LT Environmental, Inc.
3300 North "A" Street
Building 1, Unit 103
Midland, Texas 79705
432.704.5178

June 28, 2019

Mr. Bradford Billings
New Mexico Oil Conservation Division
1220 S St Francis Dr # 3,
Santa Fe, NM 87505

RE: Request for Closure
WPX Energy Permian, Inc.
Remediation Permit Number 2RP-3676
Longview Federal 12-4H
Eddy County, New Mexico

Dear Mr. Billings:

LT Environmental, Inc. (LTE), on behalf of WPX Energy Permian, Inc. (WPX), is pleased to present the following letter report detailing characterization soil sampling activities at the Longview Federal 12-4H well pad (Site) located in Unit A, Section 12, Township 23 South, Range 28 East, Eddy County, New Mexico, as depicted on Figure 1. Soil sampling activities were conducted in response to a release of approximately 30 barrels (bbls) of produced water due to an equipment malfunction on the tank battery. The release was discovered on May 4, 2016. Approximately 28 bbls of produced water were recovered using a vacuum truck. The release affected approximately 1,600 square feet of the well pad surface. The release footprint was mapped, and the impacted soil was excavated and transported off site for disposal. WPX reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 on May 4, 2016 and was assigned Remediation Permit (RP) Number 2RP-3676 (Attachment 1). Please note that the latitude and longitude of release information submitted on the original Form C-141 is incorrect and has been corrected on the final closure Form C-141. Based on the initial response efforts and the results of the characterization soil sampling, WPX is requesting no further action for this release event.

BACKGROUND

The final site characterization occurred after August 14, 2018; therefore, LTE determined closure criteria according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be between 50 and 100 feet below ground surface (bgs) based on known aquifer properties and the elevation difference between the Site and an identified water well. The nearest permitted water well with depth to water data is CP 02702, located approximately 6,271 feet south southwest of the Site. Water well CP 02702 has a reported depth to water of 20 feet bgs and is approximately 63 feet lower in elevation than the

Site. The closest significant watercourse to the Site is a dry stream located approximately 3,780 feet northeast of the Site. The Site is greater than 300 feet from any occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within an unstable area, 100-year floodplain, or overlying a subsurface mine. The Site is located in a medium-potential karst area. Based on these criteria, the following NMOCD Table 1 closure criteria apply: 10 milligrams per kilogram (mg/kg) benzene; 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX); 100 mg/kg total petroleum hydrocarbons (TPH); and 600 mg/kg chloride.

INITIAL SOIL SAMPLING

From September 28 to October 16, 2018, LTE was on site to collect characterization soil samples from the former release area to assess the lateral and vertical extent of any potential remaining soil impacts. The soil sample locations (Figure 2) were selected based on information provided in the initial Form C-141, a map of the release extent completed by WPX shortly after the release occurred, and field observations. Soil samples were collected to assess the former release footprint on the pad surface from nine locations (SS01 through SS09) using a hand auger. Soil samples were collected from boreholes at depths ranging from 0.5 feet to 4 feet bgs. Photographs of the Site during sampling activities are included as Attachment 2. The soil samples were field screened for volatile aromatic hydrocarbons using a photo-ionization detector (PID) and chlorides using Hach® chloride QuanTab® test strips. The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler, and method of analysis and immediately placed on ice. The samples were shipped at 4 degrees Celsius (°C) to Xenco Laboratories in Midland, Texas, under strict chain-of-custody procedures for analysis of BTEX by United States Environmental Protection Agency (USEPA) Method 8021B, TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-motor oil range organics (MRO) by USEPA Method 8015M, and chloride by USEPA Method 300.0. Soil Sampling Logs are included as Attachment 3.

Laboratory analytical results of the preliminary characterization soil sample locations SS01 at 0.5 feet bgs, SS02 at 1 foot bgs, SS03 at 0.5 feet bgs, and SS04 at 1 foot bgs indicated TPH concentrations exceeded the NMOCD Table 1 closure criteria. Therefore; excavation of these areas was warranted. Laboratory analytical results are presented on Figure 2 and summarized in Table 1. The complete laboratory analytical reports are included as Attachment 4.

EXCAVATION

On March 5, 2019, LTE directed excavation activities to address TPH concentrations in soil sample locations SS01 and SS02. The excavation in the area of SS01 measured approximately 238 square feet in area and 1.5 feet bgs in depth. The excavation in the area of SS02 measured approximately 210 square feet in area and 2.0 feet bgs in depth.

On April 26, 2019, LTE directed excavation activities to address TPH concentrations in soil sample locations SS03 and SS04. The excavation in the area of SS03 measured approximately 290 square feet in area and 3.0 feet bgs in depth. The excavation in the area of SS04 measured approximately 165 square feet in area and 2.5 feet bgs in depth.

Following completion of excavation activities, 5-point composite confirmation soil samples were collected from the floor (samples labeled as "FS") and sidewalls (samples labeled as "SW") of each excavation area. Each soil sample represented at most 200 square feet, and the samples were handled as previously described. Approximately 100 cubic yards of impacted soil were removed from the excavation area. Approximately 80 cubic yards of the excavated soil have been transported to the R360 Halfway Facility located in Hobbs, New Mexico for disposal. The remaining 20 yards will be transported for disposal following the approval of this closure request. The excavation area and soil sample locations area depicted on Figure 3.

ANALYTICAL RESULTS

Laboratory analytical results of excavation soil samples indicated BTEX, TPH, and chloride concentrations were compliant with the NMOCD Table 1 closure criteria. Laboratory analytical results are presented on Figure 3 and summarized in Table 1. The complete laboratory analytical reports are included as Attachment 4.

CONCLUSIONS

Laboratory analytical results for the eleven excavation confirmation soil samples indicated BTEX, TPH, and chloride concentrations are compliant with NMOCD Table 1 closure criteria. Initial response efforts including immediate recovery of free-standing liquids and excavation of impacted material within the release footprint have mitigated impacts at the Site. WPX requests no further action for this release. An updated Form C-141 is included in Attachment 1.

If you have any questions or comments, please do not hesitate to contact Mr. Chris McKisson at (970) 285-9985 or cmckisson@ltenv.com.

Sincerely,

LT ENVIRONMENTAL, INC.

Chris McKisson
Project Environmental Scientist

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

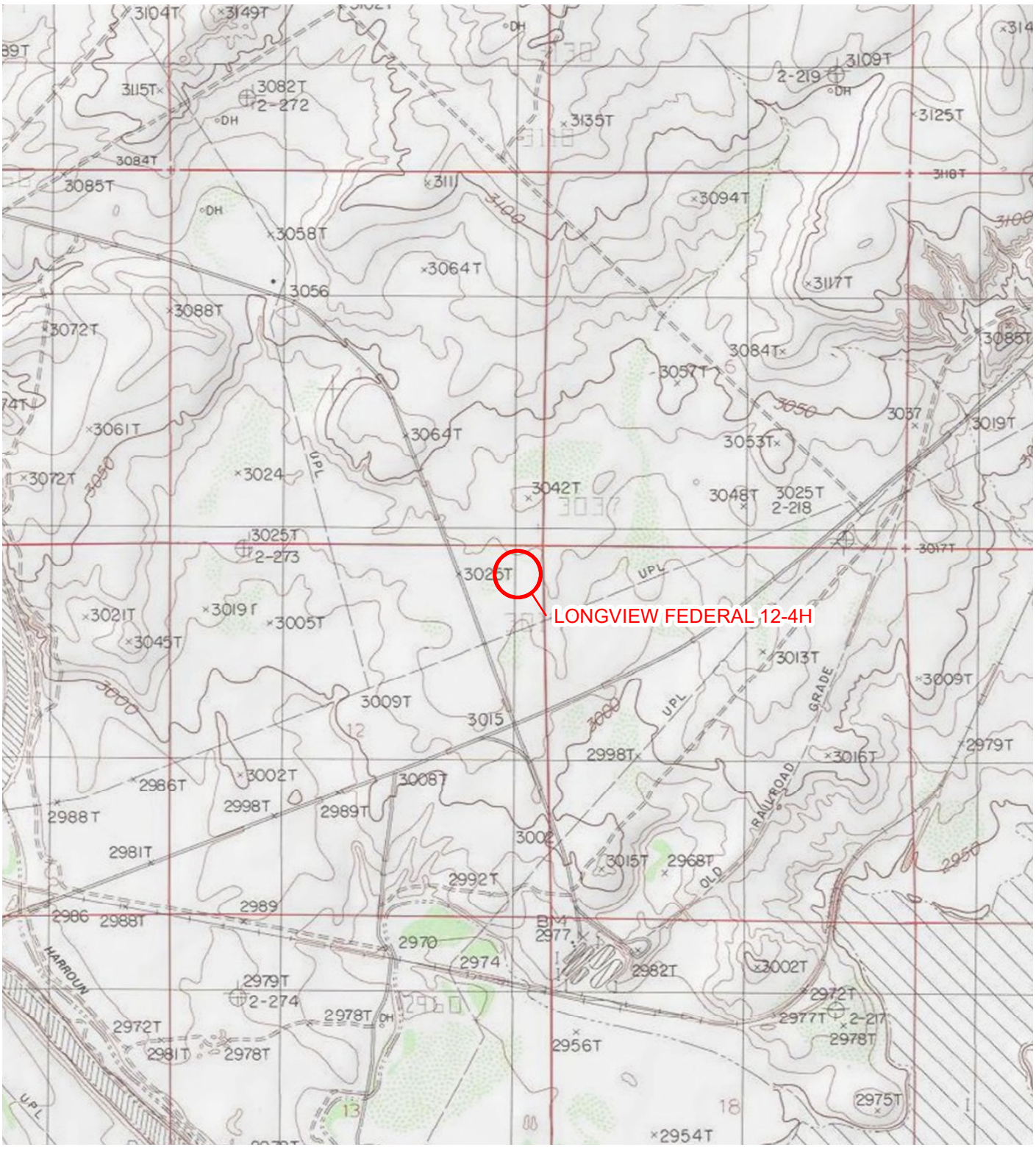
cc: Jim Raley, WPX
Mike Bratcher, NMOCD

Robert Hamlet, NMOCD
Victoria Venegas, NMOCD
Jim Amos, BLM

Attachments:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Form C-141
Attachment 2	Photographic Log
Attachment 3	Soil Sampling Logs
Attachment 4	Laboratory Analytical Reports

FIGURES



LEGEND

SITE LOCATION

IMAGE COURTESY OF ESRI/USGS

0 2,000 4,000

Feet

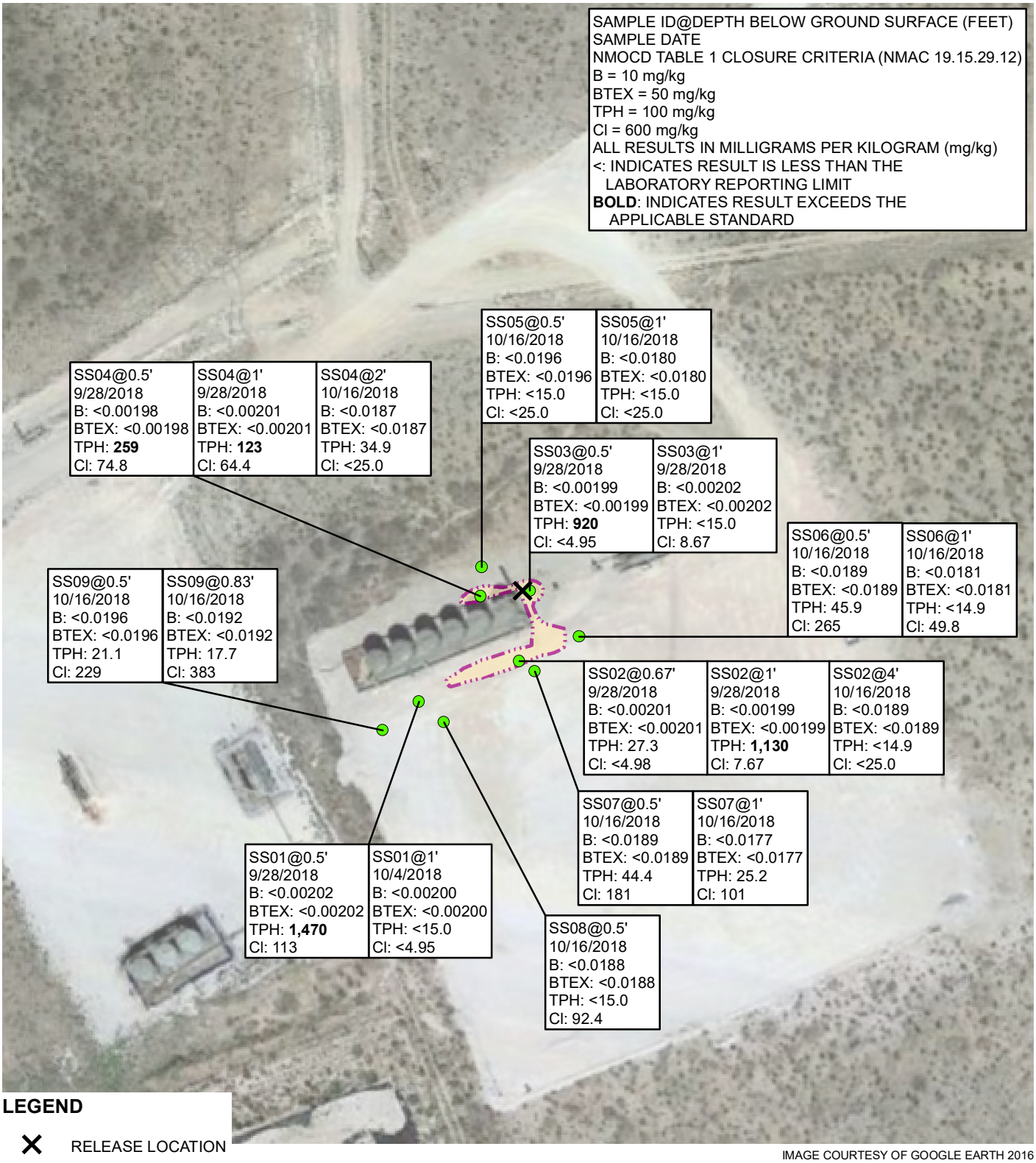
N

NEW MEXICO

NOTE: REMEDIATION PERMIT NUMBER 2RP-3676

FIGURE 1
SITE LOCATION MAP
LONGVIEW FEDERAL 12-4H
UNIT A SEC 12 T23S R28E
EDDY COUNTY, NEW MEXICO
WPX ENERGY PERMIAN, LLC.

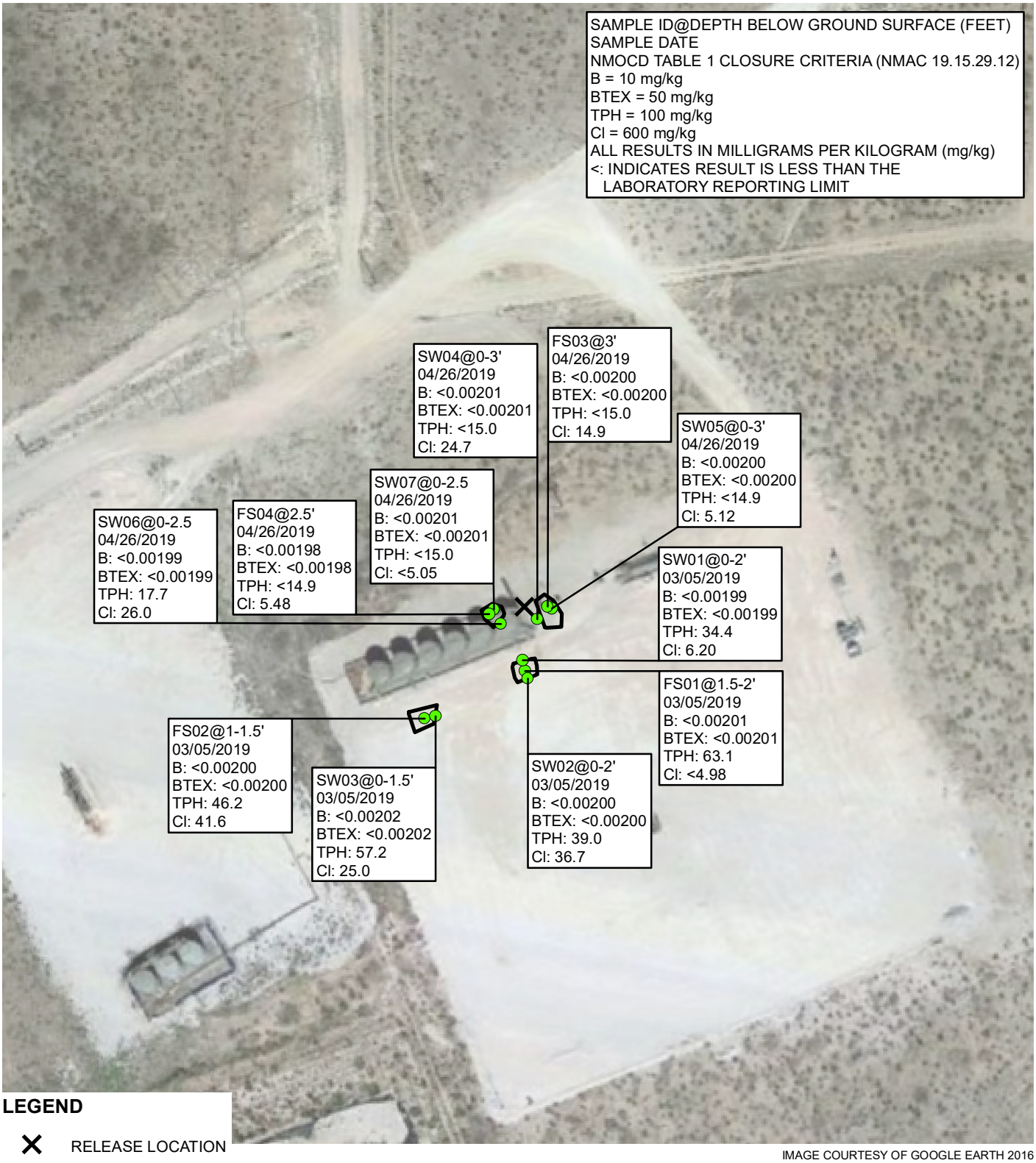
P:\WPX\GIS\MXD\034818009_LONGVIEW FEDERAL 12-4\034818009_FIG01_SL_3676.mxd



B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
TPH – TOTAL PETROLEUM HYDROCARBONS
Cl - CHLORIDE
NMAC – NEW MEXICO ADMINISTRATIVE CODE
NMOCD – NEW MEXICO OIL CONSERVATION DIVISION
NOTE: REMEDIATION PERMIT NUMBER 2RP-3676

FIGURE 2
SOIL SAMPLE LOCATIONS
LONGVIEW FEDERAL 12-4H
UNIT A SEC 12 T23S R28E
EDDY COUNTY, NEW MEXICO
WPX ENERGY PERMIAN, LLC.

P:\WPX\GIS\MXD\034818009_LONGVIEW FEDERAL 12-4\034818009_FIG02_SS_LOC_2018_3676.mxd



LEGEND

- RELEASE LOCATION
- EXCAVATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE STANDARDS
- EXCAVATION EXTENT (906.127 SQUARE FEET)

IMAGE COURTESY OF GOOGLE EARTH 2016

0 100 200
Feet

N

B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
TPH – TOTAL PETROLEUM HYDROCARBONS
Cl - CHLORIDE
NMAC – NEW MEXICO ADMINISTRATIVE CODE
NMOCD – NEW MEXICO OIL CONSERVATION DIVISION
NOTE: REMEDIATION PERMIT NUMBER 2RP-3676

FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
LONGVIEW FEDERAL 12-4H
UNIT A SEC 12 T23S R28E
EDDY COUNTY, NEW MEXICO
LAT/LONG: 32.326274, -104.033378
WPX ENERGY PERMIAN, LLC.

C:\Users\RRudolph\Desktop\034818009_FIG03_EXCAVATION SS_2018_3676.mxd

TABLE

TABLE 1
SOIL ANALYTICAL RESULTS

LONGVIEW FEDERAL 12-4H
REMEDIATION PERMIT NUMBER 2RP-3676
EDDY COUNTY, NEW MEXICO
WPX ENERGY PERMIAN, LLC

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)	MRO (mg/kg)	Sum of GRO + DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
On-Pad Site Samples													
SS01	0.5	09/28/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	22.3	1,410	34.5	1,430	**1,470**	113
SS01	1	10/04/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<4.95
SS02	0.67	09/28/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	27.3	<15.0	27.3	27.3	<4.98
SS02	1	09/28/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	18.5	1,040	67.4	1,060	**1,130**	7.76
SS02	4	10/16/2018	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<14.9	<14.9	<14.9	<14.9	<14.9	<25.0
SS03	0.5	09/28/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	38.6	836	45.5	875	**920**	<4.95
SS03	1	09/28/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	8.67
SS04	0.5	09/28/2018	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	259	<15.0	259	**259**	74.8
SS04	1	09/28/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	123	<14.9	123	**123**	64.4
SS04	2	10/16/2018	<0.0187	<0.0187	<0.0187	<0.0187	<0.0187	<15.0	34.9	<15.0	34.9	34.9	<25.0
SS05	0.5	10/16/2018	<0.0196	<0.0196	<0.0196	<0.0196	<0.0196	<15.0	<15.0	<15.0	<15.0	<15.0	<25.0
SS05	1	10/16/2018	<0.0180	<0.0180	<0.0180	<0.0180	<0.0180	<15.0	<15.0	<15.0	<15.0	<15.0	<25.0
SS06	0.5	10/16/2018	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<15.0	45.9	<15.0	45.9	45.9	265
SS06	1	10/16/2018	<0.0181	<0.0181	<0.0181	<0.0181	<0.0181	<14.9	<14.9	<14.9	<14.9	<14.9	49.8
SS07	0.5	10/16/2018	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<15.0	44.4	<15.0	44.4	44.4	181
SS07	1	10/16/2018	<0.0177	<0.0177	<0.0177	<0.0177	<0.0177	<14.9	25.2	<14.9	25.2	25.2	101
SS08	0.5	10/16/2018	<0.0188	<0.0188	<0.0188	<0.0188	<0.0188	<15.0	<15.0	<15.0	<15.0	<15.0	92.4
SS09	0.5	10/16/2018	<0.0196	<0.0196	<0.0196	<0.0196	<0.0196	<15.0	21.1	<15.0	21.1	21.1	229
SS09	0.83	10/16/2018	<0.0192	<0.0192	<0.0192	<0.0192	<0.0192	<15.0	17.7	<15.0	17.7	17.7	383
FS01	1.5-2	03/05/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	47.9	15.2	47.9	63.1	<4.98
FS02	1-1.5	03/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	46.2	<15.0	46.2	46.2	41.6
SW01	0-2	03/05/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	34.4	<15.0	34.4	34.4	6.20
SW02	0-2	03/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	39	<15.0	39	39	36.7
SW03	0-1.5	03/05/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	40.6	16.6	40.6	57.2	25.0
FS03	3	04/26/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	14.9
FS04	2.5	04/26/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<14.9	<14.9	<14.9	<14.9	<14.9	5.48
SW04	0-3	04/26/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	24.7
SW05	0-3	04/26/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	5.12
SW06	0-2.5	04/26/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	17.7	<14.9	17.7	17.7	26.0
SW07	0-2.5	04/26/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	<5.05
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	NE	**100**	**600**

Notes:

bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
DRO - diesel range organics
GRO - gasoline range organics
NMOCD - New Mexico Oil Conservation Division
NE - not established
mg/kg - milligrams per kilogram
MRO - motor oil range organics
NMAC - New Mexico Administrative Code
Table 1 - Closure Criteria for Soils Impacted by a Release per NMAC 19.15.29 August 2018
TPH - total petroleum hydrocarbons
< - indicates result is below laboratory detection limit
Bold indicates result exceeds the applicable regulatory standard

ATTACHMENT 1: FORM C-141

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

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

NAB1613035815 246289

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company WPX Energy Inc/ RKI E&P, LLC	Contact Lucas Smith
Address 3500 One Williams Center Tulsa, OK 74172	Telephone No. 539-573-0176
Facility Name: Longview Federal 12-4H	Facility Type : Oil and Gas Well

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-42238

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	12	23S	28E	565	FNL	335	FEL	Eddy

Latitude: 32.0926101 **Longitude:** -103.9468205

NATURE OF RELEASE

Type of Release. Produced Water	Volume of Release: 30 Bbls	Volume Recovered: 28 Bbls
Source of Release Oil was pushed into the VRU line and out PRV	Date and Hour of Occurrence 05/04/16	Date and Hour of Discovery 05/04/16 – 1500hrs MT
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? Spoke with Heather Patterson at 12:25 MT (Mobile)	
By Whom? Lucas Smith	Date and Hour: ~~04/16/16~~ 5/4/16 – 1208hrs MT	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.* N/A

Describe Cause of Problem and Remedial Action Taken.*
Oil was pushed into the VRU line and out PRV. Currently the cause is under investigation

Describe Area Affected and Cleanup Action Taken.*

20bbls of crude oil was captured in a lined containment. 5bbls of crude oil were outside of containment and is being removed by vacuum truck. Remaining impacted soils will be removed for disposal.

NM OIL CONSERVATION
ARTESIA DISTRICT
MAY 04 2016
RECEIVED

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Lucas Smith	Approved by Environmental Specialist:
Title: EHS Manager	Approval Date: 5/5/16 Expiration Date: N/A
E-mail Address: Lucas.smith@wpxenergy.com	Conditions of Approval: Attached ☐
Date: 05/04/16 Phone: 539-573-0176	Remediation per O.C.D. Rules & Guidelines SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 6/30/16

2RP-3676

* Attach Additional Sheets If Necessary

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	
District RP	**2RP- 3676**
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	**WPX Energy, Inc.**	OGRID	**246289**
Contact Name	**Jim Raley**	Contact Telephone	**575-689-7597**
Contact email	**James.Raley@wpxenergy.com**	Incident # *(assigned by OCD)*	
Contact mailing address	**5315 Buena Vista Dr., Carlsbad, NM 88220**		

Location of Release Source

Latitude **32.32627 N** Longitude **-104.03337 W**
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	**Longview 12-4H**	Site Type	**Oil Well Pad**
Date Release Discovered	**5/4/2019 1500 hrs**	API# *(if applicable)*	**30-015-42238**

Unit Letter	Section	Township	Range	County
A	**12**	**23S**	**28E**	**Eddy**

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 30 bbls	Volume Recovered (bbls) 28 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
Equipment failure

Oil was pushed into the VRU line and out PRV.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	**2RP-3676**
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? **Greater than 25 bbls released.**
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Lucas Smith notified Heather Patterson by mobile phone.	

Initial Response

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

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

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

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

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

Printed Name: **Jim Raley** Title: **Environmental Specialist**

Signature: _____ Date: **7/1/2019**

email: **James.Raley@wpxenergy.com** Telephone: **575-689-7597**

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	**2RP-3676**
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	**2RP-3676**
Facility ID	
Application ID	

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

Printed Name: **Jim Raley** Title: **Environmental Specialist**

Signature:_____ Date: **7/1/2019**

email: **James.Raley@wpxenergy.com** Telephone: **575-689-7597**

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	**2RP-3676**
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: **Jim Raley** Title: **Environmental Specialist**

Signature: _____ Date: **7/1/2019**

email: **James.Raley@wpxenergy.com** Telephone: **575-689-7597**

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: Ashley Maxwell Date: 3/29/2023

Printed Name: Ashley Maxwell Title: Environmental Specialist

ATTACHMENT 2: PHOTOGRAPHIC LOG

Release footprint on pad surface before excavation– view northwest.

Project: 034818009	WPX Energy Permian, Inc. Longview Federal 12-4H	LTE Advancing Opportunity
September 28, 2018	Photographic Log	

Excavation in area of SS01 – view northeast

Project: 034818009	WPX Energy Permian, Inc. Longview Federal 12-4H	Advancing Opportunity
March 5, 2019	Photographic Log	

Excavation in area of SS02 – view west

Project: 034818009	WPX Energy Permian, Inc. Longview Federal 12-4H	Advancing Opportunity
March 5, 2019	Photographic Log	

Excavation in area of SS03 – view south

Project: 034818009	WPX Energy Permian, Inc. Longview Federal 12-4H	LTE Advancing Opportunity
April 26, 2019	Photographic Log	

Excavation in area of SS03 – view south

Project: 034818009	WPX Energy Permian, Inc. Longview Federal 12-4H	LTE Advancing Opportunity
April 26, 2019	Photographic Log	

ATTACHMENT 3: SOIL SAMPLING LOGS

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

Identifier:	Date:
SS01	10/04/2019
Project Name:	**RP Number:**
Longview Federal	2RP 3676
Logged By: L. Lambuth	**Method:** hand Auger
Lat/Long:	**Field Screening:** PID, chlorides
Hole Diameter: 2.5"	**Total Depth:** 1'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: delineation

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry		114	Y		0			
					0.5'		caliche	caliche, stained, large rocks, hard to get through
dry	<109	1.5	N		1		SW/SM	topsoil, sandy loam w/ ~3" rocks
					2			deepest depth
					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: SS02	Date: 10/16/2019
Project Name: Longview Federal	RP Number: 2RP-3676
Logged By: L. Lambert	Method: hand Auger
Lat/Long:	Field Screening: PID, chlorides
Hole Diameter: 2.5"	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry		2.7	N		0 .75'		SW-SM	Lt brn sand/sandy loam, brn
	<109	3.4	N		1			nodor
dry	<109	1.2	N		2			
		2.1	N		3		caliche SWSM	tan caliche, sand like, few large rocks (>3") nodor
dry	<109	1.3	N		4			caliche/sandy loam mix, brn w/ white flakes
					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: SS03	Date: 09/28/2018
Project Name: Longview Federal	RP Number: 2RP 3676
Logged By: L. Lambuth	Method: hand Auger
Lat/Long:	Field Screening: PID, chlorides
Hole Diameter: 2.5"	Total Depth: 1'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: delineation

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	Cl-1	50.2	N		0			
dry	Cl-2	66.8	N		0.5'		SWSh	odor fine sand/sandy loam, brown
					1			odor
					2			deepest depth
					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:	Date:
SS04	10/16/2018
Project Name:	**RP Number:**
Longview Federal	2RP 3676
Logged By: L. Lambert	**Method:** hand Auger
Hole Diameter: 2.5"	**Total Depth:** 2'
Field Screening: PID, chlorides	**Lat/Long:**

LITHOLOGIC / SOIL SAMPLING LOG

Comments: delineation

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry		25.2	N		0.5'		SWSM	Sandy loam, odor, brown
dry	<109	39.4	N		1'			
dry		2.3			2'		SWSM	Sandy loam, brown, 3"-5" rocks
					3			deepest depth
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier: SS05	Date: 10/16/2019
Project Name: Longview Federal	RP Number: 2RP-3676
Logged By: L Lambert	Method: hand auger
Lat/Long:	Field Screening: PID, chlorides
Hole Diameter: 2.5"	Total Depth: 1'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: delineation

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	<109	8.6	N		0			
dry	<109	0.0	N		0.5'		SW-SM	Sandy loam, brown, no odor rock, hard to auger through
					1			deepest depth
					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: SS06	Date: 10/16/2018
Project Name: Longview Federal	RP Number: 2RP 3676
Logged By: L. Lambuth	Method: hand auger
Lat/Long:	Field Screening: PID, chlorides
Hole Diameter: 2.5"	Total Depth: 1'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: deliverable

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	<109	1.8	N		0			
dry	<109	0.2	N		1		SW/SM	sandy loam, brown, moder, some rocks
					2			deepest depth
					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: SS07	Date: 10/16/2018
Project Name: Longview Federal	RP Number: 2RP 3676
Logged By: L. Lambert	Method: Hand Auger
Hole Diameter: 2.5"	Total Depth: 1'
Lat/Long:	Field Screening: PID, chlorides

Comments: delineation

LITHOLOGIC / SOIL SAMPLING LOG

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	C109	1.0	N		0		SW-SM	Sandy loam, brown, N odor
dry	C109	1.3	N		1			
					2			deepest depth
					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: SS08	Date: 10/16/2018
Project Name: Longview Federal	RP Number: 2RP-3676
Logged By: L. Lambuth	Method: hand auger
Lat/Long:	Field Screening: PID, chlorides
Hole Diameter: 2.5"	Total Depth: 1'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: delineation

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
	c109	2.0	N		0			
	c109	1.7	N		0.5'		SW-SM	No odor Sandy loam, brown
					1			
					2			deepest depth
					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: 5509	Date: 10/16/2019
Project Name: Longview Federal	RP Number: 2RP 3676
Logged By: L. Lambert	Method: hand Auger
Lat/Long:	Field Screening: PID, chlorides
Hole Diameter: 2.5"	Total Depth: 1'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: delineation

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	<109	1.7	N		0			
dry	(2.6) 260	1.5	N		0.5'		surface	sandy loam, brown, moist
					1		↓ caliche	sandy loam / caliche flakes, brown w/ white, moist
					2			deepest depth
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS

Analytical Report 600817

for

LT Environmental, Inc.

Project Manager: Adrian Baker

Longview Federal 12-4H

08-OCT-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
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-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

08-OCT-18

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

Reference: XENCO Report No(s): **600817**
Longview Federal 12-4H
Project Address: NM-Eddy 2RP-3676

Adrian Baker:

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) 600817. 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. 600817 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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

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

Sample Cross Reference 600817

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	09-28-18 09:00	6 In	600817-001
SS02	S	09-28-18 09:10	8 In	600817-002
SS02	S	09-28-18 09:15	1 ft	600817-003
SS03	S	09-28-18 09:40	6 In	600817-004
SS03	S	09-28-18 09:45	1 ft	600817-005
SS04	S	09-28-18 09:50	6 In	600817-006
SS04	S	09-28-18 09:55	1 ft	600817-007

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Longview Federal 12-4H

Project ID:
Work Order Number(s): *600817*

Report Date: *08-OCT-18*
Date Received: *09/29/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3065663 BTEX by EPA 8021B

Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.

Samples in the analytical batch are: 600817-001, -002, -003, -004, -005, -006, -007

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

Lab Sample ID 600817-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Benzene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 600817-001, -002, -003, -004, -005, -006, -007.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 600817

LT Environmental, Inc., Arvada, CO

Project Name: Longview Federal 12-4H

Project Id:

Contact: Adrian Baker

Project Location: NM-Eddy 2RP-3676

Date Received in Lab: Sat Sep-29-18 09:00 am

Report Date: 08-OCT-18

Project Manager: Jessica Kramer

Analysis Requested		600817-001		600817-002		600817-003		600817-004		600817-005		600817-006	
	Field Id:	SS01		SS02		SS02		SS03		SS03		SS04	
	Depth:	6- In		8- In		1- ft		6- In		1- ft		6- In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-28-18 09:00		Sep-28-18 09:10		Sep-28-18 09:15		Sep-28-18 09:40		Sep-28-18 09:45		Sep-28-18 09:50	
BTEX by EPA 8021B	***Extracted:***	Oct-05-18 17:00		Oct-05-18 17:00		Oct-05-18 17:00		Oct-05-18 17:00		Oct-05-18 17:00		Oct-05-18 17:00	
	Analyzed:	Oct-05-18 20:05		Oct-05-18 20:25		Oct-05-18 20:46		Oct-05-18 21:06		Oct-05-18 21:26		Oct-05-18 21:46	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198
Toluene		<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198
Ethylbenzene		<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198
m,p-Xylenes		<0.00403	0.00403	<0.00402	0.00402	<0.00398	0.00398	<0.00398	0.00398	<0.00404	0.00404	<0.00397	0.00397
o-Xylene		<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198
Total Xylenes		<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198
Total BTEX		<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198
Inorganic Anions by EPA 300	***Extracted:***	Oct-03-18 09:00		Oct-03-18 09:00		Oct-03-18 09:00		Oct-03-18 09:00		Oct-03-18 14:30		Oct-03-18 14:30	
	Analyzed:	Oct-03-18 15:41		Oct-03-18 15:47		Oct-03-18 15:53		Oct-03-18 15:58		Oct-03-18 16:32		Oct-03-18 16:49	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		113	4.97	<4.98	4.98	7.76	4.95	<4.95	4.95	8.67	4.96	74.8	5.00
TPH by SW8015 Mod	***Extracted:***	Oct-02-18 17:00		Oct-02-18 17:00		Oct-02-18 17:00		Oct-02-18 17:00		Oct-02-18 17:00		Oct-03-18 07:50	
	Analyzed:	Oct-03-18 06:09		Oct-03-18 07:05		Oct-03-18 07:23		Oct-03-18 07:42		Oct-03-18 08:01		** ** ** **	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		22.3	15.0	<15.0	15.0	18.5	14.9	38.6	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		1410	15.0	27.3	15.0	1040	14.9	836	15.0	<15.0	15.0	259	15.0
Motor Oil Range Hydrocarbons (MRO)		34.5	15.0	<15.0	15.0	67.4	14.9	45.5	15.0	<15.0	15.0	<15.0	15.0
Total TPH		1470	15.0	27.3	15.0	1130	14.9	920	15.0	<15.0	15.0	259	15.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 600817

LT Environmental, Inc., Arvada, CO

Project Name: Longview Federal 12-4H

Project Id:
Contact: Adrian Baker
Project Location: NM-Eddy 2RP-3676

Date Received in Lab: Sat Sep-29-18 09:00 am
Report Date: 08-OCT-18
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	600817-007					
	Field Id:	SS04					
	Depth:	1- ft					
	Matrix:	SOIL					
	Sampled:	Sep-28-18 09:55					
BTEX by EPA 8021B	***Extracted:***	Oct-05-18 17:00					
	Analyzed:	Oct-05-18 22:06					
	Units/RL:	mg/kg	RL				
Benzene		<0.00201	0.00201				
Toluene		<0.00201	0.00201				
Ethylbenzene		<0.00201	0.00201				
m,p-Xylenes		<0.00402	0.00402				
o-Xylene		<0.00201	0.00201				
Total Xylenes		<0.00201	0.00201				
Total BTEX		<0.00201	0.00201				
Inorganic Anions by EPA 300	***Extracted:***	Oct-03-18 14:30					
	Analyzed:	Oct-03-18 16:55					
	Units/RL:	mg/kg	RL				
Chloride		64.4	4.99				
TPH by SW8015 Mod	***Extracted:***	Oct-03-18 07:50					
	Analyzed:	** ** ** **					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<14.9	14.9				
Diesel Range Organics (DRO)		123	14.9				
Motor Oil Range Hydrocarbons (MRO)		<14.9	14.9				
Total TPH		123	14.9				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 600817

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	09.29.18 09.00
Lab Sample Id:	600817-001	Date Collected:	09.28.18 09.00	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	10.03.18 09.00	Basis:	Wet Weight
Seq Number:	3065322				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**113**	4.97	mg/kg	10.03.18 15.41		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.02.18 17.00	Basis:	Wet Weight
Seq Number:	3065182				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**22.3**	15.0	mg/kg	10.03.18 06.09		1
Diesel Range Organics (DRO)	C10C28DRO	**1410**	15.0	mg/kg	10.03.18 06.09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**34.5**	15.0	mg/kg	10.03.18 06.09		1
Total TPH	PHC635	**1470**	15.0	mg/kg	10.03.18 06.09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	10.03.18 06.09	
o-Terphenyl	84-15-1	120	%	70-135	10.03.18 06.09	

Certificate of Analytical Results 600817

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	09.29.18 09.00
Lab Sample Id:	600817-001	Date Collected:	09.28.18 09.00	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.05.18 17.00	Basis:	Wet Weight
Seq Number:	3065663				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.05.18 20.05	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.05.18 20.05	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.05.18 20.05	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	10.05.18 20.05	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.05.18 20.05	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.05.18 20.05	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.05.18 20.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	10.05.18 20.05	
1,4-Difluorobenzene	540-36-3	100	%	70-130	10.05.18 20.05	

Certificate of Analytical Results 600817

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	09.29.18 09.00
Lab Sample Id:	600817-002	Date Collected:	09.28.18 09.10	Sample Depth:	8 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	10.03.18 09.00	Basis:	Wet Weight
Seq Number:	3065322				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	10.03.18 15.47	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.02.18 17.00	Basis:	Wet Weight
Seq Number:	3065182				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.03.18 07.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	**27.3**	15.0	mg/kg	10.03.18 07.05		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.03.18 07.05	U	1
Total TPH	PHC635	**27.3**	15.0	mg/kg	10.03.18 07.05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	10.03.18 07.05	
o-Terphenyl	84-15-1	96	%	70-135	10.03.18 07.05	

Certificate of Analytical Results 600817

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	09.29.18 09.00
Lab Sample Id:	600817-002	Date Collected:	09.28.18 09.10	Sample Depth:	8 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.05.18 17.00	Basis:	Wet Weight
Seq Number:	3065663				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.05.18 20.25	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.05.18 20.25	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.05.18 20.25	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.05.18 20.25	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.05.18 20.25	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.05.18 20.25	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.05.18 20.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	83	%	70-130	10.05.18 20.25	
1,4-Difluorobenzene	540-36-3	87	%	70-130	10.05.18 20.25	

Certificate of Analytical Results 600817

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	09.29.18 09.00
Lab Sample Id:	600817-003	Date Collected:	09.28.18 09.15	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	10.03.18 09.00	Basis:	Wet Weight
Seq Number:	3065322				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.76**	4.95	mg/kg	10.03.18 15.53		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.02.18 17.00	Basis:	Wet Weight
Seq Number:	3065182				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**18.5**	14.9	mg/kg	10.03.18 07.23		1
Diesel Range Organics (DRO)	C10C28DRO	**1040**	14.9	mg/kg	10.03.18 07.23		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**67.4**	14.9	mg/kg	10.03.18 07.23		1
Total TPH	PHC635	**1130**	14.9	mg/kg	10.03.18 07.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	10.03.18 07.23	
o-Terphenyl	84-15-1	110	%	70-135	10.03.18 07.23	

Certificate of Analytical Results 600817

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	09.29.18 09.00
Lab Sample Id:	600817-003	Date Collected:	09.28.18 09.15	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.05.18 17.00	Basis:	Wet Weight
Seq Number:	3065663				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.05.18 20.46	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.05.18 20.46	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.05.18 20.46	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.05.18 20.46	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.05.18 20.46	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.05.18 20.46	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.05.18 20.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	10.05.18 20.46	
4-Bromofluorobenzene	460-00-4	130	%	70-130	10.05.18 20.46	

Certificate of Analytical Results 600817

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	09.29.18 09.00
Lab Sample Id:	600817-004	Date Collected:	09.28.18 09.40	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	10.03.18 09.00	Basis:	Wet Weight
Seq Number:	3065322				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	10.03.18 15.58	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.02.18 17.00	Basis:	Wet Weight
Seq Number:	3065182				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**38.6**	15.0	mg/kg	10.03.18 07.42		1
Diesel Range Organics (DRO)	C10C28DRO	**836**	15.0	mg/kg	10.03.18 07.42		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**45.5**	15.0	mg/kg	10.03.18 07.42		1
Total TPH	PHC635	**920**	15.0	mg/kg	10.03.18 07.42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	10.03.18 07.42	
o-Terphenyl	84-15-1	107	%	70-135	10.03.18 07.42	

Certificate of Analytical Results 600817

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	09.29.18 09.00
Lab Sample Id:	600817-004	Date Collected:	09.28.18 09.40	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.05.18 17.00	Basis:	Wet Weight
Seq Number:	3065663				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.05.18 21.06	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.05.18 21.06	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.05.18 21.06	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.05.18 21.06	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.05.18 21.06	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.05.18 21.06	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.05.18 21.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.05.18 21.06	
4-Bromofluorobenzene	460-00-4	120	%	70-130	10.05.18 21.06	

Certificate of Analytical Results 600817

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	09.29.18 09.00
Lab Sample Id:	600817-005	Date Collected:	09.28.18 09.45	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	10.03.18 14.30	Basis:	Wet Weight
Seq Number:	3065340				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.67**	4.96	mg/kg	10.03.18 16.32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.02.18 17.00	Basis:	Wet Weight
Seq Number:	3065182				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.03.18 08.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	10.03.18 08.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.03.18 08.01	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.03.18 08.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	10.03.18 08.01	
o-Terphenyl	84-15-1	93	%	70-135	10.03.18 08.01	

Certificate of Analytical Results 600817

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	09.29.18 09.00
Lab Sample Id:	600817-005	Date Collected:	09.28.18 09.45	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.05.18 17.00	Basis:	Wet Weight
Seq Number:	3065663				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.05.18 21.26	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.05.18 21.26	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.05.18 21.26	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	10.05.18 21.26	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.05.18 21.26	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.05.18 21.26	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.05.18 21.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	10.05.18 21.26	
1,4-Difluorobenzene	540-36-3	107	%	70-130	10.05.18 21.26	

Certificate of Analytical Results 600817

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	09.29.18 09.00
Lab Sample Id:	600817-006	Date Collected:	09.28.18 09.50	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	10.03.18 14.30	Basis:	Wet Weight
Seq Number:	3065340				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**74.8**	5.00	mg/kg	10.03.18 16.49		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.03.18 07.50	Basis:	Wet Weight
Seq Number:	3065180				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.03.18 00.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	**259**	15.0	mg/kg	10.03.18 00.53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.03.18 00.53	U	1
Total TPH	PHC635	**259**	15.0	mg/kg	10.03.18 00.53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	10.03.18 00.53	
o-Terphenyl	84-15-1	107	%	70-135	10.03.18 00.53	

Certificate of Analytical Results 600817

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	09.29.18 09.00
Lab Sample Id:	600817-006	Date Collected:	09.28.18 09.50	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.05.18 17.00	Basis:	Wet Weight
Seq Number:	3065663				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.05.18 21.46	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.05.18 21.46	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.05.18 21.46	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	10.05.18 21.46	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.05.18 21.46	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.05.18 21.46	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.05.18 21.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	10.05.18 21.46	
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.05.18 21.46	

Certificate of Analytical Results 600817

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	09.29.18 09.00
Lab Sample Id:	600817-007	Date Collected:	09.28.18 09.55	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	10.03.18 14.30	Basis:	Wet Weight
Seq Number:	3065340				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**64.4**	4.99	mg/kg	10.03.18 16.55		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.03.18 07.50	Basis:	Wet Weight
Seq Number:	3065180				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	10.03.18 01.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	**123**	14.9	mg/kg	10.03.18 01.12		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	10.03.18 01.12	U	1
Total TPH	PHC635	**123**	14.9	mg/kg	10.03.18 01.12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	10.03.18 01.12	
o-Terphenyl	84-15-1	105	%	70-135	10.03.18 01.12	

Certificate of Analytical Results 600817

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	09.29.18 09.00
Lab Sample Id:	600817-007	Date Collected:	09.28.18 09.55	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.05.18 17.00	Basis:	Wet Weight
Seq Number:	3065663				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.05.18 22.06	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.05.18 22.06	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.05.18 22.06	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.05.18 22.06	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.05.18 22.06	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.05.18 22.06	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.05.18 22.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	10.05.18 22.06	
4-Bromofluorobenzene	460-00-4	119	%	70-130	10.05.18 22.06	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 600817

LT Environmental, Inc.

Longview Federal 12-4H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3065322 Matrix: Solid Date Prep: 10.03.18
MB Sample Id: 7663443-1-BLK LCS Sample Id: 7663443-1-BKS LCSD Sample Id: 7663443-1-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	266	106	265	106	90-110	0	20	mg/kg	10.03.18 13:07	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3065340 Matrix: Solid Date Prep: 10.03.18
MB Sample Id: 7663474-1-BLK LCS Sample Id: 7663474-1-BKS LCSD Sample Id: 7663474-1-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	245	98	249	100	90-110	2	20	mg/kg	10.03.18 16:21	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3065322 Matrix: Soil Date Prep: 10.03.18
Parent Sample Id: 600814-007 MS Sample Id: 600814-007 S MSD Sample Id: 600814-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	133	248	395	106	399	107	90-110	1	20	mg/kg	10.03.18 13:24	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3065322 Matrix: Soil Date Prep: 10.03.18
Parent Sample Id: 600814-017 MS Sample Id: 600814-017 S MSD Sample Id: 600814-017 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	336	248	585	100	587	101	90-110	0	20	mg/kg	10.03.18 14:50	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3065340 Matrix: Soil Date Prep: 10.03.18
Parent Sample Id: 600817-005 MS Sample Id: 600817-005 S MSD Sample Id: 600817-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8.67	248	262	102	262	102	90-110	0	20	mg/kg	10.03.18 16:38	

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

QC Summary 600817

LT Environmental, Inc.

Longview Federal 12-4H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3065340 Matrix: Soil Date Prep: 10.03.18
Parent Sample Id: 600973-001 MS Sample Id: 600973-001 S MSD Sample Id: 600973-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.850	248	244	98	245	99	90-110	0	20	mg/kg	10.03.18 17:58	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3065182 Matrix: Solid Date Prep: 10.02.18
MB Sample Id: 7663405-1-BLK LCS Sample Id: 7663405-1-BKS LCSD Sample Id: 7663405-1-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	1000	100	70-135	1	20	mg/kg	10.03.18 02:07	
Diesel Range Organics (DRO)	<8.13	1000	1020	102	1020	102	70-135	0	20	mg/kg	10.03.18 02:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		111		115		70-135	%	10.03.18 02:07
o-Terphenyl	106		110		107		70-135	%	10.03.18 02:07

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3065180 Matrix: Solid Date Prep: 10.03.18
MB Sample Id: 7663404-1-BLK LCS Sample Id: 7663404-1-BKS LCSD Sample Id: 7663404-1-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	1010	101	951	95	70-135	6	20	mg/kg	10.02.18 17:28	
Diesel Range Organics (DRO)	<8.13	1000	1070	107	989	99	70-135	8	20	mg/kg	10.02.18 17:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		123		130		70-135	%	10.02.18 17:28
o-Terphenyl	117		113		107		70-135	%	10.02.18 17:28

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3065182 Matrix: Soil Date Prep: 10.02.18
Parent Sample Id: 600977-001 MS Sample Id: 600977-001 S MSD Sample Id: 600977-001 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)	9.15	999	960	95	1070	106	70-135	11	20	mg/kg	10.03.18 03:03	
Diesel Range Organics (DRO)	108	999	1100	99	1250	115	70-135	13	20	mg/kg	10.03.18 03:03	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	120		129		70-135	%	10.03.18 03:03
o-Terphenyl	107		123		70-135	%	10.03.18 03:03

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

QC Summary 600817

LT Environmental, Inc.

Longview Federal 12-4H

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3065180 | Matrix: Soil | Date Prep: 10.03.18
Parent Sample Id: 600815-001 | MS Sample Id: 600815-001 S | MSD Sample Id: 600815-001 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)	11.1	998	881	87	903	89	70-135	2	20	mg/kg	10.02.18 18:24	
Diesel Range Organics (DRO)	<8.11	998	910	91	918	92	70-135	1	20	mg/kg	10.02.18 18:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		118		70-135	%	10.02.18 18:24
o-Terphenyl	91		89		70-135	%	10.02.18 18:24

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3065663 | Matrix: Solid | Date Prep: 10.05.18
MB Sample Id: 7663735-1-BLK | LCS Sample Id: 7663735-1-BKS | LCSD Sample Id: 7663735-1-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	0.109	109	0.115	115	70-130	5	35	mg/kg	10.05.18 18:06	
Toluene	<0.00200	0.100	0.107	107	0.114	114	70-130	6	35	mg/kg	10.05.18 18:06	
Ethylbenzene	<0.00200	0.100	0.104	104	0.110	110	70-130	6	35	mg/kg	10.05.18 18:06	
m,p-Xylenes	<0.00400	0.200	0.200	100	0.213	107	70-130	6	35	mg/kg	10.05.18 18:06	
o-Xylene	<0.00200	0.100	0.0937	94	0.106	106	70-130	12	35	mg/kg	10.05.18 18:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		96		95		70-130	%	10.05.18 18:06
4-Bromofluorobenzene	93		102		100		70-130	%	10.05.18 18:06

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3065663 | Matrix: Soil | Date Prep: 10.05.18
Parent Sample Id: 600817-001 | MS Sample Id: 600817-001 S | MSD Sample Id: 600817-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0797	79	0.0499	50	70-130	46	35	mg/kg	10.05.18 18:46	XF
Toluene	<0.00202	0.101	0.0638	63	0.0102	10	70-130	145	35	mg/kg	10.05.18 18:46	XF
Ethylbenzene	<0.00202	0.101	0.0472	47	0.00525	5	70-130	160	35	mg/kg	10.05.18 18:46	XF
m,p-Xylenes	<0.00403	0.202	0.0884	44	0.0277	14	70-130	105	35	mg/kg	10.05.18 18:46	XF
o-Xylene	<0.00202	0.101	0.0458	45	0.0258	26	70-130	56	35	mg/kg	10.05.18 18:46	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		110		70-130	%	10.05.18 18:46
4-Bromofluorobenzene	98		103		70-130	%	10.05.18 18:46

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

XENCO LABORATORIES

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Dallas Texas (214-902-0300)
San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)
Phoenix, Arizona (480-355-0900)
www.xenco.com

CHAIN OF CUSTODY

Page 1 of 1

Xenco Quote #: | Xenco Job #: 600817

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. Permian Office
Company Address: 3300 N "A" St. Building 1 unit 103 Midland, TX 79705
Email: abaker@ltenv.com Phone No: (432) 704-5178
Project Contact: Adrian Baker
Samplers's Name: L. Lambert

Project Information

Project Name/Number: Longview Federal 12-4H
Project Location: NM-EDDY 2RP-3676
Invoice To: LT Environmental, Inc - Adrian Baker
PO Number: 34818009

Analytical Information

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX (only 4 BTEX) 8021	TPH (DRO GRO MRO) 8015	Chloride (300.0)
1	SS01	6"	9/28	9:00	S	1								X	X	X	X
2	SS02	6"		9:10	S	1											
3	SS02	1'		9:15	S	1											
4	SS03	6"		9:40	S	1											
5	SS03	1'		9:45	S	1											
6	SS04	6"		9:50	S	1											
7	SS04	1'		9:55	S	1											
8																	
9																	
10																	

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

Field Comments

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [x] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking # 773561493104

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		9/28/18 15:14	Chuez Rubio	2 9/28/18 15:30	9/29/18	Cinco
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice: X

Cooler Temp. 0.2 Thermo. Corr. Factor 0.0

Notice: 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 loses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

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.

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Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09/29/2018 09:00:00 AM

Work Order #: 600817

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)?	.2
#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: 10/01/2018

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 10/01/2018

Jessica Kramer

Analytical Report 601546

for

LT Environmental, Inc.

Project Manager: Adrian Baker

Longview Federal 12-4H

15-OCT-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
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-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

15-OCT-18

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

Reference: XENCO Report No(s): **601546**
Longview Federal 12-4H
Project Address: NM Eddy 2RP 3676

Adrian Baker:

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) 601546. 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. 601546 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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Sample Cross Reference 601546

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	10-04-18 10:30	1 ft	601546-001

Version: 1.%

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Longview Federal 12-4H

Project ID:
Work Order Number(s): *601546*

Report Date: *15-OCT-18*
Date Received: *10/05/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3066251 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Lab Sample ID 601546-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).
Toluene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Benzene, Ethylbenzene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 601546-001.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 601546

LT Environmental, Inc., Arvada, CO

Project Name: Longview Federal 12-4H

Project Id:
Contact: Adrian Baker
Project Location: NM Eddy 2RP 3676

Date Received in Lab: Fri Oct-05-18 10:20 am
Report Date: 15-OCT-18
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	601546-001					
	Field Id:	SS01					
	Depth:	1- ft					
	Matrix:	SOIL					
	Sampled:	Oct-04-18 10:30					
BTEX by EPA 8021B	***Extracted:***	Oct-12-18 10:00					
	Analyzed:	Oct-12-18 13:01					
	Units/RL:	mg/kg RL					
Benzene		<0.00200 0.00200					
Toluene		<0.00200 0.00200					
Ethylbenzene		<0.00200 0.00200					
m,p-Xylenes		<0.00400 0.00400					
o-Xylene		<0.00200 0.00200					
Total Xylenes		<0.00200 0.00200					
Total BTEX		<0.00200 0.00200					
Inorganic Anions by EPA 300	***Extracted:***	Oct-10-18 09:00					
	Analyzed:	Oct-10-18 11:41					
	Units/RL:	mg/kg RL					
Chloride		<4.95 4.95					
TPH by SW8015 Mod	***Extracted:***	Oct-10-18 17:00					
	Analyzed:	Oct-10-18 21:11					
	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					

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 601546

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	10.05.18 10.20
Lab Sample Id:	601546-001	Date Collected:	10.04.18 10.30	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	10.10.18 09.00	Basis:	Wet Weight
Seq Number:	3066048				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	10.10.18 11.41	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.10.18 17.00	Basis:	Wet Weight
Seq Number:	3066082				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.10.18 21.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	10.10.18 21.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.10.18 21.11	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.10.18 21.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	10.10.18 21.11	
o-Terphenyl	84-15-1	86	%	70-135	10.10.18 21.11	

Certificate of Analytical Results 601546

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	10.05.18 10.20
Lab Sample Id:	601546-001	Date Collected:	10.04.18 10.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.12.18 10.00	Basis:	Wet Weight
Seq Number:	3066251				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.12.18 13.01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.12.18 13.01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.12.18 13.01	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.12.18 13.01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.12.18 13.01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.12.18 13.01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.12.18 13.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	10.12.18 13.01	
1,4-Difluorobenzene	540-36-3	113	%	70-130	10.12.18 13.01	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 601546

LT Environmental, Inc.

Longview Federal 12-4H

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3066048 — Matrix: Solid — Date Prep: 10.10.18
MB Sample Id: 7663866-1-BLK — LCS Sample Id: 7663866-1-BKS — LCSD Sample Id: 7663866-1-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	254	102	254	102	90-110	0	20	mg/kg	10.10.18 10:11	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3066048 — Matrix: Soil — Date Prep: 10.10.18
Parent Sample Id: 601538-003 — MS Sample Id: 601538-003 S — MSD Sample Id: 601538-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	804	250	1060	102	1060	102	90-110	0	20	mg/kg	10.10.18 10:28	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3066048 — Matrix: Soil — Date Prep: 10.10.18
Parent Sample Id: 601546-001 — MS Sample Id: 601546-001 S — MSD Sample Id: 601546-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.850	248	261	105	264	106	90-110	1	20	mg/kg	10.10.18 11:47	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3066082 — Matrix: Solid — Date Prep: 10.10.18
MB Sample Id: 7663969-1-BLK — LCS Sample Id: 7663969-1-BKS — LCSD Sample Id: 7663969-1-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	909	91	1000	100	70-135	10	20	mg/kg	10.10.18 20:34	
Diesel Range Organics (DRO)	<8.13	1000	1050	105	1120	112	70-135	6	20	mg/kg	10.10.18 20:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		127		130		70-135	%	10.10.18 20:34
o-Terphenyl	104		121		115		70-135	%	10.10.18 20:34

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

Final 1.000

QC Summary 601546

LT Environmental, Inc.

Longview Federal 12-4H

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3066082 | Matrix: Soil | Date Prep: 10.10.18
Parent Sample Id: 601546-001 | MS Sample Id: 601546-001 S | MSD Sample Id: 601546-001 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)	12.0	1000	841	83	943	93	70-135	11	20	mg/kg	10.10.18 21:30	
Diesel Range Organics (DRO)	11.3	1000	946	93	1080	107	70-135	13	20	mg/kg	10.10.18 21:30	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		115		70-135	%	10.10.18 21:30
o-Terphenyl	89		98		70-135	%	10.10.18 21:30

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3066251 | Matrix: Solid | Date Prep: 10.12.18
MB Sample Id: 7664079-1-BLK | LCS Sample Id: 7664079-1-BKS | LCSD Sample Id: 7664079-1-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	0.0866	87	0.0939	94	70-130	8	35	mg/kg	10.12.18 10:54	
Toluene	<0.00200	0.100	0.0754	75	0.0823	82	70-130	9	35	mg/kg	10.12.18 10:54	
Ethylbenzene	<0.00200	0.100	0.0953	95	0.102	102	70-130	7	35	mg/kg	10.12.18 10:54	
m,p-Xylenes	<0.00400	0.200	0.197	99	0.210	104	70-130	6	35	mg/kg	10.12.18 10:54	
o-Xylene	<0.00200	0.100	0.100	100	0.107	107	70-130	7	35	mg/kg	10.12.18 10:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		111		103		70-130	%	10.12.18 10:54
4-Bromofluorobenzene	97		101		111		70-130	%	10.12.18 10:54

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3066251 | Matrix: Soil | Date Prep: 10.12.18
Parent Sample Id: 601546-001 | MS Sample Id: 601546-001 S | MSD Sample Id: 601546-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0702	70	0.0687	68	70-130	2	35	mg/kg	10.12.18 11:37	X
Toluene	<0.00201	0.100	0.0601	60	0.0581	58	70-130	3	35	mg/kg	10.12.18 11:37	X
Ethylbenzene	<0.00201	0.100	0.0735	74	0.0682	68	70-130	7	35	mg/kg	10.12.18 11:37	X
m,p-Xylenes	<0.00402	0.201	0.145	72	0.131	65	70-130	10	35	mg/kg	10.12.18 11:37	X
o-Xylene	<0.00201	0.100	0.0757	76	0.0679	67	70-130	11	35	mg/kg	10.12.18 11:37	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		107		70-130	%	10.12.18 11:37
4-Bromofluorobenzene	100		107		70-130	%	10.12.18 11:37

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

XENCO LABORATORIES

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Phoenix, Arizona (480-355-0900)
www.xenco.com

CHAIN OF CUSTODY

Page 1 Of 1

Xenco Quote #

Xenco Job # 601546

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. Permian Office
Company Address: 3300 N "A" St. Building 1 unit 103 Midland, TX 79705
Email: abaker@ltenv.com Phone No: (432) 704-5178
Project Contact: Adrian Baker
Samplers's Name: L Lambuth

Project Information

Project Name/Number: Longview Federal 12-4H
Project Location: NM EDDY 2RP 3676
Invoice To: LT Environmental, Inc. - Adrian Baker
PO Number: 34818009

Analytical Information

BTEX (only BTEX) 8021
TPH (DRO, GRO, MRO) 8015
Chloride (300.0)

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX	TPH	Chloride	Field Comments
1	SS01	1'	10/04	10:30	S	1								X	X	X	X	
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [X] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		10/04/2018 12:55	Timothy R Elliott	2	10/4/18 15:30	2 10/5/18 1020
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice: Y / Cooler Temp: 4.2 R / Thermo. Corr. Factor: 0.0

Notice: 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 loses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/05/2018 10:20:00 AM

Work Order #: 601546

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)?	4.2
#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)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Katie Lowe Date: 10/05/2018

Katie Lowe

Checklist reviewed by: Jessica Kramer Date: 10/05/2018

Jessica Kramer

Analytical Report 602716

for

LT Environmental, Inc.

Project Manager: Adrian Baker

Longview Federal 12-4H

24-OCT-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
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-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

24-OCT-18

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

Reference: XENCO Report No(s): **602716**
Longview Federal 12-4H
Project Address: Eddy NM 2RP-3676

Adrian Baker:

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) 602716. 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. 602716 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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

Sample Cross Reference 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS04	S	10-16-18 08:55	2 ft	602716-001
SS02	S	10-16-18 10:15	4 ft	602716-002
SS07	S	10-16-18 10:50	6 In	602716-003
SS07	S	10-16-18 11:15	1 ft	602716-004
SS08	S	10-16-18 11:30	6 In	602716-005
SS06	S	10-16-18 12:15	6 In	602716-007
SS06	S	10-16-18 12:20	1 ft	602716-008
SS05	S	10-16-18 12:40	6 In	602716-009
SS05	S	10-16-18 12:45	1 ft	602716-010
SS09	S	10-16-18 14:22	6 In	602716-011
SS09	S	10-16-18 14:45	10 In	602716-012
SS08	S	10-16-18 11:40	1 ft	Not Analyzed

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Longview Federal 12-4H

Project ID:
Work Order Number(s): *602716*

Report Date: *24-OCT-18*
Date Received: *10/18/2018*

Sample receipt non conformances and comments:

The container for sample 006 was received completely broken. Client asked to HOLD sample. JKR
Per client email, correct sample 001 from SS01 to SS04. JKR 10/27/18 NEW VERSION GENERATED.

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3067038 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 602716

LT Environmental, Inc., Arvada, CO

Project Name: Longview Federal 12-4H

Project Id:

Contact: Adrian Baker

Project Location: Eddy NM 2RP-3676

Date Received in Lab: Thu Oct-18-18 10:40 am

Report Date: 24-OCT-18

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	602716-001		602716-002		602716-003		602716-004		602716-005		602716-007	
	Field Id:	SS04		SS02		SS07		SS07		SS08		SS06	
	Depth:	2- ft		4- ft		6- In		1- ft		6- In		6- In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-16-18 08:55		Oct-16-18 10:15		Oct-16-18 10:50		Oct-16-18 11:15		Oct-16-18 11:30		Oct-16-18 12:15	
BTEX by EPA 8021B SUB: T104704219-18-18	***Extracted:***	Oct-19-18 12:30		Oct-19-18 12:30		Oct-19-18 12:30		Oct-19-18 12:30		Oct-19-18 12:30		Oct-19-18 12:30	
	Analyzed:	Oct-20-18 19:26		Oct-20-18 21:03		Oct-20-18 21:27		Oct-20-18 21:51		Oct-20-18 22:15		Oct-20-18 22:39	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.0187	0.0187	<0.0189	0.0189	<0.0189	0.0189	<0.0177	0.0177	<0.0188	0.0188	<0.0189	0.0189
Toluene		<0.0187	0.0187	<0.0189	0.0189	<0.0189	0.0189	<0.0177	0.0177	<0.0188	0.0188	<0.0189	0.0189
Ethylbenzene		<0.0187	0.0187	<0.0189	0.0189	<0.0189	0.0189	<0.0177	0.0177	<0.0188	0.0188	<0.0189	0.0189
m,p-Xylenes		<0.0373	0.0373	<0.0377	0.0377	<0.0378	0.0378	<0.0354	0.0354	<0.0376	0.0376	<0.0379	0.0379
o-Xylene		<0.0187	0.0187	<0.0189	0.0189	<0.0189	0.0189	<0.0177	0.0177	<0.0188	0.0188	<0.0189	0.0189
Total Xylenes		<0.0187	0.0187	<0.0189	0.0189	<0.0189	0.0189	<0.0177	0.0177	<0.0188	0.0188	<0.0189	0.0189
Total BTEX		<0.0187	0.0187	<0.0189	0.0189	<0.0189	0.0189	<0.0177	0.0177	<0.0188	0.0188	<0.0189	0.0189
Inorganic Anions by EPA 300 SUB: T104704219-18-18	***Extracted:***	Oct-19-18 10:30		Oct-19-18 10:30		Oct-19-18 10:30		Oct-19-18 10:30		Oct-19-18 10:30		Oct-19-18 10:30	
	Analyzed:	Oct-19-18 12:49		Oct-19-18 13:26		Oct-19-18 13:46		Oct-19-18 13:57		Oct-19-18 14:10		Oct-19-18 14:22	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<25.0	25.0	<25.0	25.0	181	25.0	101	25.0	92.4	25.0	265	25.0
TPH by SW8015 Mod	***Extracted:***	Oct-19-18 07:00		Oct-19-18 07:00		Oct-19-18 07:00		Oct-19-18 07:00		Oct-19-18 07:00		Oct-19-18 07:00	
	Analyzed:	Oct-19-18 15:57		Oct-19-18 16:17		Oct-19-18 16:36		Oct-19-18 16:56		Oct-19-18 17:15		Oct-19-18 17:34	
	Units/RL:	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	<14.9	14.9	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		34.9	15.0	<14.9	14.9	44.4	15.0	25.2	14.9	<15.0	15.0	45.9	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Total TPH		34.9	15.0	<14.9	14.9	44.4	15.0	25.2	14.9	<15.0	15.0	45.9	15.0

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Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 602716

LT Environmental, Inc., Arvada, CO

Project Name: Longview Federal 12-4H

Project Id:
Contact: Adrian Baker
Project Location: Eddy NM 2RP-3676

Date Received in Lab: Thu Oct-18-18 10:40 am
Report Date: 24-OCT-18
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	602716-008		602716-009		602716-010		602716-011		602716-012	
	Field Id:	SS06		SS05		SS05		SS09		SS09	
	Depth:	1- ft		6- In		1- ft		6- In		10- In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-16-18 12:20		Oct-16-18 12:40		Oct-16-18 12:45		Oct-16-18 14:22		Oct-16-18 14:45	
BTEX by EPA 8021B SUB: T104704219-18-18	*Extracted:*	Oct-19-18 12:30		Oct-19-18 12:30		Oct-19-18 12:30		Oct-19-18 12:30		Oct-19-18 12:30	
	Analyzed:	Oct-20-18 23:03		Oct-20-18 23:27		Oct-20-18 23:51		Oct-21-18 00:15		Oct-21-18 01:29	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.0181	0.0181	<0.0196	0.0196	<0.0180	0.0180	<0.0196	0.0196	<0.0192	0.0192
Toluene		<0.0181	0.0181	<0.0196	0.0196	<0.0180	0.0180	<0.0196	0.0196	<0.0192	0.0192
Ethylbenzene		<0.0181	0.0181	<0.0196	0.0196	<0.0180	0.0180	<0.0196	0.0196	<0.0192	0.0192
m,p-Xylenes		<0.0362	0.0362	<0.0392	0.0392	<0.0360	0.0360	<0.0393	0.0393	<0.0385	0.0385
o-Xylene		<0.0181	0.0181	<0.0196	0.0196	<0.0180	0.0180	<0.0196	0.0196	<0.0192	0.0192
Total Xylenes		<0.0181	0.0181	<0.0196	0.0196	<0.0180	0.0180	<0.0196	0.0196	<0.0192	0.0192
Total BTEX		<0.0181	0.0181	<0.0196	0.0196	<0.0180	0.0180	<0.0196	0.0196	<0.0192	0.0192
Inorganic Anions by EPA 300 SUB: T104704219-18-18	*Extracted:*	Oct-19-18 10:30		Oct-19-18 10:30		Oct-19-18 10:30		Oct-19-18 10:30		Oct-19-18 11:00	
	Analyzed:	Oct-19-18 14:35		Oct-19-18 14:47		Oct-19-18 15:00		Oct-19-18 15:12		Oct-19-18 17:08	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		49.8	25.0	<25.0	25.0	<25.0	25.0	229	25.0	383	25.0
TPH by SW8015 Mod	*Extracted:*	Oct-19-18 07:00		Oct-19-18 07:00		Oct-19-18 07:00		Oct-19-18 07:00		Oct-19-18 17:00	
	Analyzed:	Oct-19-18 17:53		Oct-19-18 18:13		Oct-19-18 18:32		Oct-19-18 18:51		Oct-20-18 13:24	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	21.1	15.0	17.7	15.0
Motor Oil Range Hydrocarbons (MRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<14.9	14.9	<15.0	15.0	<15.0	15.0	21.1	15.0	17.7	15.0

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Version: 1.%

Jessica Kramer
Project Assistant

Final 1.002

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-001	Date Collected:	10.16.18 08.55	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.19.18 10.30	Basis:	Wet Weight
Seq Number:	3066960			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	10.19.18 12.49	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.19.18 07.00	Basis:	Wet Weight
Seq Number:	3067093				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.19.18 15.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	**34.9**	15.0	mg/kg	10.19.18 15.57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.19.18 15.57	U	1
Total TPH	PHC635	**34.9**	15.0	mg/kg	10.19.18 15.57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	10.19.18 15.57	
o-Terphenyl	84-15-1	93	%	70-135	10.19.18 15.57	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-001	Date Collected:	10.16.18 08.55	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.19.18 12.30	Basis:	Wet Weight
Seq Number:	3067038			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0187	0.0187	mg/kg	10.20.18 19.26	U	1
Toluene	108-88-3	<0.0187	0.0187	mg/kg	10.20.18 19.26	U	1
Ethylbenzene	100-41-4	<0.0187	0.0187	mg/kg	10.20.18 19.26	U	1
m,p-Xylenes	179601-23-1	<0.0373	0.0373	mg/kg	10.20.18 19.26	U	1
o-Xylene	95-47-6	<0.0187	0.0187	mg/kg	10.20.18 19.26	U	1
Total Xylenes	1330-20-7	<0.0187	0.0187	mg/kg	10.20.18 19.26	U	1
Total BTEX		<0.0187	0.0187	mg/kg	10.20.18 19.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	83	%	68-120	10.20.18 19.26	
a,a,a-Trifluorotoluene	98-08-8	82	%	71-121	10.20.18 19.26	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-002	Date Collected:	10.16.18 10.15	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.19.18 10.30	Basis:	Wet Weight
Seq Number:	3066960			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	10.19.18 13.26	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.19.18 07.00	Basis:	Wet Weight
Seq Number:	3067093				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	10.19.18 16.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	10.19.18 16.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	10.19.18 16.17	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	10.19.18 16.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	10.19.18 16.17	
o-Terphenyl	84-15-1	91	%	70-135	10.19.18 16.17	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-002	Date Collected:	10.16.18 10.15	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.19.18 12.30	Basis:	Wet Weight
Seq Number:	3067038			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0189	0.0189	mg/kg	10.20.18 21.03	U	1
Toluene	108-88-3	<0.0189	0.0189	mg/kg	10.20.18 21.03	U	1
Ethylbenzene	100-41-4	<0.0189	0.0189	mg/kg	10.20.18 21.03	U	1
m,p-Xylenes	179601-23-1	<0.0377	0.0377	mg/kg	10.20.18 21.03	U	1
o-Xylene	95-47-6	<0.0189	0.0189	mg/kg	10.20.18 21.03	U	1
Total Xylenes	1330-20-7	<0.0189	0.0189	mg/kg	10.20.18 21.03	U	1
Total BTEX		<0.0189	0.0189	mg/kg	10.20.18 21.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	68-120	10.20.18 21.03	
a,a,a-Trifluorotoluene	98-08-8	95	%	71-121	10.20.18 21.03	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS07**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-003	Date Collected:	10.16.18 10.50	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.19.18 10.30	Basis:	Wet Weight
Seq Number:	3066960			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**181**	25.0	mg/kg	10.19.18 13.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.19.18 07.00	Basis:	Wet Weight
Seq Number:	3067093				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.19.18 16.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	**44.4**	15.0	mg/kg	10.19.18 16.36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.19.18 16.36	U	1
Total TPH	PHC635	**44.4**	15.0	mg/kg	10.19.18 16.36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	10.19.18 16.36	
o-Terphenyl	84-15-1	91	%	70-135	10.19.18 16.36	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS07**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-003	Date Collected:	10.16.18 10.50	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.19.18 12.30	Basis:	Wet Weight
Seq Number:	3067038			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0189	0.0189	mg/kg	10.20.18 21.27	U	1
Toluene	108-88-3	<0.0189	0.0189	mg/kg	10.20.18 21.27	U	1
Ethylbenzene	100-41-4	<0.0189	0.0189	mg/kg	10.20.18 21.27	U	1
m,p-Xylenes	179601-23-1	<0.0378	0.0378	mg/kg	10.20.18 21.27	U	1
o-Xylene	95-47-6	<0.0189	0.0189	mg/kg	10.20.18 21.27	U	1
Total Xylenes	1330-20-7	<0.0189	0.0189	mg/kg	10.20.18 21.27	U	1
Total BTEX		<0.0189	0.0189	mg/kg	10.20.18 21.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	68-120	10.20.18 21.27	
a,a,a-Trifluorotoluene	98-08-8	98	%	71-121	10.20.18 21.27	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS07**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-004	Date Collected:	10.16.18 11.15	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.19.18 10.30	Basis:	Wet Weight
Seq Number:	3066960			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**101**	25.0	mg/kg	10.19.18 13.57		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.19.18 07.00	Basis:	Wet Weight
Seq Number:	3067093				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	10.19.18 16.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	**25.2**	14.9	mg/kg	10.19.18 16.56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	10.19.18 16.56	U	1
Total TPH	PHC635	**25.2**	14.9	mg/kg	10.19.18 16.56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	10.19.18 16.56	
o-Terphenyl	84-15-1	93	%	70-135	10.19.18 16.56	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS07**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-004	Date Collected:	10.16.18 11.15	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.19.18 12.30	Basis:	Wet Weight
Seq Number:	3067038			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0177	0.0177	mg/kg	10.20.18 21.51	U	1
Toluene	108-88-3	<0.0177	0.0177	mg/kg	10.20.18 21.51	U	1
Ethylbenzene	100-41-4	<0.0177	0.0177	mg/kg	10.20.18 21.51	U	1
m,p-Xylenes	179601-23-1	<0.0354	0.0354	mg/kg	10.20.18 21.51	U	1
o-Xylene	95-47-6	<0.0177	0.0177	mg/kg	10.20.18 21.51	U	1
Total Xylenes	1330-20-7	<0.0177	0.0177	mg/kg	10.20.18 21.51	U	1
Total BTEX		<0.0177	0.0177	mg/kg	10.20.18 21.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	72	%	68-120	10.20.18 21.51	
a,a,a-Trifluorotoluene	98-08-8	79	%	71-121	10.20.18 21.51	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS08**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-005	Date Collected:	10.16.18 11.30	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.19.18 10.30	Basis:	Wet Weight
Seq Number:	3066960			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**92.4**	25.0	mg/kg	10.19.18 14.10		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.19.18 07.00	Basis:	Wet Weight
Seq Number:	3067093				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.19.18 17.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	10.19.18 17.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.19.18 17.15	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.19.18 17.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	10.19.18 17.15	
o-Terphenyl	84-15-1	92	%	70-135	10.19.18 17.15	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS08**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-005	Date Collected:	10.16.18 11.30	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.19.18 12.30	Basis:	Wet Weight
Seq Number:	3067038			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0188	0.0188	mg/kg	10.20.18 22.15	U	1
Toluene	108-88-3	<0.0188	0.0188	mg/kg	10.20.18 22.15	U	1
Ethylbenzene	100-41-4	<0.0188	0.0188	mg/kg	10.20.18 22.15	U	1
m,p-Xylenes	179601-23-1	<0.0376	0.0376	mg/kg	10.20.18 22.15	U	1
o-Xylene	95-47-6	<0.0188	0.0188	mg/kg	10.20.18 22.15	U	1
Total Xylenes	1330-20-7	<0.0188	0.0188	mg/kg	10.20.18 22.15	U	1
Total BTEX		<0.0188	0.0188	mg/kg	10.20.18 22.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	68-120	10.20.18 22.15	
a,a,a-Trifluorotoluene	98-08-8	96	%	71-121	10.20.18 22.15	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS06**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-007	Date Collected:	10.16.18 12.15	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.19.18 10.30	Basis:	Wet Weight
Seq Number:	3066960			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**265**	25.0	mg/kg	10.19.18 14.22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.19.18 07.00	Basis:	Wet Weight
Seq Number:	3067093				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.19.18 17.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	**45.9**	15.0	mg/kg	10.19.18 17.34		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.19.18 17.34	U	1
Total TPH	PHC635	**45.9**	15.0	mg/kg	10.19.18 17.34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	10.19.18 17.34	
o-Terphenyl	84-15-1	103	%	70-135	10.19.18 17.34	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS06**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-007	Date Collected:	10.16.18 12.15	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.19.18 12.30	Basis:	Wet Weight
Seq Number:	3067038			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0189	0.0189	mg/kg	10.20.18 22.39	U	1
Toluene	108-88-3	<0.0189	0.0189	mg/kg	10.20.18 22.39	U	1
Ethylbenzene	100-41-4	<0.0189	0.0189	mg/kg	10.20.18 22.39	U	1
m,p-Xylenes	179601-23-1	<0.0379	0.0379	mg/kg	10.20.18 22.39	U	1
o-Xylene	95-47-6	<0.0189	0.0189	mg/kg	10.20.18 22.39	U	1
Total Xylenes	1330-20-7	<0.0189	0.0189	mg/kg	10.20.18 22.39	U	1
Total BTEX		<0.0189	0.0189	mg/kg	10.20.18 22.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	86	%	68-120	10.20.18 22.39	
a,a,a-Trifluorotoluene	98-08-8	91	%	71-121	10.20.18 22.39	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS06**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-008	Date Collected:	10.16.18 12.20	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.19.18 10.30	Basis:	Wet Weight
Seq Number:	3066960			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**49.8**	25.0	mg/kg	10.19.18 14.35		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.19.18 07.00	Basis:	Wet Weight
Seq Number:	3067093				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	10.19.18 17.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	10.19.18 17.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	10.19.18 17.53	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	10.19.18 17.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	10.19.18 17.53	
o-Terphenyl	84-15-1	93	%	70-135	10.19.18 17.53	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS06**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-008	Date Collected:	10.16.18 12.20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.19.18 12.30	Basis:	Wet Weight
Seq Number:	3067038			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0181	0.0181	mg/kg	10.20.18 23.03	U	1
Toluene	108-88-3	<0.0181	0.0181	mg/kg	10.20.18 23.03	U	1
Ethylbenzene	100-41-4	<0.0181	0.0181	mg/kg	10.20.18 23.03	U	1
m,p-Xylenes	179601-23-1	<0.0362	0.0362	mg/kg	10.20.18 23.03	U	1
o-Xylene	95-47-6	<0.0181	0.0181	mg/kg	10.20.18 23.03	U	1
Total Xylenes	1330-20-7	<0.0181	0.0181	mg/kg	10.20.18 23.03	U	1
Total BTEX		<0.0181	0.0181	mg/kg	10.20.18 23.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	68-120	10.20.18 23.03	
a,a,a-Trifluorotoluene	98-08-8	101	%	71-121	10.20.18 23.03	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-009	Date Collected:	10.16.18 12.40	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.19.18 10.30	Basis:	Wet Weight
Seq Number:	3066960			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	10.19.18 14.47	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.19.18 07.00	Basis:	Wet Weight
Seq Number:	3067093				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.19.18 18.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	10.19.18 18.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.19.18 18.13	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.19.18 18.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	10.19.18 18.13	
o-Terphenyl	84-15-1	95	%	70-135	10.19.18 18.13	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-009	Date Collected:	10.16.18 12.40	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.19.18 12.30	Basis:	Wet Weight
Seq Number:	3067038			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0196	0.0196	mg/kg	10.20.18 23.27	U	1
Toluene	108-88-3	<0.0196	0.0196	mg/kg	10.20.18 23.27	U	1
Ethylbenzene	100-41-4	<0.0196	0.0196	mg/kg	10.20.18 23.27	U	1
m,p-Xylenes	179601-23-1	<0.0392	0.0392	mg/kg	10.20.18 23.27	U	1
o-Xylene	95-47-6	<0.0196	0.0196	mg/kg	10.20.18 23.27	U	1
Total Xylenes	1330-20-7	<0.0196	0.0196	mg/kg	10.20.18 23.27	U	1
Total BTEX		<0.0196	0.0196	mg/kg	10.20.18 23.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	84	%	68-120	10.20.18 23.27	
a,a,a-Trifluorotoluene	98-08-8	82	%	71-121	10.20.18 23.27	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-010	Date Collected:	10.16.18 12.45	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.19.18 10.30	Basis:	Wet Weight
Seq Number:	3066960			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	10.19.18 15.00	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.19.18 07.00	Basis:	Wet Weight
Seq Number:	3067093				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.19.18 18.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	10.19.18 18.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.19.18 18.32	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.19.18 18.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	10.19.18 18.32	
o-Terphenyl	84-15-1	92	%	70-135	10.19.18 18.32	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-010	Date Collected:	10.16.18 12.45	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.19.18 12.30	Basis:	Wet Weight
Seq Number:	3067038			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0180	0.0180	mg/kg	10.20.18 23.51	U	1
Toluene	108-88-3	<0.0180	0.0180	mg/kg	10.20.18 23.51	U	1
Ethylbenzene	100-41-4	<0.0180	0.0180	mg/kg	10.20.18 23.51	U	1
m,p-Xylenes	179601-23-1	<0.0360	0.0360	mg/kg	10.20.18 23.51	U	1
o-Xylene	95-47-6	<0.0180	0.0180	mg/kg	10.20.18 23.51	U	1
Total Xylenes	1330-20-7	<0.0180	0.0180	mg/kg	10.20.18 23.51	U	1
Total BTEX		<0.0180	0.0180	mg/kg	10.20.18 23.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	68-120	10.20.18 23.51	
a,a,a-Trifluorotoluene	98-08-8	93	%	71-121	10.20.18 23.51	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS09**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-011	Date Collected:	10.16.18 14.22	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.19.18 10.30	Basis:	Wet Weight
Seq Number:	3066960			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**229**	25.0	mg/kg	10.19.18 15.12		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.19.18 07.00	Basis:	Wet Weight
Seq Number:	3067093				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.19.18 18.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	**21.1**	15.0	mg/kg	10.19.18 18.51		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.19.18 18.51	U	1
Total TPH	PHC635	**21.1**	15.0	mg/kg	10.19.18 18.51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	10.19.18 18.51	
o-Terphenyl	84-15-1	91	%	70-135	10.19.18 18.51	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS09**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-011	Date Collected:	10.16.18 14.22	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.19.18 12.30	Basis:	Wet Weight
Seq Number:	3067038			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0196	0.0196	mg/kg	10.21.18 00.15	U	1
Toluene	108-88-3	<0.0196	0.0196	mg/kg	10.21.18 00.15	U	1
Ethylbenzene	100-41-4	<0.0196	0.0196	mg/kg	10.21.18 00.15	U	1
m,p-Xylenes	179601-23-1	<0.0393	0.0393	mg/kg	10.21.18 00.15	U	1
o-Xylene	95-47-6	<0.0196	0.0196	mg/kg	10.21.18 00.15	U	1
Total Xylenes	1330-20-7	<0.0196	0.0196	mg/kg	10.21.18 00.15	U	1
Total BTEX		<0.0196	0.0196	mg/kg	10.21.18 00.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	86	%	68-120	10.21.18 00.15	
a,a,a-Trifluorotoluene	98-08-8	84	%	71-121	10.21.18 00.15	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS09**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-012	Date Collected:	10.16.18 14.45	Sample Depth:	10 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.19.18 11.00	Basis:	Wet Weight
Seq Number:	3067028			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**383**	25.0	mg/kg	10.19.18 17.08		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.19.18 17.00	Basis:	Wet Weight
Seq Number:	3067097				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.20.18 13.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	**17.7**	15.0	mg/kg	10.20.18 13.24		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.20.18 13.24	U	1
Total TPH	PHC635	**17.7**	15.0	mg/kg	10.20.18 13.24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	10.20.18 13.24	
o-Terphenyl	84-15-1	97	%	70-135	10.20.18 13.24	

Certificate of Analytical Results 602716

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SS09**	Matrix:	Soil	Date Received:	10.18.18 10.40
Lab Sample Id:	602716-012	Date Collected:	10.16.18 14.45	Sample Depth:	10 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.19.18 12.30	Basis:	Wet Weight
Seq Number:	3067038			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0192	0.0192	mg/kg	10.21.18 01.29	U	1
Toluene	108-88-3	<0.0192	0.0192	mg/kg	10.21.18 01.29	U	1
Ethylbenzene	100-41-4	<0.0192	0.0192	mg/kg	10.21.18 01.29	U	1
m,p-Xylenes	179601-23-1	<0.0385	0.0385	mg/kg	10.21.18 01.29	U	1
o-Xylene	95-47-6	<0.0192	0.0192	mg/kg	10.21.18 01.29	U	1
Total Xylenes	1330-20-7	<0.0192	0.0192	mg/kg	10.21.18 01.29	U	1
Total BTEX		<0.0192	0.0192	mg/kg	10.21.18 01.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	85	%	68-120	10.21.18 01.29	
a,a,a-Trifluorotoluene	98-08-8	85	%	71-121	10.21.18 01.29	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 602716

LT Environmental, Inc.

Longview Federal 12-4H

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3066960 — Matrix: Solid — Date Prep: 10.19.18
MB Sample Id: 7664503-1-BLK — LCS Sample Id: 7664503-1-BKS — LCSD Sample Id: 7664503-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1.54	250	240	96	244	98	90-110	2	20	mg/kg	10.19.18 12:24	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3067028 — Matrix: Solid — Date Prep: 10.19.18
MB Sample Id: 7664554-1-BLK — LCS Sample Id: 7664554-1-BKS — LCSD Sample Id: 7664554-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1.26	250	246	98	239	96	90-110	3	20	mg/kg	10.19.18 16:43	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3066960 — Matrix: Soil — Date Prep: 10.19.18
Parent Sample Id: 602716-001 — MS Sample Id: 602716-001 S — MSD Sample Id: 602716-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8.11	250	264	102	254	98	80-120	4	20	mg/kg	10.19.18 13:01	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3067028 — Matrix: Soil — Date Prep: 10.19.18
Parent Sample Id: 602716-012 — MS Sample Id: 602716-012 S — MSD Sample Id: 602716-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	383	250	628	98	648	106	80-120	3	20	mg/kg	10.19.18 17:33	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3067028 — Matrix: Soil — Date Prep: 10.19.18
Parent Sample Id: 602719-002 — MS Sample Id: 602719-002 S — MSD Sample Id: 602719-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	36.9	250	277	96	275	95	80-120	1	20	mg/kg	10.19.18 20:39	

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

QC Summary 602716

LT Environmental, Inc.

Longview Federal 12-4H

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3067093 — Matrix: Solid — Date Prep: 10.19.18
MB Sample Id: 7664523-1-BLK — LCS Sample Id: 7664523-1-BKS — LCSD Sample Id: 7664523-1-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	866	87	861	86	70-135	1	20	mg/kg	10.19.18 10:22	
Diesel Range Organics (DRO)	<8.13	1000	947	95	1000	100	70-135	5	20	mg/kg	10.19.18 10:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		122		124		70-135	%	10.19.18 10:22
o-Terphenyl	96		119		117		70-135	%	10.19.18 10:22

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3067097 — Matrix: Solid — Date Prep: 10.19.18
MB Sample Id: 7664525-1-BLK — LCS Sample Id: 7664525-1-BKS — LCSD Sample Id: 7664525-1-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	852	85	882	88	70-135	3	20	mg/kg	10.20.18 12:47	
Diesel Range Organics (DRO)	<8.13	1000	980	98	1020	102	70-135	4	20	mg/kg	10.20.18 12:47	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		124		126		70-135	%	10.20.18 12:47
o-Terphenyl	97		122		124		70-135	%	10.20.18 12:47

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3067093 — Matrix: Soil — Date Prep: 10.19.18
Parent Sample Id: 602545-001 — MS Sample Id: 602545-001 S — MSD Sample Id: 602545-001 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	838	84	759	76	70-135	10	20	mg/kg	10.19.18 11:41	
Diesel Range Organics (DRO)	11.6	997	894	89	766	76	70-135	15	20	mg/kg	10.19.18 11:41	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		100		70-135	%	10.19.18 11:41
o-Terphenyl	112		96		70-135	%	10.19.18 11:41

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

QC Summary 602716

LT Environmental, Inc.

Longview Federal 12-4H

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

Seq Number: 3067038 Matrix: Solid Date Prep: 10.19.18

MB Sample Id: 7664511-1-BLK LCS Sample Id: 7664511-1-BKS LCSD Sample Id: 7664511-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0200	2.00	1.87	94	1.81	91	55-120	3	20	mg/kg	10.20.18 17:50	
Toluene	<0.0200	2.00	1.83	92	1.77	89	77-120	3	20	mg/kg	10.20.18 17:50	
Ethylbenzene	<0.0200	2.00	2.00	100	1.86	93	77-120	7	20	mg/kg	10.20.18 17:50	
m,p-Xylenes	<0.0400	4.00	3.95	99	3.67	92	78-120	7	20	mg/kg	10.20.18 17:50	
o-Xylene	<0.0200	2.00	1.94	97	1.84	92	78-120	5	20	mg/kg	10.20.18 17:50	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	107		86		92		68-120	%	10.20.18 17:50
a,a,a-Trifluorotoluene	104		81		94		71-121	%	10.20.18 17:50

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

Seq Number: 3067038 Matrix: Soil Date Prep: 10.19.18

Parent Sample Id: 602716-001 MS Sample Id: 602716-001 S MSD Sample Id: 602716-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0197	1.97	1.69	86	1.66	85	54-120	2	25	mg/kg	10.20.18 19:50	
Toluene	<0.0197	1.97	1.70	86	1.68	86	57-120	1	25	mg/kg	10.20.18 19:50	
Ethylbenzene	<0.0197	1.97	1.80	91	1.87	95	58-131	4	25	mg/kg	10.20.18 19:50	
m,p-Xylenes	<0.0394	3.94	3.58	91	3.77	96	62-124	5	25	mg/kg	10.20.18 19:50	
o-Xylene	<0.0197	1.97	1.77	90	1.85	94	62-124	4	25	mg/kg	10.20.18 19:50	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	86		98		68-120	%	10.20.18 19:50
a,a,a-Trifluorotoluene	90		93		71-121	%	10.20.18 19:50

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

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

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

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

XENCO LABORATORIES

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Stafford, Texas (281-240-4200)

Dallas Texas (214-902-0300)

San Antonio, Texas (210-509-3334)

Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

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CHAIN OF CUSTODY

Page 1 Of 2

Xenco Quote #

Xenco Job # 660714

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. Permian Office

Company Address: 3300 N "A" St. Building 1 Unit 103 Midland, TX 79705

Email: abaker@ltenv.com Phone No: (432) 704-5178

Project Contact: Adrian Baker

Samplers's Name L. Lambeth

Project Information

Project Name/Number: Longview Federal 12-4H

Project Location: EDDY NM 2RP-3676

Invoice To: LT Environmental - Adrian Baker

PO Number: 34818009

Analytical Information

BTEX (only BTEX) 8021

TPH (DRO GRO MRO) 8015

Chloride (300.00)

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Sample Depth	Collection Date	Collection Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	SS04	2'	10/16	8:55	S	1								X	
2	~~10 ff~~ SS02	4'	10/16	10:15	S	1									
3	SS07	6"		10:50	S	1									
4	SS07	1'		11:15	S	1									
5	SS08	6"		11:30	S	1									
6	SS08	1'		11:40	S	1									
7	SS06	6"		12:15	S	1									
8	SS06	1'		12:20	S	1									
9	SS05	6"		12:40	S	1									
10	SS05	1'		12:45	S	1									

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [x] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking # 773503924628

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Samplers	Date Time	Received By	Relinquished By	Date Time	Received By
1		10/16/18 16:30				
2					10/17 15:30	
3	Relinquished By:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
4						10/18/18 1040
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice: X

Cooler Temp. 3.2 Thermo. Corr. Factor 1.0

Notice: 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 loses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

XENCO LABORATORIES

Setting the Standard since 1990

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San Antonio, Texas (210-509-3334)

Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

www.xenco.com

CHAIN OF CUSTODY

Page 2 Of 2

Xenco Quote #

Xenco Job # 602716

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. Permian Office

Company Address: 3300 N "A" St. Building 1 Unit 103 Midland, TX 79705

Email: abaker@ltenv.com

Phone No: (432) 704-5178

Project Contact: Adrian Baker

Samplers's Name: C. Lambeth

Project Information

Project Name/Number: Logan Draw Federal 12-41H

Project Location: EDDY NM ZIP 3676

Invoice To: LT Environmental - Adrian Baker

PO Number: 34818009

Analytical Information

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX (only BTEX) 8021	TPH (DRO GRO MRO) 8015	Chloride (300.00)	Field Comments
1	SS09	6"	10/16	14:22	S	1								X	X	X	X	
2	SS09	10"	10/16	14:45	S	1								X	X	X	X	
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [x] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking # 773503924628

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		10/16/16 16:30	1	2	10/17 1530	2 10/18/16 1040
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice: X Cooler Temp. 3.2 Thermo. Corr. Factor 0.0

Notice: 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 loses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

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.

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Inter-Office Shipment

IOS Number **115723**

Date/Time: 10/18/18 11:10
Lab# From: **Midland**
Lab# To: **Lubbock**

Created by: Brianna Teel
Delivery Priority:
Air Bill No.: 773515268264

Please send report to: Jessica Kramer
Address: 1211 W. Florida Ave, Midland TX 79701
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
602716-001	S	SS01	10/16/18 08:55	E300	Inorganic Anions by EPA 300	10/24/18	11/13/18	JKR	CL	
602716-001	S	SS01	10/16/18 08:55	SW8021B	BTEX by EPA 8021B	10/24/18	10/30/18	JKR	BR4FBZ BZ BZME EBZ X	
602716-002	S	SS02	10/16/18 10:15	SW8021B	BTEX by EPA 8021B	10/24/18	10/30/18	JKR	BR4FBZ BZ BZME EBZ X	
602716-002	S	SS02	10/16/18 10:15	E300	Inorganic Anions by EPA 300	10/24/18	11/13/18	JKR	CL	
602716-003	S	SS07	10/16/18 10:50	SW8021B	BTEX by EPA 8021B	10/24/18	10/30/18	JKR	BR4FBZ BZ BZME EBZ X	
602716-003	S	SS07	10/16/18 10:50	E300	Inorganic Anions by EPA 300	10/24/18	11/13/18	JKR	CL	
602716-004	S	SS07	10/16/18 11:15	E300	Inorganic Anions by EPA 300	10/24/18	11/13/18	JKR	CL	
602716-004	S	SS07	10/16/18 11:15	SW8021B	BTEX by EPA 8021B	10/24/18	10/30/18	JKR	BR4FBZ BZ BZME EBZ X	
602716-005	S	SS08	10/16/18 11:30	E300	Inorganic Anions by EPA 300	10/24/18	11/13/18	JKR	CL	
602716-005	S	SS08	10/16/18 11:30	SW8021B	BTEX by EPA 8021B	10/24/18	10/30/18	JKR	BR4FBZ BZ BZME EBZ X	
602716-006	S	SS08	10/16/18 11:40	E300	Inorganic Anions by EPA 300	HOLD	11/13/18	JKR	CL	
602716-006	S	SS08	10/16/18 11:40	SW8021B	BTEX by EPA 8021B	HOLD	10/30/18	JKR	BR4FBZ BZ BZME EBZ X	
602716-007	S	SS06	10/16/18 12:15	SW8021B	BTEX by EPA 8021B	10/24/18	10/30/18	JKR	BR4FBZ BZ BZME EBZ X	
602716-007	S	SS06	10/16/18 12:15	E300	Inorganic Anions by EPA 300	10/24/18	11/13/18	JKR	CL	
602716-008	S	SS06	10/16/18 12:20	SW8021B	BTEX by EPA 8021B	10/24/18	10/30/18	JKR	BR4FBZ BZ BZME EBZ X	
602716-008	S	SS06	10/16/18 12:20	E300	Inorganic Anions by EPA 300	10/24/18	11/13/18	JKR	CL	
602716-009	S	SS05	10/16/18 12:40	SW8021B	BTEX by EPA 8021B	10/24/18	10/30/18	JKR	BR4FBZ BZ BZME EBZ X	
602716-009	S	SS05	10/16/18 12:40	E300	Inorganic Anions by EPA 300	10/24/18	11/13/18	JKR	CL	
602716-010	S	SS05	10/16/18 12:45	SW8021B	BTEX by EPA 8021B	10/24/18	10/30/18	JKR	BR4FBZ BZ BZME EBZ X	
602716-010	S	SS05	10/16/18 12:45	E300	Inorganic Anions by EPA 300	10/24/18	11/13/18	JKR	CL	
602716-011	S	SS09	10/16/18 14:22	SW8021B	BTEX by EPA 8021B	10/24/18	10/30/18	JKR	BR4FBZ BZ BZME EBZ X	
602716-011	S	SS09	10/16/18 14:22	E300	Inorganic Anions by EPA 300	10/24/18	11/13/18	JKR	CL	
602716-012	S	SS09	10/16/18 14:45	E300	Inorganic Anions by EPA 300	10/24/18	11/13/18	JKR	CL	
602716-012	S	SS09	10/16/18 14:45	SW8021B	BTEX by EPA 8021B	10/24/18	10/30/18	JKR	BR4FBZ BZ BZME EBZ X	

Inter-Office Shipment

IOS Number **115723**

Date/Time: 10/18/18 11:10
Lab# From: **Midland**
Lab# To: **Lubbock**

Created by: Brianna Teel
Delivery Priority:
Air Bill No.: 773515268264

Please send report to: Jessica Kramer
Address: 1211 W. Florida Ave, Midland TX 79701
E-Mail: jessica.kramer@xenco.com

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel
Brianna Teel

Date Relinquished: 10/18/2018

Received By: Brenda Ward
Brenda Ward

Date Received: 10/19/2018 10:44

Cooler Temperature: 2.9

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Lubbock

IOS #: 115723

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : IR-3

Sent By: Brianna Teel **Date Sent:** 10/18/2018 11:10 AM

Received By: Brenda Ward **Date Received:** 10/19/2018 10:44 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.9	
#2 *Shipping container in good condition?	**Yes**	0
#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?	**No**	
#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: Brenda Ward Date: 10/19/2018

Brenda Ward

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/18/2018 10:40:00 AM

Work Order #: 602716

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)?	3.2	
#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**	The container for sample 006 was received completely broken. - placing on hold until further instructions from client.
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Lubbock-BTEX/Chlorides
#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: 10/18/2018

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 10/18/2018

Jessica Kramer

Analytical Report 616906

for

LT Environmental, Inc.

Project Manager: Adrian Baker

Longview Federal 12-4H

034818009

15-MAR-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
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-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

15-MAR-19

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

Reference: XENCO Report No(s): **616906**
Longview Federal 12-4H
Project Address: ---

Adrian Baker:

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) 616906. 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. 616906 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,

Kalei Stout
Midland Laboratory Director

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 616906

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	03-05-19 10:00	1.5 - 2 ft	616906-001
FS02	S	03-05-19 10:30	1 - 1.5 ft	616906-002
SW01	S	03-05-19 10:45	0 - 2 ft	616906-003
SW02	S	03-05-19 10:50	0 - 2 ft	616906-004
SW03	S	03-05-19 11:00	0 - 1.5 ft	616906-005

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Longview Federal 12-4H

Project ID: *034818009*
Work Order Number(s): *616906*

Report Date: *15-MAR-19*
Date Received: *03/07/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3082250 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;
Samples affected are: 616906-003,616906-005,616906-004.

Certificate of Analysis Summary 616906

LT Environmental, Inc., Arvada, CO

Project Name: Longview Federal 12-4H

Project Id: 034818009
Contact: Adrian Baker
Project Location: ---

Date Received in Lab: Thu Mar-07-19 11:36 am
Report Date: 15-MAR-19
Project Manager: Kalei Stout

Analysis Requested											
	Lab Id:	616906-001		616906-002		616906-003		616906-004		616906-005	
	Field Id:	FS01		FS02		SW01		SW02		SW03	
	Depth:	1.5-2 ft		1-1.5 ft		0-2 ft		0-2 ft		0-1.5 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-05-19 10:00		Mar-05-19 10:30		Mar-05-19 10:45		Mar-05-19 10:50		Mar-05-19 11:00	
BTEX by EPA 8021B	***Extracted:***	Mar-14-19 17:00		Mar-14-19 17:00		Mar-14-19 17:00		Mar-14-19 17:00		Mar-14-19 17:00	
	Analyzed:	Mar-15-19 03:35		Mar-15-19 03:54		Mar-15-19 04:13		Mar-15-19 04:32		Mar-15-19 04:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
m,p-Xylenes		<0.00402	0.00402	<0.00401	0.00401	<0.00398	0.00398	<0.00399	0.00399	<0.00403	0.00403
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Inorganic Anions by EPA 300	***Extracted:***	Mar-08-19 10:30		Mar-08-19 10:30		Mar-08-19 10:30		Mar-08-19 10:30		Mar-08-19 10:30	
	Analyzed:	Mar-08-19 14:49		Mar-08-19 14:55		Mar-08-19 15:25		Mar-08-19 15:31		Mar-08-19 15:37	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<4.98	4.98	41.6	4.95	6.20	4.96	36.7	5.00	25.0	5.00
TPH by SW8015 Mod	***Extracted:***	Mar-08-19 15:00		Mar-08-19 15:00		Mar-08-19 15:00		Mar-08-19 15:00		Mar-08-19 15:00	
	Analyzed:	Mar-09-19 09:07		Mar-09-19 09:27		Mar-09-19 09:47		Mar-09-19 10:07		Mar-09-19 10:27	
	Units/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	<15.0	15.0
Diesel Range Organics (DRO)		47.9	15.0	46.2	15.0	34.4	15.0	39.0	15.0	40.6	15.0
Motor Oil Range Hydrocarbons (MRO)		15.2	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	16.6	15.0
Total TPH		63.1	15.0	46.2	15.0	34.4	15.0	39.0	15.0	57.2	15.0

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

Kalei Stout
Midland Laboratory Director

Certificate of Analytical Results 616906

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	03.07.19 11.36
Lab Sample Id:	616906-001	Date Collected:	03.05.19 10.00	Sample Depth:	1.5 - 2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.08.19 10.30	Basis:	Wet Weight
Seq Number:	3081698				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	03.08.19 14.49	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.08.19 15.00	Basis:	Wet Weight
Seq Number:	3081691				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.09.19 09.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	**47.9**	15.0	mg/kg	03.09.19 09.07		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**15.2**	15.0	mg/kg	03.09.19 09.07		1
Total TPH	PHC635	**63.1**	15.0	mg/kg	03.09.19 09.07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	03.09.19 09.07	
o-Terphenyl	84-15-1	89	%	70-135	03.09.19 09.07	

Certificate of Analytical Results 616906

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	03.07.19 11.36
Lab Sample Id:	616906-001	Date Collected:	03.05.19 10.00	Sample Depth:	1.5 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.14.19 17.00	Basis:	Wet Weight
Seq Number:	3082250				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.15.19 03.35	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.15.19 03.35	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.15.19 03.35	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.15.19 03.35	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.15.19 03.35	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.15.19 03.35	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.15.19 03.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.15.19 03.35	
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.15.19 03.35	

Certificate of Analytical Results 616906

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	03.07.19 11.36
Lab Sample Id:	616906-002	Date Collected:	03.05.19 10.30	Sample Depth:	1 - 1.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.08.19 10.30	Basis:	Wet Weight
Seq Number:	3081698				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**41.6**	4.95	mg/kg	03.08.19 14.55		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.08.19 15.00	Basis:	Wet Weight
Seq Number:	3081691				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.09.19 09.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	**46.2**	15.0	mg/kg	03.09.19 09.27		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.09.19 09.27	U	1
Total TPH	PHC635	**46.2**	15.0	mg/kg	03.09.19 09.27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	03.09.19 09.27	
o-Terphenyl	84-15-1	88	%	70-135	03.09.19 09.27	

Certificate of Analytical Results 616906

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	03.07.19 11.36
Lab Sample Id:	616906-002	Date Collected:	03.05.19 10.30	Sample Depth:	1 - 1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.14.19 17.00	Basis:	Wet Weight
Seq Number:	3082250				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.15.19 03.54	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.15.19 03.54	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.15.19 03.54	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.15.19 03.54	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.15.19 03.54	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.15.19 03.54	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.15.19 03.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.15.19 03.54	
1,4-Difluorobenzene	540-36-3	106	%	70-130	03.15.19 03.54	

Certificate of Analytical Results 616906

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	03.07.19 11.36
Lab Sample Id:	616906-003	Date Collected:	03.05.19 10.45	Sample Depth:	0 - 2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.08.19 10.30	Basis:	Wet Weight
Seq Number:	3081698				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.20**	4.96	mg/kg	03.08.19 15.25		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.08.19 15.00	Basis:	Wet Weight
Seq Number:	3081691				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.09.19 09.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	**34.4**	15.0	mg/kg	03.09.19 09.47		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.09.19 09.47	U	1
Total TPH	PHC635	**34.4**	15.0	mg/kg	03.09.19 09.47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	03.09.19 09.47	
o-Terphenyl	84-15-1	84	%	70-135	03.09.19 09.47	

Certificate of Analytical Results 616906

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	03.07.19 11.36
Lab Sample Id:	616906-003	Date Collected:	03.05.19 10.45	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.14.19 17.00	Basis:	Wet Weight
Seq Number:	3082250				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.15.19 04.13	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.15.19 04.13	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.15.19 04.13	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.15.19 04.13	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.15.19 04.13	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.15.19 04.13	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.15.19 04.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	137	%	70-130	03.15.19 04.13	**
1,4-Difluorobenzene	540-36-3	100	%	70-130	03.15.19 04.13	

Certificate of Analytical Results 616906

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	03.07.19 11.36
Lab Sample Id:	616906-004	Date Collected:	03.05.19 10.50	Sample Depth:	0 - 2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.08.19 10.30	Basis:	Wet Weight
Seq Number:	3081698				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**36.7**	5.00	mg/kg	03.08.19 15.31		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.08.19 15.00	Basis:	Wet Weight
Seq Number:	3081691				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.09.19 10.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	**39.0**	15.0	mg/kg	03.09.19 10.07		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.09.19 10.07	U	1
Total TPH	PHC635	**39.0**	15.0	mg/kg	03.09.19 10.07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	03.09.19 10.07	
o-Terphenyl	84-15-1	87	%	70-135	03.09.19 10.07	

Certificate of Analytical Results 616906

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	03.07.19 11.36
Lab Sample Id:	616906-004	Date Collected:	03.05.19 10.50	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.14.19 17.00	Basis:	Wet Weight
Seq Number:	3082250				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.15.19 04.32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.15.19 04.32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.15.19 04.32	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.15.19 04.32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.15.19 04.32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.15.19 04.32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.15.19 04.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	133	%	70-130	03.15.19 04.32	**
1,4-Difluorobenzene	540-36-3	102	%	70-130	03.15.19 04.32	

Certificate of Analytical Results 616906

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	03.07.19 11.36
Lab Sample Id:	616906-005	Date Collected:	03.05.19 11.00	Sample Depth:	0 - 1.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.08.19 10.30	Basis:	Wet Weight
Seq Number:	3081698				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**25.0**	5.00	mg/kg	03.08.19 15.37		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.08.19 15.00	Basis:	Wet Weight
Seq Number:	3081691				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.09.19 10.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	**40.6**	15.0	mg/kg	03.09.19 10.27		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**16.6**	15.0	mg/kg	03.09.19 10.27		1
Total TPH	PHC635	**57.2**	15.0	mg/kg	03.09.19 10.27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	03.09.19 10.27	
o-Terphenyl	84-15-1	101	%	70-135	03.09.19 10.27	

Certificate of Analytical Results 616906

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4H

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	03.07.19 11.36
Lab Sample Id:	616906-005	Date Collected:	03.05.19 11.00	Sample Depth:	0 - 1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.14.19 17.00	Basis:	Wet Weight
Seq Number:	3082250				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.15.19 04.51	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.15.19 04.51	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.15.19 04.51	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.15.19 04.51	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.15.19 04.51	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	03.15.19 04.51	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.15.19 04.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	140	%	70-130	03.15.19 04.51	**
1,4-Difluorobenzene	540-36-3	99	%	70-130	03.15.19 04.51	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 616906

LT Environmental, Inc.

Longview Federal 12-4H

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3081698 — Matrix: Solid — Date Prep: 03.08.19
MB Sample Id: 7673192-1-BLK — LCS Sample Id: 7673192-1-BKS — LCSD Sample Id: 7673192-1-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	260	104	260	104	90-110	0	20	mg/kg	03.08.19 12:01	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3081698 — Matrix: Soil — Date Prep: 03.08.19
Parent Sample Id: 616445-001 — MS Sample Id: 616445-001 S — MSD Sample Id: 616445-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	52.4	248	310	104	320	108	90-110	3	20	mg/kg	03.08.19 12:31	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3081698 — Matrix: Soil — Date Prep: 03.08.19
Parent Sample Id: 616906-002 — MS Sample Id: 616906-002 S — MSD Sample Id: 616906-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	41.6	248	277	95	277	95	90-110	0	20	mg/kg	03.08.19 15:01	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3081691 — Matrix: Solid — Date Prep: 03.08.19
MB Sample Id: 7673295-1-BLK — LCS Sample Id: 7673295-1-BKS — LCSD Sample Id: 7673295-1-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	969	97	1020	102	70-135	5	20	mg/kg	03.09.19 03:08	
Diesel Range Organics (DRO)	<8.13	1000	981	98	1050	105	70-135	7	20	mg/kg	03.09.19 03:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		114		126		70-135	%	03.09.19 03:08
o-Terphenyl	97		102		109		70-135	%	03.09.19 03:08

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

QC Summary 616906

LT Environmental, Inc.

Longview Federal 12-4H

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3081691 | Matrix: Soil | Date Prep: 03.08.19
Parent Sample Id: 616451-001 | MS Sample Id: 616451-001 S | MSD Sample Id: 616451-001 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)	11.5	998	1000	99	1130	112	70-135	12	20	mg/kg	03.09.19 04:08	
Diesel Range Organics (DRO)	228	998	1250	102	1400	117	70-135	11	20	mg/kg	03.09.19 04:08	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		127		70-135	%	03.09.19 04:08
o-Terphenyl	106		117		70-135	%	03.09.19 04:08

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3082250 | Matrix: Solid | Date Prep: 03.14.19
MB Sample Id: 7673632-1-BLK | LCS Sample Id: 7673632-1-BKS | LCSD Sample Id: 7673632-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000387	0.101	0.104	103	0.0987	99	70-130	5	35	mg/kg	03.14.19 20:41	
Toluene	<0.000458	0.101	0.113	112	0.108	108	70-130	5	35	mg/kg	03.14.19 20:41	
Ethylbenzene	<0.000568	0.101	0.105	104	0.100	100	70-130	5	35	mg/kg	03.14.19 20:41	
m,p-Xylenes	<0.00102	0.201	0.205	102	0.197	98	70-130	4	35	mg/kg	03.14.19 20:41	
o-Xylene	<0.000346	0.101	0.102	101	0.0981	98	70-130	4	35	mg/kg	03.14.19 20:41	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		96		97		70-130	%	03.14.19 20:41
4-Bromofluorobenzene	107		101		98		70-130	%	03.14.19 20:41

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3082250 | Matrix: Soil | Date Prep: 03.14.19
Parent Sample Id: 616724-002 | MS Sample Id: 616724-002 S | MSD Sample Id: 616724-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000386	0.100	0.0905	91	0.0981	97	70-130	8	35	mg/kg	03.14.19 21:19	
Toluene	0.000726	0.100	0.0948	94	0.101	99	70-130	6	35	mg/kg	03.14.19 21:19	
Ethylbenzene	<0.000566	0.100	0.0811	81	0.0877	87	70-130	8	35	mg/kg	03.14.19 21:19	
m,p-Xylenes	0.00104	0.200	0.158	78	0.171	85	70-130	8	35	mg/kg	03.14.19 21:19	
o-Xylene	0.000527	0.100	0.0818	81	0.0875	86	70-130	7	35	mg/kg	03.14.19 21:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		103		70-130	%	03.14.19 21:19
4-Bromofluorobenzene	113		110		70-130	%	03.14.19 21:19

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

Final 1.000

Chain of Custody

Work Order No: 1614906

XENCO LABORATORIES

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

www.xenco.com Page 1 of 1

Project Manager:	Adrian Baker	Bill to: (if different)	Adrian Baker
Company Name:	LT Environmental, Inc., Permian Office	Company Name:	LT Environmental
Address:	3300 North "A" St.	Address:	3300 N "A" St
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	Midland Tx 79705
Phone:	432.704.5178	Email:	llaumbach@ltenv.com, abaker@ltenv.com

Work Order Comments

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

Project Name:	Loginlew Federal 12-4H	Turn Around	
Project Number:	03481800 9 (2RP-3676)	Routine	☒
P.O. Number:		Rush:	—
Sampler's Name:	L. Laumbach	Due Date:	03/14/19

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.3 / 0.2	Thermometer ID:		
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.1	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA - 8015)	BTEX (EPA - 8021)	Chloride (EPA 300.0)
FS01	S	03/05/2019	10:00	1.5-2'	2	X	X	X
FS02	S		10:30	1-1.5'	2	X	X	X
SW01	S		10:45	0-2'	2	X	X	X
SW02	S		10:50	0-2'	2	X	X	X
SW03	S		11:00	0-1.5'	2	X	X	X

Work Order Notes

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

Sample Comments

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		Timothy R. Elkins	3-6-19 / 10:05 Am	2 Taylor Rlaw		3/7/19 1360
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

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.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03/07/2019 11:36:00 AM

Work Order #: 616906

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)?	.2
#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: 03/07/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 03/07/2019

Jessica Kramer

Analytical Report 622979

for

LT Environmental, Inc.

Project Manager: Ashley Ager

Longview Federal 12-4

2RP3676

07-MAY-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)

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)

07-MAY-19

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

Reference: XENCO Report No(s): **622979**
Longview Federal 12-4
Project Address:

Ashley Ager:

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) 622979. 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. 622979 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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

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

Sample Cross Reference 622979

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS03	S	04-26-19 14:20	3 ft	622979-001
FS04	S	04-26-19 14:30	2.5 ft	622979-002
SW04	S	04-26-19 14:40	0 - 3 ft	622979-003
SW05	S	04-26-19 14:50	0 - 3 ft	622979-004
SW06	S	04-26-19 15:00	0 - 2.5 ft	622979-005
SW07	S	04-26-19 15:10	0 - 2.5 ft	622979-006

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Longview Federal 12-4

Project ID: *2RP3676*
Work Order Number(s): *622979*

Report Date: *07-MAY-19*
Date Received: *05/02/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3087784 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.
Samples affected are: 622979-002.

Certificate of Analysis Summary 622979

LT Environmental, Inc., Arvada, CO

Project Name: Longview Federal 12-4

Project Id: 2RP3676
Contact: Ashley Ager
Project Location:

Date Received in Lab: Thu May-02-19 11:05 am
Report Date: 07-MAY-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	622979-001		622979-002		622979-003		622979-004		622979-005		622979-006	
	Field Id:	FS03		FS04		SW04		SW05		SW06		SW07	
	Depth:	3- ft		2.5- ft		0-3 ft		0-3 ft		0-2.5 ft		0-2.5 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-26-19 14:20		Apr-26-19 14:30		Apr-26-19 14:40		Apr-26-19 14:50		Apr-26-19 15:00		Apr-26-19 15:10	
BTEX by EPA 8021B	***Extracted:***	May-02-19 16:45		May-02-19 16:45		May-02-19 16:45		May-02-19 16:45		May-02-19 16:45		May-02-19 16:45	
	Analyzed:	May-03-19 07:16		May-03-19 07:35		May-03-19 08:49		May-03-19 09:08		May-03-19 09:27		May-03-19 09:46	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Toluene		<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Ethylbenzene		<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
m,p-Xylenes		<0.00399	0.00399	<0.00397	0.00397	<0.00402	0.00402	<0.00401	0.00401	<0.00398	0.00398	<0.00402	0.00402
o-Xylene		<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Total Xylenes		<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Total BTEX		<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Inorganic Anions by EPA 300	***Extracted:***	May-02-19 15:30		May-02-19 15:30		May-02-19 15:30		May-02-19 15:30		May-02-19 15:30		May-02-19 15:30	
	Analyzed:	May-02-19 19:14		May-02-19 19:20		May-02-19 19:26		May-02-19 19:31		May-02-19 19:37		May-02-19 19:43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		14.9	5.03	5.48	4.97	24.7	4.99	5.12	5.05	26.0	4.96	<5.05	5.05
TPH by SW8015 Mod	***Extracted:***	May-06-19 13:00		May-06-19 13:00		May-06-19 13:00		May-06-19 13:00		May-06-19 13:00		May-06-19 13:00	
	Analyzed:	May-06-19 15:20		May-06-19 15:40		May-06-19 16:00		May-06-19 16:20		May-06-19 16:40		May-06-19 17:00	
	Units/RL:	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	<14.9	14.9	<15.0	15.0	<14.9	14.9	<14.9	14.9	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9	17.7	14.9	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9	<14.9	14.9	<15.0	15.0
Total TPH		<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9	17.7	14.9	<15.0	15.0
Total GRO-DRO		<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9	17.7	14.9	<15.0	15.0

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Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 622979

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	05.02.19 11.05
Lab Sample Id:	622979-001	Date Collected:	04.26.19 14.20	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	05.02.19 15.30	Basis:	Wet Weight
Seq Number:	3087821				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.9**	5.03	mg/kg	05.02.19 19.14		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	05.06.19 13.00	Basis:	Wet Weight
Seq Number:	3088199				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	05.06.19 15.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	05.06.19 15.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	05.06.19 15.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	05.06.19 15.20	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	05.06.19 15.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	05.06.19 15.20	
o-Terphenyl	84-15-1	96	%	70-135	05.06.19 15.20	

Certificate of Analytical Results 622979

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	05.02.19 11.05
Lab Sample Id:	622979-001	Date Collected:	04.26.19 14.20	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	05.02.19 16.45	Basis:	Wet Weight
Seq Number:	3087784				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.03.19 07.16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.03.19 07.16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.03.19 07.16	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.03.19 07.16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.03.19 07.16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.03.19 07.16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.03.19 07.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	70-130	05.03.19 07.16	
1,4-Difluorobenzene	540-36-3	102	%	70-130	05.03.19 07.16	

Certificate of Analytical Results 622979

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	05.02.19 11.05
Lab Sample Id:	622979-002	Date Collected:	04.26.19 14.30	Sample Depth:	2.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	05.02.19 15.30	Basis:	Wet Weight
Seq Number:	3087821				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.48**	4.97	mg/kg	05.02.19 19.20		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	05.06.19 13.00	Basis:	Wet Weight
Seq Number:	3088199				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	05.06.19 15.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	05.06.19 15.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	05.06.19 15.40	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	05.06.19 15.40	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	05.06.19 15.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	05.06.19 15.40	
o-Terphenyl	84-15-1	94	%	70-135	05.06.19 15.40	

Certificate of Analytical Results 622979

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	05.02.19 11.05
Lab Sample Id:	622979-002	Date Collected:	04.26.19 14.30	Sample Depth:	2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	05.02.19 16.45	Basis:	Wet Weight
Seq Number:	3087784				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.03.19 07.35	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.03.19 07.35	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.03.19 07.35	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.03.19 07.35	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.03.19 07.35	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.03.19 07.35	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.03.19 07.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	05.03.19 07.35	
4-Bromofluorobenzene	460-00-4	134	%	70-130	05.03.19 07.35	**

Certificate of Analytical Results 622979

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	05.02.19 11.05
Lab Sample Id:	622979-003	Date Collected:	04.26.19 14.40	Sample Depth:	0 - 3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	05.02.19 15.30	Basis:	Wet Weight
Seq Number:	3087821				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**24.7**	4.99	mg/kg	05.02.19 19.26		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	05.06.19 13.00	Basis:	Wet Weight
Seq Number:	3088199				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	05.06.19 16.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	05.06.19 16.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	05.06.19 16.00	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	05.06.19 16.00	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	05.06.19 16.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	05.06.19 16.00	
o-Terphenyl	84-15-1	108	%	70-135	05.06.19 16.00	

Certificate of Analytical Results 622979

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	05.02.19 11.05
Lab Sample Id:	622979-003	Date Collected:	04.26.19 14.40	Sample Depth:	0 - 3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	05.02.19 16.45	Basis:	Wet Weight
Seq Number:	3087784				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.03.19 08.49	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.03.19 08.49	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.03.19 08.49	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.03.19 08.49	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.03.19 08.49	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.03.19 08.49	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.03.19 08.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	05.03.19 08.49	
1,4-Difluorobenzene	540-36-3	101	%	70-130	05.03.19 08.49	

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LT Environmental, Inc., Arvada, CO

Longview Federal 12-4

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	05.02.19 11.05
Lab Sample Id:	622979-004	Date Collected:	04.26.19 14.50	Sample Depth:	0 - 3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	05.02.19 15.30	Basis:	Wet Weight
Seq Number:	3087821				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.12**	5.05	mg/kg	05.02.19 19.31		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	05.06.19 13.00	Basis:	Wet Weight
Seq Number:	3088199				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	05.06.19 16.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	05.06.19 16.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	05.06.19 16.20	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	05.06.19 16.20	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	05.06.19 16.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	05.06.19 16.20	
o-Terphenyl	84-15-1	103	%	70-135	05.06.19 16.20	

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LT Environmental, Inc., Arvada, CO

Longview Federal 12-4

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	05.02.19 11.05
Lab Sample Id:	622979-004	Date Collected:	04.26.19 14.50	Sample Depth:	0 - 3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	05.02.19 16.45	Basis:	Wet Weight
Seq Number:	3087784				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.03.19 09.08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.03.19 09.08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.03.19 09.08	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.03.19 09.08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.03.19 09.08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.03.19 09.08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.03.19 09.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	05.03.19 09.08	
4-Bromofluorobenzene	460-00-4	146	%	70-130	05.03.19 09.08	**

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LT Environmental, Inc., Arvada, CO

Longview Federal 12-4

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	05.02.19 11.05
Lab Sample Id:	622979-005	Date Collected:	04.26.19 15.00	Sample Depth:	0 - 2.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	05.02.19 15.30	Basis:	Wet Weight
Seq Number:	3087821				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**26.0**	4.96	mg/kg	05.02.19 19.37		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	05.06.19 13.00	Basis:	Wet Weight
Seq Number:	3088199				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	05.06.19 16.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	**17.7**	14.9	mg/kg	05.06.19 16.40		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	05.06.19 16.40	U	1
Total TPH	PHC635	**17.7**	14.9	mg/kg	05.06.19 16.40		1
Total GRO-DRO	PHC628	**17.7**	14.9	mg/kg	05.06.19 16.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	05.06.19 16.40	
o-Terphenyl	84-15-1	94	%	70-135	05.06.19 16.40	

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LT Environmental, Inc., Arvada, CO

Longview Federal 12-4

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	05.02.19 11.05
Lab Sample Id:	622979-005	Date Collected:	04.26.19 15.00	Sample Depth:	0 - 2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	05.02.19 16.45	Basis:	Wet Weight
Seq Number:	3087784				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.03.19 09.27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.03.19 09.27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.03.19 09.27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.03.19 09.27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.03.19 09.27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.03.19 09.27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.03.19 09.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	139	%	70-130	05.03.19 09.27	**
1,4-Difluorobenzene	540-36-3	93	%	70-130	05.03.19 09.27	

Certificate of Analytical Results 622979

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	05.02.19 11.05
Lab Sample Id:	622979-006	Date Collected:	04.26.19 15.10	Sample Depth:	0 - 2.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	05.02.19 15.30	Basis:	Wet Weight
Seq Number:	3087821				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.05	5.05	mg/kg	05.02.19 19.43	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	05.06.19 13.00	Basis:	Wet Weight
Seq Number:	3088199				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	05.06.19 17.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	05.06.19 17.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	05.06.19 17.00	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	05.06.19 17.00	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	05.06.19 17.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	05.06.19 17.00	
o-Terphenyl	84-15-1	105	%	70-135	05.06.19 17.00	

Certificate of Analytical Results 622979

LT Environmental, Inc., Arvada, CO

Longview Federal 12-4

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	05.02.19 11.05
Lab Sample Id:	622979-006	Date Collected:	04.26.19 15.10	Sample Depth:	0 - 2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	05.02.19 16.45	Basis:	Wet Weight
Seq Number:	3087784				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.03.19 09.46	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.03.19 09.46	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.03.19 09.46	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.03.19 09.46	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.03.19 09.46	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.03.19 09.46	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.03.19 09.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	05.03.19 09.46	
4-Bromofluorobenzene	460-00-4	116	%	70-130	05.03.19 09.46	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 622979

LT Environmental, Inc.

Longview Federal 12-4

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3087821 Matrix: Solid Date Prep: 05.02.19
MB Sample Id: 7677052-1-BLK LCS Sample Id: 7677052-1-BKS LCSD Sample Id: 7677052-1-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	256	102	258	103	90-110	1	20	mg/kg	05.02.19 18:08	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3087821 Matrix: Soil Date Prep: 05.02.19
Parent Sample Id: 622975-005 MS Sample Id: 622975-005 S MSD Sample Id: 622975-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	261	252	484	88	490	91	90-110	1	20	mg/kg	05.02.19 18:26	X

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3087821 Matrix: Soil Date Prep: 05.02.19
Parent Sample Id: 622979-006 MS Sample Id: 622979-006 S MSD Sample Id: 622979-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5.03	253	253	98	266	103	90-110	5	20	mg/kg	05.02.19 19:49	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3088199 Matrix: Solid Date Prep: 05.06.19
MB Sample Id: 7677331-1-BLK LCS Sample Id: 7677331-1-BKS LCSD Sample Id: 7677331-1-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	1030	103	1080	108	70-135	5	20	mg/kg	05.06.19 13:20	
Diesel Range Organics (DRO)	<8.13	1000	1040	104	1120	112	70-135	7	20	mg/kg	05.06.19 13:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		125		129		70-135	%	05.06.19 13:20
o-Terphenyl	121		129		125		70-135	%	05.06.19 13:20

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

QC Summary 622979

LT Environmental, Inc.

Longview Federal 12-4

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3088199 | Matrix: Soil | Date Prep: 05.06.19
Parent Sample Id: 622975-001 | MS Sample Id: 622975-001 S | MSD Sample Id: 622975-001 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)	12.2	999	1040	103	1060	105	70-135	2	20	mg/kg	05.06.19 14:20	
Diesel Range Organics (DRO)	8.29	999	1110	110	1130	112	70-135	2	20	mg/kg	05.06.19 14:20	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		125		70-135	%	05.06.19 14:20
o-Terphenyl	125		102		70-135	%	05.06.19 14:20

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3087784 | Matrix: Solid | Date Prep: 05.02.19
MB Sample Id: 7677041-1-BLK | LCS Sample Id: 7677041-1-BKS | LCSD Sample Id: 7677041-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0945	95	0.0994	100	70-130	5	35	mg/kg	05.03.19 02:52	
Toluene	<0.00200	0.100	0.0915	92	0.0950	96	70-130	4	35	mg/kg	05.03.19 02:52	
Ethylbenzene	<0.00200	0.100	0.0993	99	0.102	103	70-130	3	35	mg/kg	05.03.19 02:52	
m,p-Xylenes	<0.00400	0.200	0.205	103	0.211	106	70-130	3	35	mg/kg	05.03.19 02:52	
o-Xylene	<0.00200	0.100	0.102	102	0.105	106	70-130	3	35	mg/kg	05.03.19 02:52	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		95		95		70-130	%	05.03.19 02:52
4-Bromofluorobenzene	102		107		107		70-130	%	05.03.19 02:52

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3087784 | Matrix: Soil | Date Prep: 05.02.19
Parent Sample Id: 622975-002 | MS Sample Id: 622975-002 S | MSD Sample Id: 622975-002 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	0.0962	97	0.0967	97	70-130	1	35	mg/kg	05.03.19 03:30	
Toluene	<0.00199	0.0996	0.0913	92	0.0911	91	70-130	0	35	mg/kg	05.03.19 03:30	
Ethylbenzene	<0.00199	0.0996	0.0969	97	0.0960	96	70-130	1	35	mg/kg	05.03.19 03:30	
m,p-Xylenes	<0.00398	0.199	0.200	101	0.199	99	70-130	1	35	mg/kg	05.03.19 03:30	
o-Xylene	<0.00199	0.0996	0.0996	100	0.0990	99	70-130	1	35	mg/kg	05.03.19 03:30	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		97		70-130	%	05.03.19 03:30
4-Bromofluorobenzene	107		107		70-130	%	05.03.19 03:30

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

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

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

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

Final 1.000

Chain of Custody

Work Order No: 1072979

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

Page 1 of 1

Project Manager:	Ashley Ager	Bill to: (if different)	Ashley Ager
Company Name:	LT Environmental, Inc., Permian office	Company Name:	LT Environmental
Address:	3300 North A Street	Address:	3300 North A Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Midland, Tx 79705
Phone:	432.704.5178 Email:	Email:	aager@ltenv.com llaumbach@ltenv.com

Work Order Comments

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

Project Name:	Longview Federal 12-4	Turn Around	
Project Number:	2RP3676	Routine	X
P.O. Number:		Rush:	
Sampler's Name:	Lynda Laumbach	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.4 0.3	Thermometer ID:		
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.1	
Sample Custody Seals:	Yes No N/A	Total Containers:		

Work Order Notes

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

Sample Comments

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS03	S	04/26/2019	14:20	3'	1	X	X	X
FS04	S		14:30	2.5'	1	X	X	X
SW04	S		14:40	0-3"	1	X	X	X
SW05	S		14:50	0-3'	1	X	X	X
SW06	S		15:00	0-2.5'	1	X	X	X
SW07	S		15:10	0-2.5'	2	X	X	X

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		Ann Byers	4/30/19 15:45	2 Ann Byers		4/30/19 15:50
3				4		5/2/19 1103
5				6		

Revised Date 051418 Rev. 2018.1

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.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 05/02/2019 11:05:00 AM

Work Order #: 622979

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)?	.3
#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: 05/02/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 05/02/2019

Jessica Kramer

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 200958

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 200958
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	3/29/2023