.19 14.33	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	08.24.19 14.33	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	08.24.19 14.33	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	08.24.19 14.33	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	08.24.19 14.33	U	1
Total BTEX		<0.00100	0.00100	mg/kg	08.24.19 14.33	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		107	%	80-120	08.24.19 14.33	
1,4-Difluorobenzene	540-36-3		102	%	80-120	08.24.19 14.33	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW14** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-045 Date Collected: 08.19.19 15.40 Sample Depth: 0 - 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099406

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1450	49.8	mg/kg	08.22.19 13.04		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.23.19 10.00 Basis: Wet Weight
 Seq Number: 3099584

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.23.19 18.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.0	25.0	mg/kg	08.23.19 18.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.23.19 18.31	U	1
Total TPH	PHC635	<25.0	25.0	mg/kg	08.23.19 18.31	U	1
Total GRO-DRO	PHC628	<25.0	25.0	mg/kg	08.23.19 18.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	167	%	70-135	08.23.19 18.31	**
o-Terphenyl	84-15-1	153	%	70-135	08.23.19 18.31	**



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW14**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-045

Date Collected: 08.19.19 15.40

Sample Depth: 0 - 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 08.23.19 14.08

Basis: Wet Weight

Seq Number: 3099530

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	08.24.19 14.54	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	08.24.19 14.54	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	08.24.19 14.54	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	08.24.19 14.54	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	08.24.19 14.54	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	08.24.19 14.54	U	1
Total BTEX		<0.00100	0.00100	mg/kg	08.24.19 14.54	U	1
% Recovery							
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		102	%	80-120	08.24.19 14.54	
4-Bromofluorobenzene	460-00-4		99	%	80-120	08.24.19 14.54	



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW15** Matrix: Soil Date Received: 08.20.19 12.50
 Lab Sample Id: 634606-046 Date Collected: 08.19.19 15.50 Sample Depth: 0 - 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.21.19 10.08 Basis: Wet Weight
 Seq Number: 3099406

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	238	9.94	mg/kg	08.22.19 13.10		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.23.19 10.00 Basis: Wet Weight
 Seq Number: 3099584

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.1	25.1	mg/kg	08.23.19 18.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<25.1	25.1	mg/kg	08.23.19 18.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.1	25.1	mg/kg	08.23.19 18.51	U	1
Total TPH	PHC635	<25.1	25.1	mg/kg	08.23.19 18.51	U	1
Total GRO-DRO	PHC628	<25.1	25.1	mg/kg	08.23.19 18.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	201	%	70-135	08.23.19 18.51	**
o-Terphenyl	84-15-1	179	%	70-135	08.23.19 18.51	**



Certificate of Analytical Results 634606

LT Environmental, Inc., Arvada, CO

Picket Draw Federal #001

Sample Id: **SW15**

Matrix: Soil

Date Received: 08.20.19 12.50

Lab Sample Id: 634606-046

Date Collected: 08.19.19 15.50

Sample Depth: 0 - 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 08.23.19 14.08

Basis: Wet Weight

Seq Number: 3099530

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000998	0.000998	mg/kg	08.24.19 15.14	U	1
Toluene	108-88-3	<0.000998	0.000998	mg/kg	08.24.19 15.14	U	1
Ethylbenzene	100-41-4	<0.000998	0.000998	mg/kg	08.24.19 15.14	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	08.24.19 15.14	U	1
o-Xylene	95-47-6	<0.000998	0.000998	mg/kg	08.24.19 15.14	U	1
Total Xylenes	1330-20-7	<0.000998	0.000998	mg/kg	08.24.19 15.14	U	1
Total BTEX		<0.000998	0.000998	mg/kg	08.24.19 15.14	U	1
% Recovery							
Surrogate	Cas Number		% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		102	%	80-120	08.24.19 15.14	
4-Bromofluorobenzene	460-00-4		106	%	80-120	08.24.19 15.14	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

PQL Practical Quantitation Limit **SQL** 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 634606

LT Environmental, Inc.

Picket Draw Federal #001

Analytical Method: Chloride by EPA 300

Seq Number: 3099290

MB Sample Id: 7684654-1-BLK

Matrix: Solid

LCS Sample Id: 7684654-1-BKS

Prep Method: E300P

Date Prep: 08.20.19

LCSD Sample Id: 7684654-1-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	300	300	100	301	100	80-120	0	20	mg/kg	08.20.19 18:32	

Analytical Method: Chloride by EPA 300

Seq Number: 3099263

MB Sample Id: 7684648-1-BLK

Matrix: Solid

LCS Sample Id: 7684648-1-BKS

Prep Method: E300P

Date Prep: 08.21.19

LCSD Sample Id: 7684648-1-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	300	293	98	290	97	80-120	1	20	mg/kg	08.21.19 20:10	

Analytical Method: Chloride by EPA 300

Seq Number: 3099406

MB Sample Id: 7684650-1-BLK

Matrix: Solid

LCS Sample Id: 7684650-1-BKS

Prep Method: E300P

Date Prep: 08.21.19

LCSD Sample Id: 7684650-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	100	98.7	99	99.6	100	80-120	1	20	mg/kg	08.22.19 09:35	

Analytical Method: Chloride by EPA 300

Seq Number: 3099290

Parent Sample Id: 634583-001

Matrix: Soil

MS Sample Id: 634583-001 S

Prep Method: E300P

Date Prep: 08.20.19

MSD Sample Id: 634583-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1380	2470	4020	107	4040	107	80-120	0	20	mg/kg	08.20.19 18:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3099290

Parent Sample Id: 634583-011

Matrix: Soil

MS Sample Id: 634583-011 S

Prep Method: E300P

Date Prep: 08.20.19

MSD Sample Id: 634583-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1250	1250	2670	114	2600	108	80-120	3	20	mg/kg	08.20.19 20:33	

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

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

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

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



QC Summary 634606

LT Environmental, Inc.

Picket Draw Federal #001

Analytical Method: Chloride by EPA 300

Seq Number: 3099263

Parent Sample Id: 634606-007

Matrix: Soil

MS Sample Id: 634606-007 S

Prep Method: E300P

Date Prep: 08.21.19

MSD Sample Id: 634606-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	195	251	472	110	468	109	80-120	1	20	mg/kg	08.21.19 20:30	

Analytical Method: Chloride by EPA 300

Seq Number: 3099263

Parent Sample Id: 634606-017

Matrix: Soil

MS Sample Id: 634606-017 S

Prep Method: E300P

Date Prep: 08.21.19

MSD Sample Id: 634606-017 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	43.0	248	279	95	291	99	80-120	4	20	mg/kg	08.21.19 22:02	

Analytical Method: Chloride by EPA 300

Seq Number: 3099406

Parent Sample Id: 634606-027

Matrix: Soil

MS Sample Id: 634606-027 S

Prep Method: E300P

Date Prep: 08.21.19

MSD Sample Id: 634606-027 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1450	2490	4010	103	4130	108	80-120	3	20	mg/kg	08.22.19 09:54	

Analytical Method: Chloride by EPA 300

Seq Number: 3099406

Parent Sample Id: 634606-037

Matrix: Soil

MS Sample Id: 634606-037 S

Prep Method: E300P

Date Prep: 08.21.19

MSD Sample Id: 634606-037 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	49.8	251	279	91	284	94	80-120	2	20	mg/kg	08.22.19 11:47	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3099052

MB Sample Id: 7684595-1-BLK

Matrix: Solid

LCS Sample Id: 7684595-1-BKS

Prep Method: SW8015P

Date Prep: 08.20.19

LCSD Sample Id: 7684595-1-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)	<9.90	1000	1000	100	974	98	70-135	3	35	mg/kg	08.20.19 11:28	
Diesel Range Organics (DRO)	<9.90	1000	1030	103	992	100	70-135	4	35	mg/kg	08.20.19 11:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	130		115		115		70-135	%	08.20.19 11:28
o-Terphenyl	128		118		116		70-135	%	08.20.19 11:28

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

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

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 634606

LT Environmental, Inc.

Picket Draw Federal #001

Analytical Method: TPH by SW8015 Mod

Seq Number: 3099358

MB Sample Id: 7684790-1-BLK

Matrix: Solid

LCS Sample Id: 7684790-1-BKS

Prep Method: SW8015P

Date Prep: 08.21.19

LCSD Sample Id: 7684790-1-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)	<9.88	1000	1130	113	988	99	70-135	13	35	mg/kg	08.21.19 13:11	
Diesel Range Organics (DRO)	11.9	1000	1180	118	1020	102	70-135	15	35	mg/kg	08.21.19 13:11	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1-Chlorooctane	112		142	**	123		70-135			%	08.21.19 13:11	
o-Terphenyl	111		152	**	127		70-135			%	08.21.19 13:11	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3099498

MB Sample Id: 7684879-1-BLK

Matrix: Solid

LCS Sample Id: 7684879-1-BKS

Prep Method: SW8015P

Date Prep: 08.22.19

LCSD Sample Id: 7684879-1-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)	<9.88	1000	936	94	901	90	70-135	4	35	mg/kg	08.22.19 11:26	
Diesel Range Organics (DRO)	<9.88	1000	902	90	883	88	70-135	2	35	mg/kg	08.22.19 11:26	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1-Chlorooctane	110		115		116		70-135			%	08.22.19 11:26	
o-Terphenyl	95		104		107		70-135			%	08.22.19 11:26	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3099584

MB Sample Id: 7684955-1-BLK

Matrix: Solid

LCS Sample Id: 7684955-1-BKS

Prep Method: SW8015P

Date Prep: 08.23.19

LCSD Sample Id: 7684955-1-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)	<9.88	1000	1020	102	999	100	70-135	2	35	mg/kg	08.23.19 11:09	
Diesel Range Organics (DRO)	<9.88	1000	1010	101	998	100	70-135	1	35	mg/kg	08.23.19 11:09	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1-Chlorooctane	115		126		121		70-135			%	08.23.19 11:09	
o-Terphenyl	109		117		114		70-135			%	08.23.19 11:09	

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

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

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

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



QC Summary 634606

LT Environmental, Inc.

Picket Draw Federal #001

Analytical Method: TPH by SW8015 Mod

Seq Number: 3099052

Parent Sample Id: 634529-001

Matrix: Soil

MS Sample Id: 634529-001 S

Prep Method: SW8015P

Date Prep: 08.20.19

MSD Sample Id: 634529-001 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)	<9.91	1000	951	95	964	96	70-135	1	35	mg/kg	08.20.19 12:29	
Diesel Range Organics (DRO)	<9.91	1000	974	97	988	99	70-135	1	35	mg/kg	08.20.19 12:29	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		108		70-135	%	08.20.19 12:29
o-Terphenyl	122		112		70-135	%	08.20.19 12:29

Analytical Method: TPH by SW8015 Mod

Seq Number: 3099358

Parent Sample Id: 634606-006

Matrix: Soil

MS Sample Id: 634606-006 S

Prep Method: SW8015P

Date Prep: 08.21.19

MSD Sample Id: 634606-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<9.87	999	970	97	981	98	70-135	1	35	mg/kg	08.21.19 14:12	
Diesel Range Organics (DRO)	18.2	999	1000	98	1020	100	70-135	2	35	mg/kg	08.21.19 14:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	134		133		70-135	%	08.21.19 14:12
o-Terphenyl	128		134		70-135	%	08.21.19 14:12

Analytical Method: TPH by SW8015 Mod

Seq Number: 3099584

Parent Sample Id: 634914-021

Matrix: Soil

MS Sample Id: 634914-021 S

Prep Method: SW8015P

Date Prep: 08.23.19

MSD Sample Id: 634914-021 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)	<9.92	1000	1010	101	982	98	70-135	3	35	mg/kg	08.23.19 12:10	
Diesel Range Organics (DRO)	<9.92	1000	1030	103	956	96	70-135	7	35	mg/kg	08.23.19 12:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		126		70-135	%	08.23.19 12:10
o-Terphenyl	109		107		70-135	%	08.23.19 12:10

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

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

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

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



QC Summary 634606

LT Environmental, Inc.

Picket Draw Federal #001

Analytical Method: TPH by SW8015 Mod

Seq Number: 3099498

Matrix: Soil

Prep Method: SW8015P

Parent Sample Id: 634606-025

MS Sample Id: 634606-025 S

Date Prep: 08.22.19

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	901	995	881	0	70-135	mg/kg	08.22.19 12:27	X
Diesel Range Organics (DRO)	1170	995	1110	0	70-135	mg/kg	08.22.19 12:27	X

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		70-135	%	08.22.19 12:27
o-Terphenyl	115		70-135	%	08.22.19 12:27

Analytical Method: BTEX by EPA 8021B

Seq Number: 3099039

Matrix: Solid

Prep Method: SW5030B

MB Sample Id: 7684594-1-BLK

LCS Sample Id: 7684594-1-BKS

Date Prep: 08.20.19

LCSD Sample Id: 7684594-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00101	0.101	0.0926	92	0.0944	95	70-130	2	35	mg/kg	08.20.19 10:59	
Toluene	<0.00101	0.101	0.0906	90	0.0948	95	70-130	5	35	mg/kg	08.20.19 10:59	
Ethylbenzene	<0.000503	0.101	0.0920	91	0.0956	96	71-129	4	35	mg/kg	08.20.19 10:59	
m,p-Xylenes	<0.00101	0.201	0.189	94	0.193	97	70-135	2	35	mg/kg	08.20.19 10:59	
o-Xylene	<0.000503	0.101	0.0951	94	0.0962	97	71-133	1	35	mg/kg	08.20.19 10:59	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		103		98		80-120	%	08.20.19 10:59
4-Bromofluorobenzene	93		110		103		80-120	%	08.20.19 10:59

Analytical Method: BTEX by EPA 8021B

Seq Number: 3099361

Matrix: Solid

Prep Method: SW5030B

MB Sample Id: 7684795-1-BLK

LCS Sample Id: 7684795-1-BKS

Date Prep: 08.21.19

LCSD Sample Id: 7684795-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.106	106	0.106	106	70-130	0	35	mg/kg	08.21.19 10:41	
Toluene	<0.00100	0.100	0.103	103	0.104	104	70-130	1	35	mg/kg	08.21.19 10:41	
Ethylbenzene	0.000510	0.100	0.110	110	0.111	111	71-129	1	35	mg/kg	08.21.19 10:41	
m,p-Xylenes	<0.00100	0.200	0.229	115	0.229	115	70-135	0	35	mg/kg	08.21.19 10:41	
o-Xylene	<0.000500	0.100	0.114	114	0.114	114	71-133	0	35	mg/kg	08.21.19 10:41	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		111		105		80-120	%	08.21.19 10:41
4-Bromofluorobenzene	106		122	**	118		80-120	%	08.21.19 10:41

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

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

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

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



QC Summary 634606

LT Environmental, Inc.

Picket Draw Federal #001

Analytical Method: BTEX by EPA 8021B

Seq Number: 3099404

MB Sample Id: 7684821-1-BLK

Matrix: Solid

LCS Sample Id: 7684821-1-BKS

Prep Method: SW5030B

Date Prep: 08.22.19

LCSD Sample Id: 7684821-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.101	101	0.104	104	70-130	3	35	mg/kg	08.22.19 09:30	
Toluene	<0.00100	0.100	0.0942	94	0.0985	99	70-130	4	35	mg/kg	08.22.19 09:30	
Ethylbenzene	<0.00100	0.100	0.101	101	0.106	106	71-129	5	35	mg/kg	08.22.19 09:30	
m,p-Xylenes	<0.00200	0.200	0.210	105	0.220	110	70-135	5	35	mg/kg	08.22.19 09:30	
o-Xylene	<0.00100	0.100	0.104	104	0.110	110	71-133	6	35	mg/kg	08.22.19 09:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	116		112		106		80-120	%	08.22.19 09:30
4-Bromofluorobenzene	117		116		120		80-120	%	08.22.19 09:30

Analytical Method: BTEX by EPA 8021B

Seq Number: 3099530

MB Sample Id: 7684919-1-BLK

Matrix: Solid

LCS Sample Id: 7684919-1-BKS

Prep Method: SW5030B

Date Prep: 08.23.19

LCSD Sample Id: 7684919-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.0902	90	0.0906	91	70-130	0	35	mg/kg	08.23.19 19:45	
Toluene	<0.00100	0.100	0.0999	100	0.0950	95	70-130	5	35	mg/kg	08.23.19 19:45	
Ethylbenzene	<0.00100	0.100	0.114	114	0.110	110	71-129	4	35	mg/kg	08.23.19 19:45	
m,p-Xylenes	<0.00200	0.200	0.231	116	0.226	113	70-135	2	35	mg/kg	08.23.19 19:45	
o-Xylene	<0.00100	0.100	0.114	114	0.112	112	71-133	2	35	mg/kg	08.23.19 19:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		106		101		80-120	%	08.23.19 19:45
4-Bromofluorobenzene	118		112		114		80-120	%	08.23.19 19:45

Analytical Method: BTEX by EPA 8021B

Seq Number: 3099039

Parent Sample Id: 634529-001

Matrix: Soil

MS Sample Id: 634529-001 S

Prep Method: SW5030B

Date Prep: 08.20.19

MSD Sample Id: 634529-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000990	0.0990	0.0979	99	0.0923	93	70-130	6	35	mg/kg	08.20.19 12:38	
Toluene	<0.000990	0.0990	0.0932	94	0.0912	92	70-130	2	35	mg/kg	08.20.19 12:38	
Ethylbenzene	<0.000990	0.0990	0.0956	97	0.0941	95	71-129	2	35	mg/kg	08.20.19 12:38	
m,p-Xylenes	<0.000990	0.198	0.195	98	0.191	96	70-135	2	35	mg/kg	08.20.19 12:38	
o-Xylene	<0.000990	0.0990	0.0968	98	0.0948	95	71-133	2	35	mg/kg	08.20.19 12:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		106		80-120	%	08.20.19 12:38
4-Bromofluorobenzene	109		110		80-120	%	08.20.19 12:38

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

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

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 634606

LT Environmental, Inc.

Picket Draw Federal #001

Analytical Method: BTEX by EPA 8021B

Seq Number: 3099361

Parent Sample Id: 634606-006

Matrix: Soil

MS Sample Id: 634606-006 S

Prep Method: SW5030B

Date Prep: 08.21.19

MSD Sample Id: 634606-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000998	0.0998	0.0918	92	0.0932	94	70-130	2	35	mg/kg	08.21.19 12:21	
Toluene	<0.000499	0.0998	0.0933	93	0.0955	96	70-130	2	35	mg/kg	08.21.19 12:21	
Ethylbenzene	0.000984	0.0998	0.107	106	0.0996	99	71-129	7	35	mg/kg	08.21.19 12:21	
m,p-Xylenes	<0.000998	0.200	0.202	101	0.204	103	70-135	1	35	mg/kg	08.21.19 12:21	
o-Xylene	<0.000499	0.0998	0.101	101	0.102	103	71-133	1	35	mg/kg	08.21.19 12:21	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		105		80-120	%	08.21.19 12:21
4-Bromofluorobenzene	124	**	126	**	80-120	%	08.21.19 12:21

Analytical Method: BTEX by EPA 8021B

Seq Number: 3099404

Parent Sample Id: 634606-025

Matrix: Soil

MS Sample Id: 634606-025 S

Prep Method: SW5030B

Date Prep: 08.22.19

MSD Sample Id: 634606-025 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.0912	91	0.0879	88	70-130	4	35	mg/kg	08.22.19 10:10	
Toluene	<0.00100	0.100	0.0857	86	0.0807	81	70-130	6	35	mg/kg	08.22.19 10:10	
Ethylbenzene	0.00117	0.100	0.0897	89	0.0834	82	71-129	7	35	mg/kg	08.22.19 10:10	
m,p-Xylenes	0.00576	0.200	0.183	89	0.169	81	70-135	8	35	mg/kg	08.22.19 10:10	
o-Xylene	0.00533	0.100	0.0971	92	0.0899	85	71-133	8	35	mg/kg	08.22.19 10:10	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		93		80-120	%	08.22.19 10:10
4-Bromofluorobenzene	118		118		80-120	%	08.22.19 10:10

Analytical Method: BTEX by EPA 8021B

Seq Number: 3099530

Parent Sample Id: 634675-001

Matrix: Soil

MS Sample Id: 634675-001 S

Prep Method: SW5030B

Date Prep: 08.23.19

MSD Sample Id: 634675-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000996	0.0996	0.0893	90	0.0936	94	70-130	5	35	mg/kg	08.23.19 20:25	
Toluene	0.110	0.0996	0.127	17	0.121	11	70-130	5	35	mg/kg	08.23.19 20:25	X
Ethylbenzene	0.204	0.0996	0.204	0	0.188	0	71-129	8	35	mg/kg	08.23.19 20:25	X
m,p-Xylenes	0.690	0.199	0.622	0	0.567	0	70-135	9	35	mg/kg	08.23.19 20:25	X
o-Xylene	0.392	0.0996	0.363	0	0.333	0	71-133	9	35	mg/kg	08.23.19 20:25	X

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		114		80-120	%	08.23.19 20:25
4-Bromofluorobenzene	119		117		80-120	%	08.23.19 20:25

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

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

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

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



Work Order No. 12-21074

[illegible]

Table 1. Characteristics of the study population

Block Data Elements

Program ID/Ref:	☐ Yr	☐ Download	☐ No	☐ Interface	☐
Status of Project:					
Shipping Level:	☐ Feed in	☐ Fertilizer	☐ Yr	☐ Inlay	☐
Colored line: (100)	☐ Acker	☐	Over:		

SAMPLE RECEIPT		Temp mark	Test no	Test no
Temperature (°C)	1.18	25	1	25
Adjusted total	0.00	no	TOTAL 0.00	
Order Customer Ref	705	40	104	0.00
Sample Quantity (ml)	100	100	100	100
			Total (mL)	100

Sample Identification	Temp. Point	Temp. (°C)	Time (min)	Conductivity (µS/cm)	Conductivity Factor	Total Conductivity	Notes
F501	1	1.18	10.40	1			
F502	2	1.18	10.40	1			
F503	3	1.18	10.40	1			
F504	4	1.18	10.40	1			
F505	5	1.18	10.40	1			
F506	6	1.18	10.40	1			
F507	7	1.18	10.40	1			
F508	8	1.18	10.40	1			
F509	9	1.18	10.40	1			
F510	10	1.18	10.40	1			

[illegible]

	2006-7	2007-8
Total	9,000	10,000
≥ 100 gms	1,000	1,000
< 100 gms	8,000	9,000

Under contract to and working to be delivered

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Journal of Management Education

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Journal of Management Inquiry

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Reviewed by (signature)

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World Order Inc

330

[illegible]

[!\[\]\(81b58ee73f6c4feb784dec268b879b80_img.jpg\)](#)
[!\[\]\(23732e5ae9bd3bf291f3255bdbd799c6_img.jpg\)](#)
[!\[\]\(5757765019d907371626d8a59c4ced5e_img.jpg\)](#)
[!\[\]\(81c0fcf0b93489da740fb53645252536_img.jpg\)](#)

Work Order Comments

Program: USFIRST ☐ Yes ☐ No ☐ Partial ☐
State of Project:

Reporting Level: I ☐ Yes ☐ No ☐ IV ☐
Overseas: EEO ☐ Adult ☐ Other

[illegible]

Number of Containers	
A 0000	
B 0000	
C 0000	
D 0000	
E 0000	
F 0000	
G 0000	
H 0000	
I 0000	
J 0000	
K 0000	
L 0000	
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Z 0000	

[illegible]

FORM 208-T (10-11) 200-414-2000
 Chain Assembly and Assembly to be assembled
 REF: 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 8

Received by (Signature)	Date/Time	Requisitioned by (Signature)	Received by (Signature)	Date/Time
	08/05/2019 17:22			



Chain of Custody

Not Only He

Pineson, J. (2011). *1001*. Dallas, TX: City Hall. (pp. 1001-1002).
 Retrieved from: <http://www.cityhall.org>.
 Pineson, J. (2011). *1001*. Dallas, TX: City Hall. (pp. 1001-1002).
 Retrieved from: <http://www.cityhall.org>.



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Project Manager	Don Miller	98 to 99 percent	Scale 1 (good)
Company Name	17 Environmental, Inc. (Piscataway, NJ)	Company Name	OTD (strong)
Address	1000 North A Street	Address	
City, State, Zip	Medford, NJ 08050	City, State, Zip	
Phone	(609) 298-9644	Fax	harwood@bham.com , don@bham.com

What's Your Comments			
Program Status:	☐ Yes	☐ No	☐ Other
Grade of Program:			
Supporting Level:	☐ First	☐ Second	☐ Other
Department:	☐ ADULT	☐ YOUTH	☐ Other

Project Name:	Project Drive Football team	First Amount:	
Project Number:	818999-00	Balance:	0
P.O. Number:	entry County	Reals:	
Supplier's Name:	Lynette Lumbard	Due Date:	

SAMPLE RECEIPT				
Temperature (°C)	Temp (mm)	Vol. (mL)	Time (sec)	Vol. (mL)
Normal value	Vol. (mL)	Temperature (°C)		
Order (Ordinary State)	Vol. (mL) - 100	Celsius (°C) - 100		
Sample Control (Vol)	Vol. (mL) - 100	Type (Distance)		

[illegible][illegible][illegible]



Work Order No: 0371000

Chain of Custody

NOTES

1000

1000

1000

2007-08-27

031100

100



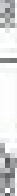
Project Manager:	Don Moss	Est or estimate:	Cost Level:
Company Name:	L.T. Environmental, Inc., Pasadena office	Company Name:	W.D. Energy
Address:	1000 North A Street	Address:	
City, State, Zip:	Madison, TN 37009	City, State, Zip:	
Phone:	(601) 208-2848	E-mail:	donmoss@ltd.com , donmoss@wd.com

Work Order Comments			
Program: US1001	☐ per	☐ pre-schedule	☐ per Question ☐
Status of Project			
Project completed	☐ per	☐ per	☐ per ☐ per
Estimated USD	☐ Alert ☐ Over		

		AVAL 7/25 10:00-11:00						Notes
Project Name:	Project Drive / Federal EDC1	Turn Around						
Project Manager:	Scott Little							
P.O. Number:	ECDC County	None						
Inspector's Name:	1 grade 1 elementary	Over Time						

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When preparing a report, it is important to target readers and tailor content to them. Some may require a brief, to-the-point and straightforward message. Others will be able to take in the full details and need more information. In any case, it is important to be clear. If you cannot be clear, it is a sign that you have not understood the task. A common mistake is to be too general and a target of all the target audiences. Some, but not every, target needs all the relevant information.

Subsidiary (by Signature)	Approved by (Signature)	Date/Time	Subsidiary (by Signature)	Approved by (Signature)	Date/Time
		20/06/2018 14:45			



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: LT Environmental, Inc.

Date/ Time Received: 08/20/2019 12:50:00 PM

Work Order #: 634606

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	No
#5 Custody Seals intact on sample bottles?	No
#6* Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 08/20/2019

Checklist reviewed by:

Jessica Kramer

Date: 08/21/2019