

LT Environmental, Inc.

3300 North "A" Street Building 1, Unit 103 Midland, Texas 79705 432.704.5178

March 20, 2020

Mr. Bradford Billings New Mexico Oil Conservation Division 1220 South St. Francis Drive, #3 Santa Fe, New Mexico 87505

RE: Closure Request

Poker Lake Unit Delaware C Saltwater Disposal Battery/Delaware C Tank Battery Remediation Permit Numbers 2RP-1205, 2RP-1304, 2RP-1305, 2RP-1383, and 2RP-2264

Eddy County, New Mexico

Dear Mr. Billings:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment and soil sampling activities at the Poker Lake Unit (PLU) Delaware C Saltwater Disposal (SWD) Battery/Delaware C Tank Battery (Site) in Unit G, Section 6, Township 24 South, Range 30 East, Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacted soil resulting from five historical releases of crude oil and/or produced water at the Site. Based on the assessment activities and results of the soil sampling events, XTO is submitting this Closure Request, requesting no further action for the release events.

The releases are included in the Compliance Agreement for Remediation for Historical Releases (Compliance Agreement) between XTO and the New Mexico Oil Conservation Division (NMOCD) effective November 13, 2018. The purpose of the Compliance Agreement is to ensure reportable releases that occurred prior to August 14, 2018, where XTO is responsible for the corrective action, comply with Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC) as amended on August 14, 2018. The releases are categorized as Tier IV sites in the Compliance Agreement, meaning the releases occurred prior to August 14, 2018, the effective date of 19.15.29 NMAC; however, remediation was ongoing.

RELEASE BACKGROUND

On May 30, 2012, a pipe fitting on the discharge line from SWD pump broke and caused the release of approximately 25 barrels (bbls) of produced water. Approximately 1,960 square feet of pasture west of the tank battery was affected by the release. No released fluids were recovered. The former operator reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 (Form C-141) on June 24, 2012 and was assigned Remediation Permit (RP) Number 2RP-1205 (Attachment 1).



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On August 18, 2012, the water transfer pumps failed, causing produced water tanks to overflow. Approximately 10 bbls of crude oil and 20 bbls of produced water were released. Approximately 900 square feet of the tank battery containment and 2,000 square feet of pasture west of the tank battery were affected by the release. No released fluids were recovered. Approximately 40 cubic yards of impacted soil were excavated from the containment. The excavation was sampled, backfilled, and a liner was installed. The former operator reported the release to the NMOCD on a Form C-141 on September 5, 2012 and was assigned RP Number 2RP-1305 (Attachment 1).

On September 2, 2012, the truck load line valve was left open, allowing approximately 200 bbls of produced water to spill onto the surface of the caliche pad. Approximately 11,770 square feet of pad and lease road, and 7,060 square feet of pasture were affected by the release. A vacuum truck recovered 5 bbls of free-standing fluid, and a backhoe was used to scrape up the saturated soil. The former operator reported the release to the NMOCD on a Form C-141 on September 5, 2012 and was assigned RP Number 2RP-1304 (Attachment 1).

On September 19, 2012, a connection going from the charge pumps to the H-pump failed. The pumps were shut down upon discovery. Approximately 650 bbls of produced water were released; no released fluids were recovered. The well pad, lease road, and adjacent pasture were affected by the release. Delineation activities were scheduled to determine the extent of impacted soil at the Site. The former operator reported the release to the NMOCD on a Form C-141 on September 28, 2012 and was assigned RP Number 2RP-1383 (Attachment 1).

On April 21, 2014, a high-pressure fiberglass line coupling broke at the threads, causing approximately 200 bbls of produced water to release. A vacuum truck recovered approximately 15 bbls of produced water. Approximately 4,000 square feet of caliche pad, 1,300 square feet of lease road, and 4,200 square feet of pasture were affected by the release. Remediation of all releases was scheduled to take place during the upcoming SWD dismantling and tank battery relocation activities. The former operator reported the release to the NMOCD on a Form C-141 on April 24, 2014 and was assigned RP Number 2RP-2264 (Attachment 1).

Although all five of the releases occurred while the facility was operated by the previous operator, XTO is the current operator and is committed to addressing any releases that remain unresolved. Since the releases occurred in the same general area of the well pad, lease road, and pasture, site assessment and soil sampling activities were completed to address and close all five releases simultaneously. The initial Form C-141s indicated that soil excavation activities had occurred and that additional remediation activities were scheduled for 2014.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of 19.15.29.12 of the NMAC. Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest water well data. The nearest permitted



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groundwater well with depth to groundwater data is New Mexico Office of State Engineer (NMOSE) well C-02108, located approximately 1.34 miles southeast of the Site. The water well has a depth to groundwater of 186 feet bgs and a total depth of 200 feet bgs. The closest continuously flowing water or significant watercourse to the Site is an unnamed dry wash located approximately 1,590 feet northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is located in a low-potential karst area.

CLOSURE CRITERIA

- Based on the results of the Site Characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:
- Benzene: 10 milligrams per kilogram (mg/kg);
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg;
- TPH-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg;
- Total petroleum hydrocarbons (TPH): 2,500 mg/kg; and
- Chloride: 20,000 mg/kg.

A closure criteria of 600 mg/kg chloride was applied to the pasture area that was impacted by the release, per NMAC 19.15.29.13.D (1) for the top 4 feet of areas that will be reclaimed following remediation.

SITE ASSESSMENT AND DELINEATION SOIL SAMPLING ACTIVITIES

During February and August 2018, LTE inspected the Site to evaluate the release areas associated with the five historical releases. Sixteen preliminary soil samples (SS1 through SS16) were collected within and around the release areas to assess the lateral extent of impacted soil. The soil sample locations, depicted on Figure 2, were selected based on information provided on the initial Form C-141 and field observations. To eliminate the effects from weathering and natural degradation of contaminants at the ground surface, soil samples SS3 through SS5 and SS7 through SS16 were collected from a depth of 0.5 feet bgs.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were shipped at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Midland, Texas, for analysis of BTEX following United States Environmental Protection Agency (USEPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil



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range organics (ORO) following USEPA Method 8015M/D; and chloride following USEPA Method 300.0. The soil sample locations are depicted on Figure 2.

Between August 2018 and October 2019, LTE personnel returned to the Site to oversee additional site assessment activities.

Boreholes and potholes and were advanced via track hoe or hand auger at 24 locations on the well pad, lease road, and pasture to assess the lateral and vertical extent impacted soil. Boreholes BH01 through BH16 were advanced to depths ranging from 2 feet to 14 feet bgs at the approximate locations of preliminary soil samples SS01 through SS16. Potholes PH17 through PH24 were advanced to a depth of 2 feet bgs within the well pad release area. Potholes PH18, PH19, and PH20 were advanced in the area around preliminary soil sample SS7 where hydrocarbon impacted soil was initially identified. Delineation soil samples were collected from each borehole and pothole from depths ranging from 2 feet to 14 feet bgs. Soil from the boreholes and potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the boreholes and potholes were logged on lithologic/soil sampling logs, which are included in Attachment 2. The delineation soil sample locations are depicted on Figure 3.

The delineation soil samples were collected, handled, and analyzed as described above and submitted to Xenco. Photographic documentation was conducted during the Site visits. Photographs are included in Attachment 3.

ANALYTICAL RESULTS

Laboratory analytical results for preliminary soil samples SS1 through SS6 and SS08 through SS16, indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results indicated that GRO/DRO and TPH concentrations exceeded the Closure Criteria in preliminary soil sample SS7, collected on the well pad from a depth of 0.5 feet bgs.

Laboratory analytical results for the delineation soil samples collected from boreholes BH01 through BH16 and potholes PH17 through PH24, indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria.

Laboratory analytical results indicated that chloride concentrations were below 600 mg/kg in soil samples SS3 through SS6, SS08 through SS11, and BH08 through BH12, that were collected from the top four feet of the pasture.



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CLOSURE REQUEST

Site assessment and soil sampling activities were completed within the release areas on the well pad, lease road, and pasture to assess for soil impacts resulting from five historical releases at the Site. Laboratory analytical results for preliminary soil samples SS1 through SS6 and SS08 through SS16, and delineation soil samples collected from boreholes BH01 through BH16 and potholes PH17 through PH24 indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, laboratory analytical results indicated that chloride concentrations were below 600 mg/kg in soil samples SS3 through SS6, SS08 through SS11, and BH08 through BH12, that were collected from the top four feet of the pasture.

Laboratory analytical results indicated that GRO/DRO and TPH concentrations exceeded the Closure Criteria in preliminary soil sample SS7, collected during February 2018 from a depth of 0.5 feet bgs. Preliminary soil sample SS7 was located on pad approximately 35 feet to the north of the SWD tank battery containment. During October 2019, potholes PH18, PH19, and PH20 were advanced in the area around preliminary soil sample SS7. Delineation soil samples were collected from depths of one foot and two feet bgs from each pothole. Laboratory analytical results for the delineation soil samples collected from potholes PH18, PH19, and PH20, indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. In addition, the lithologic boring logs indicated no reportable PID measurements, and no staining or petroleum odor. Based on field screening activities and laboratory analytical results, no impacted soil remained in the area around preliminary soil sample SS7.

Based on the soil sample laboratory analytical results from the site assessment activities, no further remediation was required. The historical releases occurred during 2012 and 2014. The former operator indicated on the initial Form C-141s that excavation activities had occurred, and that additional remediation of impacted soil was being scheduled. The absence of impacted soil identified during LTE's assessment activities implies that unreported remediation/excavation activities have been completed at the Site in the past by the previous operator. Additionally, vegetation in the pasture appeared healthy and consistent with the surrounding vegetation.

Initial response efforts, natural attenuation, and presumed historical excavation of impacted soil have mitigated impacts at this Site. XTO requests no further action for RP Numbers 2RP-1205, 2RP-1304, 2RP-1305, 2RP-1383, and 2RP-2264. An updated NMOCD Form C-141 for each release is included in Attachment 1.

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



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Sincerely,

LT ENVIRONMENTAL, INC.

Herri M. ade

Kevin M. Axe, P.G. Senior Geologist

Ashley L. Ager, P.G. Senior Geologist

Ashley L. Ager

cc:

Kyle Littrell, XTO

Mike Bratcher, NMOCD

Bureau of Land Management

Attachments:

Figure 1 Site Location Map

Figure 2 Preliminary Soil Sample Locations

Figure 3 Delineation Soil Sample Locations

Table 1 Soil Analytical Results

Attachment 1 Initial/Final NMOCD Form C-141 (2RP-1205, 2RP-1304, 2RP-1305, 2RP-1383, and

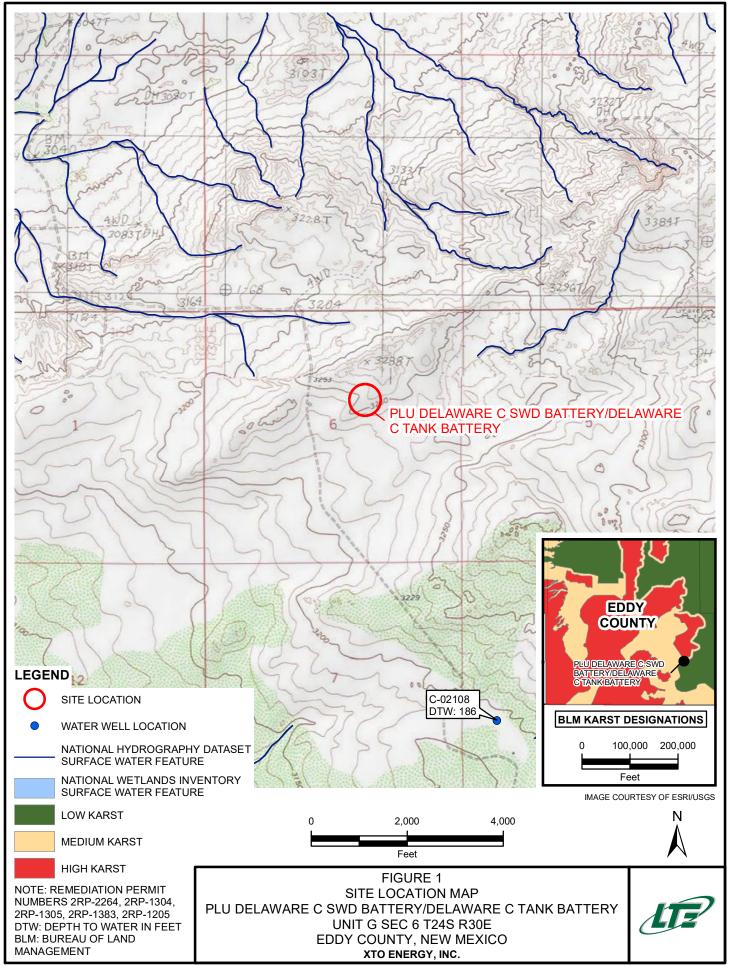
2RP-2264)

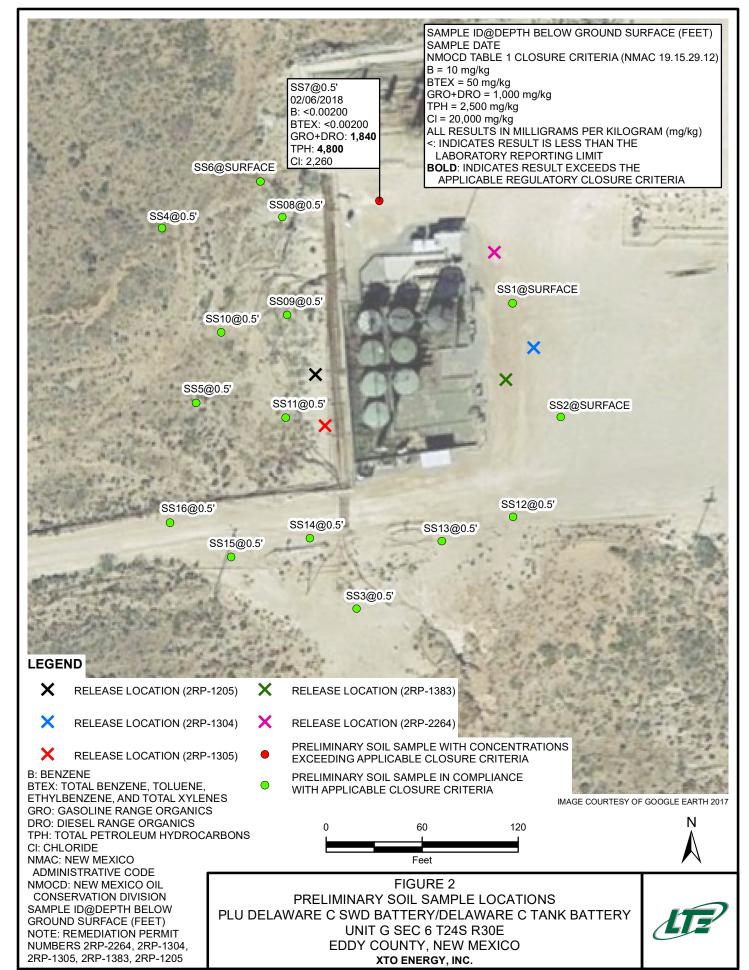
Attachment 2 Lithologic / Soil Sample Logs

Attachment 3 Photographic Log

Attachment 4 Laboratory Analytical Reports







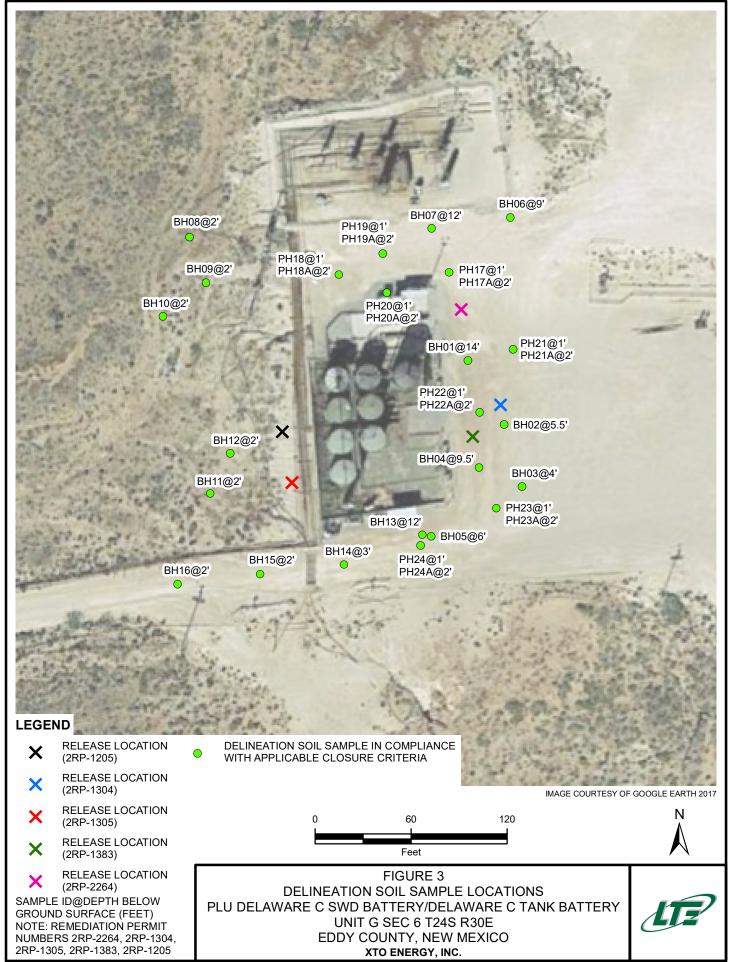




TABLE 1
SOIL ANALYTICAL RESULTS

PLU DELAWARE C SWD BATTERY/DELAWARE C TANK BATTERY REMEDIATION PERMIT NUMBER 2RP-1205, 2RP-1304, 2RP-1305, 2RP-1383, and 2RP-2264 EDDY COUNTY, NEW MEXICO XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD	Table 1 Closur	e Criteria	10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000
SS1	Surface	02/06/2018	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	58.1	37.3	58.1	95.4	2,140
SS2	Surface	02/06/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	25.2	<15.0	25.2	25.2	6,270
SS3	0.5	02/06/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	23.2*
SS4	0.5	02/06/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	<4.99*
SS5	0.5	02/06/2018	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	<4.99*
SS6	Surface	02/06/2018	<0.00355	<0.00355	<0.00355	<0.00355	<0.00355	<15.0	<15.0	<15.0	<15.0	<15.0	<4.98*
SS7	0.5	02/06/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	1,840	410	1,840	4,800	2,260
SS08	0.5	08/20/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	61.9	<15.0	61.9	61.9	<1.00*
SS09	0.5	08/20/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	6.32*
SS10	0.5	08/20/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	<4.99*
SS11	0.5	08/20/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	64.4*
SS12	0.5	08/21/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	81.5	<15.0	81.5	81.5	1,800
SS13	0.5	08/21/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	15.5	<14.9	15.5	15.5	258
SS14	0.5	08/21/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	183
SS15	0.5	08/21/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	82.0
SS16	0.5	08/21/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	491
BH01	14	08/17/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	77.2
BH02	5.5	08/17/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	74.4
BH03	4	08/17/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	51.7
BH04	9.5	08/17/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	188
BH05	6	08/17/2018	< 0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	172
BH06	9	08/17/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	71.6
BH07	12	08/17/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	2,550
BH08	2	08/20/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	24.1*
BH09	2	08/20/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<14.9	<14.9	<14.9	<14.9	<14.9	<1.00*
BH10	2	08/20/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	3.07*
BH11	2	08/20/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	147*
BH12	2	08/20/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	500*
BH13	12	08/20/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	90.0



TABLE 1 SOIL ANALYTICAL RESULTS

PLU DELAWARE C SWD BATTERY/DELAWARE C TANK BATTERY REMEDIATION PERMIT NUMBER 2RP-1205, 2RP-1304, 2RP-1305, 2RP-1383, and 2RP-2264 EDDY COUNTY, NEW MEXICO XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD	Table 1 Closur	e Criteria	10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000
BH14	3	08/21/2018	< 0.00199	< 0.00199	< 0.00199	<0.00199	<0.00199	<15.0	60.7	<15.0	60.7	60.7	317
BH15	2	08/21/2018	< 0.00199	< 0.00199	< 0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	1,080
BH16	2	08/21/2018	< 0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	20.6	<14.9	20.6	20.6	453
PH17	1	10/24/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	912
PH17A	2	10/24/2019	< 0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	577
PH18	1	10/24/2019	<0.00208	<0.00208	<0.00208	<0.00208	<0.00208	<50.0	<50.0	<50.0	<50.0	<50.0	519
PH18A	2	10/24/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	13.8
PH19	1	10/24/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	614
PH19A	2	10/24/2019	< 0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	16.3
PH20	1	10/24/2019	< 0.00199	<0.00199	< 0.00199	< 0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	579
PH20A	2	10/24/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	1,200
PH21	1	10/24/2019	< 0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	833
PH21A	2	10/24/2019	< 0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	1,480
PH22	1	10/24/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	1,060
PH22A	2	10/24/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	931
PH23	1	10/24/2019	<0.00199	<0.00199	< 0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	1,260
PH23A	2	10/24/2019	< 0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	1,260
PH24	1	10/24/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	384
PH24A	2	10/24/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	319

Notes:

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

ORO - oil range organics

NMAC - New Mexico Administrative Code

NMOCD - New Mexico Oil Conservation Division

NE - not established

TPH - total petroleum hydrocarbons

Bold - indicates result exceeds the applicable regulatory standard

< indicates result is below laboratory reporting limits

Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018

* - indicates sample was collected in area to be reclaimed after remediation is complete; closure criteria for chloride concentration in the top 4 feet of soil is 600 mg/kg



District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

RECEIVED

JUN 26 2012

NMOCD ARTESIA

_	1			ease Notific	atio			ctioi	1			
MIN	W 12	19345	739			OPERA T	ror		🛛 Initi	al Report	Final Repor	
Name of Co	ompany Bo	OPCO, L.P.		26073	7	Contact Tony Savoie						
Address 522	2 W. Mern	nod, Suite 70	04 Carlsb	ad, N.M. 88220		Telephone N	No. 432-556-87	30				
Facility Na	me: Poker	Lake Unit D	elaware (C SWD Battery		Facility Typ	e E&P					
			•						1		1004	
Surface Ow				Mineral O	wner	Federal			_Lease 1	Vo 8910003	103F API#	
PokerL						N OF REI				5-314	12	
Unit Letter G	Section 6	Township 24S	Range 30E	Feet from the	Nortl	n/South Line	Feet from the	East/	West Line	County Eddy		
										l		
			I	_atitude_N 32.2				167				
				NAT	URE	OF RELI						
Type of Rele	ase: Produc	ed water				Volume of produced w	Release: 25 bbls vater	of	Volume F	Recovered: N	one	
Source of Re	lease: Produ	iced water sto	rage tank				our of Occurrenc	e	Date and 5/30/12 8	Hour of Disc	overy	
Was Immedia	ate Notice (Yes [No □ Not Re	anired	If YES, To		nd lim	•		<u>- , </u>	
By Whom? T	Conv. Savoja						our 6/1/12, NMC				5 a m	
by Wilolli: 1	ony savoie						was delayed due				3 a.iii.	
Was a Watero	course Reac	hed?			•	If YES, Vo	lume Impacting t	he Wat	ercourse.	011 11111 1.0.		
			Yes 🛚	No			·					
If a Watercou	ırse was İmi	pacted. Descri	be Fully.*	:		<u> </u>						
		,	, -									
							,					
		m and Remed	dial Action	Taken.* A pipe f	itting	on the discharg	e line from the S	WD pu	mp broke, t	he pipe conn	ection was	
replaced the s	same day.											
Describe Area	a Affected a	nd Cleanup A	ction Tak	en Approximatel	y 1960) sq.ft. of pastu	re land was impa	cted we	est of the tar	nk battery, th	is area has had	
several flow l	ine spills in	the same area	that the r	elease covered. Al	ll of th	e fluid soaked						
will be develo	oped in acco	ordance with t	he NMOC	D and BLM reme	diatior	guidelines.						
I hanaha aantii	fi. that tha !	. Co	1	:- 4 1	-4- 4- 4	h - h		. 1	. 1 41 4	ND (C	OD11	
				is true and comple d/or file certain re								
public health	or the envir	onment. The	acceptanc	e of a C-141 repor	t by th	e NMOCD ma	rked as "Final Re	eport" d	loes not reli	eve the opera	itor of liability	
should their o	perations ha	ive failed to a	dequately	investigate and re-	mediat	te contamination	n that pose a thre	at to gr	ound water	, surface wat	er, human health	
or the environ	ment. In ac	ldition, NMO	CD accept	tance of a C-141 re	eport d	loes not relieve	the operator of r	esponsi	bility for co	mpliance wi	th any other	
federal, state,	or local law	s and/or regu	lations.			·····						
		-					OIL CONS	<u>SERV</u>	<u>ATION</u>	<u>DIVISIO</u>	<u>N</u>	
Signature:	1 04	9	2		Ì					1,		
Signature.	1 63	au	me_		-	Approved by I	District Superviso		ر را		ARSILER	
Printed Name	: Tony Savo	oie			- 1			Signed	By M	1/4 DE	April De	
Title: Waste N	Agmt.& Rei	nediation Spe	cialist			Approval Date	. 1 1 004		Expiration I	Date:		
							UL 1 1 201	4	T	T		
E-mail Addres	ss: TASavo	ie@BassPet.c	om			Conditions of	Approval:			Attached		
Date: 6/24/12			1	Ohone:432 556 07	30					/ tituened		
Attach Addit		ts If Necessa		Phone:432-556-87	JU							
. kuuon Auult	.o.iai once	.5 11 14000384	y		R	emediation	per OCD Rule:	. 0		2RF	-1205	
					- •		Act OCD Vale	ે લ				

Guidelines. SUBMIT REMEDIATION

PROPOSAL NOT LATER THAN:

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

Responsible Party: XTO Energy, Inc

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-1205
Facility ID	
Application ID	

Release Notification

Responsible Party

OGRID: 5380

Contact Name: Kyle Littrell					Contact Telephone: (432)-221-7331				
Contact emai	il: Kyle_Lit	trell@xtoenergy.co	om	Incident #	Incident #: 2RP-1205				
Contact mail NM 88220	ing address:	522 W. Mermod,	Suite 704 Carlsba	nd,					
			Location	of Release S	ource				
Latitude 32.2	48850		(NAD 83 in de	Longitude cimal degrees to 5 deci	<u>-103.919067</u> mal places)				
Site Name Po	oker Lake U	nit Delaware C SV	VD Battery	Site Type	Exploration and Production				
Date Release	Discovered	5/30/2012		API# (if ap	plicable) 30-015-31412				
Unit Letter	Section	Township	Range	Cour	nty				
G	6	24S	30E	Edo	dy				
Crude Oil	Materia	(s) Released (Select al Volume Release		calculations or specific	volume Recovered (bbls)				
Crude Oil	Material			calculations or specific					
Produced	Water	Volume Release	d (bbls) 25 bbls		Volume Recovered (bbls) 0 bbls				
		Is the concentrat	ion of dissolved c >10,000 mg/l?	chloride in the	☐ Yes ☐ No				
Condensa	te	Volume Release			Volume Recovered (bbls)				
Natural G	as	Volume Release	d (Mcf)		Volume Recovered (Mcf)				
Other (de	scribe)	Volume/Weight	Released (provide	e units)	Volume/Weight Recovered (provide units)				
Cause of Rele	ease				.1				
A pipe fitting or land was affected			pump broke. The fitt	ing was replaced the s	same day. An area covering approximately 1,960 sq. ft of pasture				

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	$u \in$			/	\boldsymbol{v}	-	"

Incident ID	
District RP	2RP-1205
Facility ID	
Application ID	

Was this a major release as defined by	If YES, for what reason(s) does the responsible party consider this a major release?
19.15.29.7(A) NMAC?	The release volume was greater than 25 bbls.
⊠ Yes □ No	
If YES, was immediate n	otice given to the OCD?
	NMOCD Emergency Response #104 and Jim Amos (BLM) on 6/1/2012 at 11:41
	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 rele	ease has been stopped.
The impacted area ha	as been secured to protect human health and the environment.
Released materials ha	ave been contained via the use of berms or dikes, absorbent pads, or other containment devices.
All free liquids and re	ecoverable materials have been removed and managed appropriately.
If all the actions describe	d above have <u>not</u> been undertaken, explain why:
Per 10 15 20 8 R (4) NIM	IAC 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 int area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
	rmation given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and
public health or the environs	required to report and/or file certain release notifications and perform corrective actions for releases which may endanger ment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have
	gate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In if 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 Compliance with any outer the operator of responsionity for compliance with any outer reading, state, or recar takes
Printed Name: <u>Kyl</u>	e Littrell Title: SH&E Supervisor
Signature:	Date: <u>3/20/2020</u>
email: <u>Kyle Littrell@xto</u>	<u>renergy.com</u> Telephone: <u>432-221-7331</u>
OCD Only	
Received by:	Date:

Page 18 of 239

Incident ID	5.5
District RP	2RP-1205
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?	<u>> 100</u> (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 ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil
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 well 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 	ls.

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.

Received by OCD: 4/8/2020 3:15:47 PM Form C-141 State of New Mexico Page 4 Oil Conservation Division

Page	<i>19</i>	of	<u> 2</u> 39

Incident ID			
District RP	2RP-1205		
Facility ID			
Application ID		•	<u>.</u>

I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release noti public health or the environment. The acceptance of a C-141 report by the C failed to adequately investigate and remediate contamination that pose a threaddition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	fications and perform corrective actions for releases which may endanger DCD does not relieve the operator of liability should their operations have at to groundwater, surface water, human health or the environment. In
Printed Name: Kyle Littrell	Title: SH&E Supervisor
Signature:	Date: 3/20/2020
email:Kyle_Littrell@xtoenergy.com	Telephone: (432)-221-7331
OCD Only	
Received by:	Date:

Page 20 of 239

Incident ID	nJMW1219345739
District RP	2RP-1205
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 OD	C District office must be notified 2 days prior to final sampling)				
□ Description of remediation activities					
and regulations all operators are required to report and/or file certa may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and reshuman health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regularestore, reclaim, and re-vegetate the impacted surface area to the coaccordance with 19.15.29.13 NMAC including notification with 19.15.29	ations. The responsible party acknowledges they must substantially inditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete.	h			
	m'd GHADA '				
Printed Name: Kyle Littrell	Ittle: SH&E Supervisor				
Printed Name:Kyle LittrellSignature:					
		_			
Signature:email:Kyle_Littrell@xtoenergy.com	Date: <u>3/20/2020</u>	_			
Signature:	Date: <u>3/20/2020</u>	_			
Signature:email:Kyle_Littrell@xtoenergy.com	Date:3/20/2020 Telephone:432-221-7331	_			
Signature: email:Kyle_Littrell@xtoenergy.com OCD Only Received by: Closure approval by the OCD does not relieve the responsible party	Date:3/20/2020 Telephone:432-221-7331 Date: of liability should their operations have failed to adequately investigate water, human health, or the environment nor does not relieve the respon				
Signature:	Date: Telephone:				
Signature: email:Kyle_Littrell@xtoenergy.com OCD Only Received by: Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface party of compliance with any other federal, state, or local laws and	Date: Date: Date: Date: Date: Of liability should their operations have failed to adequately investigate water, human health, or the environment nor does not relieve the responsor regulations. Date:	sible			

02/02/2021 closure DENIED Site needs additional subsurface data collection Also needs bore hole to verify depth to water is more than 51 feet from surface

Bradford Billings

Form C-141

District 1 1625 N. French Dr., Hobbs, NM 88240 District II

1000 Rio Brazos Road, Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Hobos, NM 882240

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico **Energy Minerals and Natural Resources**

Revised August 8, 2011 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

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

Release Notification and Corrective Action												
nJMW 1228428008		OPERATOR ☑ Initial Report ☐ Fina			inal Report							
			Contact: Tony Savoie									
			Telephone No. 575-887-7329									
Facility Name: Delaware "C" Tank Battery, same well pad as the PLU-153					as	Facility Typ	e: Exploration	and Pro	duction			
Surface Ow	ner: Federa	al		Mineral O	wner:	Federal			API No	. 30-015-3	1412	
				LOCA	TIO	N OF RE	LEASE					
Unit Letter G	Section 6	Township 24S	Range 30 E	Feet from the	North	th/South Line Feet from the		East/West Line		County Eddy		
				Latitude N 32.2	24873	5 Longitud	e <u>W 103.91879</u>	<u> 7</u>				
				NAT	URE	OF REL	EASE					
Type of Relea	ase: Produce	ed water				Volume of produced v	Release: 200 bb	ls	Volume R	Recovered: 5	bbls	
Source of Re	lease: Truck	load line				9/2/12 time		ce:	Date and 1 9/2/12 8:0	Hour of Dis 0 a.m.	covery:	
Was Immedia	ate Notice G		Yes [No Not Re	quired	If YES, To Artesia NN	Whom? MOCD emergency	y#104				
By Whom? T	ony Savoie					Date and I	lour: 9/2/12 at 12	2:19 p.m.				
Was a Watercourse Reached? ☐ Yes ☒ No			If YES, Volume Impacting the Watercourse. RECEIV			VED						
If a Watercou	rse was Imp	acted, Descri	be Fully.							- SE	P 06	2012
	1	, 								NMO	CD AF	RTESIA
Describe Cau The truck load				Taken.* the produced wate	r to sp	oill out onto th	e tank battery pa	d. The va	alve was clo			
D 9-4-	4.00 1 -	1.01	-41 - T 1									
released into	y 11,770 sq the pasture s	ft. of caliche oaked in, the	pad and le free stand	en. ease road and appr ling fluid was remon a accordance to the	oved w	vith a backhoe	and the saturated	d soil on	the caliche			
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.												
		\sim)		OIL CON	SERV	ATION	DIVISIO	N	}
Printed Name: Tony Savoie Approved by Environmental Specialist Signed By Mile Beneat												
Printed Name	: Tony Savo	ie				Approved by	Environmental S	pecialist	Signed By	11/4	DKM	reder_
Title: Waste N			ntion Spec	ialist		()(Approval Date	CT 1 0 2012	2	Expiration D			
E-mail Address	ss: tasavoie	Dbasspet.com	1			Conditions of	Approval:			Attached	П	
Date:9/5/12			p	Phone: 432-556-87	30						_	
Attach Addit	ional Sheet	s If Necessa			Re		per OCD Rule			2R1	2-1	304
				(Guide	lines. SUBN	IT REMEDIAT	LION			•	,

PROPOSAL NOT LATER THAN:
November 10, 2012

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

Responsible Party: XTO Energy, Inc

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-1304
Facility ID	
Application ID	

Release Notification

Responsible Party

OGRID: 5380

• –	rell@xtoenergy.cc			#: 2RP-1304	
ng address:	522 W. Mermod,	Suite 704 Carlsbac	-		
		Location	of Release S	Source	
8735		(NAD 83 in dec	Longitude imal degrees to 5 deci	-103.918797 imal places)	
laware "C"	Tank Battery		Site Type	Exploration and Production	
Discovered	9/2/2012		API# (if ap	pplicable) 30-015-31412	
Section	Township	Range	Cour	inty	
6	24S	30E	Edo	dy	
Material			calculations or specific	Volume Recovered (bbls)	
Material			calculations or specific		
Vater	Volume Released	d (bbls) 200 bbls		Volume Recovered (bbls) 5 bbls	
			nloride in the	☐ Yes ☐ No	
e				Volume Recovered (bbls)	
s	Volume Released	d (Mcf)		Volume Recovered (Mcf)	
cribe)	Volume/Weight	Released (provide	units)	Volume/Weight Recovered (provide units)	
ase					
1,770 square	feet of caliche pad an	nd lease road, and ap	proximately 7,060 sq	quare feet of pasture land was affected by the release. Free	
	Section 6 State Material Water e s cribe) ase ne valve was 1,770 square	6 24S State Federal Tri Material(s) Released (Select all Volume Released Volume Released Is the concentration produced water > 100 Volume Released Volume Released Volume Released Volume Released Volume Released Volume Released Volume Volum	Section Township Range 6 24S 30E	Site Type Site Type Section Township Range Cou Geribe State State Tribal Private (Name: Nature and Volume of Volume Released (bbls) State Volume Released (bbls) State Volume Released (bbls) Section State Volume Released (bbls) Section Volume Released (provide units) Volume/Weight Released (

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Incident ID	
District RP	2RP-1304
Facility ID	
Application ID	

Was this a major release as defined by	If YES, for what reason(s) does the responsible party consider this a major release?
19.15.29.7(A) NMAC?	The release volume was greater than 25 bbls.
⊠ Yes □ No	
If YES, was immediate n	
Yes, by Tony Savoie to E	mergency Response #104 on 9/2/2012 at 12:19 p.m.
	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 rele	ease has been stopped.
<u></u>	as been secured to protect human health and the environment.
	ave been contained via the use of berms or dikes, absorbent pads, or other containment devices.
	ecoverable materials have been removed and managed appropriately.
If all the actions described	d above have <u>not</u> been undertaken, explain why:
D 1015 20 0 D (A) ND	
has begun, please attach	IAC the responsible party may commence remediation immediately after discovery of a release. If remediation a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred at area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
	rmation given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and
	required to report and/or file certain release notifications and perform corrective actions for releases which may endanger ment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have
failed to adequately investig	ate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In f a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws
and/or regulations.	1 a C-141 report does not refleve the operator of responsionity for compnance with any other rederat, state, or local laws
Printed Name: Kyl	e Littrell Title: _SH&E Supervisor
Signature:	Date: <u>3/20/2020</u>
email: <u>Kyle Littrell@xto</u>	energy.com Telephone: <u>432-221-7331</u>
OCD Only	
Received by:	Date:

☐ Laboratory data including chain of custody

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Incident ID		
District RP	2RP-1304	
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?	<u>> 100</u> (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 well 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 	ls.				
☐ Topographic/Aerial maps					

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.

Received by OCD: 4/8/2020 3:15:47 PM Form C-141 State of New Mexico Page 4 Oil Conservation Division

Page	<i>25</i>	of	<u>`239</u>

Incident ID	
District RP	2RP-1304
Facility ID	
Application ID	

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Incident ID	nJMW1228428008
District RP	2RP-1304
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.	I I MINIMO
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	s of the liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate OD	C District office must be notified 2 days prior to final sampling)
Description of remediation activities	
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and rehuman health or the environment. In addition, OCD acceptance of	ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in
Printed Name: Kyle Littrell	Title: SH&E Supervisor
Signature:	Date: <u>3/20/2020</u>
Signature:email:Kyle_Littrell@xtoenergy.com	Date: 3/20/2020 Telephone: 432-221-7331
email: Kyle_Littrell@xtoenergy.com	Telephone: 432-221-7331
email:Kyle_Littrell@xtoenergy.com OCD Only Received by: Closure approval by the OCD does not relieve the responsible party	Telephone:432-221-7331 Date: of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible
email:Kyle_Littrell@xtoenergy.com OCD Only Received by: Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface	Telephone:432-221-7331 Date: of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible for regulations.
OCD Only Received by: Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface party of compliance with any other federal, state, or local laws and/	Telephone:432-221-7331 Date: of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible /or regulations. Date:

02/02/2021 closure DENIED Site needs additional subsurface data collection Also needs bore hole to verify depth to water is more than 51 feet from surface

Bradford Billings

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

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

TANIL	110 St.	29248	Kei	ease Monnic	auto	OPERA		CHOH	Initia	al Report 🔲 Final Repor
Name of Co			2/01	2737		Contact: To			иния	ai Keport 📋 riliai Kepor
				oad, N.M. 88220		Telephone No. 575-887-7329				
Facility Name: Delaware "C" Tank Battery, same well pad as the PLU-153						Facility Type: Exploration and Production				
Surface Ow	ner: Feder	al	Mineral O	vner:	Federal			API No	. 30-015-31412	
				LOCA	TIO	N OF REI	LEASE			
Unit Letter G	Section 6	Township 24S	Range 30 E	Feet from the	North	1				County Eddy
				Latitude N 32.2	4873	5 Longitud	e <u>W 103.91879</u>	7		
				NATI	JRE	OF REL	EASE			
Type of Rele	ase: Crude o	oil and produc	ed water				Release: 10 bbls		Volume R	Recovered: None
Source of Re	lease: Produ	iced water tan	k				bbls produced wat lour of Occurrence		Date and	Hour of Discovery:
						8/18/12 at	4:00 p.m.		8/18/12 4	
Was Immedia	ate Notice G		Yes 🗵	No Not Req	uired	If YES, To Late notific	Whom? cation in person to	o Randy	Dade	
By Whom? Was a Water		1. 10					our: 8/20/12 8:30			
was a water	course Reac	ned?	Yes 🛚	No		If YES, Vo	lume Impacting t	he Water	rcourse.	RECEIVED
If a Watercou	rse was Imp	oacted, Descri	be Fully.*	,		1				SEP 06 2012
			,							NMOCD ARTESIA
	nsfer pumps	failed causin	g the wate		w, an e	equalizer line	was opened withi	in 20 mir	nutes after	the tanks started to spill over.
approximately placed on the	ontainment y 2000 sq. fi pad area ne	was being rep t pasture area ar the tank ba	aired at th west of th ttery, appo	e time of the spill, e tank battery. All oximately 40 cubic	of the i	impacted soil s of soil was re	that could be rememoved, the area	noved ard was sam	ound the tar	ide the containment area, and nks was hand excavated and ackfilled to allow for the ing the NMOCD guidelines for
regulations al public health should their o	l operators a or the environs ha ment. In ac	are required to conment. The live failed to a Idition, NMO	report an acceptance dequately CD accept	d/or file certain rele e of a C-141 report investigate and ren	ease no by the nediate	otifications are NMOCD made contamination	d perform correct liked as "Final Roon that pose a three	tive action eport" do eat to gro	ons for rele es not relieund water,	uant to NMOCD rules and cases which may endanger eve the operator of liability, surface water, human health ompliance with any other
						OIL CONS	SERV	ATION	<u>DIVISION</u>	
Signature: 1 Ory Laure					Approved by Environmental Specialist: Signed By Mile Benesia.					
Printed Name Title: Waste N			tion Spec	ialist		Approval Date	e: OCT 10	2012	xpiration I	Onto
E-mail Address				101121		Conditions of		-vife:	APITATION L	
_ III(I) / 100IV			·		┤,		• •			Attached
Date:9/5/12				hone: 432-556-873			ition per OCD		_	
Attach Addit	ional Shee	ts If Necessa	ry		P	RQPOSAL,	SUBMIT REME NOT LATER TH	AN:		2KP-1305
						1 YOYCM	ser 10, 2	<i></i>		

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

Responsible Party: XTO Energy, Inc

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-1305
Facility ID	
Application ID	

Release Notification

Responsible Party

OGRID: 5380

Contact Name: Kyle Littrell			Contact To	Contact Telephone: (432)-221-7331		
Contact email: Kyle_Littrell@xtoenergy.com			Incident #	Incident #: 2RP-1305		
Contact mail NM 88220	ing address:	522 W. Mermod,	Suite 704 Carlsba	ıd,		
			Location	of Release S	ource	
Latitude 32.2	48735		(NAD 83 in dec	Longitude _:	-103.918797 nal places)	
Site Name D	elowere "C"	Tank Battery			Exploration and Produ	ection
Date Release		•			-	
Date Release	Discovered	8/18/2012		API# (if app	plicable) 30-015-31412	
Unit Letter	Section	Township	Range	Cour	nty	
G	6	24S	30E	Edd	ly	
Crude Oil	1	Volume Release	d (bbls) 10 bbls	calculations or specific	Volume Recovered ((bbls) 0 bbls
Noduced Produced	Water	Volume Release	d (bbls) 20 bbls		Volume Recovered (bbls) 0 bbls
		Is the concentrat produced water	ion of dissolved c >10,000 mg/l?	hloride in the	☐ Yes ☐ No	
Condensa	ite	Volume Release			Volume Recovered (bbls)
Natural G	ias	Volume Release	d (Mcf)		Volume Recovered (Mcf)	
Other (de	scribe)	Volume/Weight Released (provide units)			Volume/Weight Rec	overed (provide units)
Cause of Rel	ease					_
release affected	d approximatel cted soil that c	y 900 square feet insi	ide the containment a	area and approximatel	y 2,000 square feet of past	er the tanks started to spill over. The ure area west of the tank battery. allow for the containment to be re-

Page	, ,u	01	r /2U
1 426			437

Incident ID	
District RP	2RP-1305
Facility ID	
Application ID	

Was this a major	If YES, for what reason(s) does the responsible party consider this a major release?
release as defined by 19.15.29.7(A) NMAC?	The release volume was greater than 25 bbls.
⊠ Yes □ No	
☑ res ☐ No	
If YES, was immediate no	
No, late notification was	givin in person to Randy Dade on 8/20/2012 at 8:30 a.m.
	Initial Response
The responsible	party must undertake the following actions immediately unless they could create a safety hazard that would result in injury
M TI (4 1	
	ease has been stopped.
	as been secured to protect human health and the environment. ave been contained via the use of berms or dikes, absorbent pads, or other containment devices.
	ecoverable materials have been removed and managed appropriately.
<u> </u>	d above have <u>not</u> been undertaken, explain why:
if all the actions describe	a above have <u>not</u> been undertaken, explain why.
Per 19.15.29.8 B. (4) NM	IAC the responsible party may commence remediation immediately after discovery of a release. If remediation
	a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred at area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
	rmation given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and required to report and/or file certain release notifications and perform corrective actions for releases which may endanger
	ment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have atte and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In
addition, OCD acceptance o	f 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: Kyl	e Littrell Title: SH&E Supervisor
Signature:	Date: <u>3/20/2020</u>
email: <u>Kyle Littrell@xto</u>	Telephone: 432-221-7331
OCD Only	
-	
Received by:	Date:

Laboratory data including chain of custody

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Incident ID		
District RP	2RP-1305	
Facility ID		
Application ID		

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	> 100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ⊠ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ⊠ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ⊠ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ⊠ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ⊠ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ⊠ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ⊠ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ⊠ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ⊠ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ⊠ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ⊠ No
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ⊠ No
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vercontamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil
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 well 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 	ls.
☐ Topographic/Aerial maps	

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.

Received by OCD: 4/8/2020 3:15:47 PM Form C-141 State of New Mexico Page 4 Oil Conservation Division

Page	31	of	239	
			_	

Incident ID	
District RP	2RP-1305
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release noti public health or the environment. The acceptance of a C-141 report by the C failed to adequately investigate and remediate contamination that pose a thre addition, OCD acceptance of a C-141 report does not relieve the operator of and/or regulations.	fications and perform corrective actions for releases which may endanger DCD does not relieve the operator of liability should their operations have eat to groundwater, surface water, human health or the environment. In
Printed Name: Kyle Littrell	Title: SH&E Supervisor
Signature:	Date: 3/20/2020
email: <u>Kyle_Littrell@xtoenergy.com</u>	Telephone: (432)-221-7331
OCD Only	
Received by:	Data

Page 32 of 239

Incident ID	nJMW1228429248
District RP	2RP-1305
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 19.15.29.1	1 NMAC
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate ODC	C District office must be notified 2 days prior to final sampling)
Description of remediation activities	
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of	ntions. The responsible party acknowledges they must substantially nditions that existed prior to the release or their final land use in CD when reclamation and re-vegetation are complete.
Signature:	
email:Kyle_Littrell@xtoenergy.com	Telephone: 432-221-7331
OCD Only	
Received by:	Date:
	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible or regulations.
Closure Approved by:	Date:
Printed Name:	Title:

02/02/2021 closure DENIED Site needs additional subsurface data collection Also needs bore hole to verify depth to water is more than 51 feet from surface Bradford Billings

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
1320 S. St. Francis Dr., Sopta Fo. NM 8750

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr.

Form C-141 Revised August 8, 2011

OCJubinit 12012 to appropriate District Office in accordance with 19.15.29 NMAC.

1220 S. St. Francis Dr., Santa Fe, NM 87505 Santa Fe, NM 87505								
Release Notification and Corrective Action								
nJMW/1231129593		OPERATOR Initial Report Final Report						
Name of Company: BOPCO, L.P. 260737		Contact: To						
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220			No. 575-887-732					
Facility Name: Delaware "C" Tank Battery, same well pad the PLU-153	as	Facility Typ	e: Exploration a	and Proc	duction			
Surface Owner: Federal Mineral O	wner: 1	Federal			API No	. 30-015-3	1412	
LOCA	TIOI	OF REI	LEASE					
Unit Letter Section Township Range 6 24S 30 E Feet from the	North/	South Line	Feet from the	East/W	est Line	County Eddy		
			w 103.918797	7				
	URE	OF RELI						
Type of Release: Produced water		volume of produced v	Release: 650 bbls vater	s	Volume R	Recovered: 0	bbls	
Source of Release: 8" suction line to SWD H-pump		Date and H	our of Occurrence approximately l	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1				
Was Immediate Notice Given? ☐ Yes ☐ No ☐ Not Re	quired	If YES, To Whom? Artesia NMOCD emergency #104 and Jim Amos with the BLM						
By Whom? Tony Savoie		Date and Hour: 8/19/12 at 8:52 a.m.						
Was a Watercourse Reached? ☐ Yes ☒ No		If YES, Volume Impacting the Watercourse.						
If a Watercourse was Impacted, Describe Fully.*								
Describe Cause of Problem and Remedial Action Taken.* A connection going from the charge pumps to the H-pump failed, to	the pum	ps were shut	down upon discov	very and	the line w	as repaired t	he next	morning.
Describe Area Affected and Cleanup Action Taken.* The area around the SWD battery, the road and pasture were impact the same location. A rig is being scheduled to determine the vertical remediated in accordance to the NMOCD recommended guidelines.	al extent	t under the co	se, the same areas	s involved of the in	d had been npacted ar	impacted beas. The spil	y recent Il will be	releases at
I hereby certify that the information given above is true and compleregulations all operators are required to report and/or file certain republic health or the environment. The acceptance of a C-141 report should their operations have failed to adequately investigate and reformer the environment. In addition, NMOCD acceptance of a C-141 refederal, state, or local laws and/or regulations.	elease no rt by the emediate	tifications and NMOCD made contamination	d perform correct rked as "Final Re on that pose a thre	tive actio eport" do eat to gro	ons for rele es not relic und water,	ases which in eve the opera surface wat	nay end ator of li er, hum	anger ability an health
			OIL CONS	SERV A	ATION :	<u>DIVISIO</u>	<u>N</u>	
Signature: Ory Danu						. 1.1	il	
Printed Name: Tony Savoie	_ A	Approved by Environmental Specialistigned By Mily Beautice				asi e		
Title: Waste Management and Remediation Specialist		NUV Approval Date		Ex	xpiration [Date:		
E-mail Address: tasavoie@basspet.com	c	Conditions of	Approval:			Attached		
Date: 9/28/12 Phone: 432-556-8' Attach Additional Sheets If Necessary			ation per OCD			01	ζP.	<u> </u>
	G	uidelines. S	SUBMIT REME	DIATIC	N	١ ا	1.	-100

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

Responsible Party: XTO Energy, Inc

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-1383
Facility ID	
Application ID	

Release Notification

Responsible Party

OGRID: 5380

Contact Name: Kyle Littrell		Conta	Contact Telephone: (432)-221-7331			
Contact email: Kyle_Littrell@xtoenergy.com			Incide	Incident #: 2RP-1383		
ing address:	522 W. Mermod,	Suite 704 Carlsba	ad,			
		Location	of Releas	e Source		
40725			T 4-	.1. 102.010707		
46/33		(NAD 83 in de				
elaware "C"	Tank Battery		Site T	pe Exploration a	and Production	
Discovered	9/19/2012		API#	if applicable) 30-015	-31412	
Section	Township	Range				
6	24S	30E		Eddy		
1	Volume Release	l that apply and attach	n calculations or sp	Volume Rec	covered (bbls)	
Water					covered (bbls) 0 bbls	
		chloride in the	☐ Yes ☐	No		
ite				Volume Rec	covered (bbls)	
ias	Volume Released (Mcf)		Volume Rec	covered (Mcf)		
scribe)	Volume/Weight Released (provide units)		e units)	Volume/We	ight Recovered (provide units)	
ease						
			oumps were shut o	own upon discovery a	and the line was repaired. The area around the	
	il: Kyle_Lit ing address: 48735 elaware "C" Discovered Section 6 r: State Material Water tte tas scribe) ease oing from the coming f	il: Kyle_Littrell@xtoenergy.c ing address: 522 W. Mermod, 48735 elaware "C" Tank Battery Discovered 9/19/2012 Section Township 6 24S r: State Federal Tr Material(s) Released (Select all Volume Release Water Volume Release Is the concentrate produced water in the Volume Release water in the Volume Releas	Location Hard State State Federal Tribal Private (Nature and State Sta	Incide ing address: 522 W. Mermod, Suite 704 Carlsbad, Location of Release 48735 Longitu (NAD 83 in decimal degrees to 5) elaware "C" Tank Battery Discovered 9/19/2012 Section Township Range 6 248 30E T: State Federal Tribal Private (Name: Nature and Volume Material(s) Released (Select all that apply and attach calculations or specific specific specific specific specific specific in the produced water >10,000 mg/l? Is the concentration of dissolved chloride in the produced water >10,000 mg/l? Ite Volume Released (bbls) Volume Released (Mcf) secribe) Volume/Weight Released (provide units) ease lightham the pumps were shut decimal for the pumps were shut decimal from the charge pumps to the H-pump failed. The pumps were shut decimal from the charge pumps to the H-pump failed. The pumps were shut decimal from the charge pumps to the H-pump failed. The pumps were shut decimal from the charge pumps to the H-pump failed. The pumps were shut decimal from the charge pumps to the H-pump failed. The pumps were shut decimal from the charge pumps to the H-pump failed. The pumps were shut decimal from the charge pumps to the H-pump failed. The pumps were shut decimal from the charge pumps to the H-pump failed. The pumps were shut decimal from the charge pumps to the H-pump failed. The pumps were shut decimal from the charge pumps to the H-pump failed. The pumps were shut decimal from the charge from the charge pumps to the H-pump failed.	Incident #: 2RP-1383 Ing address: 522 W. Mermod, Suite 704 Carlsbad, Location of Release Source Longitude -103.918797 (NAD 83 in decimal degrees to 5 decimal places) Elaware "C" Tank Battery Discovered 9/19/2012 Section Township Range County 6 24S 30E Eddy Tribal Private (Name: Nature and Volume of Release Material(s) Released (Select all that apply and attach calculations or specific justification for the Volume Released (bbls) Water Volume Released (bbls) Volume Released (bbls) Volume Released (bbls) Is the concentration of dissolved chloride in the produced water >10,000 mg/1? It Volume Released (bbls)	

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Incident ID	
District RP	2RP-1383
Facility ID	
Application ID	

Was this a major release as defined by	If YES, for what reason(s) does the responsible party consider this a major release?
19.15.29.7(A) NMAC?	The release volume was greater than 25 bbls.
⊠ Yes □ No	
If YES, was immediate no	otice given to the OCD? MOCE Emergency Response #104 and Jim Amos (BLM) on 9/19/2012 at 8:52 a.m
res, by rolly savole to r	AMOCE Emergency Response #104 and Jim Amos (BEM) on 9/19/2012 at 6.32 a.m
	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 rele	ease has been stopped.
<u></u>	as been secured to protect human health and the environment.
Released materials ha	ave been contained via the use of berms or dikes, absorbent pads, or other containment devices.
All free liquids and re	ecoverable materials have been removed and managed appropriately.
If all the actions describe	d above have <u>not</u> been undertaken, explain why:
D 10 15 20 0 D (4) ND	
has begun, please attach	IAC the responsible party may commence remediation immediately after discovery of a release. If remediation a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
	rmation given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and
	required to report and/or file certain release notifications and perform corrective actions for releases which may endanger ment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have
failed to adequately investig	ate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In f a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws
and/or regulations.	1 a C-141 report does not refleve the operator of responsibility for compliance with any other federal, state, or local laws
Printed Name: Kyle	e Littrell Title: SH&E Supervisor
Signature:	Date: <u>3/20/2020</u>
email: _Kyle_Littrell@xto	energy.com Telephone: <u>432-221-7331</u>
OCD Only	
Received by:	Date:

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Incident ID	
District RP	2RP-1383
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?	<u>> 100</u> (ft bgs)				
Did this release impact groundwater or surface water?					
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?					
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?					
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 wel☐ Field data	ls.				
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 The distribution of the lateral extents of the release of the rele					
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.

Received by OCD: 4/8/2020 3:15:47 PM Form C-141 State of New Mexico Page 4 Oil Conservation Division

Page	37	of	239

Incident ID	
District RP	2RP-1383
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 3/20/2020

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

OCD Only

Received by: Date: Date: Date:

Page 38 of 239

Incident ID	NJMW1231129593
District RP	2RP-1383
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.	I I NIVIAC
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	s of the liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate OD	C District office must be notified 2 days prior to final sampling)
Description of remediation activities	
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and rehuman health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regularestore, reclaim, and re-vegetate the impacted surface area to the coaccordance with 19.15.29.13 NMAC including notification with 19.15.29.13	ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete.
Printed Name: Kyle Littrell	Title: SH&E Supervisor
Signature:	Date: <u>3/20/2020</u>
Signature:email:Kyle_Littrell@xtoenergy.com	Date: 3/20/2020 Telephone: 432-221-7331
email: Kyle_Littrell@xtoenergy.com	Telephone: 432-221-7331
email:Kyle_Littrell@xtoenergy.com OCD Only Received by: Closure approval by the OCD does not relieve the responsible party	Telephone:432-221-7331 Date: of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible
email:Kyle_Littrell@xtoenergy.com OCD Only Received by: Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface	Telephone:432-221-7331 Date: of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible for regulations.
OCD Only Received by: Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface party of compliance with any other federal, state, or local laws and	Telephone:432-221-7331 Date: of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible /or regulations. Date:

02/02/2021 closure DENIED Site needs additional subsurface data collection Also needs bore hole to verify depth to water is more than 51 feet from surface

Bradford Billings

<u>District 1</u>. 1625 N. French Dr., Hobbs, NM 88240 District III
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**

Form C-141 Revised August 8, 2011

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

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

Release Notification and Corrective Action													
nHMP1411828179					OPERATOR Initial Report Final Repo					Repoi			
Name of Company: BOPCO, L.P. 40737						Contact: Tony Savoie							
				oad, N.M. 88220 , same well pad			No. 575-887-732 be: Exploration a		lotion				 -
the PLU-15			K Dallery	, same wen pau	as 		Exploration a						
Surface Ow	ner: Feder	al		Mineral O	wner	Federal			API No	o. 30-015-3	1412		
				LOCA	OIT	N OF REI	LEASE						
Unit Letter Section Township Range Feet from the North				h/South Line orth	Feet from the 1980	East/We East	st Line	County Eddy		,			
				,-		66 Longitude COF RELI	W 103.919096	<u>5</u>					
Type of Rele	ase: Produce	ed water		14711			Release: 200 bbls	s V	olume F	Recovered: 1	5 bbls		
		VD injection l	ine				our of Occurrence			Hour of Dis t 12:30 p.m.			
Was Immedia	ate Notice C		Yes 🗆	No Not Re	quired	If YES, To NMOCD e	Whom? mergency #104 ar	•		<u> </u>			
By Whom? T							our: 4/21/14 at 2:					•	
Was a Water	course Reac		Yes 🛚	No		If YES, Vo	lume Impacting tl	he Waterco					
If a Watercou	irse was Imp	pacted, Descri	be Fully.*			-			H	ECEN	IEL	7	
	APR 2 4 2014												
Describe Cau A 3" high pre				Taken.* in the coupling the	reads.	The connection	on was replaced.		MAG	OCD AF	ITES:	A	
lease road. Th	acted approa ne spill ponç ne dismantle	ximately 4000 led and followed and the oil	sq.ft. of p ved a spill	en.* pad area at the SW path almost identi n battery re-located	cal to	a spill at the sa	me pump location	n on 5/30/	12 refere	ence 2RP-12	05. The	SWD i	is
regulations al public health should their o	I operators a or the environ perations ha ment. In ad	ore required to conment. The a live failed to a dition, NMO	report and acceptance dequately CD accept	is true and comple d/or file certain rele e of a C-141 repor investigate and rer ance of a C-141 re	lease r t by th mediat	notifications an e NMOCD ma te contamination	d perform correct rked as "Final Re on that pose a thre	ive actions port" does at to grour	s for rele not relied and water.	eases which neve the opera , surface wat	may end ator of l er, hum	langer iability an hea	,
2					OIL CONSERVATION DIVISION								
Signature: 1 on Surviva					1/ 0								
Printed Name: Tony Savoie Approved by Environmental Specialist:													
Title: Waste Management and Remediation Specialist App					Approval Date	: 4/28/14	Exp	iration [Date: NA	,			
E-mail Addres	ss: tasavoie	abasspet.com				Conditions of A	Approval:			Attached	П		
Date:4/24/14				hone: 432-556-873	າບ .	•	er OCD Rule & G		•	7,11			
Attach Additi	onal Sheet	s If Necessa	ry		пк	•	BLM. <u>SUBMIT R</u> SAL NO LATER TH 728/14		ION -	ZRP-	22 (, 4	_

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-2264
Facility ID	
Application ID	

Release Notification

Responsible Party

Incident #: 2RP-2264		
ı		
ded below)		
15 bbls		
d (provide units)		
approximately 4000 square feet nded and followed a spill path will be addressed at that time.		

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Incident ID	
District RP	2RP-2264
Facility ID	
Application ID	

Was this a major release as defined by	If YES, for what reason(s) does the responsible party consider this a major release?
19.15.29.7(A) NMAC?	The release volume was greater than 25 bbls.
⊠ Yes □ No	
If YES, was immediate no	otice given to the OCD? NMOCD Emergency Response #104 and BLM on 4/21/2014 at 2:30 p.m.
res, by rolly savole to r	AMOCD Emergency Response #104 and BEM on 4/21/2014 at 2.50 p.m.
	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 rele	ease has been stopped.
<u></u>	as been secured to protect human health and the environment.
Released materials ha	ave been contained via the use of berms or dikes, absorbent pads, or other containment devices.
All free liquids and re	ecoverable materials have been removed and managed appropriately.
If all the actions describe	d above have <u>not</u> been undertaken, explain why:
Per 10 15 20 8 R (4) NM	IAC 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 at area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
	rmation given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and
	required to report and/or file certain release notifications and perform corrective actions for releases which may endanger nent. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have
	ate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In f 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 Compliance with any other rederal, state, or focul taws
Printed Name: Kyle	e Littrell Title: SH&E Supervisor
Signature:	Date: <u>3/20/2020</u>
email: _Kyle_Littrell@xto	energy.com Telephone: <u>432-221-7331</u>
OCD Only	
Received by:	Date:

Page 42 of 239

Incident ID	
District RP	2RP-2264
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?	<u>> 100</u> (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 ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil
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 wel Field data 	ls.
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	
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 	
☐ Topographic/Aeriai 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.

Received by OCD: 4/8/2020 3:15:47 PM Form C-141 State of New Mexico Page 4 Oil Conservation Division

Page	43	of	<u> 2</u> 39)

Incident ID	
District RP	2RP-2264
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.							
Printed Name: Kyle Littrell	Title: SH&E Supervisor						
Signature:	Date: 3/20/2020						
email:Kyle_Littrell@xtoenergy.com	Telephone: (432)-221-7331						
OCD Only							
Received by:	Date:						

Page 44 of 239

Incident ID	nHMP1441828179
District RP	2RP-2264
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 must be notified 2 days prior to liner inspection)	s of the liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate OD	C District office must be notified 2 days prior to final sampling)
Description of remediation activities	
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Printed Name: Kyle Littrell	Title: SH&E Supervisor
Timed Name: Kyle Bittlen	
Signature:	
Signature:	Date: <u>3/20/2020</u>
Signature:	Date: <u>3/20/2020</u>
Signature:email:Kyle_Littrell@xtoenergy.com	Date:3/20/2020 Telephone:432-221-7331
Signature: Kyle_Littrell@xtoenergy.com OCD Only Received by: Closure approval by the OCD does not relieve the responsible party	Date:
Signature: email: Kyle_Littrell@xtoenergy.com OCD Only Received by: Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface	Date: Telephone:
Signature: email:Kyle_Littrell@xtoenergy.com OCD Only Received by: Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface party of compliance with any other federal, state, or local laws and	Date: Date: Date: Of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible for regulations. Date:

02/02/2021 closure DENIED Site needs additional subsurface data collection Also needs bore hole to verify depth to water is more than 51 feet from surface

Bradford Billings



BH or PH Name:	Date:
BH08	8/20/2018
Site Name:	PLU Delaware C SWD
RP or Incident Number:	2RP-1304, 2RP-1205, 2RP-1305, 2RP-13

508 West Stevens Street Carlsbad, New Mexico 88220 A proud member Compliance · Engineering · Remediation of WSP LTE Job Number: 2RP-2264 LITHOLOGIC / SOIL SAMPLING LOG Method: Logged By: JH Lat/Long: Field Screening: Hole Diameter: Total Depth: Chloride, PID Comments: USCS/Rock Symbol Sample # Moisture Content Chloride (ppm) Staining Sample Vapor (ppm) Depth Depth Lithology/Remarks (ft bgs) (ft bgs) 0 1 2 0.7 2' Reddish brown clay with silt 1 dry 3 4 5 6 7 8 9 10 11 12



BH or PH Name:	Date:
ВН09	8/20/2018
Site Name:	PLU Delaware C SWD
RP or Incident Number:	2RP-1304, 2RP-1205, 2RP-1305, 2RP-13

508 West Stevens Street Carlsbad, New Mexico 88220 A proud member Compliance · Engineering · Remediation of WSP LTE Job Number: 2RP-2264 LITHOLOGIC / SOIL SAMPLING LOG Method: Logged By: JH Lat/Long: Field Screening: Hole Diameter: Total Depth: Chloride, PID Comments: USCS/Rock Symbol Sample # Moisture Content Chloride (ppm) Staining Sample Vapor (ppm) Depth Lithology/Remarks Depth (ft bgs) (ft bgs) 0 1 2 0.8 2' Reddish brown clay with silt 1.0 dry 3 4 5 6 7 8 9 10 11

12



BH or PH Name:	Date:
BH10	8/20/2018
Site Name:	PLU Delaware C SWD
RP or Incident Number:	2RP-1304, 2RP-1205, 2RP-1305, 2RP-13

508 West Stevens Street Carlsbad, New Mexico 88220 A proud member Compliance · Engineering · Remediation of WSP LTE Job Number: 2RP-2264 LITHOLOGIC / SOIL SAMPLING LOG Method: Logged By: JH Lat/Long: Field Screening: Hole Diameter: Total Depth: Chloride, PID Comments: USCS/Rock Symbol Sample # Moisture Content Chloride (ppm) Staining Sample Vapor (ppm) Depth Depth Lithology/Remarks (ft bgs) (ft bgs) 0 1 2 1.2 1.9 2' Reddish brown clay with silt dry 3 4 5 6 7 8 9 10 11 12



BH or PH Name:	Date:
BH11	8/20/2018
Site Name:	PLU Delaware C SWD
RP or Incident Number:	2RP-1304, 2RP-1205, 2RP-1305, 2RP-13
. mp	ADD 2274

508 West Stevens Street Carlsbad, New Mexico 88220 A proud member Compliance · Engineering · Remediation of WSP LTE Job Number: 2RP-2264 LITHOLOGIC / SOIL SAMPLING LOG Method: Logged By: JH Lat/Long: Field Screening: Hole Diameter: Total Depth: Chloride, PID Comments: USCS/Rock Symbol Sample # Moisture Content Chloride (ppm) Staining Sample Vapor (ppm) Depth Depth Lithology/Remarks (ft bgs) (ft bgs) 0 1 2 1.0 2' Reddish brown clay with silt 1.4 dry 3 4 5 6 7 8 9 10 11

12



BH or PH Name: Date: BH12 8/20/2018 PLU Delaware C SWD Site Name: RP or Incident Number:

508 West Stevens Street Carlsbad, New Mexico 88220 A proud member 2RP-1304, 2RP-1205, 2RP-1305, 2RP-138 Compliance · Engineering · Remediation of WSP LTE Job Number: 2RP-2264 LITHOLOGIC / SOIL SAMPLING LOG Method: Logged By: JH Field Screening: Hole Diameter: Total Depth: Lat/Long: Chloride, PID Comments: USCS/Rock Symbol Moisture Content Chloride (ppm) Staining Sample # Sample Vapor (ppm) Depth Lithology/Remarks Depth (ft bgs) (ft bgs) 0 1 2' 2 1.6 1.8 Reddish brown clay with silt dry 3 4 5 6 7 8 9 10 11

12

0.5

12'

12

Medium tan sandy loam



LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 BH or PH Name: Date: BH13 8/20/2018 PLU Delaware C SWD Site Name: RP or Incident Number:

2RP-1304, 2RP-1205, 2RP-1305, 2RP-138 A proud member Compliance · Engineering · Remediation of WSP LTE Job Number: 2RP-2264 LITHOLOGIC / SOIL SAMPLING LOG Method: Logged By: JH Field Screening: Hole Diameter: Total Depth: Lat/Long: Chloride, PID Comments: USCS/Rock Symbol Moisture Content Chloride (ppm) Staining Sample # Sample Vapor (ppm) Depth Lithology/Remarks Depth (ft bgs) (ft bgs) 0 1 2' 2 7.2 1.5 light tan, sandy loam with caliche 3 6.2 3' 0.8 Same as above 4 8.2 0.5 Same as above 5 6 7 5.2 0.4 medium tan, sandy loam with caliche 8 9 3.0 0.3 10' 10 Same as above 11



1				508 Wes	t Stevens	Street			BH14	8/21/20	018
			508 West Stevens Street Carlsbad, New Mexico 88220						Site Name:	LU Delaware C S	WD
А	proud m	nember	Cor	mpliance · E	nainoorina	Domodia	ation		RP or Incident Number:	2RP-13	304, 2RP-1205, 2RP-1305, 2RP-138
0	f WSP		Cor	прпапсе · 🗆	rigirieeririg	· Remeala	alion		LTE Job Number:	2RP-2	2264
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BH or PH Name:

Date:



Date:

BH or PH Name:

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			(Carlsbad, I	New Mexic	o 88220			Site Name:		ware C SWD
A	proud m	ember	Con	nnliance · F	Engineering	· Remedi:	ation		RP or Incident Num	ıber:	2RP-1304, 2RP-1205, 2RP-1305, 2RP-138
0	fWSP								LTE Job Number:		2RP-2264
	LITHOLOGIC / SOIL SAMPLING LOG								Logged By: JH		Method:
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					Chloride, I	PID					
Comm	ents:										
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol			Lithology/	Remarks
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LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 BH or PH Name: Date: BH16 8/21/2018

Site Name: PLU Delaware C SWD

Compliance · Engineering · Remediation

RP or Incident Number: 2RP-1304, 2RP-1205, 2RP-1305, 2RP-138

LTE Job Number: 2RP-2264

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:
Chloride, PID

LTE Job Number:

LTE Job Number:

2RP-2264

Method:

Total Depth:

Comments:

Comm	1							
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	(ft bgs)	USCS/Rock Symbol	Lithology/Remarks
	1.0	0.4			2'	0 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12		silt loam, sandy in parts

		LTP						100			34
		vironmental, In	c.		508 W Carlsbad	vironmen est Steve , New Me	n tal, Inc. ns Street xico 882	20		Identifier:	Date:
7	-	70		0						PLU Delawae C	RP Number: 268-
(Lat/Lo	ng;	LITH	OLOG	IC /SO	IL SAMI	PLING L	.OG		Logged By: SU	
	Commo	ents:				Treat Sept	PID	Chloride		Hole Diameter:	Method: Trackine Total Depth:
/			1		1						
	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type		Lithology/R	Remarks
(buo	D	616	0.0	2	PHIT	0 1	1	sp-sm	tr Sandi B	rownino odorino stain, ace silt	m-f, poorly graded
1010	D	493	0.0	7	PH174	2	r		*I	ace silf	
		D 493 0.0 N PHITA				3				10 0 V	

	LT Enviro	orimental, Inc.		C	LT Env 508 We Carlsbad,	vironmen est Steven New Mex	tal, Inc. s Street ico 8822	20		Identifier:		Date: Us. 24.19 RP Number: TRP
			LITHO	LOG	C /SOI	L SAMP	LINGI	0.0		PLU De		1205,1304,1305,1383 2269
	Lat/Long	g:	Little	LOGI	C / 501	Field Scree	ening:	OG		Logged By: Hole Diamet	52	Method: Trackhoe
	Commer	nts:					SEIB .	Chloride		Trote Blainer	ici.	Total Depth: 21
	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type			Litholog	gy/Remarks
ars	D	554	0.0	И	PIHOS:	0 1	1	SP-SM	1-2 5 m d	, Brown, m	, ofor, no	stain, m-f, poorly graded
1430	0	554	0.0	11	рНівд	2	2					
						3 4 5 5 5 6 7 7 8 8 7 9 7 10 11 11 11 12 12			7.0	e z'		

	LT Enviro	onmental, Inc.		C	LT Env 508 We Carlsbad,	vironmen est Steven New Mex	tal, Inc. s Street ico 8822	20		Identifier: PH19 Project Name: PLV Oblance C	F	Date: 10 - 24 - 19 RP Number: 2 R.P. 1205, 1304, 1305, 1383, 2264
			LITHO	LOGI	C / SOI	L SAMP	LING L	OG		Logged By: 54		
	Lat/Long					Field Scree	ening:	Chloride	F	Hole Diameter:		Method: Trackhoe Total Depth:
	Commer	nts:					FID	Chlorida				21
	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type		Litholo	ogy/Remar	rks
1 135	9	554	0.0	4	PH19	0 1	1	SP-sm	1-2 Sani	d, Brown no odos, w	n d poor	ly gradeditrace sift
1040	0	150	0.0	N	PHIA	2	2					
						3 4 5 6 7 8 9						

1000

	T?			LT En	vironmen	tal, Inc.			Identifier:		Date:
100	onmental, Inc.		(508 We	est Steven New Mex	s Street	20		PH 20		10.24.19
	45			,	T. IIIOA	.50 0022			Project Name: PLU Delaw	ne C	RP Number: 2RP
		LITHO	LOGI	IC /SOI	L SAMP	LINCL	00				1205,1304,1305,1383,2164
Lat/Long	g:		2001	750	Field Scre	ening:			Logged By: JL Hole Diameter:		Method: track hoe
Commer	nts:		10,000			PID	Chloride				Total Depth:
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type			Lithology/R	temarks
٥	55h	0.0	4	pHvo	-	- 1	SP-sm	5	and 1 Brown, trace silt	he oder, he	stains m-f, poorly graded
D	342	0.0	M	PHroA	2	2			trace silt		
					3 4 5 6 7 8 9				The	2'	

no

1215

LT Enviro	primental, Inc.		(LT Env 508 We Carlsbad,	vironmen est Steven New Mex	tal, Inc. s Street ico 8822	0		Identifier: PIF Z1 Project Name: PW Delance C	RP N	: 1.24.19 (umber: JRP 5,1704,1705,1383,724
		LITHO	LOG	IC / SOI	L SAMP	LING L	OG		Logged By: St		od: Truckhoe
Lat/Long	g :				Field Scree	ening:			Hole Diameter:		Depth:
Commer	nts:					GNO	Chloride				21
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type		Litho	logy/Remarks	
0	179	0.0	2 2	PHZI	1 2	1	SP-SM	Sand,		stain, m.f. po	porty graded, trace sit
					3 4 5 6 7 7 8 7				DO 2'		
					9 10 11 11 12						

LT Environmental, Inc.			508 We. Sarlsbad, I		s Street ico 8822			Identifier: PH22 Project Name: PW Delawer C	Date: \(\bullet \cdot \bullet \bull			
Lat/Long:	LITHO	LOGI	C / SOI		LING L	OG		Logged By: 5L	Method: Trackhoe			
Comments:				Field Scre	PID	Chloride		Hole Diameter:	Total Depth: V			
Moisture Content Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks					
0 347	0.0	N	PHZZ	0	1	SP-3m	1-2 Sand, Br	own, to odor, no sho	ain m-6, poorly graded frace sit			
0 150	0.0	N	pHILA	2	2							
				3 - 4 - 5 - 6 - 7 - 7 - 8 - 9 - 10 - 11 - 11				70 0 21				

LT Environmental, Inc		LT E 508 V Carlsba	nvironmen Vest Steven d, New Mex	t al, Inc. s Street ico 8822	0	Identifier: PHZ3 Project Name: PLV Delawer C	Date: \[\v \ 24 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	LITHOL	LOGIC / SO	OIL SAMP	LING L	OG	Logged By: 5L	Method: Truck he
Lat/Long:			Field Scree	ening:	7	Hole Diameter:	Total Depth:
Comments:				PID	Chloride		ν'
Moisture Content Chloride (ppm)	Vapor (ppm)	Staining Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Litholo	ogy/Remarks
0 60/1	0.0	n bys.		1	1-2 sand, Brown, no oder trace silt	, no steven, on-fipeorly graded	
0 0-11	0.0	N PH23	A 2	2		170	
			3 4 5 6 7 8 9			10 c r	

	Environme 25	ental, Inc.		С	LT Env 508 We arlsbad,	ironment st Steven New Mexi	t al, Inc. s Street ico 8822	0		Identifier: PHZY Project Name: PV Delawe C	Date: 10.24.19 RP Number: 14P 1205, 1304, 1305, 1383, 24
			LITHO	LOGI	C / SOI	L SAMP	LING LO	OG		Logged By: (1	Method: Truck hoe
Lat/	/Long:				With the same	Field Scree	ening:	/		Hole Diameter:	Total Depth:
Con	mments:						PID	Chloride			υ
Moisture	Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth			Litholo	gy/Remarks
0 0		431	0.0	n	et in	0 1	1	jesm	1-2 Son 1		r, no stain, m-hipporty graded
			0.0	2		3 4 5 6	``	*		De 2'	
						7 8 9 10 11 11					



PHOTOGRAPHIC LOG



Photograph 1: View of lease road leading to pad – looking east.



Photograph 3: View of well vegetated western pasture area.



Photograph 2: View of pad and SWD tank battery – looking west



Photograph 4: View of pad and SWD tank battery – looking south.



Analytical Report 575577

for

LT Environmental, Inc.

Project Manager: Adrian Baker Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

18-DEC-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)





18-DEC-18

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

Reference: XENCO Report No(s): 575577

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Project Address: Carlsbad, NM

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) 575577. 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. 575577 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 Vramer

Project Assistant

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

Certified and approved by numerous States and Agencies.

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



Sample Cross Reference 575577



LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS1	S	02-06-18 15:56		575577-001
SS2	S	02-06-18 15:57		575577-002
SS3	S	02-06-18 15:59	6"	575577-003
SS4	S	02-06-18 16:01	6"	575577-004
SS5	S	02-06-18 16:02	6"	575577-005
SS6	S	02-06-18 16:04		575577-006
SS7	S	02-06-18 15:35	6"	575577-007



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Project ID: Report Date: 18-DEC-18
Work Order Number(s): 575577
Date Received: 02/07/2018

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3040647 BTEX by EPA 8021B

Lab Sample ID 575577-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 575577-001, -002, -003, -004, -005, -007.

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

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

Batch: LBA-3040738 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030. Surrogate 4-Bromofluorobenzene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 575577-006.



Adrian Baker

Carlsbad, NM

Project Id:

Project Location:

Contact:

Certificate of Analysis Summary 575577

LT Environmental, Inc., Arvada, CO

Project Name: Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Date Received in Lab: Wed Feb-07-18 08:00 am

Report Date: 18-DEC-18

Project Manager: Jessica Kramer

	7 7 7 7 7	525522	001	525522 (202	525522	002	525522	20.4	525522	205	525522	006
	Lab Id:	575577-0	001	575577-0)02	575577-0	003	575577-0	004	575577-0	005	575577-	
Analysis Requested	Field Id:	SS1		SS2		SS3		SS4		SS5		SS6	
11. autysts 11equesicu	Depth:					6"-		6"-		6"-			
	Matrix:	SOIL		SOIL	SOIL		,	SOIL	,	SOIL	,	SOIL	
	Sampled:	Feb-06-18 15:56		Feb-06-18	15:57	Feb-06-18	15:59	Feb-06-18 16:01		Feb-06-18 16:02		Feb-06-18 16:04	
BTEX by EPA 8021B	Extracted:	Feb-07-18 14:10		Feb-07-18	14:10	Feb-07-18	14:10	Feb-07-18	14:10	Feb-07-18 14:10		Feb-08-18	08:45
	Analyzed:	Feb-08-18	Feb-08-18 07:22		07:42	Feb-08-18 08:01		Feb-08-18 08:20		Feb-08-18 08:39		Feb-12-18 12:11	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		< 0.00198	0.00198	< 0.00202	0.00202	< 0.00202	0.00202	< 0.00201	0.00201	< 0.00198	0.00198	< 0.00355	0.00355
Toluene		< 0.00198	<0.00198 0.00198		0.00202	< 0.00202	0.00202	< 0.00201	0.00201	< 0.00198	0.00198	< 0.00355	0.00355
Ethylbenzene		< 0.00198	<0.00198 0.00198		0.00202	< 0.00202	0.00202	< 0.00201	0.00201	< 0.00198	0.00198	< 0.00355	0.00355
m,p-Xylenes		< 0.00396	0.00396	< 0.00404	0.00404	< 0.00403	0.00403	< 0.00402	0.00402	< 0.00396	0.00396	< 0.00709	0.00709
o-Xylene		< 0.00198	0.00198	< 0.00202	0.00202	< 0.00202	0.00202	< 0.00201	0.00201	< 0.00198	0.00198	< 0.00355	0.00355
Total Xylenes		< 0.00198	0.00198	< 0.00202	0.00202	< 0.00202	0.00202	< 0.00201	0.00201	< 0.00198	0.00198	< 0.00355	0.00355
Total BTEX		< 0.00198	0.00198	< 0.00202	0.00202	< 0.00202	0.00202	< 0.00201	0.00201	< 0.00198	0.00198	< 0.00355	0.00355
Inorganic Anions by EPA 300	Extracted:	Feb-13-18	15:00	Feb-13-18 15:00									
	Analyzed:	Feb-13-18	19:46	Feb-13-18	19:53	Feb-13-18 20:14		Feb-13-18 20:21		Feb-13-18	20:28	Feb-13-18 20:35	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2140	24.9	6270	49.8	23.2	4.93	<4.99	4.99	<4.99	4.99	<4.98	4.98
TPH by SW8015 Mod	Extracted:	Feb-07-18	Feb-07-18 09:00		09:00	Feb-07-18	09:00	Feb-07-18	09:00	Feb-07-18	09:00	Feb-07-18	09:00
	Analyzed:	Feb-07-18 16:00		Feb-07-18	16:40	Feb-07-18	16:59	Feb-07-18	17:19	Feb-07-18	17:39	Feb-07-18	17:59
	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		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		58.1 15.0		25.2	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		37.3 15.0		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		95.4	15.0	25.2	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

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

Jessica Vermer



Certificate of Analysis Summary 575577

LT Environmental, Inc., Arvada, CO

Project Name: Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264



Project Id: Contact:

Project Location:

Adrian Baker Carlsbad, NM

Date Received in Lab: Wed Feb-07-18 08:00 am

Report Date: 18-DEC-18 Project Manager: Jessica Kramer

	Lab Id:	575577-007			
Analysis Requested	Field Id:	SS7			
Analysis Requesieu	Depth:	6"-			
	Matrix:	SOIL			
	Sampled:	Feb-06-18 15:35			
BTEX by EPA 8021B	Extracted:	Feb-07-18 14:10			
	Analyzed:	Feb-08-18 09:17			
	Units/RL:	mg/kg RL			
Benzene		< 0.00200 0.00200			
Toluene		<0.00200 0.00200			
Ethylbenzene		< 0.00200 0.00200			
m,p-Xylenes		<0.00401 0.00401			
o-Xylene		<0.00200 0.00200			
Total Xylenes		< 0.00200 0.00200			
Total BTEX		< 0.00200 0.00200			
Inorganic Anions by EPA 300	Extracted:	Feb-13-18 15:00			
	Analyzed:	Feb-13-18 20:42			
	Units/RL:	mg/kg RL			
Chloride		2260 24.9			
TPH by SW8015 Mod	Extracted:	Feb-07-18 09:00			
	Analyzed:	Feb-07-18 18:19			
	Units/RL:	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<14.9 14.9			
Diesel Range Organics (DRO)		1840 14.9			
Motor Oil Range Hydrocarbons (MRO)		410 14.9			
Total TPH		2250 14.9			

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

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

Jessica Vermer

Jessica Kramer Project Assistant



Certificate of Analytical Results 575577



LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:

SS₁

Matrix:

Soil

Date Received:02.07.18 08.00

Lab Sample Id: 575577-001

Date Collected: 02.06.18 15.56

Analytical Method: Inorganic Anions by EPA 300

% Moisture:

Prep Method: E300P

Tech:

JUM JUM

Date Prep:

02.13.18 15.00

Basis:

Wet Weight

Analyst: Seq Number: 3040997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2140	24.9	mg/kg	02.13.18 19.46		5

Analytical Method: TPH by SW8015 Mod

Tech:

ARM

ARM Analyst: Seq Number: 3040461

Date Prep:

02.07.18 09.00

Prep Method: TX1005P

% Moisture:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	02.07.18 16.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	58.1	15.0		mg/kg	02.07.18 16.00		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	37.3	15.0		mg/kg	02.07.18 16.00		1
Total TPH	PHC635	95.4	15.0		mg/kg	02.07.18 16.00		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	100	%	70-135	02.07.18 16.00		
o-Terphenyl		84-15-1	100	%	70-135	02.07.18 16.00		





LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Soil

Sample Id:

SS1

Matrix:

Date Received:02.07.18 08.00

Lab Sample Id: 575577-001

Date Collected: 02.06.18 15.56

Prep Method: SW5030B

Analytical Method: BTEX by EPA 8021B

Tech:

ALJ

% Moisture:

Analyst:

ALJ

Date Prep:

02.07.18 14.10

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	02.08.18 07.22	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	02.08.18 07.22	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	02.08.18 07.22	U	1
m,p-Xylenes	179601-23-1	< 0.00396	0.00396		mg/kg	02.08.18 07.22	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	02.08.18 07.22	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	02.08.18 07.22	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	02.08.18 07.22	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	85	%	80-120	02.08.18 07.22		
4-Bromofluorobenzene		460-00-4	92	%	80-120	02.08.18 07.22		





LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:

SS₂

Matrix:

Soil

Date Received:02.07.18 08.00

Prep Method: E300P

Lab Sample Id: 575577-002

Date Collected: 02.06.18 15.57

Analytical Method: Inorganic Anions by EPA 300 Tech:

JUM

JUM

Date Prep:

02.13.18 15.00

% Moisture:

Basis:

Wet Weight

Analyst: Seq Number: 3040997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6270	49.8	mg/kg	02.13.18 19.53		10

Analytical Method: TPH by SW8015 Mod

Tech:

ARM Analyst:

o-Terphenyl

Seq Number: 3040461

ARM

Date Prep:

84-15-1

02.07.18 09.00

Prep Method: TX1005P

02.07.18 16.40

% Moisture:

Basis:

70-135

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	02.07.18 16.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	25.2	15.0		mg/kg	02.07.18 16.40		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	02.07.18 16.40	U	1
Total TPH	PHC635	25.2	15.0		mg/kg	02.07.18 16.40		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	95	%	70-135	02.07.18 16.40		





LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:

SS2

Analytical Method: BTEX by EPA 8021B

Matrix:

Soil

Date Received:02.07.18 08.00

Lab Sample Id: 575577-002

Seq Number: 3040647

Date Collected: 02.06.18 15.57

Prep Method: SW5030B

% Moisture:

Wet Weight

Tech:

ALJ

Analyst:

ALJ

Date Prep:

02.07.18 14.10

Basis:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00202	0.00202	mg/kg	02.08.18 07.42	U	1
Toluene	108-88-3	< 0.00202	0.00202	mg/kg	02.08.18 07.42	U	1
Ethylbenzene	100-41-4	< 0.00202	0.00202	mg/kg	02.08.18 07.42	U	1
m,p-Xylenes	179601-23-1	< 0.00404	0.00404	mg/kg	02.08.18 07.42	U	1
o-Xylene	95-47-6	< 0.00202	0.00202	mg/kg	02.08.18 07.42	U	1
Total Xylenes	1330-20-7	< 0.00202	0.00202	mg/kg	02.08.18 07.42	U	1
Total BTEX		< 0.00202	0.00202	mg/kg	02.08.18 07.42	U	1
			%				

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	80-120	02.08.18 07.42	
1,4-Difluorobenzene	540-36-3	85	%	80-120	02.08.18 07.42	





LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:

SS₃

Matrix:

Soil

Date Received:02.07.18 08.00

Lab Sample Id: 575577-003

Date Collected: 02.06.18 15.59

RL

4.93

Sample Depth: 6"

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Analysis Date

02.13.18 20.14

Tech:

JUM

% Moisture:

Units

mg/kg

70-135

Wet Weight

Analyst: Seq Number: 3040997

Parameter

Chloride

JUM

Date Prep:

23.2

Result

02.13.18 15.00

Basis:

Dil

1

Flag

Analytical Method: TPH by SW8015 Mod Tech:

ARM

ARM Analyst:

o-Terphenyl

Seq Number: 3040461

Cas Number

16887-00-6

Date Prep:

02.07.18 09.00

Prep Method: TX1005P

02.07.18 16.59

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	02.07.18 16.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	02.07.18 16.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	02.07.18 16.59	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	02.07.18 16.59	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	95	%	70-135	02.07.18 16.59		

84-15-1





LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:

SS3

Matrix:

Soil

Date Received:02.07.18 08.00

Lab Sample Id: 575577-003

Date Collected: 02.06.18 15.59

Sample Depth: 6"

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Basis:

Tech: Analyst: ALJ ALJ

Date Prep:

02.07.18 14.10

Wo

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00202	0.00202		mg/kg	02.08.18 08.01	U	1
Toluene	108-88-3	< 0.00202	0.00202		mg/kg	02.08.18 08.01	U	1
Ethylbenzene	100-41-4	< 0.00202	0.00202		mg/kg	02.08.18 08.01	U	1
m,p-Xylenes	179601-23-1	< 0.00403	0.00403		mg/kg	02.08.18 08.01	U	1
o-Xylene	95-47-6	< 0.00202	0.00202		mg/kg	02.08.18 08.01	U	1
Total Xylenes	1330-20-7	< 0.00202	0.00202		mg/kg	02.08.18 08.01	U	1
Total BTEX		< 0.00202	0.00202		mg/kg	02.08.18 08.01	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	84	%	80-120	02.08.18 08.01		
4-Bromofluorobenzene		460-00-4	98	%	80-120	02.08.18 08.01		





LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:

SS4

Matrix:

Soil

Date Received:02.07.18 08.00

Lab Sample Id: 575577-004

Date Collected: 02.06.18 16.01

Sample Depth: 6"

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech:

JUM JUM

Date Prep:

02.13.18 15.00

Basis:

% Moisture:

Wet Weight

Analyst:

Seq Number: 3040997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	02.13.18 20.21	U	1

Analytical Method: TPH by SW8015 Mod

ARM

Tech:

ARM Analyst:

o-Terphenyl

Seq Number: 3040461

Date Prep:

02.07.18 09.00

% Moisture:

70-135

Basis: Wet Weight

Prep Method: TX1005P

02.07.18 17.19

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	02.07.18 17.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	02.07.18 17.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	02.07.18 17.19	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	02.07.18 17.19	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	96	%	70-135	02.07.18 17.19		

84-15-1





LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:

SS4

Matrix:

Soil

Date Received:02.07.18 08.00

Lab Sample Id: 575577-004

Date Collected: 02.06.18 16.01

Sample Depth: 6"

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech: Analyst: ALJ

ALJ

Date Prep:

02.07.18 14.10

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	02.08.18 08.20	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	02.08.18 08.20	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	02.08.18 08.20	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	02.08.18 08.20	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	02.08.18 08.20	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	02.08.18 08.20	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	02.08.18 08.20	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	102	%	80-120	02.08.18 08.20		
1,4-Difluorobenzene		540-36-3	89	%	80-120	02.08.18 08.20		





LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:

SS5

Matrix:

Soil

Date Received:02.07.18 08.00

Lab Sample Id: 575577-005

Date Collected: 02.06.18 16.02

Sample Depth: 6"

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech:

JUM JUM

% Moisture:

Wet Weight

Analyst: Seq Number: 3040997

Date Prep:

02.13.18 15.00

Basis:

Parameter	Cas Number	Result	RL	Uni	its	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/	/kg	02.13.18 20.28	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

Tech: Analyst: ARMARM

Date Prep:

02.07.18 09.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	02.07.18 17.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	02.07.18 17.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	02.07.18 17.39	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	02.07.18 17.39	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	98	%	70-135	02.07.18 17.39		
o-Terphenyl		84-15-1	90	%	70-135	02.07.18 17.39		





LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:

SS5

Matrix:

Soil

Date Received:02.07.18 08.00

Lab Sample Id: 575577-005

Date Collected: 02.06.18 16.02

Sample Depth: 6"

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech: Analyst: ALJ ALJ

Date Prep:

02.07.18 14.10

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	02.08.18 08.39	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	02.08.18 08.39	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	02.08.18 08.39	U	1
m,p-Xylenes	179601-23-1	< 0.00396	0.00396		mg/kg	02.08.18 08.39	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	02.08.18 08.39	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	02.08.18 08.39	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	02.08.18 08.39	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	97	%	80-120	02.08.18 08.39		
1,4-Difluorobenzene		540-36-3	86	%	80-120	02.08.18 08.39		





LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:

SS6

Matrix:

Soil

Date Received:02.07.18 08.00

Lab Sample Id: 575577-006

Date Collected: 02.06.18 16.04

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Analysis Date

02.13.18 20.35

Tech:

JUM

% Moisture:

JUM

RL

4.98

Basis:

Wet Weight

Analyst: Seq Number: 3040997

Parameter

Chloride

Date Prep:

<4.98

Result

Cas Number

16887-00-6

02.13.18 15.00

Units

mg/kg

Flag

U

Dil

1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

Tech: Analyst: ARM ARM

Date Prep:

02.07.18 09.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	02.07.18 17.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	02.07.18 17.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	02.07.18 17.59	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	02.07.18 17.59	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	95	%	70-135	02.07.18 17.59		
o-Terphenyl		84-15-1	90	%	70-135	02.07.18 17.59		





LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:

SS6

Matrix:

Soil

Date Received:02.07.18 08.00

Lab Sample Id: 575577-006

Date Collected: 02.06.18 16.04

Prep Method: SW5030B

% Moisture:

Tech: Analyst: ALJ

Analytical Method: BTEX by EPA 8021B

ALJ

Date Prep:

02.08.18 08.45

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00355	0.00355		mg/kg	02.12.18 12.11	U	1
Toluene	108-88-3	< 0.00355	0.00355		mg/kg	02.12.18 12.11	U	1
Ethylbenzene	100-41-4	< 0.00355	0.00355		mg/kg	02.12.18 12.11	U	1
m,p-Xylenes	179601-23-1	< 0.00709	0.00709		mg/kg	02.12.18 12.11	U	1
o-Xylene	95-47-6	< 0.00355	0.00355		mg/kg	02.12.18 12.11	U	1
Total Xylenes	1330-20-7	< 0.00355	0.00355		mg/kg	02.12.18 12.11	U	1
Total BTEX		< 0.00355	0.00355		mg/kg	02.12.18 12.11	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	78	%	80-120	02.12.18 12.11	**	
1,4-Difluorobenzene		540-36-3	81	%	80-120	02.12.18 12.11		





LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:

SS7

Matrix:

Soil

Date Received:02.07.18 08.00

Lab Sample Id: 575577-007

Date Collected: 02.06.18 15.35

Sample Depth: 6"

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

% Moisture:

Tech:

JUM

JUM Analyst:

Date Prep:

02.13.18 15.00

Basis:

Wet Weight

Seq Number: 3040997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2260	24.9	mg/kg	02.13.18 20.42		5

Analytical Method: TPH by SW8015 Mod

Seq Number: 3040461

Tech:

ARM Analyst:

ARM

Date Prep:

02.07.18 09.00

Prep Method: TX1005P

% Moisture:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9		mg/kg	02.07.18 18.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	1840	14.9		mg/kg	02.07.18 18.19		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	410	14.9		mg/kg	02.07.18 18.19		1
Total TPH	PHC635	2250	14.9		mg/kg	02.07.18 18.19		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	97	%	70-135	02.07.18 18.19		
o-Terphenyl		84-15-1	117	%	70-135	02.07.18 18.19		





LT Environmental, Inc., Arvada, CO

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Sample Id:

SS7

Matrix:

Soil

Date Received:02.07.18 08.00

Lab Sample Id: 575577-007

Date Collected: 02.06.18 15.35

Sample Depth: 6"

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech: Analyst: ALJ

ALJ

Date Prep:

02.07.18 14.10

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	02.08.18 09.17	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	02.08.18 09.17	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	02.08.18 09.17	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	02.08.18 09.17	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	02.08.18 09.17	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	02.08.18 09.17	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	02.08.18 09.17	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	85	%	80-120	02.08.18 09.17		
4-Bromofluorobenzene		460-00-4	94	%	80-120	02.08.18 09.17		



Flagging Criteria



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- 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.

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

^{**} Surrogate recovered outside laboratory control limit.



QC Summary 575577

LT Environmental, Inc.

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Analytical Method: Seq Number: MB Sample Id:	Inorganic A 3040997 7639086-1-		y EPA 300		Matrix:	Solid 7639086-	1-BKS			Prep Meth Date Pa SD Sampl	rep: 02.1	0P 3.18 9086-1-BSD	
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Lin	nit Units	Analysis Date	Flag
Chloride		<5.00	250	274	110	271	108	90-110	1	20	mg/kg	02.13.18 18:57	
Analytical Method:	0	Anions b	y EPA 300						F	Prep Meth			
Seq Number:	3040997 575576-004	1		MS Sai	Matrix:	Soil 575576-0	04 S		м	Date Page Canal	•	3.18 576-004 SD	
Parent Sample Id: Parameter	373376-004	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits		RPD Lin		Analysis Date	Flag
Chloride		23.6	250	296	109	310	115	90-110	5	20	mg/kg	02.13.18 19:18	X
Analytical Method: Seq Number: Parent Sample Id:	Inorganic 4 3040997 575578-001		y EPA 300		Matrix:	Soil 575578-0	01 S			Prep Meth Date Parte SD Sample	rep: 02.1	0P 3.18 578-001 SD	
Parameter Parameter	373376 001	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits		RPD Lin		Analysis Date	Flag
Chloride		701	249	940	96	960	104	90-110	2	20	mg/kg	02.13.18 20:56	
Analytical Method: Seq Number:	TPH by SV 3040461	V8015 M	lod		Matrix:	Solid			I	Prep Meth Date P		1005P 07.18	
MB Sample Id:	7638719-1-	BLK		LCS Sa		7638719-	1-BKS		LCS		-	8719-1-BSD	
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits		RPD Lin		Analysis Date	Flag
Gasoline Range Hydrocarbo	ons (GRO)	< 8.00	1000	972	97	1090	109	70-135	11	35	mg/kg	02.07.18 09:31	

Diesel Range Organics (DRO)

Surrogate

1-Chlorooctane

o-Terphenyl

1100

LCS

%Rec

109

107

110

LCS

Flag

1150

115 70-135

LCSD

%Rec

129

114

LCSD

Flag

1000

MB

Flag

< 8.13

MB

%Rec

109

111

02.07.18 09:31

Analysis

Date

02.07.18 09:31

02.07.18 09:31

35

Limits

70-135

70-135

mg/kg

Units

%



QC Summary 575577

LT Environmental, Inc.

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Seq Number: 3040461

Parent Sample Id:

Matrix: Soil MS Sample Id: 575430-001 S 575430-001

Prep Method:

TX1005P

Date Prep: 02.07.18

MSD Sample Id: 575430-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lin	it Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	< 7.99	998	974	98	1090	109	70-135	11	35	mg/kg	02.07.18 10:34	
Diesel Range Organics (DRO)	14.4	998	1000	99	1120	111	70-135	11	35	mg/kg	02.07.18 10:34	

Surrogate	MS MS %Rec Flag	MSD MSD %Rec Flag	Limits	Units	Analysis Date
1-Chlorooctane	115	118	70-135	%	02.07.18 10:34
o-Terphenyl	112	100	70-135	%	02.07.18 10:34

Analytical Method: BTEX by EPA 8021B

Seq Number: 3040647

Matrix: Solid

Prep Method: Date Prep:

SW5030B

02.07.18

MB Sample Id:

7638867-1-BLK

LCS Sample Id: 7638867-1-BKS

LCSD Sample Id: 7638867-1-BSD

Flag

Flag

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Lin	nit Units	Analysis Date
Benzene	< 0.00202	0.101	0.0789	78	0.0706	71	70-130	11	35	mg/kg	02.07.18 23:07
Toluene	< 0.00202	0.101	0.0831	82	0.0737	74	70-130	12	35	mg/kg	02.07.18 23:07
Ethylbenzene	< 0.00202	0.101	0.0937	93	0.0851	85	71-129	10	35	mg/kg	02.07.18 23:07
m,p-Xylenes	< 0.00403	0.202	0.184	91	0.168	84	70-135	9	35	mg/kg	02.07.18 23:07
o-Xylene	< 0.00202	0.101	0.0921	91	0.0858	86	71-133	7	35	mg/kg	02.07.18 23:07

Surrogate	MB %Rec	MB Flag		LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		90		90		80-120	%	02.07.18 23:07
4-Bromofluorobenzene	102		102		112		80-120	%	02.07.18 23:07

Analytical Method: BTEX by EPA 8021B

Seq Number: 3040738

MB Sample Id:

7638875-1-BLK

LCS Sample Id:

Matrix: Solid

7638875-1-BKS

Prep Method: Date Prep: SW5030B

02.08.18

LCSD Sample Id: 7638875-1-BSD

LCS LCS LCSD Limits %RPD RPD Limit Units MB Spike LCSD Analysis **Parameter** Result Amount Result %Rec %Rec Date Result 02.12.18 12:11 0.0994 0.0821 83 0.0760 Benzene < 0.00199 76 70-130 8 35 mg/kg Toluene < 0.00199 0.0994 0.0844 85 0.0813 81 70-130 4 35 mg/kg 02.12.18 12:11 0.0895 0.0861 71-129 35 02.12.18 12:11 Ethylbenzene < 0.00199 0.0994 90 86 4 mg/kg 35 02.12.18 12:11 m,p-Xylenes < 0.00398 0.199 0.174 87 0.167 70-135 4 84 mg/kg o-Xylene 0.0994 71-133 02.12.18 12:11 0.0884 0.0855 35 < 0.00199 89 86 3 mg/kg

Surrogate	MB %Rec	MB Flag		LCS LCSD %Rec	LCSD Limits Flag	Units	Analysis Date
1,4-Difluorobenzene	96		95	93	80-120	%	02.12.18 12:11
4-Bromofluorobenzene	98		102	99	80-120	%	02.12.18 12:11

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

[D] = 100*(C-A) / BRPD = 200* | (C-E) / (C+E) |[D] = 100 * (C) / [B]

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample

A = Parent Result

= MS/LCS Result E = MSD/LCSD Result MS = Matrix SpikeB = Spike AddedD = MSD/LCSD % Rec



QC Summary 575577

LT Environmental, Inc.

Delaware C SWD 2RP-1305, 1304, 1383, 1205, 2264

Analytical Method: BTEX by EPA 8021B

Seq Number: 3040647 Matrix: Soil

Prep Method:

SW5030B

Date Prep:

02.07.18

Parent Sample Id: 575577-001 MS Sample Id: 575577-001 S

MSD Sample Id: 575577-001 SD

Spike MS MS Limits %RPD RPD Limit Units **Parent MSD** MSD Analysis Flag **Parameter** Result Amount Result Date %Rec %Rec Result 0.0703 0.0632 70-130 02.07.18 23:45 Benzene < 0.00200 0.0998 70 63 11 35 X mg/kg 0.0998 0.0700 70 35 02.07.18 23:45 Toluene < 0.00200 0.0624 62 70-130 X 11 mg/kg Ethylbenzene 0.0998 0.0719 72 71-129 35 02.07.18 23:45 X < 0.00200 0.061862 15 mg/kg 02.07.18 23:45 m,p-Xylenes < 0.00399 0.200 0.139 70 0.119 59 70-135 16 35 X mg/kg 0.0629 02.07.18 23:45 o-Xylene < 0.00200 0.0998 0.0724 73 63 71-133 14 35 X mg/kg

MS MS **MSD MSD** Limits Units Analysis **Surrogate** Flag %Rec Flag Date %Rec 89 87 80-120 02.07.18 23:45 1,4-Difluorobenzene % 02.07.18 23:45 4-Bromofluorobenzene 106 99 80-120 %

Analytical Method: BTEX by EPA 8021B

Seq Number:

3040738

Matrix: Soil

Prep Method: SW5030B

Date Prep: 02.08.18

Parent Sample Id:

575578-002

MS Sample Id: 575578-002 S

MSD Sample Id: 575578-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lim	it Units	Analysis Date	Flag
Benzene	< 0.00202	0.101	0.103	102	0.125	125	70-130	19	35	mg/kg	02.12.18 12:11	
Toluene	< 0.00202	0.101	0.0648	64	0.0677	68	70-130	4	35	mg/kg	02.12.18 12:11	X
Ethylbenzene	< 0.00202	0.101	0.0603	60	0.0673	67	71-129	11	35	mg/kg	02.12.18 12:11	X
m,p-Xylenes	< 0.00404	0.202	0.117	58	0.131	65	70-135	11	35	mg/kg	02.12.18 12:11	X
o-Xylene	< 0.00202	0.101	0.0605	60	0.0674	67	71-133	11	35	mg/kg	02.12.18 12:11	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		96		80-120	%	02.12.18 12:11
4-Bromofluorobenzene	106		100		80-120	%	02.12.18 12:11

Setting the Standard since 1990 ABORATORIES

Stafford, TX (281) 240-4200 Dallas, TX (214) 902-0300

Lubbock, TX (806) 794-1296 El Paso, TX (915) 585-3443

Midland, TX (432) 704-5440

Phoenix, AZ (480) 355-0900

Service Center- Amarillo, TX (806)678-4514

Revision 2016.1

Client / Reporting Information	tion		Dr		:	ر	200	1		Analytical	Analytical Information	, n			Matrix Codes
Company Name / Branch:		Proj	Project Name/Number:	lumber:		_a	1263, 1205	, Sol	20						W = Water
Company Address:			Project Location:	www.e	000	OWD			1RO						S = Soil/Sed/Solid GW = Ground Water
3300 Nan	A-St Bldg / #/03		Car	Carlstad	NM				DRO				-		DW = Drinking Water P = Product SW = Surface Water
Worker 10 14e	1 tenu. 1927 - 1934 - See	11895.1		Treau		Cyle	14.	2	1 8015 300, i	300,					SL - Sludge OW = Ocean/Sea Water WI = Wipe O = Oil
Samplers's Name: Allan	Buker		30 - 010	1814	12			3021	etha	<u> </u>					A = Air
		Colle	Collection		Nu	imber of pre	Number of preserved bottles		Ϋ́	3/10					
rieid iD / Poli	rield ID / Point of Collection	Sample		# 0	H/Zn		SO4		PH	<u> </u>					
		, ,		Ž.	HC Na	HN H28	-	NOI	~						Field Comments
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Same Day TAT	5 Day TAT		Le	Level II Std QC		Lev	Level IV (Full Data Pkg /raw data)	ata Pkg /raw	data)						
Next Day EMERGENCY	7 Day TAT		Le	Level III Std QC+ Forms	+ Forms	TR	TRRP Level IV				 	Temp:니			IR ID:R-8
2 Day EMERGENCY	Contract TAT		Le	Level 3 (CLP Forms)	rms)	Us	UST / RG -411)F:(0-6	CF:(0-6: -0.2°C)		
3 Day EMERGENCY	Stal turn		Le	vel II Report	Level II Report with TRRP checklist	hecklist						(6-2	(6-23: +0.2°C)	5°C)	X.'
TAT Starts Day received by	TAT Starts Day received by Lab, if received by 5:00 pm	m								7		Correc	led le	Corrected Lettip. D. o.	C
	SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY	IST BE DOCUM	ENTED BELOW E	ACH TIME SA	MPLES CHAN	GE POSSESS	ION. INCLUDI	NG COURIER	DEI IVERY	2					
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Relinquished by:	Da	Date Time:	Received By:	By:		Cust	Custody Seal #		Preserve	Preserved where applicable	plicable 4		On Ice	Cooler Temp.	Relinquished by: Date Time: Received By: Custody Seal # Preserved where applicable On Ice Cooler Temp. Thermo. Corr. Factor

Analytical Report 596449

for

LT Environmental, Inc.

Project Manager: Adrian Baker
PLU Deleware C SWD

27-AUG-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 (T104704400-18-16)
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)





27-AUG-18

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

Reference: XENCO Report No(s): 596449

PLU Deleware C SWD

Project Address: NM. Eddy 2RP-1305,1383 1304

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) 596449. 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. 596449 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 Vramer

Project Assistant

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

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



Sample Cross Reference 596449



LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	08-17-18 10:15	14 ft	596449-001
BH02	S	08-17-18 11:30	5.5 ft	596449-002
BH03	S	08-17-18 11:45	4 ft	596449-003
BH04	S	08-17-18 12:15	9.5 ft	596449-004
BH05	S	08-17-18 13:50	6 ft	596449-005
BH06	S	08-17-18 15:00	9 ft	596449-006
BH07	S	08-17-18 16:10	12 ft	596449-007

CASE NARRATIVE

Client Name: LT Environmental, Inc. Project Name: PLU Deleware C SWD

Project ID:

Work Order Number(s): 596449

Report Date: 27-AUG-18

Date Received: 08/21/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3061313 BTEX by EPA 8021B

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



Certificate of Analysis Summary 596449

LT Environmental, Inc., Arvada, CO Project Name: PLU Deleware C SWD



Project Id: Contact:

Adrian Baker

Project Location:

NM. Eddy 2RP-1305,1383 1304

Date Received in Lab: Tue Aug-21-18 10:35 am

Report Date: 27-AUG-18

Project Manager: Jessica Kramer

	Lab Id:	596449-0	001	596449-0	002	596449-0	003	596449-	004	596449-	005	596449-	006
	Field Id:	BH01		BH02		BH03		BH04		BH0:		BH0	
Analysis Requested							'						,
	Depth:	14- ft		5.5- ft		4- ft		9.5- f		6- ft		9- ft	
	Matrix:	SOIL	,	SOIL		SOIL		SOIL		SOIL	-	SOIL	
	Sampled:	Aug-17-18	10:15	Aug-17-18	11:30	Aug-17-18	11:45	Aug-17-18	12:15	Aug-17-18	13:50	Aug-17-18	15:00
BTEX by EPA 8021B	Extracted:	Aug-25-18	10:30										
	Analyzed:	Aug-26-18	10:04	Aug-26-18	10:25	Aug-26-18	10:46	Aug-26-18	11:07	Aug-26-18	12:10	Aug-26-18	12:31
	Units/RL:	mg/kg	RL										
Benzene		< 0.00199	0.00199	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00200	0.00200
Toluene		< 0.00199	0.00199	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00200	0.00200
Ethylbenzene		< 0.00199	0.00199	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00200	0.00200
m,p-Xylenes		< 0.00398	0.00398	< 0.00398	0.00398	< 0.00401	0.00401	< 0.00399	0.00399	< 0.00402	0.00402	< 0.00400	0.00400
o-Xylene		< 0.00199	0.00199	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00200	0.00200
Total Xylenes		< 0.00199	0.00199	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00200	0.00200
Total BTEX		< 0.00199	0.00199	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00201	0.00201	< 0.00200	0.00200
Inorganic Anions by EPA 300	Extracted:	Aug-21-18	17:30										
	Analyzed:	Aug-21-18	21:57	Aug-21-18	22:02	Aug-21-18	22:19	Aug-21-18	22:24	Aug-21-18	22:40	Aug-21-18	22:46
	Units/RL:	mg/kg	RL										
Chloride		77.2	4.96	74.4	4.96	51.7	4.96	188	4.96	172	4.95	71.6	4.99
TPH by SW8015 Mod	Extracted:	Aug-21-18	16:00										
	Analyzed:	Aug-21-18	23:13	Aug-21-18	23:33	Aug-21-18	23:52	Aug-22-18	00:52	Aug-22-18	01:11	Aug-22-18	01:31
	Units/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	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

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Jessica Vramer

Jessica Kramer Project Assistant



Certificate of Analysis Summary 596449

LT Environmental, Inc., Arvada, CO Project Name: PLU Deleware C SWD



Project Id: Contact:

Adrian Baker

Project Location:

NM. Eddy 2RP-1305,1383 1304

Date Received in Lab: Tue Aug-21-18 10:35 am

Report Date: 27-AUG-18

Project Manager: Jessica Kramer

Lab Id:	596449-007					
Field Id:	BH07					
Depth:	12- ft					
Matrix:	SOIL					
Sampled:	Aug-17-18 16:10					
Extracted:	Aug-25-18 10:30					
Analyzed:	Aug-26-18 12:52					
Units/RL:	mg/kg RL					
	< 0.00200 0.00200					
	<0.00200 0.00200					
	<0.00200 0.00200					
	<0.00401 0.00401					
	<0.00200 0.00200					
	<0.00200 0.00200					
	<0.00200 0.00200					
Extracted:	Aug-21-18 17:30					
Analyzed:	Aug-21-18 22:51					
Units/RL:	mg/kg RL					
	2550 24.9					
Extracted:	Aug-21-18 16:00					
Analyzed:	Aug-22-18 01:50					
Units/RL:	mg/kg RL					
	<14.9 14.9					
	<14.9 14.9					
	<14.9 14.9					
	<14.9 14.9					
	Field Id: Depth: Matrix: Sampled: Extracted: Analyzed: Units/RL: Extracted: Analyzed: Units/RL:	Field Id: BH07 Depth: 12- ft Matrix: SOIL Sampled: Aug-17-18 16:10 Extracted: Aug-25-18 10:30 Analyzed: Aug-26-18 12:52 Units/RL: mg/kg RL <0.00200	Field Id: BH07 Depth: 12- ft Matrix: SOIL Sampled: Aug-17-18 16:10 Extracted: Aug-25-18 10:30 Analyzed: Aug-26-18 12:52 Units/RL: mg/kg RL <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 Extracted: Aug-21-18 17:30 Analyzed: Aug-21-18 22:51 Units/RL: mg/kg RL Extracted: Aug-21-18 16:00 Analyzed: Aug-22-18 01:50 Units/RL: mg/kg RL <14.9	Field Id: BH07 Depth: 12- ft Matrix: SOIL Sampled: Aug-17-18 16:10 Extracted: Aug-25-18 10:30 Analyzed: Aug-26-18 12:52 Units/RL: mg/kg RL <0.00200 0.00200 <0.00200 0.00200 <0.00401 0.00401 <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 Extracted: Aug-21-18 17:30 Analyzed: Aug-21-18 22:51 Units/RL: mg/kg RL 2550 24.9 Extracted: Aug-21-18 16:00 Analyzed: Aug-22-18 01:50 Units/RL: mg/kg RL <14.9 14.9 <14.9 14.9 <14.9 14.9 <14.9 14.9	Field Id: BH07 Depth: 12- ft Matrix: SOIL Sampled: Aug-17-18 16:10 Extracted: Aug-25-18 10:30 Analyzed: Aug-26-18 12:52 Units/RL: mg/kg RL <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 Extracted: Aug-21-18 17:30 Analyzed: Aug-21-18 22:51 Units/RL: mg/kg RL Extracted: Aug-21-18 16:00 Analyzed: Aug-22-18 01:50 Units/RL: mg/kg RL <14.9	Field Id: BH07 Depth: 12- ft Matrix: SOIL Sampled: Aug-17-18 16:10 Extracted: Aug-25-18 10:30 Analyzed: Aug-26-18 12:52 Units/RL: mg/kg RL <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 <0.00200 0.00200 Extracted: Aug-21-18 17:30 Analyzed: Aug-21-18 22:51 Units/RL: mg/kg RL Extracted: Aug-21-18 16:00 Analyzed: Aug-22-18 01:50 Units/RL: mg/kg RL Units/RL: mg/kg RL <14.9 14.9 <14.9 14.9 <14.9 14.9 <14.9 14.9

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Jessica Kramer
Project Assistant





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: **BH01** Matrix: Soil Date Received:08.21.18 10.35

Lab Sample Id: 596449-001

Date Collected: 08.17.18 10.15

Sample Depth: 14 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech:

SCM

% Moisture:

Analyst:

SCM

Date Prep:

08.21.18 17.30

Basis:

Wet Weight

Seq Number: 3060822

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	77.2	4.96	mg/kg	08.21.18 21.57		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

Tech: Analyst: ARMARM

Date Prep:

08.21.18 16.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.21.18 23.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.21.18 23.13	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.21.18 23.13	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.21.18 23.13	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	92	%	70-135	08.21.18 23.13		
o-Terphenyl		84-15-1	90	%	70-135	08.21.18 23.13		





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: BH01

Matrix: Soil

Date Received:08.21.18 10.35

Lab Sample Id: 596449-001

Date Collected: 08.17.18 10.15

Sample Depth: 14 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech: Analyst: ALJ

ALJ

Date Prep: 08.25.18 10.30

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	08.26.18 10.04	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	08.26.18 10.04	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	08.26.18 10.04	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	08.26.18 10.04	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	08.26.18 10.04	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	08.26.18 10.04	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	08.26.18 10.04	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	101	%	70-130	08.26.18 10.04		
1,4-Difluorobenzene		540-36-3	102	%	70-130	08.26.18 10.04		





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: **BH02** Matrix: Soil Date Received:08.21.18 10.35

Lab Sample Id: 596449-002

Date Collected: 08.17.18 11.30

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech:

SCM

% Moisture:

Analyst:

SCM

Date Prep:

08.21.18 17.30

Basis:

Wet Weight

Seq Number: 3060822

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	74.4	4.96	mg/kg	08.21.18 22.02		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

Tech: Analyst: ARMARM

Date Prep:

08.21.18 16.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.21.18 23.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.21.18 23.33	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.21.18 23.33	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.21.18 23.33	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	93	%	70-135	08.21.18 23.33		
o-Terphenyl		84-15-1	90	%	70-135	08.21.18 23.33		





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: **BH02** Matrix: Soil Date Received:08.21.18 10.35

Lab Sample Id: 596449-002

Date Collected: 08.17.18 11.30

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech:

ALJ

Basis:

Wet Weight

Analyst:

ALJ

Date Prep: 08.25.18 10.30 Seq Number: 3061313

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	08.26.18 10.25	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	08.26.18 10.25	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	08.26.18 10.25	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	08.26.18 10.25	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	08.26.18 10.25	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	08.26.18 10.25	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	08.26.18 10.25	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	104	%	70-130	08.26.18 10.25		
1,4-Difluorobenzene		540-36-3	105	%	70-130	08.26.18 10.25		





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: **BH03** Matrix: Soil

Date Prep:

51.7

Date Prep:

Cas Number

16887-00-6

Date Received:08.21.18 10.35

Lab Sample Id: 596449-003

Date Collected: 08.17.18 11.45

4.96

Sample Depth:4 ft

Analysis Date

08.21.18 22.19

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: Analyst:

Parameter

Chloride

SCM

SCM

08.21.18 17.30

% Moisture:

Basis:

Wet Weight

Flag

Dil

1

Seq Number: 3060822

Result RL

Units

mg/kg

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech:

ARM

08.21.18 16.00

% Moisture:

Basis:

Wet Weight

Analyst: ARM Seq Number: 3060852

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.21.18 23.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.21.18 23.52	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.21.18 23.52	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.21.18 23.52	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	89	%	70-135	08.21.18 23.52		
o-Terphenyl		84-15-1	86	%	70-135	08.21.18 23.52		





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: **BH03** Matrix: Soil

Date Prep:

Date Received:08.21.18 10.35

Lab Sample Id: 596449-003

Date Collected: 08.17.18 11.45

Sample Depth:4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

ALJ

% Moisture:

Analyst:

ALJ

08.25.18 10.30

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	08.26.18 10.46	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	08.26.18 10.46	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	08.26.18 10.46	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	08.26.18 10.46	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	08.26.18 10.46	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	08.26.18 10.46	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	08.26.18 10.46	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	110	%	70-130	08.26.18 10.46		
4-Bromofluorobenzene		460-00-4	103	%	70-130	08.26.18 10.46		





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Soil

Sample Id: BH04

Matrix:

Date Received:08.21.18 10.35

Lab Sample Id: 596449-004

Date Collected: 08.17.18 12.15

Sample Depth: 9.5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech:

SCM

SCM

Date Prep: 08.21.18 17.30

% Moisture: Basis:

Wet Weight

Analyst:

Seq Number: 3060822

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	188	4 96	mg/kg	08 21 18 22 24		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

ARM

% Moisture:

Analyst: ARM

Tech:

Date Prep: 08.21.18 16.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.22.18 00.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.22.18 00.52	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.22.18 00.52	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.22.18 00.52	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	89	%	70-135	08.22.18 00.52		
o-Terphenyl		84-15-1	86	%	70-135	08.22.18 00.52		





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: BH04

Matrix: Soil

Date Received:08.21.18 10.35

Lab Sample Id: 596449-004

Date Collected: 08.17.18 12.15

Sample Depth: 9.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

ALJ

% Moisture:

Basis:

Analyst: ALJ

Date Prep:

08.25.18 10.30

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	08.26.18 11.07	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	08.26.18 11.07	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	08.26.18 11.07	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	08.26.18 11.07	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	08.26.18 11.07	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	08.26.18 11.07	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	08.26.18 11.07	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	107	%	70-130	08.26.18 11.07		
4-Bromofluorobenzene		460-00-4	103	%	70-130	08.26.18 11.07		





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: BH05

Matrix: Soil

Date Received:08.21.18 10.35

Lab Sample Id: 596449-005

Date Collected: 08.17.18 13.50

Sample Depth:6 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: Analyst: SCM

SCM

08.21.18 17.30

% Moisture: Basis:

Wet Weight

Seq Number: 3060822

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	172	4 95	mo/ko	08 21 18 22 40		1

Date Prep:

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

Tech: Analyst: ARM ARM

Date Prep: 08.21.18 16.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.22.18 01.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.22.18 01.11	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.22.18 01.11	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.22.18 01.11	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	90	%	70-135	08.22.18 01.11		
o-Terphenyl		84-15-1	87	%	70-135	08.22.18 01.11		





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: **BH05** Matrix: Soil Date Received:08.21.18 10.35

Lab Sample Id: 596449-005

Date Collected: 08.17.18 13.50

Sample Depth:6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

ALJ

% Moisture: Basis:

Wet Weight

ALJ

Analyst: Seq Number: 3061313 Date Prep: 08.25.18 10.30

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201	mg/kg	08.26.18 12.10	U	1
Toluene	108-88-3	< 0.00201	0.00201	mg/kg	08.26.18 12.10	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201	mg/kg	08.26.18 12.10	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402	mg/kg	08.26.18 12.10	U	1
o-Xylene	95-47-6	< 0.00201	0.00201	mg/kg	08.26.18 12.10	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201	mg/kg	08.26.18 12.10	U	1
Total BTEX		< 0.00201	0.00201	mg/kg	08.26.18 12.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.26.18 12.10	
4-Bromofluorobenzene	460-00-4	100	%	70-130	08.26.18 12.10	





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: BH06

Matrix: Soil

Date Received:08.21.18 10.35

Lab Sample Id: 596449-006

Date Collected: 08.17.18 15.00

Sample Depth:9 ft

Analytical Method: Inorganic Anions by EPA 300

1

Prep Method: E300P

Tech:

SCM

Date Prep:

% Moisture:

. Wet Weight

Analyst:

SCM

08.21.18 17.30

Basis:

Seq Number: 3060822

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	71.6	4.99	mg/kg	08.21.18 22.46		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech:

ARM

% Moisture:

e.

Analyst: ARM

Date Prep: 08.21.18 16.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.22.18 01.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.22.18 01.31	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.22.18 01.31	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.22.18 01.31	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	90	%	70-135	08.22.18 01.31		
o-Terphenyl		84-15-1	85	%	70-135	08.22.18 01.31		





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: **BH06** Matrix: Soil Date Received:08.21.18 10.35

Lab Sample Id: 596449-006

Date Collected: 08.17.18 15.00

Sample Depth:9 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: Analyst: ALJ

ALJ

Date Prep: 08.25.18 10.30 Basis:

% Moisture:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	08.26.18 12.31	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	08.26.18 12.31	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	08.26.18 12.31	U	1
m,p-Xylenes	179601-23-1	< 0.00400	0.00400		mg/kg	08.26.18 12.31	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	08.26.18 12.31	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	08.26.18 12.31	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	08.26.18 12.31	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	99	%	70-130	08.26.18 12.31		
1,4-Difluorobenzene		540-36-3	98	%	70-130	08.26.18 12.31		





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

Sample Id: **BH07** Matrix: Soil Date Received:08.21.18 10.35

Lab Sample Id: 596449-007

Date Collected: 08.17.18 16.10

Sample Depth: 12 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech:

SCM

SCM

Date Prep:

08.21.18 17.30 Basis:

% Moisture:

Wet Weight

Analyst:

Seq Number: 3060822

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2550	24.9	mg/kg	08.21.18 22.51		

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

Tech: Analyst: ARMARM

Date Prep:

08.21.18 16.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9		mg/kg	08.22.18 01.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9		mg/kg	08.22.18 01.50	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9		mg/kg	08.22.18 01.50	U	1
Total TPH	PHC635	<14.9	14.9		mg/kg	08.22.18 01.50	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	90	%	70-135	08.22.18 01.50		
o-Terphenyl		84-15-1	88	%	70-135	08.22.18 01.50		





LT Environmental, Inc., Arvada, CO

PLU Deleware C SWD

08.25.18 10.30

Sample Id: **BH07** Matrix: Soil Date Received:08.21.18 10.35

Lab Sample Id: 596449-007

Date Collected: 08.17.18 16.10

Sample Depth: 12 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

ALJ ALJ

% Moisture:

Analyst:

Date Prep:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	08.26.18 12.52	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	08.26.18 12.52	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	08.26.18 12.52	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	08.26.18 12.52	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	08.26.18 12.52	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	08.26.18 12.52	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	08.26.18 12.52	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	92	%	70-130	08.26.18 12.52		
4-Bromofluorobenzene		460-00-4	75	%	70-130	08.26.18 12.52		



Flagging Criteria



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- 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



OC Summary 596449

LT Environmental, Inc.

PLU Deleware C SWD

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3060822

MB Sample Id:

Matrix: Solid

Prep Method: E300P

Date Prep: 08.21.18

LCS Sample Id: 7660857-1-BKS LCSD Sample Id: 7660857-1-BSD 7660857-1-BLK

%RP LCS RPD MB Spike LCS Limits Units **Analysis** LCSD LCSD Flag **Parameter** Result Amount Result %Rec D Limit Date Result %Rec Chloride 20 08.21.18 20:35 < 5.00 250 250 100 249 100 90-110 0 mg/kg

Analytical Method: Inorganic Anions by EPA 300

Seq Number:

3060822

Matrix: Soil

Prep Method: E300P

Date Prep: 08.21.18

Parent Sample Id: 596446-008 MS Sample Id: 596446-008 S MSD Sample Id: 596446-008 SD

RPD Spike MS MS %RP Units **Analysis Parent MSD MSD** Limits Flag **Parameter** Result Amount Result %Rec %Rec D Limit Date Result Chloride 351 250 584 93 586 94 90-110 0 20 mg/kg 08.21.18 20:51

Analytical Method: Inorganic Anions by EPA 300

Seq Number:

3060822

Matrix: Soil

Prep Method: E300P

08.21.18 Date Prep:

Parent Sample Id:

596449-002

MS Sample Id: 596449-002 S

MSD Sample Id: 596449-002 SD

RPD MS %RP MS **Parent** Spike **MSD MSD** Limits Units **Analysis** Flag **Parameter** Result %Rec D Limit Date Result Amount Result %Rec 08.21.18 22:08 Chloride 74.4 248 325 101 324 90-110 0 20 101 mg/kg

TPH by SW8015 Mod **Analytical Method:**

Seq Number:

3060852

Matrix: Solid

Prep Method:

TX1005P

Flag

Date Prep: 08.21.18

7660865-1-BLK LCS Sample Id: 7660865-1-BKS LCSD Sample Id: 7660865-1-BSD MB Sample Id:

RPD LCS LCS %RP MB Spike LCSD Limits Units **Analysis** LCSD **Parameter** Result %Rec D Limit Date Result Amount Result %Rec Gasoline Range Hydrocarbons (GRO) 08.21.18 19:38 1000 984 70-135 2 20 <15.0 98 1000 100 mg/kg 08.21.18 19:38 989 99 70-135 20 Diesel Range Organics (DRO) 1000 1000 1 <15.0 100 mg/kg

MB LCS LCSD Units **Analysis** MB LCS LCSD Limits **Surrogate** %Rec %Rec Flag Flag Flag %Rec Date 08.21.18 19:38 1-Chlorooctane 94 119 121 70-135 % 102 08.21.18 19:38 o-Terphenyl 95 102 70-135 %

LCS = Laboratory Control Sample A = Parent Result

= MS/LCS Result

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

Flag

Flag

Prep Method: TX1005P

Prep Method: SW5030B



QC Summary 596449

LT Environmental, Inc.

PLU Deleware C SWD

Analytical Method: TPH by SW8015 Mod

Seq Number: 3060852 Matrix: Soil Date Prep: 08.21.18

MS Sample Id: 596317-009 S MSD Sample Id: 596317-009 SD Parent Sample Id: 596317-009

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1000	100	995	100	70-135	1	20	mg/kg	08.22.18 06:58	
Diesel Range Organics (DRO)	<15.0	1000	1030	103	1010	101	70-135	2	20	mg/kg	08.22.18 06:58	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		125		70-135	%	08.22.18 06:58
o-Terphenyl	102		102		70-135	%	08.22.18 06:58

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B Seq Number: 3061313 Matrix: Solid Date Prep: 08.25.18

LCS Sample Id: 7661181-1-BKS LCSD Sample Id: 7661181-1-BSD 7661181-1-BLK MB Sample Id:

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date
Benzene	< 0.00200	0.100	0.0935	94	0.101	100	70-130	8	35	mg/kg	08.26.18 02:22
Toluene	< 0.00200	0.100	0.0863	86	0.0948	94	70-130	9	35	mg/kg	08.26.18 02:22
Ethylbenzene	< 0.00200	0.100	0.0976	98	0.104	103	70-130	6	35	mg/kg	08.26.18 02:22
m,p-Xylenes	< 0.00401	0.200	0.217	109	0.233	116	70-130	7	35	mg/kg	08.26.18 02:22
o-Xylene	< 0.00200	0.100	0.106	106	0.114	113	70-130	7	35	mg/kg	08.26.18 02:22

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	85		107		109		70-130	%	08.26.18 02:22
4-Bromofluorobenzene	112		106		115		70-130	%	08.26.18 02:22

Analytical Method: BTEX by EPA 8021B

Seq Number: 3061313 Matrix: Soil Date Prep: 08.25.18

MS Sample Id: 596319-008 S MSD Sample Id: 596319-008 SD Parent Sample Id: 596319-008 RPD MS Limits %RP Units **Analysis Parent** Spike MSD MSD **Parameter** Result Amount Result %Rec D Limit Date Result %Rec

Benzene	< 0.00202	0.101	0.0734	73	0.0633	63	70-130	15	35	mg/kg	08.26.18 03:04	X
Toluene	< 0.00202	0.101	0.0649	64	0.0571	57	70-130	13	35	mg/kg	08.26.18 03:04	X
Ethylbenzene	< 0.00202	0.101	0.0672	67	0.0608	61	70-130	10	35	mg/kg	08.26.18 03:04	X
m,p-Xylenes	< 0.00403	0.202	0.148	73	0.131	66	70-130	12	35	mg/kg	08.26.18 03:04	X
o-Xylene	< 0.00202	0.101	0.0689	68	0.0592	59	70-130	15	35	mg/kg	08.26.18 03:04	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		98		70-130	%	08.26.18 03:04
4-Bromofluorobenzene	101		124		70-130	%	08.26.18 03:04

Setting the Standard since 1990 Stafford, Texas (281-240-4200)

San Antonio, Texas (210-509-3334)

Phoenix, Arizona (480-355-0900)

losses or expenses incurred by the Cilent if such losses 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.	5 Notice: Notice: Signature of this document and relinquishment of samples constitute.	Relinquished by:	remiquisied by:	Miller	Relinguished by Samphu:	I A I Starts Day received by Lab, it received by 5:00 pm		3 Day EMERCENCY	2 Day EMERGENCY 💢 Contract TAT	Next Day EMERGENCY 7 Day TAT	Same Day TAT 5 Day TAT	Turnaround Time (Business days)	10	9	8	7 BHO7	6 Rito	5 BHÓS	4 BHOY	3 BHO3 .	2 BHO2	1 Sto		No. Field ID / Point of Collection		Samplers's Name	act 11.	bake to Stonvison 4		世	LT ENVIONMENTAL THE PERMISA OF	Client / Reporting Information			Dallas Texas (214-902-0300)
yond the control of Xen	es a valid purchase orde	ata Tima:	Jate lime:	28/2/12 9:43	Date Time:	pm pm			·					The same of the sa		12°, V	C.	6,	1.5	Ħ,	5.50	14 8/17/K	Sample Depth Date		Callega	PO Number:	1		invoice To:	Project Location:	CC Project N				Midland
nco. A minimum charge of \$75 will be applied to each	Necewed By: 5 or from client company to Xenco, its affiliates and sub	3	Received By: (hinthy ! Where	Received By:	SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH THE SAMPLES CHANGE BOSSESSION	IRRY Checklist		Level 3 (CLP Forms)	Level III Std QC+ Forms	Level II Std QC	Data Deliverable Information				16:10 5	15:00 5 1	13:50 5 1	1215 5 1	11 5 54:11	11:30 5 1	10:15 5 1	Time Matrix bottles HC NaOH22	20	or Number	ier:		YTO EVER KILD LITTER	Coord	M	nber: PLO	Project Information		www.xenco.com	Midland, Texas (432-704-5251)
project. Xenco's liability will be limited to the co	Custody Seal # Pres		Reffinquished By:	JUNIU // ULL	Relinquished By: // , 10				UST / RG -411	TRRP Level IV	Level IV (Full Data Pkg /raw data)	5				XXX			ナ シ	XXX	XX	X X	HNO3 H2SO4 NaOH NaHSO MEOH NONE	±X	Number of preserved bottles	<u> </u>		only		2RP-1305, 1383, 1304 878				Xenco Quote \$	
st of samples. Any samples receive	Preserved where applicable	4	Date Time: Rece	815.30	Date Time: Recu	FED-EX / UPS: Tracking #						Notes:				X	X	X	×	×	~	X	chi	loc	i de	2 (/ 3	0, 1	2))			Analytical Information		
ed by Xenco but not analyzed will be in	On ice Cooler Temp.		alved By:		walls in the second	Tracking #																												Xenco Job#	7
nvoiced at \$5 per sample. These terms	np. Thermo. Corr. Factor		R	BILDIA		JUBATRAIC	-									Control of the Contro				***************************************		The state of the s	Field Comments	MANAGARIA PRIVALISISIA A PROPERTI DE CARACTERISTA DE CARACTERI	A = Air	0 = 0	WI = Wipe	SV = Surace Water	P = Product	GW =Ground Water DW = Drinking Water	W = Water S = Soil/Sed/Solid		Matrix Codes	6 Vydol	



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.

Work Order #: 596449

Date/ Time Received: 08/21/2018 10:35:00 AM

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

Temperature Measuring device used: R8

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

Must be	completed for after-hours de	livery of samples prior to pla	cing in the refrigerator
Analyst:		PH Device/Lot#:	
	Checklist completed by:	Brianna Teel	Date: 08/21/2018
	Checklist reviewed by:	Jessica Vramer Jessica Kramer	Date: 08/22/2018

Analytical Report 596788

for

LT Environmental, Inc.

Project Manager: Adrian Baker
PLU Delaware C SWD

10-SEP-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 (T104704400-18-16)
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)





10-SEP-18

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

Reference: XENCO Report No(s): 596788

PLU Delaware C SWD

Project Address: Carlsbad, NM

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) 596788. 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. 596788 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 Vramer

Project Assistant

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



Sample Cross Reference 596788



LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH14	S	08-21-18 09:20	3 ft	596788-001
BH15	S	08-21-18 09:45	2 ft	596788-002
BH16	S	08-21-18 11:30	2 ft	596788-003
SS12	S	08-21-18 11:10	6 In	596788-004
SS13	S	08-21-18 11:15	6 In	596788-005
SS14	S	08-21-18 11:20	6 In	596788-006
SS15	S	08-21-18 11:25	6 In	596788-007
SS16	S	08-21-18 11:30	6 In	596788-008

Received by OCD: 4/8/2020 3:15:47 PM XENCO LABORATORIES

CASE NARRATIVE

Client Name: LT Environmental, Inc. Project Name: PLU Delaware C SWD

Project ID:

Work Order Number(s): 596788

Report Date: 10

10-SEP-18

Date Received: 08/23/2018

Sample receipt non conformances and comments:

PER CLIENT EMAIL, CORRECTED SAMPLE NAMES FOR SAMPLE 004,005,006,007,008 JKR 09/10/18 NEW VERSION GENERATED

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3061313 BTEX by EPA 8021B

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

Batch: LBA-3061437 BTEX by EPA 8021B

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

Batch: LBA-3061634 BTEX by EPA 8021B

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



Certificate of Analysis Summary 596788

LT Environmental, Inc., Arvada, CO Project Name: PLU Delaware C SWD



Project Id: Contact:

Project Location:

Adrian Baker

Carlsbad, NM

Date Received in Lab: Thu Aug-23-18 11:00 am

Report Date: 10-SEP-18

Project Manager: Jessica Kramer

	1						1			I			
	Lab Id:	596788-	001	596788-0	002	596788-0	003	596788-	004	596788-	005	596788-0	006
Analysis Requested	Field Id:	BH14	1	BH15		BH16		SS12		SS13		SS14	
Mulysis Requesieu	Depth:	3- ft		2- ft		2- ft		6- In		6- In		6- In	
	Matrix:	SOIL		SOIL	,	SOIL		SOIL		SOIL	.	SOIL	_
	Sampled:	Aug-21-18	09:20	Aug-21-18	09:45	Aug-21-18	11:30	Aug-21-18	11:10	Aug-21-18	11:15	Aug-21-18	11:20
BTEX by EPA 8021B	Extracted:	Aug-28-18	08:00	Aug-28-18	08:00	Aug-29-18	08:00	Aug-29-18	08:00	Aug-29-18	08:00	Aug-29-18	08:00
	Analyzed:	Aug-28-18	17:43	Aug-28-18	18:04	Aug-29-18	11:18	Aug-29-18	11:38	Aug-29-18	11:58	Aug-29-18	12:19
	Units/RL:	mg/kg	RL										
Benzene		< 0.00199	0.00199	< 0.00199	0.00199	< 0.00201	0.00201	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200
Toluene		< 0.00199	0.00199	< 0.00199	0.00199	< 0.00201	0.00201	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200
Ethylbenzene		< 0.00199	0.00199	< 0.00199	0.00199	< 0.00201	0.00201	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200
m,p-Xylenes		< 0.00398	0.00398	< 0.00398	0.00398	< 0.00402	0.00402	< 0.00398	0.00398	< 0.00399	0.00399	< 0.00401	0.00401
o-Xylene		< 0.00199	0.00199	< 0.00199	0.00199	< 0.00201	0.00201	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200
Total Xylenes		< 0.00199	0.00199	< 0.00199	0.00199	< 0.00201	0.00201	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200
Total BTEX		< 0.00199	0.00199	< 0.00199	0.00199	< 0.00201	0.00201	< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200
Inorganic Anions by EPA 300	Extracted:	Aug-23-18	16:45										
	Analyzed:	Aug-23-18	21:20	Aug-23-18	21:42	Aug-23-18	21:58	Aug-23-18	22:04	Aug-23-18	22:09	Aug-23-18	22:15
	Units/RL:	mg/kg	RL										
Chloride		317	4.98	1080	4.97	453	4.96	1800	24.9	258	4.95	183	4.96
TPH by SW8015 Mod	Extracted:	Aug-24-18	07:00										
	Analyzed:	Aug-24-18	09:31	Aug-24-18	09:51	Aug-24-18	10:52	Aug-24-18	11:11	Aug-24-18	11:31	Aug-24-18	11:51
	Units/RL:	mg/kg	RL										
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9	<15.0	15.0
Diesel Range Organics (DRO)		60.7	15.0	<15.0	15.0	20.6	14.9	81.5	15.0	15.5	14.9	<15.0	15.0
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9	<15.0	15.0
Total TPH		60.7	15.0	<15.0	15.0	20.6	14.9	81.5	15.0	15.5	14.9	<15.0	15.0

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

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



Certificate of Analysis Summary 596788

LT Environmental, Inc., Arvada, CO Project Name: PLU Delaware C SWD



Project Id: Contact:

Adrian Baker

Project Location:

Carlsbad, NM

Date Received in Lab: Thu Aug-23-18 11:00 am

Report Date: 10-SEP-18

Project Manager: Jessica Kramer

	Lab Id:	596788-0	007	596788-0	800		
Analysis Requested	Field Id:	SS15		SS16			
Anaiysis Requesieu	Depth:	6- In		6- In			
	Matrix:	SOIL		SOIL			
	Sampled:	Aug-21-18	11:25	Aug-21-18	11:30		
BTEX by EPA 8021B	Extracted:	Aug-25-18	10:30	Aug-29-18	08:00		
	Analyzed:	Aug-26-18	15:17	Aug-29-18	13:00		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Benzene		< 0.00201	0.00201	< 0.00201	0.00201		
Toluene		< 0.00201	0.00201	< 0.00201	0.00201		
Ethylbenzene		< 0.00201	0.00201	< 0.00201	0.00201		
m,p-Xylenes		< 0.00402	0.00402	< 0.00402	0.00402		
o-Xylene		< 0.00201	0.00201	< 0.00201	0.00201		
Total Xylenes		< 0.00201	0.00201	< 0.00201	0.00201		
Total BTEX		< 0.00201	0.00201	< 0.00201	0.00201		
Inorganic Anions by EPA 300	Extracted:	Aug-23-18	16:45	Aug-23-18	16:45		
	Analyzed:	Aug-23-18	22:20	Aug-23-18	22:26		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Chloride		82.0	4.95	491	24.8		
TPH by SW8015 Mod	Extracted:	Aug-24-18	07:00	Aug-24-18	07:00		
	Analyzed:	Aug-24-18	12:11	Aug-24-18	12:32		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0		
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0		
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0		
Total TPH		<15.0	15.0	<15.0	15.0		

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

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

fession Meamer

Jessica Kramer Project Assistant





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id: BH14

Matrix: Soil

Date Received:08.23.18 11.00

Lab Sample Id: 596788-001

Date Collected: 08.21.18 09.20

Sample Depth: 3 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: SCM

SCM

Date Prep:

08.23.18 16.45

Basis:

Wet Weight

Seq Number: 3061062

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	317	4.98	mg/kg	08.23.18 21.20		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

Tech: Analyst: ARM ARM

Date Prep:

08.24.18 07.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.24.18 09.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	60.7	15.0		mg/kg	08.24.18 09.31		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.24.18 09.31	U	1
Total TPH	PHC635	60.7	15.0		mg/kg	08.24.18 09.31		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	86	%	70-135	08.24.18 09.31		
o-Terphenyl		84-15-1	92	%	70-135	08.24.18 09.31		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Sample Id: **BH14** Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596788-001

Date Collected: 08.21.18 09.20

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

% Moisture:

Wet Weight

Tech:

ALJ

Analyst: ALJ

Seq Number: 3061437

Date Prep:

08.28.18 08.00

Basis:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199	mg/kg	08.28.18 17.43	U	1
Toluene	108-88-3	< 0.00199	0.00199	mg/kg	08.28.18 17.43	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199	mg/kg	08.28.18 17.43	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398	mg/kg	08.28.18 17.43	U	1
o-Xylene	95-47-6	< 0.00199	0.00199	mg/kg	08.28.18 17.43	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199	mg/kg	08.28.18 17.43	U	1
Total BTEX		< 0.00199	0.00199	mg/kg	08.28.18 17.43	U	1
			0/.				

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	08.28.18 17.43	
1,4-Difluorobenzene	540-36-3	95	%	70-130	08.28.18 17.43	





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id: BH15

Matrix:

Soil

Date Received:08.23.18 11.00

Lab Sample Id: 596788-002

Date Collected: 08.21.18 09.45

Sample Depth: 2 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: SCM SCM

Date Prep:

08.23.18 16.45

Basis:

Wet Weight

Seq Number: 3061062

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1080	4.97	mg/kg	08.23.18 21.42		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech:

ARM

% Moisture:

e:

Analyst: ARM

Date Prep: 08.24.18 07.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.24.18 09.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.24.18 09.51	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.24.18 09.51	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.24.18 09.51	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	85	%	70-135	08.24.18 09.51		
o-Terphenyl		84-15-1	85	%	70-135	08.24.18 09.51		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id: BH15

Matrix: Soil

Date Received:08.23.18 11.00

Lab Sample Id: 596788-002

Date Collected: 08.21.18 09.45

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

ALJ

% Moisture:

Analyst: A

ALJ

Date Prep: 08.28.18 08.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	08.28.18 18.04	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	08.28.18 18.04	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	08.28.18 18.04	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	08.28.18 18.04	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	08.28.18 18.04	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	08.28.18 18.04	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	08.28.18 18.04	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	87	%	70-130	08.28.18 18.04		
1,4-Difluorobenzene		540-36-3	94	%	70-130	08.28.18 18.04		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Sample Id: **BH16**

Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596788-003

Date Collected: 08.21.18 11.30

Sample Depth: 2 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: SCM

SCM

Date Prep:

08.23.18 16.45

Basis:

Wet Weight

Seq Number: 3061062

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	453	4.96	mg/kg	08.23.18 21.58		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech:

ARM

% Moisture:

ARM Analyst: Seq Number: 3061228

08.24.18 07.00 Date Prep:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9		mg/kg	08.24.18 10.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	20.6	14.9		mg/kg	08.24.18 10.52		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9		mg/kg	08.24.18 10.52	U	1
Total TPH	PHC635	20.6	14.9		mg/kg	08.24.18 10.52		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	95	%	70-135	08.24.18 10.52		
o-Terphenyl		84-15-1	95	%	70-135	08.24.18 10.52		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Sample Id: BH16

16

Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596788-003

Date Collected: 08.21.18 11.30

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech:

ALJ

Analyst: ALJ

Date Prep:

08.29.18 08.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	08.29.18 11.18	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	08.29.18 11.18	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	08.29.18 11.18	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	08.29.18 11.18	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	08.29.18 11.18	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	08.29.18 11.18	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	08.29.18 11.18	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	103	%	70-130	08.29.18 11.18		
1,4-Difluorobenzene		540-36-3	119	%	70-130	08.29.18 11.18		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Sample Id: **SS12**

Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596788-004

Date Collected: 08.21.18 11.10

Sample Depth: 6 In

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech:

SCM

% Moisture:

Analyst:

SCM

Date Prep:

08.23.18 16.45

Basis:

Wet Weight

Seq Number: 3061062

Parameter Cas Number Result RLUnits **Analysis Date** Flag Dil 16887-00-6 Chloride 24.9 08.23.18 22.04 5 1800 mg/kg

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

Tech: Analyst: ARM ARM

Date Prep:

08.24.18 07.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.24.18 11.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	81.5	15.0		mg/kg	08.24.18 11.11		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.24.18 11.11	U	1
Total TPH	PHC635	81.5	15.0		mg/kg	08.24.18 11.11		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	93	%	70-135	08.24.18 11.11		
o-Terphenyl		84-15-1	99	%	70-135	08.24.18 11.11		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Sample Id:

SS12

Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596788-004

Date Collected: 08.21.18 11.10

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: Analyst: ALJ

ALJ

08.29.18 08.00 Date Prep:

Basis:

% Moisture:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	08.29.18 11.38	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	08.29.18 11.38	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	08.29.18 11.38	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	08.29.18 11.38	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	08.29.18 11.38	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	08.29.18 11.38	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	08.29.18 11.38	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	95	%	70-130	08.29.18 11.38		
4-Bromofluorobenzene		460-00-4	103	%	70-130	08.29.18 11.38		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Sample Id:

SS13

Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596788-005

Date Collected: 08.21.18 11.15

Sample Depth: 6 In

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech:

SCM SCM

Date Prep:

08.23.18 16.45

Basis:

% Moisture:

Wet Weight

Analyst: Seq Number: 3061062

Parameter Cas Number Result RLUnits **Analysis Date** Flag Dil 16887-00-6 Chloride 08.23.18 22.09 258 4.95 mg/kg 1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

Tech: Analyst: ARM ARM

Date Prep:

08.24.18 07.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9		mg/kg	08.24.18 11.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	15.5	14.9		mg/kg	08.24.18 11.31		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9		mg/kg	08.24.18 11.31	U	1
Total TPH	PHC635	15.5	14.9		mg/kg	08.24.18 11.31		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	92	%	70-135	08.24.18 11.31		
o-Terphenyl		84-15-1	97	%	70-135	08.24.18 11.31		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

08.29.18 08.00

Sample Id: **SS13**

Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596788-005

Date Collected: 08.21.18 11.15

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: Analyst: ALJ ALJ

Date Prep:

% Moisture:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	08.29.18 11.58	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	08.29.18 11.58	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	08.29.18 11.58	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	08.29.18 11.58	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	08.29.18 11.58	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	08.29.18 11.58	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	08.29.18 11.58	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	86	%	70-130	08.29.18 11.58		
1,4-Difluorobenzene		540-36-3	95	%	70-130	08.29.18 11.58		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Sample Id:

SS14

Matrix:

Date Prep:

Date Received:08.23.18 11.00

Lab Sample Id: 596788-006

Date Collected: 08.21.18 11.20

Sample Depth: 6 In

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: SCM

SCM

08.23.18 16.45

Basis:

Wet Weight

Seq Number: 3061062

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	183	4.96	mg/kg	08.23.18 22.15		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

Tech: Analyst: ARM

ARM

Date Prep:

08.24.18 07.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.24.18 11.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.24.18 11.51	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.24.18 11.51	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.24.18 11.51	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	95	%	70-135	08.24.18 11.51		
o-Terphenyl		84-15-1	100	%	70-135	08.24.18 11.51		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Sample Id: **SS14**

Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596788-006

Date Collected: 08.21.18 11.20

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech: Analyst: ALJ

ALJ

08.29.18 08.00 Date Prep:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	08.29.18 12.19	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	08.29.18 12.19	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	08.29.18 12.19	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	08.29.18 12.19	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	08.29.18 12.19	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	08.29.18 12.19	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	08.29.18 12.19	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	97	%	70-130	08.29.18 12.19		
1,4-Difluorobenzene		540-36-3	96	%	70-130	08.29.18 12.19		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id: **SS15**

Matrix: Soil Date Received:08.23.18 11.00

Lab Sample Id: 596788-007

Date Collected: 08.21.18 11.25

Sample Depth: 6 In

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

% Moisture:

Tech:

SCM

SCM Analyst:

Date Prep:

08.23.18 16.45

Basis:

Wet Weight

Seq Number: 3061062

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	82.0	4.95	mg/kg	08.23.18 22.20		1

Analytical Method: TPH by SW8015 Mod

Tech:

ARM

ARM Analyst:

Date Prep:

08.24.18 07.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.24.18 12.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.24.18 12.11	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.24.18 12.11	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.24.18 12.11	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	91	%	70-135	08.24.18 12.11		
o-Terphenyl		84-15-1	95	%	70-135	08.24.18 12.11		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Sample Id:

SS15

Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596788-007

Date Collected: 08.21.18 11.25

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: Analyst: ALJ

ALJ

Date Prep:

08.25.18 10.30

Basis:

% Moisture:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	08.26.18 15.17	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	08.26.18 15.17	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	08.26.18 15.17	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	08.26.18 15.17	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	08.26.18 15.17	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	08.26.18 15.17	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	08.26.18 15.17	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	100	%	70-130	08.26.18 15.17		
1,4-Difluorobenzene		540-36-3	97	%	70-130	08.26.18 15.17		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Sample Id:

SS16

Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596788-008

Date Collected: 08.21.18 11.30

Sample Depth: 6 In

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

% Moisture:

Tech:

SCM

Analyst:

SCM

Date Prep:

08.23.18 16.45

Basis:

Wet Weight

Seq Number: 3061062

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	491	24.8	mg/kg	08.23.18 22.26		

Analytical Method: TPH by SW8015 Mod

ARM

Tech:

ARM Analyst:

08.24.18 07.00 Date Prep:

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.24.18 12.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.24.18 12.32	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.24.18 12.32	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.24.18 12.32	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	91	%	70-135	08.24.18 12.32		
o-Terphenyl		84-15-1	95	%	70-135	08.24.18 12.32		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Sample Id:

SS16

Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596788-008

Date Collected: 08.21.18 11.30

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: Analyst: ALJ

ALJ

Date Prep:

08.29.18 08.00

% Moisture:

Basis:

Wet Weight

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	08.29.18 13.00	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	08.29.18 13.00	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	08.29.18 13.00	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	08.29.18 13.00	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	08.29.18 13.00	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	08.29.18 13.00	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	08.29.18 13.00	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	115	%	70-130	08.29.18 13.00		
1,4-Difluorobenzene		540-36-3	106	%	70-130	08.29.18 13.00		



Flagging Criteria



Page 139 of 239

- 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.

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

^{**} Surrogate recovered outside laboratory control limit.

Flag



QC Summary 596788

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3061062

7661018-1-BLK

Matrix: Solid

LCS Sample Id: 7661018-1-BKS

E300P Prep Method:

Date Prep: 08.23.18

LCSD Sample Id: 7661018-1-BSD

MR Spike LCS LCS Limits %RPD RPD Limit Units LCSD LCSD Analysis **Parameter** Result Amount Result %Rec Date %Rec Result

08.23.18 19:52 Chloride < 5.00 250 246 98 246 98 90-110 0 20 mg/kg

Analytical Method: Inorganic Anions by EPA 300

Seq Number:

MB Sample Id:

Parent Sample Id:

3061062

596788-001

Matrix: Soil

MS Sample Id: 596788-001 S

E300P Prep Method: Date Prep: 08.23.18

MSD Sample Id: 596788-001 SD

Spike MS MS %RPD RPD Limit Units Parent **MSD MSD** Limits Analysis Flag **Parameter** Result Date Result Amount %Rec Result %Rec

Chloride 317 249 553 95 551 94 90-110 0 20 mg/kg 08.23.18 21:25

Analytical Method: Inorganic Anions by EPA 300

Seq Number:

3061062

Matrix: Soil

Prep Method:

E300P

08.23.18 Date Prep: Parent Sample Id: 596792-001

MS Sample Id: 596792-001 S MSD Sample Id: 596792-001 SD

Spike MS %RPD RPD Limit Units Parent MS **MSD MSD** Limits Analysis Flag **Parameter** Result Date Result %Rec Amount Result %Rec

Chloride < 5.12 256 263 103 266 104 90-110 20 08.23.18 20:09 mg/kg

Analytical Method: TPH by SW8015 Mod

Seq Number:

MB Sample Id:

3061228

7661126-1-BLK

Matrix: Solid

LCS Sample Id:

7661126-1-BKS

Prep Method:

TX1005P

08.24.18 Date Prep:

LCSD Sample Id: 7661126-1-BSD

LCS %RPD RPD Limit Units MB Spike LCS LCSD Limits Analysis **LCSD** Flag **Parameter** Result %Rec Date Result Amount Result %Rec Gasoline Range Hydrocarbons (GRO) 923 92 909 70-135 2 20 08.24.18 08:51 <15.0 1000 91 mg/kg

08.24.18 08:51 958 96 70-135 1 20 Diesel Range Organics (DRO) 1000 944 94 <15.0 mg/kg LCS LCSD MB MB LCS LCSD Limits Units Analysis

Surrogate %Rec Flag %Rec Flag Flag Date %Rec 1-Chlorooctane 98 114 109 70-135 % 08.24.18 08:51 102 08.24.18 08:51 o-Terphenyl 105 100 70-135 %

Page 24 of 30



QC Summary 596788

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: TPH by SW8015 Mod

Seq Number: 3061228

Parent Sample Id:

596788-002

Matrix: Soil

MS Sample Id: 596788-002 S

Prep Method: TX1005P

Date Prep: 08.24.18

MSD Sample Id: 596788-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lin	nit Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	1000	100	902	90	70-135	10	20	mg/kg	08.25.18 12:31	
Diesel Range Organics (DRO)	<15.0	997	1050	105	944	94	70-135	11	20	mg/kg	08.25.18 12:31	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		113		70-135	%	08.25.18 12:31
o-Terphenyl	112		99		70-135	%	08.25.18 12:31

Analytical Method: BTEX by EPA 8021B

Seq Number: 3061313 Matrix: Solid

Prep Method:

SW5030B

Flag

Flag

Date Prep: 08.25.18

LCS Sample Id: 7661181-1-BKS LCSD Sample Id: 7661181-1-BSD MB Sample Id: 7661181-1-BLK

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Lim	it Units	Analysis Date	
Benzene	< 0.00200	0.100	0.0935	94	0.101	100	70-130	8	35	mg/kg	08.26.18 02:22	
Toluene	< 0.00200	0.100	0.0863	86	0.0948	94	70-130	9	35	mg/kg	08.26.18 02:22	
Ethylbenzene	< 0.00200	0.100	0.0976	98	0.104	103	70-130	6	35	mg/kg	08.26.18 02:22	
m,p-Xylenes	< 0.00401	0.200	0.217	109	0.233	116	70-130	7	35	mg/kg	08.26.18 02:22	
o-Xylene	< 0.00200	0.100	0.106	106	0.114	113	70-130	7	35	mg/kg	08.26.18 02:22	
	MD	MD	т.	ce t	CC	T ((()	5 I CC	ъ т	·•4	TI:4	A I	

%Rec	Flag	%Rec	Flag	%Rec	Flag	Limits	Units	Analysis Date
85		107		109		70-130	%	08.26.18 02:22
112		106		115		70-130	%	08.26.18 02:22
	85	%Rec Flag 85	%Rec Flag %Rec 85 107	%Rec Flag %Rec Flag 85 107	%Rec Flag %Rec Flag %Rec 85 107 109	%Rec Flag %Rec Flag %Rec Flag 85 107 109	%Rec Flag %Rec Flag 85 107 109 70-130	%Rec Flag %Rec Flag 85 107 109 70-130 %

Analytical Method: BTEX by EPA 8021B

Seq Number: 3061437

7661266-1-BLK

Matrix: Solid

LCS Sample Id: 7661266-1-BKS

Prep Method: Date Prep:

SW5030B

08.28.18

LCSD Sample Id: 7661266-1-BSD MB Sample Id: MB LCS LCS Limits %RPD RPD Limit Units Analysis Spike LCSD LCSD **Parameter** Result Amount Result %Rec Result %Rec Date

Benzene	< 0.00202	0.101	0.103	102	0.0983	98	70-130	5	35	mg/kg	08.28.18 08:45
Toluene	< 0.00202	0.101	0.0972	96	0.0929	93	70-130	5	35	mg/kg	08.28.18 08:45
Ethylbenzene	< 0.00202	0.101	0.111	110	0.105	105	70-130	6	35	mg/kg	08.28.18 08:45
m,p-Xylenes	< 0.00403	0.202	0.214	106	0.203	101	70-130	5	35	mg/kg	08.28.18 08:45
o-Xylene	< 0.00202	0.101	0.0985	98	0.0938	94	70-130	5	35	mg/kg	08.28.18 08:45

%Rec	Flag	%Rec	Flag	%Rec	Flag	Limits	Units	Date
91		93		94		70-130	%	08.28.18 08:45
94		93		92		70-130	%	08.28.18 08:45
	91	%Rec Flag 91	%Rec Flag %Rec 91 93	%Rec Flag %Rec Flag 91 93	%Rec Flag %Rec Flag %Rec 91 93 94	%Rec Flag %Rec Flag %Rec Flag 91 93 94	%Rec Flag %Rec Flag 91 93 94 70-130	%Rec Flag %Rec Flag 91 93 94 70-130 %

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

[D] = 100*(C-A) / BRPD = 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 SpikeB = Spike Added D = MSD/LCSD % Rec

Flag



QC Summary 596788

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: BTEX by EPA 8021B SW5030B Prep Method: Seq Number: 3061634 Matrix: Solid Date Prep: 08.29.18

LCS Sample Id: 7661378-1-BKS LCSD Sample Id: 7661378-1-BSD 7661378-1-BLK MB Sample Id:

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Lim	nit Units	Analysis Date]
Benzene	< 0.00200	0.0998	0.107	107	0.0937	94	70-130	13	35	mg/kg	08.29.18 08:15	
Toluene	< 0.00200	0.0998	0.103	103	0.0902	90	70-130	13	35	mg/kg	08.29.18 08:15	
Ethylbenzene	< 0.00200	0.0998	0.117	117	0.103	103	70-130	13	35	mg/kg	08.29.18 08:15	
m,p-Xylenes	< 0.00399	0.200	0.224	112	0.197	98	70-130	13	35	mg/kg	08.29.18 08:15	
o-Xylene	< 0.00200	0.0998	0.103	103	0.0906	91	70-130	13	35	mg/kg	08.29.18 08:15	
G	MB	MB	L	CS I	LCS	LCSI) LCS	D Li	imits	Units	Analysis	

Surrogate Date %Rec Flag %Rec Flag Flag %Rec 94 97 95 08.29.18 08:15 1,4-Difluorobenzene 70-130 % 08.29.18 08:15 4-Bromofluorobenzene 95 96 92 70-130 %

Analytical Method: BTEX by EPA 8021B

SW5030B Prep Method: Seq Number: 3061313 Matrix: Soil Date Prep: 08.25.18

MS Sample Id: 596319-008 S MSD Sample Id: 596319-008 SD 596319-008 Parent Sample Id:

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lim	it Units	Analysis Date	Flag
Benzene	< 0.00202	0.101	0.0734	73	0.0633	63	70-130	15	35	mg/kg	08.26.18 03:04	X
Toluene	< 0.00202	0.101	0.0649	64	0.0571	57	70-130	13	35	mg/kg	08.26.18 03:04	X
Ethylbenzene	< 0.00202	0.101	0.0672	67	0.0608	61	70-130	10	35	mg/kg	08.26.18 03:04	X
m,p-Xylenes	< 0.00403	0.202	0.148	73	0.131	66	70-130	12	35	mg/kg	08.26.18 03:04	X
o-Xylene	< 0.00202	0.101	0.0689	68	0.0592	59	70-130	15	35	mg/kg	08.26.18 03:04	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		98		70-130	%	08.26.18 03:04
4-Bromofluorobenzene	101		124		70-130	%	08.26.18 03:04

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

Seq Number: 3061437 Matrix: Soil Date Prep: 08.28.18 MS Sample Id: 596789-001 S MSD Sample Id: 596789-001 SD Parent Sample Id: 596789-001

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lin	nit Units	Analysis Date	Flag
Benzene	< 0.00200	0.0998	0.0530	53	0.0585	59	70-130	10	35	mg/kg	08.28.18 09:26	X
Toluene	< 0.00200	0.0998	0.0511	51	0.0558	56	70-130	9	35	mg/kg	08.28.18 09:26	X
Ethylbenzene	< 0.00200	0.0998	0.0580	58	0.0633	63	70-130	9	35	mg/kg	08.28.18 09:26	X
m,p-Xylenes	< 0.00399	0.200	0.112	56	0.122	61	70-130	9	35	mg/kg	08.28.18 09:26	X
o-Xylene	< 0.00200	0.0998	0.0516	52	0.0571	57	70-130	10	35	mg/kg	08.28.18 09:26	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		90		70-130	%	08.28.18 09:26
4-Bromofluorobenzene	90		90		70-130	%	08.28.18 09:26

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

[D] = 100*(C-A) / BRPD = 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 SpikeB = Spike Added D = MSD/LCSD % Rec

08.29.18 08:56



4-Bromofluorobenzene

QC Summary 596788

LT Environmental, Inc.

PLU Delaware C SWD

122

Analytical Method: BTEX by EPA 8021B

Seq Number: 3061634 Matrix: Soil

Prep Method: SW5030B

Date Prep: 08.29.18

70-130

Parent Sample Id:	596847-001		MS Sar	nple Id:	596847-0	596847-001 S MSD Sample Id: 596847-001 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	0.0278	28	0.0346	34	70-130	22	35	mg/kg	08.29.18 08:56	X
Toluene	0.0129	0.100	0.0164	4	0.0608	47	70-130	115	35	mg/kg	08.29.18 08:56	XF
Ethylbenzene	0.00535	0.100	0.0118	6	0.0186	13	70-130	45	35	mg/kg	08.29.18 08:56	XF
m,p-Xylenes	0.0247	0.201	0.0299	3	0.0495	12	70-130	49	35	mg/kg	08.29.18 08:56	XF
o-Xylene	0.00639	0.100	0.0127	6	0.0133	7	70-130	5	35	mg/kg	08.29.18 08:56	X
Surrogate				AS Rec	MS Flag	MSD %Re		_	Limits	Units	Analysis Date	
1,4-Difluorobenzene			:	89		90		7	0-130	%	08.29.18 08:56	

128

Relinquished by: Relinquished by

Date Time:

Received By:

Custody Seal #

Preserved where applicable

On los

Corr. Factor

Rélingurshed By:

Date Time:

Received By Received By

15:30

FED-EX / UPS: Tracking #

Received By

3 Day EMERGENCY

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

2 Day EMERGENCY

Contract TAT

Level 3 (CLP Forms)

UST / RG -411

TRRP Level IV

Level III Std QC+ Forms

Level II Std QC

Level IV (Full Data Pkg /raw data)

Data Deliverable Information

TRRP Checklist

Next Day EMERGENCY Same Day TAT

Relinquished by Sampler

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

| Date Time: 0 3; | Received By: 1 | Relinquished B

St 50

CHAIN OF CUSTODY

Setting the Standard since 1990		
Stafford,Texas (281-240-4200)	San Antonio, Texas (210-509-3334)	Phoenix, Arizona (480-355-0900)
Dallas Texas (214-902-0300)	Midland, Texas (432-704-5251)	とうこう
	<u>moo.con</u>	Xenco Quote # Xenco Job #
		Analytical Information Matrix Codes
Client / Reporting Information	Project Information	
Company Name / Branch:	Project Name/Number:	W= Water
	CAAC Subawas Car	
Company Address:	Project Location:	·5
3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705	idland, TX 79705 Corls bed N/M	DW = Drinking Water
Emall:	invoice To:	3
Abaker@itenv.com (4	(432) 704-5178 XTO Energy - Kyle Littrell	
	PO Number:	
Samplers's Name Joseph S. Hernandez		WWW Waste Water
	Collection Number of preserved bottles	
No. Field ID / Point of Collection	Depth Date Time Matrix bottles HCI N8OH/Zn Acetate HNO3 12SO4 N8OH NAHSO4 NEOH NONE	BTE TPH Ch
1 81+14	0 5	X X X
2 RH 15	2, 1, 0945 5 1	X X X
3 BH 16	2' 1130 5 1	X
4 555A	6" 110 5 1	<i>X X X</i>
5 55 6 A	6=	XXX

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Turnaround Time (Business days)

5 Day TAT 7 Day TAT

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120

X X X

25 1130



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.

Work Order #: 596788

Date/ Time Received: 08/23/2018 11:00:00 AM

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)?		2.6	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contai	ner/ 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 relinquish	ned/ received?	Yes	
#10 Chain of Custody agrees with sample la	abels/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 headsp	ace?	N/A	

Must be	completed for after-hours de	elivery of samples prior to plac	cing in the refrigerator
Analyst:		PH Device/Lot#:	
	Checklist completed by:	Brianna Teel	Date: 08/23/2018
	Checklist reviewed by:	Jessica Kramer Jessica Kramer	Date: <u>08/23/2018</u>

Analytical Report 596789

for

LT Environmental, Inc.

Project Manager: Adrian Baker
PLU Delaware C SWD

10-SEP-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 (T104704400-18-16)
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)





10-SEP-18

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

Reference: XENCO Report No(s): 596789

PLU Delaware C SWD

Project Address: Carlsbad, NM

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) 596789. 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. 596789 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 Vramer

Project Assistant

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

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



Sample Cross Reference 596789



LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH08	S	08-20-18 12:00	2 ft	596789-001
BH09	S	08-20-18 13:25	2 ft	596789-002
BH10	S	08-20-18 13:40	2 ft	596789-003
SS08	S	08-20-18 15:25	0.5 ft	596789-004

Received by OGD: 4/8/2020 3:15:47 PM XENCO LABORATORIES

CASE NARRATIVE

Client Name: LT Environmental, Inc. Project Name: PLU Delaware C SWD

Project ID:

Work Order Number(s): 596789

Report Date: 10-SEP-18

Date Received: 08/23/2018

Sample receipt non conformances and comments:

PER CLIENTS EMAIL, CORRECTED SAMPLE 004 NAME FROM SS1A TO SS08 JKR 09/10/18 NEW VERSION GENERATED

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3061437 BTEX by EPA 8021B

Lab Sample ID 596789-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 596789-001.

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

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

Batch: LBA-3061634 BTEX by EPA 8021B

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



Certificate of Analysis Summary 596789

LT Environmental, Inc., Arvada, CO Project Name: PLU Delaware C SWD



Project Id: Contact:

Adrian Baker

Project Location:

Carlsbad, NM

Date Received in Lab: Thu Aug-23-18 11:00 am

Report Date: 10-SEP-18

Project Manager: Jessica Kramer

	Lab Id:	596789-0	001	596789-0	002	596789-0	03	596789-	004		
Analysis Requested	Field Id:	BH08		BH09	BH09		BH10		SS08		
Analysis Requesieu	Depth:	2- ft		2- ft		2- ft		0.5- ft			
	Matrix:	SOIL		SOIL		SOIL		SOIL	,		
	Sampled:	Aug-20-18	12:00	Aug-20-18	13:25	Aug-20-18 1	13:40	Aug-20-18	15:25		
BTEX by EPA 8021B	Extracted:	Aug-28-18	08:00	Aug-29-18 (08:00	Aug-29-18 (08:00	Aug-29-18	08:00		
	Analyzed:	Aug-28-18	10:47	Aug-29-18	13:20	Aug-29-18 1	14:21	Aug-29-18	14:41		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		< 0.00202	0.00202	< 0.00202	0.00202	< 0.00199	0.00199	< 0.00200	0.00200		
Toluene		< 0.00202	0.00202	< 0.00202	0.00202	< 0.00199	0.00199	< 0.00200	0.00200		
Ethylbenzene		< 0.00202	0.00202	< 0.00202	0.00202	< 0.00199	0.00199	< 0.00200	0.00200		
m,p-Xylenes		< 0.00403	0.00403	< 0.00404	0.00404	< 0.00398	0.00398	< 0.00399	0.00399		
o-Xylene		< 0.00202	0.00202	< 0.00202	0.00202	< 0.00199	0.00199	< 0.00200	0.00200		
Total Xylenes		< 0.00202	0.00202	< 0.00202	0.00202	< 0.00199	0.00199	< 0.00200	0.00200		
Total BTEX		< 0.00202	0.00202	< 0.00202	0.00202	< 0.00199	0.00199	< 0.00200	0.00200		
Inorganic Anions by EPA 300	Extracted:	Aug-28-18	13:15	Aug-28-18	13:15	Aug-28-18 1	13:15	Aug-28-18	13:15		
	Analyzed:	Aug-28-18	14:41	Aug-28-18	14:47	Aug-28-18 1	15:08	Aug-28-18	14:14		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		24.1	1.00	<1.00	1.00	3.07	1.00	<1.00	1.00		
TPH by SW8015 Mod	Extracted:	Aug-24-18	07:00	Aug-24-18 (07:00	Aug-24-18 (07:00	Aug-24-18	07:00		
	Analyzed:	Aug-24-18	12:52	Aug-24-18	13:12	Aug-24-18 1	14:13	Aug-24-18	14:33		
	Units/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	<15.0	15.0		
Diesel Range Organics (DRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	61.9	15.0		
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0		
Total TPH		<15.0	15.0	<14.9	14.9	<15.0	15.0	61.9	15.0		

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

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

Jessica Kramer

Jessica Kramer Project Assistant





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id: **BH08** Matrix:

Soil

Date Received:08.23.18 11.00

Lab Sample Id: 596789-001

Date Collected: 08.20.18 12.00

Sample Depth: 2 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P % Moisture:

Tech:

SCM

SCM Analyst:

Date Prep:

Date Prep:

08.28.18 13.15

08.24.18 07.00

Basis:

Wet Weight

Seq Number: 3061510

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	24.1	1.00	mg/kg	08.28.18 14.41		1

Analytical Method: TPH by SW8015 Mod

ARM

Tech:

ARM

Analyst: Seq Number: 3061228 Prep Method: TX1005P

% Moisture:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.24.18 12.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.24.18 12.52	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.24.18 12.52	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.24.18 12.52	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	90	%	70-135	08.24.18 12.52		
o-Terphenyl		84-15-1	94	%	70-135	08.24.18 12.52		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id: **BH08**

Matrix:

Soil

Date Received:08.23.18 11.00

Lab Sample Id: 596789-001

Date Collected: 08.20.18 12.00

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech: Analyst: ALJ

ALJ

Date Prep:

08.28.18 08.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00202	0.00202		mg/kg	08.28.18 10.47	U	1
Toluene	108-88-3	< 0.00202	0.00202		mg/kg	08.28.18 10.47	U	1
Ethylbenzene	100-41-4	< 0.00202	0.00202		mg/kg	08.28.18 10.47	U	1
m,p-Xylenes	179601-23-1	< 0.00403	0.00403		mg/kg	08.28.18 10.47	U	1
o-Xylene	95-47-6	< 0.00202	0.00202		mg/kg	08.28.18 10.47	U	1
Total Xylenes	1330-20-7	< 0.00202	0.00202		mg/kg	08.28.18 10.47	U	1
Total BTEX		< 0.00202	0.00202		mg/kg	08.28.18 10.47	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	94	%	70-130	08.28.18 10.47		
4-Bromofluorobenzene		460-00-4	92	%	70-130	08.28.18 10.47		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id: **BH09** Matrix: Soil Date Received:08.23.18 11.00

Lab Sample Id: 596789-002

Date Collected: 08.20.18 13.25

Sample Depth: 2 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech:

SCM

% Moisture:

Analyst:

SCM

Date Prep:

08.28.18 13.15

Basis:

Wet Weight

Seq Number: 3061510

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<1.00	1.00	mg/kg	08.28.18 14.47	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech:

ARM

% Moisture:

Analyst:

ARM

08.24.18 07.00 Date Prep:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9		mg/kg	08.24.18 13.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9		mg/kg	08.24.18 13.12	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9		mg/kg	08.24.18 13.12	U	1
Total TPH	PHC635	<14.9	14.9		mg/kg	08.24.18 13.12	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	86	%	70-135	08.24.18 13.12		
o-Terphenyl		84-15-1	86	%	70-135	08.24.18 13.12		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id: **BH09** Matrix:

Soil

Date Received:08.23.18 11.00

Lab Sample Id: 596789-002

Date Collected: 08.20.18 13.25

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

% Moisture:

ALJ Analyst:

ALJ

Date Prep:

08.29.18 08.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00202	0.00202		mg/kg	08.29.18 13.20	U	1
Toluene	108-88-3	< 0.00202	0.00202		mg/kg	08.29.18 13.20	U	1
Ethylbenzene	100-41-4	< 0.00202	0.00202		mg/kg	08.29.18 13.20	U	1
m,p-Xylenes	179601-23-1	< 0.00404	0.00404		mg/kg	08.29.18 13.20	U	1
o-Xylene	95-47-6	< 0.00202	0.00202		mg/kg	08.29.18 13.20	U	1
Total Xylenes	1330-20-7	< 0.00202	0.00202		mg/kg	08.29.18 13.20	U	1
Total BTEX		< 0.00202	0.00202		mg/kg	08.29.18 13.20	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	128	%	70-130	08.29.18 13.20		
1,4-Difluorobenzene		540-36-3	98	%	70-130	08.29.18 13.20		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id: **BH10** Matrix:

Soil

Date Received:08.23.18 11.00

Lab Sample Id: 596789-003

Date Collected: 08.20.18 13.40

Sample Depth: 2 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

% Moisture:

Tech:

SCM

Analyst:

SCM

Date Prep:

08.28.18 13.15

Basis:

Wet Weight

Seq Number: 3061510

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3.07	1.00	mg/kg	08.28.18 15.08		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech:

ARM

% Moisture:

Analyst:

ARM

08.24.18 07.00 Date Prep:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.24.18 14.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.24.18 14.13	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.24.18 14.13	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.24.18 14.13	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	89	%	70-135	08.24.18 14.13		
o-Terphenyl		84-15-1	89	%	70-135	08.24.18 14.13		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Sample Id: BH10

Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596789-003

Date Collected: 08.20.18 13.40

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

ALJ

% Moisture:

Analyst: ALJ

Date Prep:

08.29.18 08.00 Basis:

Wet Weight

Parameter	Cas Number	er Result RL		Units	Analysis Date	Flag	Dil	
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	08.29.18 14.21	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	08.29.18 14.21	U	1
Ethylbenzene	100-41-4	<0.00199 0.00199		mg/kg	08.29.18 14.21	U	1	
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	08.29.18 14.21	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	08.29.18 14.21	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	08.29.18 14.21	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	08.29.18 14.21	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	92	%	70-130	08.29.18 14.21		
1,4-Difluorobenzene		540-36-3	93	%	70-130	08.29.18 14.21		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Sample Id: **SS08**

Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596789-004

Date Collected: 08.20.18 15.25

Sample Depth: 0.5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: SCM

SCM

Date Prep:

08.28.18 13.15

Basis:

Wet Weight

Seq Number: 3061510

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<1.00	1.00	mg/kg	08.28.18 14.14	U	1

Analytical Method: TPH by SW8015 Mod

ARM

ARM Analyst:

o-Terphenyl

Seq Number: 3061228

Tech:

08.24.18 07.00 Date Prep:

Prep Method: TX1005P

08.24.18 14.33

% Moisture:

70-135

Basis: Wet Weight

Parameter	Cas Number	ımber Result RL		Units	Analysis Date	Flag	Dil	
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.24.18 14.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	61.9	15.0		mg/kg	08.24.18 14.33		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.24.18 14.33	U	1
Total TPH	PHC635	61.9	15.0		mg/kg	08.24.18 14.33		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	89	%	70-135	08.24.18 14.33		

84-15-1





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Sample Id:

SS08

Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596789-004

Date Collected: 08.20.18 15.25

Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

% Moisture:

Wet Weight

ALJ

Analyst:

ALJ

Date Prep:

08.29.18 08.00

Basis:

Parameter	Cas Number	er Result RL		Units	Analysis Date	Flag	Dil	
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	08.29.18 14.41	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	08.29.18 14.41	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	08.29.18 14.41	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	08.29.18 14.41	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	08.29.18 14.41	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	08.29.18 14.41	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	08.29.18 14.41	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	90	%	70-130	08.29.18 14.41		
1,4-Difluorobenzene		540-36-3	95	%	70-130	08.29.18 14.41		



Flagging Criteria



Page 160 of 239

- 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.

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

^{**} Surrogate recovered outside laboratory control limit.



QC Summary 596789

LT Environmental, Inc.

PLU Delaware C SWD

7661279-1-BKS

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3061510

7661279-1-BLK

MR

Matrix: Solid

LCS

LCS Sample Id:

LCS

E300P Prep Method:

Date Prep: 08.28.18

LCSD Sample Id: 7661279-1-BSD

Spike Limits %RPD RPD Limit Units LCSD LCSD Analysis Flag **Parameter** Result Amount Result %Rec Date %Rec Result Chloride 08.28.18 14:03 <1.00 50.0 50.4 101 51.0 102 90-110 20 mg/kg

Analytical Method: Inorganic Anions by EPA 300 Seq Number:

MB Sample Id:

3061510

Matrix: Soil

Prep Method:

E300P

Parent Sample Id:

596789-004

MS Sample Id: 596789-004 S

Date Prep: 08.28.18 MSD Sample Id:

596789-004 SD

Spike MS MS %RPD RPD Limit Units Parent **MSD MSD** Limits **Parameter** Result Result Amount %Rec Result %Rec

Chloride

<1.00

49.4 99 49.5 99 90-110

Analysis Flag Date

0 20 08.28.18 14:19 mg/kg

Analytical Method: Inorganic Anions by EPA 300

Seq Number:

3061510

Matrix: Soil

50.0

Prep Method:

E300P

Date Prep:

08.28.18

MS Sample Id: 596910-005 S MSD Sample Id: 596910-005 SD Parent Sample Id: 596910-005 Spike %RPD RPD Limit Units **MSD** Limits

97

Parameter Chloride

Parent Result Amount 15.6 50.0

MS MS Result %Rec

64.1

MSD Result

64.1

%Rec 97 90-110

20

0

Analysis Flag Date

08.28.18 15:41 mg/kg

Analytical Method: TPH by SW8015 Mod

Seq Number:

3061228

Matrix: Solid

Prep Method:

TX1005P

Date Prep:

7661126-1-BKS 7661126-1-BSD 7661126-1-BLK

MB Sample Id:

LCS Sample Id:

LCSD Sample Id:

08.24.18

LCS %RPD RPD Limit Units MB Spike LCS LCSD LCSD Limits Analysis **Parameter** Result %Rec Date Result Amount Result %Rec Gasoline Range Hydrocarbons (GRO) 923 92 909 70-135 2 20 08.24.18 08:51 <15.0 1000 91 mg/kg 08.24.18 08:51 958 1 944 <15.0

Diesel Range Organics (DRO)

MB MB %Rec Flag

1000

96 LCS LCS

70-135 94 LCSD

20

mg/kg

Units Analysis Date

Flag

Surrogate 1-Chlorooctane o-Terphenyl

98

105

%Rec Flag 114 100

%Rec 109 102

LCSD Limits Flag 70-135 70-135

% %

08.24.18 08:51 08.24.18 08:51

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

[D] = 100*(C-A) / BRPD = 200* | (C-E) / (C+E) |[D] = 100 * (C) / [B]

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample A = Parent Result

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



QC Summary 596789

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: TPH by SW8015 Mod

Seq Number: 3061228

Parent Sample Id:

Seq Number:

o-Xylene

596788-002

Matrix: Soil

Prep Method: TX1005P

MS Sample Id: 596788-002 S

Date Prep: 08.24.18 MSD Sample Id: 596788-002 SD

DD DDD I :---:4 II--:4.

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	KPD Lim	it Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	1000	100	902	90	70-135	10	20	mg/kg	08.25.18 12:31	
Diesel Range Organics (DRO)	<15.0	997	1050	105	944	94	70-135	11	20	mg/kg	08.25.18 12:31	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		113		70-135	%	08.25.18 12:31
o-Terphenyl	112		99		70-135	%	08.25.18 12:31

Analytical Method: BTEX by EPA 8021B

3061437

Matrix: Solid

0.101

0.0985

Prep Method:

SW5030B

Flag

Flag

Date Prep: 08.28.18LCS Sample Id: 7661266-1-BKS LCSD Sample Id: 7661266-1-BSD

MB Sample Id:	7661266-1-BLK		LCS Sample Id: 7661266-1-BKS					LCS	D Sampl	e Id: 7661	1266-1-BSD
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Lim	nit Units	Analysis Date
Benzene	< 0.00202	0.101	0.103	102	0.0983	98	70-130	5	35	mg/kg	08.28.18 08:45
Toluene	< 0.00202	0.101	0.0972	96	0.0929	93	70-130	5	35	mg/kg	08.28.18 08:45
Ethylbenzene	< 0.00202	0.101	0.111	110	0.105	105	70-130	6	35	mg/kg	08.28.18 08:45
m,p-Xylenes	< 0.00403	0.202	0.214	106	0.203	101	70-130	5	35	mg/kg	08.28.18 08:45

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		93		94		70-130	%	08.28.18 08:45
4-Bromofluorobenzene	94		93		92		70-130	%	08.28.18 08:45

98

Analytical Method: BTEX by EPA 8021B

Seq Number: 3061634

MB Sample Id:

7661378-1-BLK

< 0.00202

Matrix: Solid

LCS Sample Id: 7661378-1-BKS

0.0938

70-130

Prep Method:

35

SW5030B

08.28.18 08:45

Date Prep: 08.29.18

mg/kg

LCSD Sample Id: 7661378-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date
Benzene	< 0.00200	0.0998	0.107	107	0.0937	94	70-130	13	35	mg/kg	08.29.18 08:15
Toluene	< 0.00200	0.0998	0.103	103	0.0902	90	70-130	13	35	mg/kg	08.29.18 08:15
Ethylbenzene	< 0.00200	0.0998	0.117	117	0.103	103	70-130	13	35	mg/kg	08.29.18 08:15
m,p-Xylenes	< 0.00399	0.200	0.224	112	0.197	98	70-130	13	35	mg/kg	08.29.18 08:15
o-Xylene	< 0.00200	0.0998	0.103	103	0.0906	91	70-130	13	35	mg/kg	08.29.18 08:15

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		97		95		70-130	%	08.29.18 08:15
4-Bromofluorobenzene	95		96		92		70-130	%	08.29.18 08:15

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

[D] = 100*(C-A) / BRPD = 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

SW5030B



QC Summary 596789

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: BTEX by EPA 8021B

Prep Method: Seq Number: 3061437 Matrix: Soil Date Prep: 08.28.18

MS Sample Id: 596789-001 S MSD Sample Id: 596789-001 SD Parent Sample Id: 596789-001

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limi	Units	Analysis Date	Flag
Benzene	< 0.00200	0.0998	0.0530	53	0.0585	59	70-130	10	35	mg/kg	08.28.18 09:26	X
Toluene	< 0.00200	0.0998	0.0511	51	0.0558	56	70-130	9	35	mg/kg	08.28.18 09:26	X
Ethylbenzene	< 0.00200	0.0998	0.0580	58	0.0633	63	70-130	9	35	mg/kg	08.28.18 09:26	X
m,p-Xylenes	< 0.00399	0.200	0.112	56	0.122	61	70-130	9	35	mg/kg	08.28.18 09:26	X
o-Xylene	< 0.00200	0.0998	0.0516	52	0.0571	57	70-130	10	35	mg/kg	08.28.18 09:26	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date	
1,4-Difluorobenzene	91		90		70-130	%	08.28.18 09:26	
4-Bromofluorobenzene	90		90		70-130	%	08.28.18 09:26	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B Seq Number: 3061634 Matrix: Soil Date Prep: 08.29.18

MS Sample Id: 596847-001 S MSD Sample Id: 596847-001 SD Parent Sample Id: 596847-001

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lim	nit Units	Analysis Date	Flag
Benzene	< 0.00201	0.100	0.0278	28	0.0346	34	70-130	22	35	mg/kg	08.29.18 08:56	X
Toluene	0.0129	0.100	0.0164	4	0.0608	47	70-130	115	35	mg/kg	08.29.18 08:56	XF
Ethylbenzene	0.00535	0.100	0.0118	6	0.0186	13	70-130	45	35	mg/kg	08.29.18 08:56	XF
m,p-Xylenes	0.0247	0.201	0.0299	3	0.0495	12	70-130	49	35	mg/kg	08.29.18 08:56	XF
o-Xylene	0.00639	0.100	0.0127	6	0.0133	7	70-130	5	35	mg/kg	08.29.18 08:56	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Lim Flag	its Unit	s Analysis Date
1,4-Difluorobenzene	89		90	70-1	30 %	08.29.18 08:56
4-Bromofluorobenzene	128		122	70-1	30 %	08.29.18 08:56

Setting the Standard since 1990

CHAIN OF CUSTODY

Stafford, Texas (281-240-4200)		San Antoni	San Antonio, Texas (210-509-3334)	09-3334)		Phoenix,	Phoenix, Arizona (480-355-0900)	355-0900)		
Dallas Texas (214-902-0300)		Midland, Te	Midland, Texas (432-704-5251)	251)						たこと
				www.xenco.com		Xenco Quote #	*	Xenco	Xenco Job#	10101
							Analytical	Analytical Information		Matrix Codes
Client / Reporting Information			Project Information	rmation						AND
Company Name / Branch: LT Environmental, Inc Permian Office		Project Name/Number:	Number:	De Carmine O SEVE						W = Water
Company Address:		Project Location:	on:			75				GW =Ground Water
3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705	03, Midland, TX 79705		Carlstad	NN, Pu		80	00		,	DW = Drinking Water P = Product
Emall:	Phone No:	Invoice To:	Kudo i imanii							SW = Surface water
Abaker@ltenv.com	(432) 704-5178	A C Fliefly - Nya Cittle	ryte rates			PA				SL = Sludge OW =Ocean/Sea Water
Project Contact: Adrian Baker		PO Number:								WI = Wipe
Samplers's Name Joseph S. Hernandez						X	1			WW= Waste Water
		Collection		Mumbe	uniber of preserved bottles	TE, PH	10			A = Air
No. Field ID / Point of Collection	tion Sample Depth	pple Date	Time Matrix	bottles HCI NaOH/Zn Acetate	HNO3 H2SO4 NaOH NaHSO4					Field Comments
1 B #08	ñ	8/20/16	_			× X X	X			
2 BHU9	2	Daliga ssips				× X X	X			
3 BH10	y		1340 5			× X X	X			
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7	8		1							
8	- The second sec									
9										
10										
Turnaround Time (Business days)				Data Deliverable Information	on .			Notes:		
Same Day TAT	5 Day TAT	ينسن	Level II Std QC	d QC	Level IV (Full Data Pkg /raw	a Pkg /raw data)				
Next Day EMERGENCY	7 Day TAT	······································	Level III St	Level III Std QC+ Forms	TRRP Level IV					
2 Day EMERGENCY	Contract TAT		Level 3 (CLP Forms)	LP Forms)	UST / RG -411					
3 Day EMERGENCY		·	TRRP Checklist	cklist						
TAT Starts Day received by Lab, if received by 5:00 pm	if received by 5:00 pm						22	FED-EX / UPS: Tracking #	racking #	ナスロムストコスト
Bollnouished by Campler	SAMPLE CUSTODY MUS	T BE DOCUMENTED	BELOW EACH TIN	SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DE	SSESSION, INCLUDING	OURIER DELIVERY	Υ			
1 Sy Sampler:	8/22	326	Received By:	hutch	Relimpuished By:	of the second	S/72 /	S-30 Received	wed By:	6 8 23 18 11:00
Relingyished by:	Date	Date Time:	Received By:	-	Relipquished By:		Date Time:	Recélved	Wed By: /	
Kelinquished by:	Date	Date Time:	Received By:		Custody Seal #	Pre	Preserved where applicable	oplicable	On Ice	Cooler Temp. Thermo, Corr. Factor



After printing this label:

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- 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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XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: LT Environmental, Inc.

Date/ Time Received: 08/23/2018 11:00:00 AM

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

Work Order #: 596789

Temperature Measuring device used: R8

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		2.6	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contai	ner/ 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 relinquish	ned/ received?	Yes	
#10 Chain of Custody agrees with sample la	abels/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 headsp	ace?	N/A	

' Must ha	completed for after-hours de	elivery of samples prior to pla	cing in the refrigerator
Analyst:	completed for after-flours de	PH Device/Lot#:	oning in the remigerator
	Checklist completed by:	Brianna Teel	Date: <u>08/23/2018</u>
	Checklist reviewed by:	Jessica Warner	Date: <u>08/23/2018</u>

Analytical Report 596790

for

LT Environmental, Inc.

Project Manager: Adrian Baker
PLU Delaware C SWD

10-SEP-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 (T104704400-18-16)
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)





10-SEP-18

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

Reference: XENCO Report No(s): **596790**

PLU Delaware C SWD

Project Address: Carlsbad, NM

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) 596790. 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. 596790 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 Vramer

Project Assistant

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Sample Cross Reference 596790



LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS09	S	08-20-18 15:30	0.5 ft	596790-001
SS10	S	08-20-18 15:35	0.5 ft	596790-002
BH11	S	08-20-18 14:30	2 ft	596790-003
BH12	S	08-20-18 15:20	2 ft	596790-004
SS11	S	08-20-18 15:40	0.5 ft	596790-005
BH 13	S	08-20-18 16:30	12 ft	596790-006

Received by OCD: 4/8/2020 3:15:47 PM XENCO LABORATORIES

CASE NARRATIVE

Client Name: LT Environmental, Inc. Project Name: PLU Delaware C SWD

Project ID:

Work Order Number(s): 596790

Report Date: 1

10-SEP-18

Date Received: 08/23/2018

Sample receipt non conformances and comments:

PER CLIENTS EMAIL, CORRECTED SAMPLE NAMES FOR SAMPLE 001,002,005 JKR 09/10/18 NEW VERSION GENERATED

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3061634 BTEX by EPA 8021B

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



Certificate of Analysis Summary 596790

LT Environmental, Inc., Arvada, CO Project Name: PLU Delaware C SWD Page 171 of 23

Project Id: Contact:

Adrian Baker

Project Location: Ca

Carlsbad, NM

Date Received in Lab: Thu Aug-23-18 11:00 am

Report Date: 10-SEP-18

Project Manager: Jessica Kramer

		50.5500.6	201	50.5700	202	50.5700.0	202	50.5500	20.4	50.5700	20.5	50.5700	006
	Lab Id:	596790-0)01	596790-0)02	596790-0	003	596790-	004	596790-	005	596790-0	006
Analysis Requested	Field Id:	SS09		SS10		BH11		BH12	!	SS11		BH 13	3
Anutysis Requesieu	Depth:	0.5- ft	i	0.5- f	t	2- ft		2- ft		0.5- f	t	12- ft	t
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	,	SOIL	_
	Sampled:	Aug-20-18	15:30	Aug-20-18	15:35	Aug-20-18	14:30	Aug-20-18	15:20	Aug-20-18	15:40	Aug-20-18	16:30
BTEX by EPA 8021B	Extracted:	Aug-29-18	08:00										
	Analyzed:	Aug-29-18	15:02	Aug-29-18	15:23	Aug-29-18	16:05	Aug-29-18	15:44	Aug-29-18	16:27	Aug-29-18	16:48
	Units/RL:	mg/kg	RL										
Benzene		< 0.00200	0.00200	< 0.00202	0.00202	< 0.00199	0.00199	< 0.00199	0.00199	< 0.00201	0.00201	< 0.00201	0.00201
Toluene		< 0.00200	0.00200	< 0.00202	0.00202	< 0.00199	0.00199	< 0.00199	0.00199	< 0.00201	0.00201	< 0.00201	0.00201
Ethylbenzene		< 0.00200	0.00200	< 0.00202	0.00202	< 0.00199	0.00199	< 0.00199	0.00199	< 0.00201	0.00201	< 0.00201	0.00201
m,p-Xylenes		< 0.00401	0.00401	< 0.00403	0.00403	< 0.00398	0.00398	< 0.00398	0.00398	< 0.00402	0.00402	< 0.00402	0.00402
o-Xylene		< 0.00200	0.00200	< 0.00202	0.00202	< 0.00199	0.00199	< 0.00199	0.00199	< 0.00201	0.00201	< 0.00201	0.00201
Total Xylenes		< 0.00200	0.00200	< 0.00202	0.00202	< 0.00199	0.00199	< 0.00199	0.00199	< 0.00201	0.00201	< 0.00201	0.00201
Total BTEX		< 0.00200	0.00200	< 0.00202	0.00202	< 0.00199	0.00199	< 0.00199	0.00199	< 0.00201	0.00201	< 0.00201	0.00201
Inorganic Anions by EPA 300	Extracted:	Aug-24-18	13:00										
	Analyzed:	Aug-24-18	14:38	Aug-24-18	14:55	Aug-24-18	15:00	Aug-24-18	15:06	Aug-24-18	15:38	Aug-24-18	15:54
	Units/RL:	mg/kg	RL										
Chloride		6.32	4.99	<4.99	4.99	147	4.99	500	5.00	64.4	4.96	90.0	4.95
TPH by SW8015 Mod	Extracted:	Aug-23-18	15:00										
	Analyzed:	Aug-24-18	01:31	Aug-24-18	01:51	Aug-24-18	02:11	Aug-24-18	02:31	Aug-24-18	02:50	Aug-24-18	03:10
	Units/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	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

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

Jessica Weamer





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Sample Id: **SS09**

Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596790-001

Date Collected: 08.20.18 15.30

Sample Depth: 0.5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: SCM

SCM

Date Prep:

08.24.18 13.00

Basis:

Wet Weight

Seq Number: 3061240

Parameter Cas Number Result RLUnits **Analysis Date** Flag Dil Chloride 16887-00-6 6.32 4.99 mg/kg 08.24.18 14.38 1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

Tech: Analyst: ARM ARM

08.23.18 15.00 Date Prep:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.24.18 01.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.24.18 01.31	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.24.18 01.31	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.24.18 01.31	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	104	%	70-135	08.24.18 01.31		
o-Terphenyl		84-15-1	103	%	70-135	08.24.18 01.31		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

08.29.18 08.00

Sample Id:

SS09

Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596790-001

Date Collected: 08.20.18 15.30

Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: Analyst: ALJ ALJ

Date Prep:

% Moisture:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	08.29.18 15.02	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	08.29.18 15.02	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	08.29.18 15.02	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	08.29.18 15.02	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	08.29.18 15.02	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	08.29.18 15.02	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	08.29.18 15.02	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	91	%	70-130	08.29.18 15.02		
4-Bromofluorobenzene		460-00-4	92	%	70-130	08.29.18 15.02		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:

SS10

Matrix:

Soil

Date Received:08.23.18 11.00

Lab Sample Id: 596790-002

Sample Depth: 0.5 ft

Analytical Method: Inorganic Anions by EPA 300

Date Collected: 08.20.18 15.35

Prep Method: E300P

Analysis Date

08.24.18 14.55

% Moisture:

Tech:

SCM

RL

4.99

Wet Weight

Analyst: Seq Number: 3061240

Parameter

Chloride

Tech:

SCM

Date Prep:

<4.99

Result

Cas Number

16887-00-6

08.24.18 13.00

Basis:

Units

mg/kg

Flag

U

Dil

1

Analytical Method: TPH by SW8015 Mod

ARM

ARM Analyst:

Date Prep:

08.23.18 15.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.24.18 01.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.24.18 01.51	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.24.18 01.51	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.24.18 01.51	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	89	%	70-135	08.24.18 01.51		
o-Terphenyl		84-15-1	90	%	70-135	08.24.18 01.51		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Sample Id:

SS10

Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596790-002

Date Collected: 08.20.18 15.35

Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

ALJ

Date Prep: 08.29.18 08.00 % Moisture: Basis:

mg/kg

Wet Weight

Analyst: ALJ Seq Number: 3061634

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00202	0.00202	mg/kg	08.29.18 15.23	U	1
Toluene	108-88-3	< 0.00202	0.00202	mg/kg	08.29.18 15.23	U	1
Ethylbenzene	100-41-4	< 0.00202	0.00202	mg/kg	08.29.18 15.23	U	1
m,p-Xylenes	179601-23-1	< 0.00403	0.00403	mg/kg	08.29.18 15.23	U	1
o-Xylene	95-47-6	< 0.00202	0.00202	mg/kg	08.29.18 15.23	U	1
Total Xylenes	1330-20-7	< 0.00202	0.00202	mg/kg	08.29.18 15.23	U	1
Total BTEX		< 0.00202	0.00202	mg/kg	08.29.18 15.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	08.29.18 15.23	
1,4-Difluorobenzene	540-36-3	97	%	70-130	08.29.18 15.23	





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id: **BH11** Matrix:

Soil

Date Received:08.23.18 11.00

Lab Sample Id: 596790-003

Date Collected: 08.20.18 14.30

Sample Depth: 2 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: SCM

SCM

Date Prep:

08.24.18 13.00

Basis:

Wet Weight

Seq Number: 3061240

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	147	4.99	mg/kg	08.24.18 15.00		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: Analyst: ARM ARM

Date Prep:

08.23.18 15.00

Basis:

% Moisture:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.24.18 02.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.24.18 02.11	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.24.18 02.11	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.24.18 02.11	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	94	%	70-135	08.24.18 02.11		
o-Terphenyl		84-15-1	92	%	70-135	08.24.18 02.11		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id: BH11

Matrix: Soil

Date Received:08.23.18 11.00

Lab Sample Id: 596790-003

Date Collected: 08.20.18 14.30

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: A

ALJ

% Moisture:

Analyst: A

ALJ

Date Prep: 08.29.18 08.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	08.29.18 16.05	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	08.29.18 16.05	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	08.29.18 16.05	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	08.29.18 16.05	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	08.29.18 16.05	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	08.29.18 16.05	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	08.29.18 16.05	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	97	%	70-130	08.29.18 16.05		
4-Bromofluorobenzene		460-00-4	91	%	70-130	08.29.18 16.05		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id: **BH12**

Soil Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596790-004

Date Collected: 08.20.18 15.20

Sample Depth: 2 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

SCM

% Moisture:

Tech: Analyst:

SCM

Date Prep:

08.24.18 13.00

Basis:

Wet Weight

Seq Number: 3061240

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	500	5.00	mg/kg	08.24.18 15.06		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: Analyst: ARM ARM

Date Prep:

08.23.18 15.00

Basis:

% Moisture:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.24.18 02.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.24.18 02.31	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.24.18 02.31	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.24.18 02.31	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	91	%	70-135	08.24.18 02.31		
o-Terphenyl		84-15-1	91	%	70-135	08.24.18 02.31		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Sample Id: BH

BH12

Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596790-004

Date Collected: 08.20.18 15.20

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech: Analyst: ALJ

ALJ

Date Prep:

08.29.18 08.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	08.29.18 15.44	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	08.29.18 15.44	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	08.29.18 15.44	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	08.29.18 15.44	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	08.29.18 15.44	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	08.29.18 15.44	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	08.29.18 15.44	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	99	%	70-130	08.29.18 15.44		
4-Bromofluorobenzene		460-00-4	94	%	70-130	08.29.18 15.44		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id: SS11

Matrix:

Soil

Date Received:08.23.18 11.00

Lab Sample Id: 596790-005

Date Collected: 08.20.18 15.40

Sample Depth: 0.5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: SCM

SCM

Date Prep: 08.24.18 13.00

.00 Basis:

Wet Weight

Seq Number: 3061240

Bed Number: 3001240

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	64.4	4.96	mg/kg	08.24.18 15.38		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech:

ARM

% Moisture:

Analyst: ARM

Date Prep:

08.23.18 15.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.24.18 02.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.24.18 02.50	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.24.18 02.50	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.24.18 02.50	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	91	%	70-135	08.24.18 02.50		
o-Terphenyl		84-15-1	93	%	70-135	08.24.18 02.50		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id:

SS11

Analytical Method: BTEX by EPA 8021B

Matrix:

Soil

Date Received:08.23.18 11.00

Date Collected: 08.20.18 15.40

Sample Depth: 0.5 ft

Prep Method: SW5030B

% Moisture:

Tech:

Analyst:

ALJ

ALJ

Lab Sample Id: 596790-005

Date Prep:

08.29.18 08.00

Basis:

Wet Weight

Seq Number: 3061634

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	08.29.18 16.27	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	08.29.18 16.27	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	08.29.18 16.27	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	08.29.18 16.27	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	08.29.18 16.27	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	08.29.18 16.27	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	08.29.18 16.27	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	100	%	70-130	08.29.18 16.27		
4-Bromofluorobenzene		460-00-4	95	%	70-130	08.29.18 16.27		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Sample Id: **BH 13**

Lab Sample Id: 596790-006

SCM

SCM

Soil Matrix:

Date Received:08.23.18 11.00

Date Collected: 08.20.18 16.30

Sample Depth: 12 ft

Prep Method: E300P

% Moisture:

Seq Number: 3061240

Tech:

Analyst:

Date Prep: 08.24.18 13.00 Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	90.0	4.95	mg/kg	08.24.18 15.54		1

Analytical Method: TPH by SW8015 Mod

Analytical Method: Inorganic Anions by EPA 300

Tech:

ARM

ARM Analyst:

08.23.18 15.00 Date Prep:

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Seq Number: 3061132

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.24.18 03.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.24.18 03.10	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.24.18 03.10	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.24.18 03.10	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	91	%	70-135	08.24.18 03.10		
o-Terphenyl		84-15-1	94	%	70-135	08.24.18 03.10		





LT Environmental, Inc., Arvada, CO

PLU Delaware C SWD

Soil

Sample Id: BH 13

Matrix:

Date Received:08.23.18 11.00

Lab Sample Id: 596790-006

Date Collected: 08.20.18 16.30

Sample Depth: 12 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

ALJ

% Moisture:

Analyst: AI

ALJ

Date Prep: 08.29.18 08.00

Basis:

Wet Weight

Seq Number: 3061634

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	08.29.18 16.48	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	08.29.18 16.48	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	08.29.18 16.48	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	08.29.18 16.48	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	08.29.18 16.48	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	08.29.18 16.48	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	08.29.18 16.48	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	96	%	70-130	08.29.18 16.48		
4-Bromofluorobenzene		460-00-4	92	%	70-130	08.29.18 16.48		



Flagging Criteria



Page 184 of 239

- 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.

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

^{**} Surrogate recovered outside laboratory control limit.



QC Summary 596790

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3061240

7661143-1-BLK

Matrix: Solid

Prep Method: Date Prep:

E300P

MB Sample Id:

LCS Sample Id: 7661143-1-BKS

97

08.24.18 LCSD Sample Id: 7661143-1-BSD

Parameter

MR Spike Result Amount

LCS LCS Result %Rec

LCSD LCSD %Rec Result

Limits

%RPD RPD Limit Units 20

Analysis Date

Flag

Chloride

<4.99

242

245

98 90-110

mg/kg

08.24.18 14:27

Analytical Method: Inorganic Anions by EPA 300

3061240

Matrix: Soil

Prep Method: Date Prep: 08.24.18

E300P

Seq Number: Parent Sample Id:

596790-001

MS Sample Id: 596790-001 S

MSD Sample Id:

596790-001 SD

Parameter

Parent

MS

MS

MSD MSD

Limits

%RPD RPD Limit Units

Analysis

Chloride

Spike Amount 250

250

Result %Rec 250 97

Result 250 %Rec 97 90-110

0 20

Date mg/kg 08.24.18 14:44

Flag

Analytical Method: Inorganic Anions by EPA 300

Result

6.32

623

3061240

Matrix: Soil

251

Prep Method: E300P

Date Prep:

08.24.18

Parent Sample Id:

596977-003

MS Sample Id:

596977-003 S

MSD Sample Id: 596977-003 SD

0

Parameter

Chloride

Seq Number:

Parent Result

Spike Amount

MS MS Result %Rec 835 84

MSD Result

833

MSD Limits %Rec 84 90-110 %RPD RPD Limit Units

Analysis

Flag Date 08.24.18 16:27 X

Analytical Method: TPH by SW8015 Mod

7661027-1-BLK

Seq Number: MB Sample Id:

3061132

Prep Method:

TX1005P

Spike

Amount

Matrix: Solid LCS Sample Id: 7661027-1-BKS

LCS

Date Prep: LCSD Sample Id:

%RPD RPD Limit Units

20

08.23.18

mg/kg

7661027-1-BSD

Flag

Parameter Gasoline Range Hydrocarbons (GRO)

Diesel Range Organics (DRO)

<15.0

1000 MB

967 1000 1000

LCS

Result

%Rec 97 100

LCSD LCSD Result %Rec 945

70-135 95

Limits

2 3

20

mg/kg

Date 08.23.18 18:59

Analysis

Surrogate 1-Chlorooctane

o-Terphenyl

MB %Rec 96 99

MB

Result

<15.0

Flag

LCS LCS %Rec Flag

119

99

970

70-135 97 LCSD LCSD

%Rec

116

94

Flag

20 Limits

70-135

70-135

mg/kg

%

%

08.23.18 18:59 Units Analysis

> Date 08.23.18 18:59 08.23.18 18:59

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

[D] = 100*(C-A) / BRPD = 200* | (C-E) / (C+E) |[D] = 100 * (C) / [B]

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample A = Parent Result

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



Parent Sample Id:

QC Summary 596790

LT Environmental, Inc.

PLU Delaware C SWD

Analytical Method: TPH by SW8015 Mod

Seq Number: 3061132

596598-001

Matrix: Soil

Prep Method:

TX1005P

Date Prep: 08.23.18

MSD Sample Id: 596598-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lim	it Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	27.6	1000	920	89	938	91	70-135	2	20	mg/kg	08.23.18 19:57	
Diesel Range Organics (DRO)	233	1000	1120	89	1140	91	70-135	2	20	mg/kg	08.23.18 19:57	

MS Sample Id: 596598-001 S

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		123		70-135	%	08.23.18 19:57
o-Terphenyl	106		106		70-135	%	08.23.18 19:57

Analytical Method: BTEX by EPA 8021B

Seq Number: 3061634

Matrix: Solid

Prep Method: Date Prep:

SW5030B

Flag

08.29.18

LCS Sample Id: 7661378-1-BKS LCSD Sample Id: 7661378-1-BSD MB Sample Id: 7661378-1-BLK

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limi	t Units	Analysis Date
Benzene	< 0.00200	0.0998	0.107	107	0.0937	94	70-130	13	35	mg/kg	08.29.18 08:15
Toluene	< 0.00200	0.0998	0.103	103	0.0902	90	70-130	13	35	mg/kg	08.29.18 08:15
Ethylbenzene	< 0.00200	0.0998	0.117	117	0.103	103	70-130	13	35	mg/kg	08.29.18 08:15
m,p-Xylenes	< 0.00399	0.200	0.224	112	0.197	98	70-130	13	35	mg/kg	08.29.18 08:15
o-Xylene	< 0.00200	0.0998	0.103	103	0.0906	91	70-130	13	35	mg/kg	08.29.18 08:15

Surrogate	%Rec	Flag	%Rec	Flag	%Rec	Flag	Limits	Units	Date
1,4-Difluorobenzene	94		97		95		70-130	%	08.29.18 08:15
4-Bromofluorobenzene	95		96		92		70-130	%	08.29.18 08:15

Analytical Method: BTEX by EPA 8021B

Seq Number: Parent Sample Id: 3061634

Matrix: Soil MS Sample Id: 596847-001

596847-001 S

Prep Method: Date Prep: SW5030B 08.29.18

MSD Sample Id: 596847-001 SD

MS MS %RPD RPD Limit Units Parent Spike MSD MSD Limits Analysis Flag **Parameter** Result Amount Result %Rec %Rec Date Result 08.29.18 08:56 < 0.00201 0.027828 0.0346 Benzene 0.100 34 70-130 22 35 mg/kg X Toluene 0.0129 0.1000.0164 4 0.060847 70-130 115 35 mg/kg 08.29.18 08:56 XF 0.100 70-130 45 08.29.18 08:56 Ethylbenzene 0.00535 0.0118 6 0.0186 13 35 mg/kg XF 0.201 35 08.29.18 08:56 0.0247 0.0299 3 0.0495 70-130 49 XF m,p-Xylenes 12 mg/kg 70-130 08.29.18 08:56 0.100 0.0127 35 o-Xylene 0.00639 6 0.0133 5 mg/kg X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		90		70-130	%	08.29.18 08:56
4-Bromofluorobenzene	128		122		70-130	%	08.29.18 08:56

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

[D] = 100*(C-A) / BRPD = 200* | (C-E) / (C+E) |[D] = 100 * (C) / [B]

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample

A = Parent Result

= MS/LCS Result E = MSD/LCSD Result MS = Matrix Spike B = Spike AddedD = MSD/LCSD % Rec

Stafford, Texas (281-240-4200) Setting the Standard since 1990

HAIN OF CUSTODY

Stailord, Texas (261-240-4200)	San Antonio, Texas (210-509-3334)	Disault: Address (460 one coop)	
Dallas Texas (214-902-0300)	Midland, Texas (432-704-5251)	Thorns, Alizona (400-555-0800)	, }
	<u>www.xenco.com</u>	Xenco Quote # Xenco Job #	5 60
		Analytical information	Matrix Codes
Client / Reporting Information	Project Information		
Company Name / Branch: LT Environmental, Inc Permian Office	Project Name/Number: PW No lawage C SWN		W = Water
Company Address: 3300 North "A" Street Building 1 Linit #103 Midland TV 70706	to had now	30	S = Soil/Sed/Soild GW =Ground Water DW = Drinking Water
Email: Phone No:			P = Product SW = Surface water
Project Contact: Addian Baker		PA	OW =Ocean/Sea Water Wine
Samplers's Name Joseph S. Hernandez	ro Namber	E	0=0=
	Collection Number of preserved bottles	X	WW= Waste Water
No. Field ID / Point of Collection Sample	HHZn arte 23 O4 H	PH lo	
1 <50 A	Date lime Matrix bottles H NAC H N		Field Comments
	7 77	X	
3 BH11 21	1430	X	
4 BH IA 3'	1520 S 1 X	XXX	
5 SS4 A 0.5'	1540 S / X	<i>X X X</i>	
6 8 H 13	V 1630 5 1	XXX	
,	8 10 10		
8			
10			
Turnaround Time (Business days)	Data Deliverable Information	Notes:	
Same Day TAT S 5 Day TAT	Level II Std QC Level IV (Full Data Pkg /r	aw data)	
Next Day EMERGENCY 7 Day TAT	Level III Std QC+ Forms TRRP Level IV		
2 Day EMERGENCY Contract TAT	Level 3 (CLP Forms) UST / RG -411		
3 Day EMERGENCY	TRRP Checklist		
TAT Starts Day received by Lab, if received by 5:00 pm		FED-EX/UPS: Tracking # 1770417.	っつなかり
Relinquished by Sampler: Date / line	Received By:	DELIVERY Date Time:	
	5.36 1 77/1/8	8/22 15:30 2 RECEIVED BY:	1/ 8/23/18 11:00
	Reingurshed By:	Date Time: Received By	
Date Time:	e: Received By: Custody Seal #	Preserved where applicable On ice Cooler Temp.	Thermo, Corr. Factor
losses of expenses incurred by the Client it such bases are due to circumstances beyond the client will such bases are due to circumstances beyond the will be enforced unless previously negotiated under a fully executed client contract.	losses of expenses incurred by the Client it such losses are due to incurred by the Control of Sarriples and shall purchase order from client company to Xenco, its artiliates and subcontractors, it assigns standard terms and conditions of service. Xenco will be liable only for the cost of sarriples and shall not assume any responsibility for a will be enforced unless previously negotiated under a fully executed client contract.	erms and conditions of service. Xenco will be liable only for the cost of samples and shall not rited to the cost of samples. Any samples received by Xenco but not analyzed will be involced	ot assume any responsibility for any sed at \$5 per sample. These terms



After printing this label:

- 1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
- 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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XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: LT Environmental, Inc.

Date/ Time Received: 08/23/2018 11:00:00 AM

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

Work Order #: 596790

Temperature Measuring device used: R8

S	Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.6	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping contained	er/ 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 relinquishe	d/ received? Yes	
#10 Chain of Custody agrees with sample lab	els/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 te	st(s)? Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	N/A	
#18 Water VOC samples have zero headspace	ce? N/A	

Must be	completed for after-hours de	livery of samples prior to pla	acing in the refrigerator
Analyst:		PH Device/Lot#:	
	Checklist completed by:	Brianna Teel	Date: <u>08/23/2018</u>
	Checklist reviewed by:	Jessica Vramer Jessica Kramer	Date: <u>08/23/2018</u>

Analytical Report 641128

for

LT Environmental, Inc.

Project Manager: Dan Moir
PLU Delaware C
012919038
30-OCT-19

Collected By: Client



1089 N Canal Street Carlsbad, NM 88220

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

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

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



30-OCT-19

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

Reference: XENCO Report No(s): 641128

PLU Delaware C Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 641128. 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. 641128 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 Vramer

Project Assistant

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

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



Sample Cross Reference 641128

LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH17	S	10-24-19 11:00	1 ft	641128-001
PH17A	S	10-24-19 11:10	2 ft	641128-002
PH18	S	10-24-19 11:25	1 ft	641128-003
PH18A	S	10-24-19 11:30	2 ft	641128-004
PH19	S	10-24-19 11:35	1 ft	641128-005
PH19A	S	10-24-19 11:40	2 ft	641128-006
PH20	S	10-24-19 11:50	1 ft	641128-007
PH20A	S	10-24-19 11:55	2 ft	641128-008
PH21	S	10-24-19 12:10	1 ft	641128-009
PH21A	S	10-24-19 12:15	2 ft	641128-010
PH22	S	10-24-19 12:25	1 ft	641128-011
PH22A	S	10-24-19 12:35	2 ft	641128-012
PH23	S	10-24-19 12:45	1 ft	641128-013
PH23A	S	10-24-19 12:50	2 ft	641128-014
PH24	S	10-24-19 13:10	1 ft	641128-015
PH24A	S	10-24-19 13:20	2 ft	641128-016



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU Delaware C

Project ID: 012919038 Work Order Number(s): 641128 Report Date: 30-OCT-19 Date Received: 10/25/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3105876 BTEX by EPA 8021B

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



Dan Moir

Certificate of Analysis Summary 641128

LT Environmental, Inc., Arvada, CO

Project Name: PLU Delaware C

Date Received in Lab: Fri Oct-25-19 10:32 am

Report Date: 30-OCT-19 **Project Manager:** Jessica Kramer

Project Location:

Project Id:

Contact:

	Lab Id:	641128-0	001	641128-0	002	641128-0	003	641128-	004	641128-	005	641128-	006
Analusia Danuarta I	Field Id:	PH17		PH17	A	PH18		PH182	A	PH19	,	PH19	A
Analysis Requested	Depth:	1- ft		2- ft		1- ft		2- ft		1- ft		2- ft	
	Matrix:	SOIL		SOIL	,	SOIL		SOIL	,	SOIL	.	SOIL	_
	Sampled:	Oct-24-19	11:00	Oct-24-19	11:10	Oct-24-19	11:25	Oct-24-19	11:30	Oct-24-19	11:35	Oct-24-19	11:40
BTEX by EPA 8021B	Extracted:	Oct-29-19	14:00	Oct-29-19	14:00	Oct-29-19 14:00		Oct-29-19 14:00		Oct-29-19	14:00	Oct-29-19 14:00	
SUB: T104704400-19-19	Analyzed:	Oct-30-19 (00:43	Oct-30-19	01:03	Oct-30-19	01:23	Oct-30-19	01:44	Oct-30-19	02:04	Oct-30-19	02:24
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		< 0.00201	0.00201	< 0.00200	0.00200	< 0.00208	0.00208	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00200	0.00200
Toluene		< 0.00201	0.00201	< 0.00200	0.00200	< 0.00208	0.00208	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00200	0.00200
Ethylbenzene		< 0.00201	0.00201	< 0.00200	0.00200	< 0.00208	0.00208	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00200	0.00200
m,p-Xylenes		< 0.00402	0.00402	< 0.00400	0.00400	< 0.00417	0.00417	< 0.00397	0.00397	< 0.00399	0.00399	< 0.00399	0.00399
o-Xylene		< 0.00201	0.00201	< 0.00200	0.00200	< 0.00208	0.00208	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00200	0.00200
Total Xylenes		< 0.00201	0.00201	< 0.00200	0.00200	< 0.00208	0.00208	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00200	0.00200
Total BTEX		< 0.00201	0.00201	< 0.00200	0.00200	< 0.00208	0.00208	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00200	0.00200
Chloride by EPA 300	Extracted:	Oct-28-19	11:25	Oct-28-19	11:25	Oct-28-19	11:25	Oct-28-19	11:25	Oct-28-19	11:25	Oct-28-19	13:20
SUB: T104704400-19-19	Analyzed:	Oct-28-19	14:35	Oct-28-19	14:41	Oct-28-19	14:46	Oct-28-19	14:52	Oct-28-19	14:58	Oct-28-19	15:56
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		912	4.97	577	4.97	519	5.04	13.8	4.98	614	5.00	16.3	4.96
TPH by SW8015 Mod	Extracted:	Oct-28-19	13:00	Oct-28-19	13:00	Oct-28-19	13:00	Oct-28-19	13:00	Oct-28-19	13:00	Oct-28-19	13:00
SUB: T104704400-19-19	Analyzed:	Oct-28-19	16:05	Oct-28-19	17:01	Oct-28-19	17:19	Oct-28-19	17:38	Oct-28-19	17:56	Oct-28-19	18:15
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<49.8	49.8	< 50.0	50.0	<49.9	49.9	< 50.0	50.0	<49.8	49.8
Diesel Range Organics (DRO)		<49.9	49.9	<49.8	49.8	< 50.0	50.0	<49.9	49.9	< 50.0	50.0	<49.8	49.8
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8
Total GRO-DRO		<49.9	49.9	<49.8	49.8	< 50.0	50.0	<49.9	49.9	< 50.0	50.0	<49.8	49.8
Total TPH		<49.9	49.9	<49.8	49.8	< 50.0	50.0	<49.9	49.9	< 50.0	50.0	<49.8	49.8

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

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

Jessica Vramer



Certificate of Analysis Summary 641128

LT Environmental, Inc., Arvada, CO Project Name: PLU Delaware C

Project Id: Contact:

012919038 Dan Moir

Project Location:

Date Received in Lab: Fri Oct-25-19 10:32 am

Report Date: 30-OCT-19

Project Manager: Jessica Kramer

	Lab Id:	641128-0	007	641128-0	008	641128-0	009	641128-0	010	641128-	011	641128-	012
A malancia D a manata I	Field Id:	PH20		PH202	4	PH21		PH21/	4	PH22	:	PH22	A
Analysis Requested	Depth:	1- ft		2- ft		1- ft		2- ft		1- ft		2- ft	
	Matrix:	SOIL		SOIL	.	SOIL	,	SOIL		SOIL	,	SOIL	_
	Sampled:	Oct-24-19	11:50	Oct-24-19	11:55	Oct-24-19	12:10	Oct-24-19	12:15	Oct-24-19	12:25	Oct-24-19	12:35
BTEX by EPA 8021B	Extracted:	Oct-29-19	14:00										
SUB: T104704400-19-19	Analyzed:	Oct-30-19	03:42	Oct-30-19	04:02	Oct-30-19	04:22	Oct-30-19	04:43	Oct-30-19	05:03	Oct-30-19	05:23
	Units/RL:	mg/kg	RL										
Benzene		< 0.00199	0.00199	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00198	0.00198
Toluene		< 0.00199	0.00199	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00198	0.00198
Ethylbenzene		< 0.00199	0.00199	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00198	0.00198
m,p-Xylenes		< 0.00398	0.00398	< 0.00397	0.00397	< 0.00403	0.00403	< 0.00399	0.00399	< 0.00401	0.00401	< 0.00396	0.00396
o-Xylene		< 0.00199	0.00199	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00198	0.00198
Total Xylenes		< 0.00199	0.00199	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00198	0.00198
Total BTEX		< 0.00199	0.00199	< 0.00198	0.00198	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00198	0.00198
Chloride by EPA 300	Extracted:	Oct-28-19	13:20										
SUB: T104704400-19-19	Analyzed:	Oct-28-19	16:01	Oct-28-19	16:17	Oct-28-19	16:22	Oct-28-19	16:37	Oct-28-19	16:42	Oct-28-19	16:48
	Units/RL:	mg/kg	RL										
Chloride		579	4.98	1200	5.02	833	4.99	1480	24.9	1060	5.05	931	5.00
TPH by SW8015 Mod	Extracted:	Oct-28-19	13:00										
SUB: T104704400-19-19	Analyzed:	Oct-28-19	18:34	Oct-28-19	18:52	Oct-28-19	19:11	Oct-28-19	19:30	Oct-28-19	20:08	Oct-28-19	20:26
	Units/RL:	mg/kg	RL										
Gasoline Range Hydrocarbons (GRO)		< 50.0	50.0	< 50.0	50.0	<49.8	49.8	<49.9	49.9	< 50.0	50.0	<49.9	49.9
Diesel Range Organics (DRO)		< 50.0	50.0	< 50.0	50.0	<49.8	49.8	<49.9	49.9	< 50.0	50.0	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	< 50.0	50.0	<49.8	49.8	<49.9	49.9	<50.0	50.0	<49.9	49.9
Total GRO-DRO		< 50.0	50.0	< 50.0	50.0	<49.8	49.8	<49.9	49.9	< 50.0	50.0	<49.9	49.9
Total TPH		< 50.0	50.0	< 50.0	50.0	<49.8	49.8	<49.9	49.9	< 50.0	50.0	<49.9	49.9

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

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

Jessica Vramer



Certificate of Analysis Summary 641128

LT Environmental, Inc., Arvada, CO Project Name: PLU Delaware C

Project Id: Contact: 012919038 Dan Moir

Project Location:

Date Received in Lab: Fri Oct-25-19 10:32 am

Report Date: 30-OCT-19

Project Manager: Jessica Kramer

	Lab Id:	641128-0	013	641128-0	014	641128-0	015	641128-	016		
Analysis Paguested	Field Id:	PH23		PH23A		PH24		PH24.	A		
Analysis Requested	Depth:	1- ft		2- ft		1- ft		2- ft			
	Matrix:	SOIL		SOIL		SOIL	,	SOIL			
	Sampled:	Oct-24-19	12:45	Oct-24-19	12:50	Oct-24-19	13:10	Oct-24-19	13:20		
BTEX by EPA 8021B	Extracted:	Oct-29-19	14:00	Oct-29-19 1	4:00	Oct-29-19	14:00	Oct-29-19	14:00		
SUB: T104704400-19-19	Analyzed:	Oct-30-19 (05:43	Oct-30-19 (06:03	Oct-30-19	06:23	Oct-30-19	06:43		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200		
Toluene		< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200		
Ethylbenzene		< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200		
m,p-Xylenes		< 0.00398	0.00398	< 0.00400	0.00400	< 0.00399	0.00399	< 0.00399	0.00399		
o-Xylene		< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200		
Total Xylenes		< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200		
Total BTEX		< 0.00199	0.00199	< 0.00200	0.00200	< 0.00200	0.00200	< 0.00200	0.00200		
Chloride by EPA 300	Extracted:	Oct-28-19	13:20	Oct-28-19 1	3:20	Oct-28-19	13:20	Oct-28-19	13:20		
SUB: T104704400-19-19	Analyzed:	Oct-28-19	16:53	Oct-28-19 1	6:58	Oct-28-19	17:03	Oct-28-19	17:08		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		1260	5.05	1260	5.05	384	4.96	319	5.02		
TPH by SW8015 Mod	Extracted:	Oct-28-19	13:00	Oct-28-19 1	3:00	Oct-28-19	13:00	Oct-28-19	13:00		
SUB: T104704400-19-19	Analyzed:	Oct-28-19 2	20:45	Oct-28-19 2	21:03	Oct-28-19	21:22	Oct-28-19	21:41		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		< 50.0	50.0	< 50.0	50.0	<49.9	49.9	< 50.0	50.0		
Diesel Range Organics (DRO)		< 50.0	50.0	< 50.0	50.0	<49.9	49.9	< 50.0	50.0		
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	< 50.0	50.0		
Total GRO-DRO		<50.0	50.0	<50.0	50.0	<49.9	49.9	< 50.0	50.0		
Total TPH		<50.0	50.0	<50.0	50.0	<49.9	49.9	< 50.0	50.0		

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

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

Jessica Vramer



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: **PH17** Matrix: Soil Date Received:10.25.19 10.32

Lab Sample Id: 641128-001

Date Collected: 10.24.19 11.00

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

CHE

% Moisture:

CHE Analyst:

Date Prep:

Basis:

Wet Weight

Seq Number: 3105644

10.28.19 11.25

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	912	4.97	mg/kg	10.28.19 14.35		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

DVM

% Moisture:

ARM Analyst:

Seq Number: 3105660

Date Prep: 10.28.19 13.00

Basis: SUB: T104704400-19-19

Wet Weight

Cas Number Result **Parameter** RLUnits **Analysis Date** Flag Dil PHC610 10.28.19 16.05 Gasoline Range Hydrocarbons (GRO) <49.9 49.9 mg/kg U 1 Diesel Range Organics (DRO) C10C28DRO <49.9 49.9 mg/kg 10.28.19 16.05 U 1 Motor Oil Range Hydrocarbons (MRO) PHCG2835 <49.9 49.9 10.28.19 16.05 U mg/kg Total GRO-DRO PHC628 <49.9 49.9 mg/kg 10.28.19 16.05 U Total TPH PHC635 10.28.19 16.05 U <49.9 49.9 mg/kg 1 % Units Surrogate Cas Number Limits **Analysis Date** Flag Recovery



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: PH17

Matrix: Soil

Date Received:10.25.19 10.32

Lab Sample Id: 641128-001

Date Collected: 10.24.19 11.00

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: Analyst: KTL KTL

Date Prep: 10.29.19 14.00

% Moisture: Basis:

Wet Weight

Seq Number: 3105876

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	10.30.19 00.43	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	10.30.19 00.43	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	10.30.19 00.43	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	10.30.19 00.43	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	10.30.19 00.43	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	10.30.19 00.43	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	10.30.19 00.43	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	110	%	70-130	10.30.19 00.43		
1,4-Difluorobenzene		540-36-3	99	%	70-130	10.30.19 00.43		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Soil

Sample Id: **PH17A**

Matrix:

Date Received:10.25.19 10.32

Lab Sample Id: 641128-002

Date Collected: 10.24.19 11.10

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech:

CHE CHE

Basis:

Wet Weight

Analyst: Seq Number: 3105644

Date Prep: 10.28.19 11.25

SUB: T104704400-19-19

Parameter Cas Number Result RLUnits **Analysis Date** Dil Flag Chloride 16887-00-6 577 4.97 mg/kg 10.28.19 14.41 1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

10.28.19 17.01

Tech:

DVM ARM

% Moisture:

Basis:

Analyst:

o-Terphenyl

Seq Number: 3105660

Date Prep: 10.28.19 13.00

98

%

70-135

SUB: T104704400-19-19

Wet Weight

Cas Number Result **Parameter** RLUnits **Analysis Date** Flag Dil PHC610 10.28.19 17.01 Gasoline Range Hydrocarbons (GRO) <49.8 49.8 mg/kg U 1 Diesel Range Organics (DRO) C10C28DRO <49.8 49.8 mg/kg 10.28.19 17.01 U 1 Motor Oil Range Hydrocarbons (MRO) PHCG2835 <49.8 49.8 10.28.19 17.01 U mg/kg Total GRO-DRO PHC628 <49.8 49.8 mg/kg 10.28.19 17.01 U Total TPH PHC635 U <49.8 49.8 10.28.19 17.01 mg/kg 1 % Cas Number Units Surrogate Limits **Analysis Date** Flag Recovery 1-Chlorooctane 111-85-3 70-135 10.28.19 17.01 101 %

84-15-1



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: PH17A

Matrix: Soil

Date Received:10.25.19 10.32

Lab Sample Id: 641128-002

Date Collected: 10.24.19 11.10

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

KTL

% Moisture:

Basis:

Analyst: KTL

Seq Number: 3105876

Date Prep:

10.29.19 14.00

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	10.30.19 01.03	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	10.30.19 01.03	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	10.30.19 01.03	U	1
m,p-Xylenes	179601-23-1	< 0.00400	0.00400		mg/kg	10.30.19 01.03	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	10.30.19 01.03	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	10.30.19 01.03	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	10.30.19 01.03	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	98	%	70-130	10.30.19 01.03		
4-Bromofluorobenzene		460-00-4	106	%	70-130	10.30.19 01.03		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

10.28.19 11.25

Sample Id: **PH18** Matrix: Soil Date Received:10.25.19 10.32

Lab Sample Id: 641128-003

Date Collected: 10.24.19 11.25

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: Analyst: CHE CHE

Date Prep:

% Moisture:

Basis:

Wet Weight

Seq Number: 3105644

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	519	5.04	mg/kg	10.28.19 14.46		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DVM ARM

10.28.19 13.00 Date Prep:

Basis:

Wet Weight

Seq Number: 3105660

Analysis Date	Flag	Dil
10.28.19 17.19	U	1
Analysis Date	Flag	
10.28.19 17.19		
10.28.19 17.19		
1	10.28.19 17.19 10.28.19 17.19 Analysis Date 10.28.19 17.19	10.28.19 17.19 U 10.28.19 17.19 U Analysis Date Flag 10.28.19 17.19



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: PH18

Seq Number: 3105876

Matrix: Soil Date Received:10.25.19 10.32

Lab Sample Id: 641128-003

Date Collected: 10.24.19 11.25

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech: Analyst: KTL

KTL

10.29.19 14.00 Date Prep:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00208	0.00208		mg/kg	10.30.19 01.23	U	1
Toluene	108-88-3	< 0.00208	0.00208		mg/kg	10.30.19 01.23	U	1
Ethylbenzene	100-41-4	< 0.00208	0.00208		mg/kg	10.30.19 01.23	U	1
m,p-Xylenes	179601-23-1	< 0.00417	0.00417		mg/kg	10.30.19 01.23	U	1
o-Xylene	95-47-6	< 0.00208	0.00208		mg/kg	10.30.19 01.23	U	1
Total Xylenes	1330-20-7	< 0.00208	0.00208		mg/kg	10.30.19 01.23	U	1
Total BTEX		< 0.00208	0.00208		mg/kg	10.30.19 01.23	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	99	%	70-130	10.30.19 01.23		
1.4-Difluorobenzene		540-36-3	97	%	70-130	10.30.19 01.23		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Soil

Sample Id: PH18A Matrix:

Date Received:10.25.19 10.32

Lab Sample Id: 641128-004

Date Collected: 10.24.19 11.30

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

% Moisture:

Tech: Analyst: CHE CHE

Date Prep:

Basis:

Wet Weight

Seq Number: 3105644

10.28.19 11.25

SUB: T104704400-19-19

Parameter Cas Number Result RLUnits **Analysis Date** Flag Dil Chloride 16887-00-6 10.28.19 14.52 13.8 4.98 mg/kg 1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

DVM ARM

% Moisture:

Analyst:

Seq Number: 3105660

Date Prep:

10.28.19 13.00 Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9		mg/kg	10.28.19 17.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9		mg/kg	10.28.19 17.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9		mg/kg	10.28.19 17.38	U	1
Total GRO-DRO	PHC628	<49.9	49.9		mg/kg	10.28.19 17.38	U	1
Total TPH	PHC635	<49.9	49.9		mg/kg	10.28.19 17.38	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	102	%	70-135	10.28.19 17.38		
o-Terphenyl		84-15-1	100	%	70-135	10.28.19 17.38		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: PH18A

Matrix: Soil

Date Prep:

Date Received:10.25.19 10.32

Lab Sample Id: 641128-004

Date Collected: 10.24.19 11.30

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

% Moisture:

Basis:

Tech: Analyst: KTLKTL

10.29.19 14.00

Wet Weight

Seq Number: 3105876

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	10.30.19 01.44	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	10.30.19 01.44	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	10.30.19 01.44	U	1
m,p-Xylenes	179601-23-1	< 0.00397	0.00397		mg/kg	10.30.19 01.44	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	10.30.19 01.44	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	10.30.19 01.44	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	10.30.19 01.44	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	94	%	70-130	10.30.19 01.44		
4-Bromofluorobenzene		460-00-4	106	%	70-130	10.30.19 01.44		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: PH19

Matrix:

Soil

Date Received:10.25.19 10.32

Lab Sample Id: 641128-005

Date Collected: 10.24.19 11.35

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

_

Prep Method: E300P % Moisture:

Tech:
Analyst:

CHE CHE

Date Prep:

10.28.19 11.25 Basis:

Wet Weight

Seq Number: 3105644

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	614	5.00	mg/kg	10.28.19 14.58		1

Analytical Method: TPH by SW8015 Mod

DVM

Tech:

DVM

Analyst: ARM

Seq Number: 3105660

Date Prep:

10.28.19 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0		mg/kg	10.28.19 17.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	10.28.19 17.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	10.28.19 17.56	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	10.28.19 17.56	U	1
Total TPH	PHC635	< 50.0	50.0		mg/kg	10.28.19 17.56	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	100	%	70-135	10.28.19 17.56		
o-Terphenyl		84-15-1	96	%	70-135	10.28.19 17.56		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Soil

Sample Id: PH19

Seq Number: 3105876

Matrix:

Date Received:10.25.19 10.32

Lab Sample Id: 641128-005

Date Collected: 10.24.19 11.35

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech: Analyst: KTLKTL

Date Prep:

10.29.19 14.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	10.30.19 02.04	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	10.30.19 02.04	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	10.30.19 02.04	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	10.30.19 02.04	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	10.30.19 02.04	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	10.30.19 02.04	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	10.30.19 02.04	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	116	%	70-130	10.30.19 02.04		
1 4-Difluorobenzene		540-36-3	96	%	70-130	10.30.19.02.04		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: PH19A

Matrix: Soil

Date Received:10.25.19 10.32

Lab Sample Id: 641128-006

Date Collected: 10.24.19 11.40

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Basis:

Tech:
Analyst:

SPC

Wet Weight

Seq Number: 3105654

SPC

Date Prep: 10.28.19 13.20

SUB: T104704400-19-19

 Parameter
 Cas Number
 Result
 RL
 Units
 Analysis Date
 Flag
 Dil

 Chloride
 16887-00-6
 16.3
 4.96
 mg/kg
 10.28.19 15.56
 1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DVM ARM

Date Prep: 10.28.19 13.00

100

%

70-135

Basis: We

10.28.19 18.15

SUB: T104704400-19-19

Wet Weight

Seq Number: 3105660

o-Terphenyl

84-15-1

Cas Number Result **Parameter** RLUnits **Analysis Date** Flag Dil PHC610 10.28.19 18.15 Gasoline Range Hydrocarbons (GRO) <49.8 49.8 mg/kg U 1 Diesel Range Organics (DRO) C10C28DRO <49.8 49.8 mg/kg 10.28.19 18.15 U 1 Motor Oil Range Hydrocarbons (MRO) PHCG2835 <49.8 49.8 10.28.19 18.15 U mg/kg Total GRO-DRO PHC628 <49.8 49.8 mg/kg 10.28.19 18.15 U Total TPH PHC635 U <49.8 49.8 10.28.19 18.15 mg/kg 1 % Units Surrogate Cas Number Limits **Analysis Date** Flag Recovery 1-Chlorooctane 111-85-3 70-135 10.28.19 18.15 101 %



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Soil

10.29.19 14.00

Sample Id: PH19A

Matrix:

Date Received:10.25.19 10.32

Lab Sample Id: 641128-006

Date Collected: 10.24.19 11.40

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

KTL

% Moisture:

Analyst: KTL

Seq Number: 3105876

Date Prep:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	10.30.19 02.24	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	10.30.19 02.24	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	10.30.19 02.24	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	10.30.19 02.24	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	10.30.19 02.24	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	10.30.19 02.24	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	10.30.19 02.24	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	111	%	70-130	10.30.19 02.24		
1,4-Difluorobenzene		540-36-3	95	%	70-130	10.30.19 02.24		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: **PH20**

Matrix:

Soil

Date Received:10.25.19 10.32

Lab Sample Id: 641128-007

Date Collected: 10.24.19 11.50

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

Analyst:

SPC SPC

Date Prep:

10.28.19 13.20

% Moisture: Basis:

Wet Weight

Seq Number: 3105654

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	579	4.98	mg/kg	10.28.19 16.01		1

Analytical Method: TPH by SW8015 Mod

Tech:

DVM

ARM Analyst:

Seq Number: 3105660

Date Prep:

10.28.19 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0		mg/kg	10.28.19 18.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	10.28.19 18.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	10.28.19 18.34	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	10.28.19 18.34	U	1
Total TPH	PHC635	< 50.0	50.0		mg/kg	10.28.19 18.34	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	99	%	70-135	10.28.19 18.34		
o-Terphenyl		84-15-1	95	%	70-135	10.28.19 18.34		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Soil

Sample Id:

Seq Number: 3105876

PH20

Matrix:

Date Received:10.25.19 10.32

Lab Sample Id: 641128-007

Date Collected: 10.24.19 11.50

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

% Moisture:

Tech: Analyst: KTL

KTL

Date Prep:

10.29.19 14.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	10.30.19 03.42	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	10.30.19 03.42	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	10.30.19 03.42	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	10.30.19 03.42	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	10.30.19 03.42	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	10.30.19 03.42	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	10.30.19 03.42	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	99	%	70-130	10.30.19 03.42		
1,4-Difluorobenzene		540-36-3	97	%	70-130	10.30.19 03.42		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: PH20A Matrix: Soil Date Received:10.25.19 10.32

Lab Sample Id: 641128-008

Date Collected: 10.24.19 11.55

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

SPC

% Moisture:

Analyst:

SPC

10.28.19 13.20

Basis: Wet Weight

Seq Number: 3105654

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1200	5.02	mg/kg	10.28.19 16.17		1

Date Prep:

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: Analyst: DVM ARM

Date Prep:

10.28.19 13.00

Basis:

% Moisture:

Wet Weight

Seq Number: 3105660

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.0	50.0		mg/kg	10.28.19 18.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	10.28.19 18.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	10.28.19 18.52	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	10.28.19 18.52	U	1
Total TPH	PHC635	< 50.0	50.0		mg/kg	10.28.19 18.52	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	101	%	70-135	10.28.19 18.52		
o-Terphenyl		84-15-1	98	%	70-135	10.28.19 18.52		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Soil

Sample Id: PH20A

Matrix:

Date Received:10.25.19 10.32

Lab Sample Id: 641128-008

Date Collected: 10.24.19 11.55

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech: Analyst: KTL KTL

Date Prep: 10.29.19 14.00

Basis: Wet Weight

Seq Number: 3105876

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	10.30.19 04.02	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	10.30.19 04.02	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	10.30.19 04.02	U	1
m,p-Xylenes	179601-23-1	< 0.00397	0.00397		mg/kg	10.30.19 04.02	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	10.30.19 04.02	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	10.30.19 04.02	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	10.30.19 04.02	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	96	%	70-130	10.30.19 04.02		
4-Bromofluorobenzene		460-00-4	98	%	70-130	10.30.19 04.02		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Soil

Sample Id: **PH21**

Matrix:

Date Received:10.25.19 10.32

Lab Sample Id: 641128-009

Date Collected: 10.24.19 12.10

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: Analyst: SPC

SPC

Date Prep:

% Moisture: Basis:

Wet Weight

Seq Number: 3105654

10.28.19 13.20

SUB: T104704400-19-19

Parameter Cas Number Result RLUnits **Analysis Date** Flag Dil Chloride 16887-00-6 833 10.28.19 16.22 4.99 mg/kg 1

Analytical Method: TPH by SW8015 Mod

DVM

Tech:

ARM Analyst:

Seq Number: 3105660

Date Prep:

10.28.19 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8		mg/kg	10.28.19 19.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8		mg/kg	10.28.19 19.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8		mg/kg	10.28.19 19.11	U	1
Total GRO-DRO	PHC628	<49.8	49.8		mg/kg	10.28.19 19.11	U	1
Total TPH	PHC635	<49.8	49.8		mg/kg	10.28.19 19.11	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	99	%	70-135	10.28.19 19.11		
o-Terphenyl		84-15-1	97	%	70-135	10.28.19 19.11		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: PH21

Seq Number: 3105876

H21

Matrix: Soil

Date Received:10.25.19 10.32

Lab Sample Id: 641128-009

Date Collected: 10.24.19 12.10

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech:

Analyst:

KTL KTL

Date Prep:

10.29.19 14.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00202	0.00202		mg/kg	10.30.19 04.22	U	1
Toluene	108-88-3	< 0.00202	0.00202		mg/kg	10.30.19 04.22	U	1
Ethylbenzene	100-41-4	< 0.00202	0.00202		mg/kg	10.30.19 04.22	U	1
m,p-Xylenes	179601-23-1	< 0.00403	0.00403		mg/kg	10.30.19 04.22	U	1
o-Xylene	95-47-6	< 0.00202	0.00202		mg/kg	10.30.19 04.22	U	1
Total Xylenes	1330-20-7	< 0.00202	0.00202		mg/kg	10.30.19 04.22	U	1
Total BTEX		< 0.00202	0.00202		mg/kg	10.30.19 04.22	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	97	%	70-130	10.30.19 04.22		
4-Bromofluorobenzene		460-00-4	103	%	70-130	10.30.19 04.22		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: PH21A Matrix:

Date Received:10.25.19 10.32

Lab Sample Id: 641128-010

Soil Date Collected: 10.24.19 12.15

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: SPC SPC

Date Prep:

Basis:

Wet Weight

Seq Number: 3105654

10.28.19 13.20

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1480	24.9	mg/kg	10.28.19 16.37		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DVM ARM

Seq Number: 3105660

Date Prep:

10.28.19 13.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9		mg/kg	10.28.19 19.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9		mg/kg	10.28.19 19.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9		mg/kg	10.28.19 19.30	U	1
Total GRO-DRO	PHC628	<49.9	49.9		mg/kg	10.28.19 19.30	U	1
Total TPH	PHC635	<49.9	49.9		mg/kg	10.28.19 19.30	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	98	%	70-135	10.28.19 19.30		
o-Terphenyl		84-15-1	96	%	70-135	10.28.19 19.30		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: PH21A

Seq Number: 3105876

Matrix: Soil Date Received:10.25.19 10.32

Lab Sample Id: 641128-010

Date Collected: 10.24.19 12.15

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech: Analyst: KTLKTL

Date Prep:

10.29.19 14.00

Basis: Wet Weight

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	10.30.19 04.43	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	10.30.19 04.43	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	10.30.19 04.43	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	10.30.19 04.43	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	10.30.19 04.43	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	10.30.19 04.43	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	10.30.19 04.43	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	103	%	70-130	10.30.19 04.43		
1,4-Difluorobenzene		540-36-3	98	%	70-130	10.30.19 04.43		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: **PH22** Matrix:

Soil

Date Received:10.25.19 10.32

Lab Sample Id: 641128-011

Date Collected: 10.24.19 12.25

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

SPC

% Moisture:

Analyst:

SPC

Date Prep:

10.28.19 13.20

Basis:

Wet Weight

Seq Number: 3105654

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1060	5.05	mg/kg	10.28.19 16.42		1

Analytical Method: TPH by SW8015 Mod

DVM

Tech: ARM Analyst: Seq Number: 3105660

10.28.19 13.00 Date Prep:

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0		mg/kg	10.28.19 20.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	10.28.19 20.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	10.28.19 20.08	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	10.28.19 20.08	U	1
Total TPH	PHC635	< 50.0	50.0		mg/kg	10.28.19 20.08	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	93	%	70-135	10.28.19 20.08		
o-Terphenyl		84-15-1	96	%	70-135	10.28.19 20.08		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Soil

10.29.19 14.00

Sample Id: PH22

Matrix:

Date Received:10.25.19 10.32

Lab Sample Id: 641128-011

Date Collected: 10.24.19 12.25

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

KTL

Prep Method: SW5030B

Tech: KTL

Analyst:

Date Prep:

% Moisture:

% Mois
Basis:

Wet Weight

Seq Number: 3105876

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	10.30.19 05.03	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	10.30.19 05.03	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	10.30.19 05.03	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	10.30.19 05.03	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	10.30.19 05.03	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	10.30.19 05.03	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	10.30.19 05.03	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	99	%	70-130	10.30.19 05.03		
4-Bromofluorobenzene		460-00-4	109	%	70-130	10.30.19 05.03		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: PH22A Matrix: Soil Date Received:10.25.19 10.32

Lab Sample Id: 641128-012

Date Collected: 10.24.19 12.35

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

SPC

Date Prep:

% Moisture:

Analyst:

Tech:

Analyst:

SPC

10.28.19 13.20

Basis: Wet Weight

Seq Number: 3105654

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	931	5.00	mg/kg	10.28.19 16.48		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

DVM

ARM

10.28.19 13.00 Date Prep:

Basis:

% Moisture:

Wet Weight

Seq Number: 3105660

Parameter	Cas Number	Result	\mathbf{RL}		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9		mg/kg	10.28.19 20.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9		mg/kg	10.28.19 20.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9		mg/kg	10.28.19 20.26	U	1
Total GRO-DRO	PHC628	<49.9	49.9		mg/kg	10.28.19 20.26	U	1
Total TPH	PHC635	<49.9	49.9		mg/kg	10.28.19 20.26	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	95	%	70-135	10.28.19 20.26		
o-Terphenyl		84-15-1	98	%	70-135	10.28.19 20.26		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: PH22A Matrix: Soil Date Received:10.25.19 10.32

Lab Sample Id: 641128-012

Date Collected: 10.24.19 12.35

10.29.19 14.00

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

KTL

% Moisture:

KTL Analyst:

Date Prep:

Basis:

Wet Weight

Seq Number: 3105876

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	10.30.19 05.23	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	10.30.19 05.23	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	10.30.19 05.23	U	1
m,p-Xylenes	179601-23-1	< 0.00396	0.00396		mg/kg	10.30.19 05.23	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	10.30.19 05.23	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	10.30.19 05.23	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	10.30.19 05.23	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	98	%	70-130	10.30.19 05.23		
4-Bromofluorobenzene		460-00-4	104	%	70-130	10.30.19 05.23		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: **PH23**

Matrix: Soil Date Received:10.25.19 10.32

Lab Sample Id: 641128-013

Date Collected: 10.24.19 12.45

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech:

SPC SPC

Date Prep:

Basis:

Wet Weight

Analyst: Seq Number: 3105654

10.28.19 13.20

SUB: T104704400-19-19

Parameter Cas Number Result RLUnits **Analysis Date** Flag Dil Chloride 16887-00-6 10.28.19 16.53 1260 5.05 mg/kg 1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: Analyst: DVM ARM

Seq Number: 3105660

Date Prep:

10.28.19 13.00

Basis:

% Moisture:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0		mg/kg	10.28.19 20.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	10.28.19 20.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	10.28.19 20.45	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	10.28.19 20.45	U	1
Total TPH	PHC635	< 50.0	50.0		mg/kg	10.28.19 20.45	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	92	%	70-135	10.28.19 20.45		
o-Terphenyl		84-15-1	95	%	70-135	10.28.19 20.45		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: PH23

Matrix:

Soil

Date Received:10.25.19 10.32

Lab Sample Id: 641128-013

Date Collected: 10.24.19 12.45

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

KTL

% Moisture:

Analyst: KTL

Seq Number: 3105876

Date Prep:

10.29.19 14.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	10.30.19 05.43	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	10.30.19 05.43	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	10.30.19 05.43	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	10.30.19 05.43	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	10.30.19 05.43	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	10.30.19 05.43	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	10.30.19 05.43	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	98	%	70-130	10.30.19 05.43		
4-Bromofluorobenzene		460-00-4	100	%	70-130	10.30.19 05.43		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Soil

Sample Id:

PH23A

Matrix:

Date Received:10.25.19 10.32

Lab Sample Id: 641128-014

Date Collected: 10.24.19 12.50

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: SPC SPC

Date Prep:

Basis:

Wet Weight

Seq Number: 3105654

10.28.19 13.20

SUB: T104704400-19-19

Parameter Cas Number Result RLUnits **Analysis Date** Flag Dil Chloride 16887-00-6 1260 5.05 mg/kg 10.28.19 16.58 1

Analytical Method: TPH by SW8015 Mod

DVM

Tech:

ARM Analyst: Seq Number: 3105660 Date Prep:

10.28.19 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0		mg/kg	10.28.19 21.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	10.28.19 21.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	10.28.19 21.03	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	10.28.19 21.03	U	1
Total TPH	PHC635	< 50.0	50.0		mg/kg	10.28.19 21.03	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	97	%	70-135	10.28.19 21.03		
o-Terphenyl		84-15-1	98	%	70-135	10.28.19 21.03		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: PH23A

Matrix: Soil

Date Received:10.25.19 10.32

Lab Sample Id: 641128-014

Date Collected: 10.24.19 12.50

10.29.19 14.00

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

KTL

% Moisture:

Analyst: KTL

Date Prep:

Basis:

Wet Weight

Seq Number: 3105876

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	10.30.19 06.03	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	10.30.19 06.03	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	10.30.19 06.03	U	1
m,p-Xylenes	179601-23-1	< 0.00400	0.00400		mg/kg	10.30.19 06.03	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	10.30.19 06.03	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	10.30.19 06.03	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	10.30.19 06.03	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	101	%	70-130	10.30.19 06.03		
1,4-Difluorobenzene		540-36-3	95	%	70-130	10.30.19 06.03		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: **PH24**

Matrix:

Date Received:10.25.19 10.32

Lab Sample Id: 641128-015

Date Collected: 10.24.19 13.10

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Soil

Prep Method: E300P

SPC

SPC

Date Prep:

% Moisture: Basis: 10.28.19 13.20

Wet Weight

Seq Number: 3105654

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	384	4.96	mg/kg	10.28.19 17.03		1

Analytical Method: TPH by SW8015 Mod

Tech:

Tech:

Analyst:

DVM

ARM Analyst:

Seq Number: 3105660

Date Prep:

10.28.19 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9		mg/kg	10.28.19 21.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9		mg/kg	10.28.19 21.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9		mg/kg	10.28.19 21.22	U	1
Total GRO-DRO	PHC628	<49.9	49.9		mg/kg	10.28.19 21.22	U	1
Total TPH	PHC635	<49.9	49.9		mg/kg	10.28.19 21.22	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	94	%	70-135	10.28.19 21.22		
o-Terphenyl		84-15-1	99	%	70-135	10.28.19 21.22		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: PH24

Tech:

Analyst:

H24

Matrix: Soil

Date Received:10.25.19 10.32

Lab Sample Id: 641128-015

Date Collected: 10.24.19 13.10

10.29.19 14.00

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

KTL

Seq Number: 3105876

KTL

Date Prep:

% Moisture: Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	10.30.19 06.23	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	10.30.19 06.23	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	10.30.19 06.23	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	10.30.19 06.23	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	10.30.19 06.23	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	10.30.19 06.23	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	10.30.19 06.23	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	104	%	70-130	10.30.19 06.23		
1.4-Difluorobenzene		540-36-3	99	%	70-130	10.30.19 06.23		



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Soil

10.28.19 13.20

Sample Id: PH24A Matrix:

Date Received:10.25.19 10.32

Lab Sample Id: 641128-016

Date Collected: 10.24.19 13.20

Sample Depth: 2 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

% Moisture:

Tech:

Tech:

SPC

SPC Analyst:

Date Prep:

Basis:

Wet Weight

Wet Weight

Seq Number: 3105654

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	319	5.02	mg/kg	10.28.19 17.08		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

DVM

% Moisture:

ARM Analyst:

o-Terphenyl

Seq Number: 3105660

Date Prep: 10.28.19 13.00

100

%

70-135

Basis: SUB: T104704400-19-19

10.28.19 21.41

Cas Number Result RL**Parameter** Units **Analysis Date** Flag Dil PHC610 10.28.19 21.41 Gasoline Range Hydrocarbons (GRO) < 50.0 50.0 mg/kg U 1 Diesel Range Organics (DRO) C10C28DRO < 50.0 50.0 mg/kg 10.28.19 21.41 U 1 Motor Oil Range Hydrocarbons (MRO) PHCG2835 < 50.0 50.0 10.28.19 21.41 U mg/kg Total GRO-DRO PHC628 < 50.0 50.0 mg/kg 10.28.19 21.41 U Total TPH PHC635 50.0 U < 50.0 10.28.19 21.41 mg/kg 1 % Units Surrogate Cas Number Limits **Analysis Date** Flag Recovery 1-Chlorooctane 111-85-3 70-135 10.28.19 21.41 % 96

84-15-1



LT Environmental, Inc., Arvada, CO

PLU Delaware C

Sample Id: PH24A

Matrix: Soil

Date Prep:

Date Received:10.25.19 10.32

Lab Sample Id: 641128-016

Date Collected: 10.24.19 13.20

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Basis:

Tech: Analyst: KTL KTL

10.29.19 14.00

Wet Weight

Seq Number: 3105876

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	10.30.19 06.43	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	10.30.19 06.43	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	10.30.19 06.43	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	10.30.19 06.43	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	10.30.19 06.43	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	10.30.19 06.43	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	10.30.19 06.43	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	103	%	70-130	10.30.19 06.43		
1,4-Difluorobenzene		540-36-3	97	%	70-130	10.30.19 06.43		



Flagging Criteria

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

BRL Below Reporting Limit.

RL Reporting Limit

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

PQL Practical Quantitation Limit 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

E300P

E300P

E300P

Prep Method:



QC Summary 641128

LT Environmental, Inc.

PLU Delaware C

Analytical Method: Chloride by EPA 300

MR

Prep Method: Seq Number: 3105644 Matrix: Solid Date Prep: 10.28.19

LCS Sample Id: 7688995-1-BKS LCSD Sample Id: 7688995-1-BSD MB Sample Id: 7688995-1-BLK

Spike LCS LCS Limits %RPD RPD Limit Units LCSD LCSD Analysis Flag **Parameter** Result Amount Result %Rec Date %Rec Result 10.28.19 12:09 Chloride < 5.00 250 243 97 245 98 90-110 20 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number: 3105654 Matrix: Solid Date Prep: 10.28.19

7689018-1-BKS MB Sample Id: 7689018-1-BLK LCS Sample Id: LCSD Sample Id: 7689018-1-BSD

MB Spike LCS LCS Limits %RPD RPD Limit Units LCSD LCSD Analysis Flag **Parameter** Result %Rec Date Result Amount Result %Rec

Chloride < 5.00 250 263 105 262 105 90-110 0 20 mg/kg 10.28.19 14:39

Analytical Method: Chloride by EPA 300

Prep Method: Seq Number: 3105644 Matrix: Soil Date Prep: 10.28.19

MS Sample Id: 640979-091 S MSD Sample Id: 640979-091 SD Parent Sample Id: 640979-091

MS %RPD RPD Limit Units Parent Spike MS **MSD MSD** Limits Analysis Flag **Parameter** Result Date Result %Rec Amount Result %Rec

Chloride 15.0 249 255 96 261 99 90-110 2 20 10.28.19 12:27 mg/kg

Analytical Method: Chloride by EPA 300

E300P Prep Method: Seq Number: 3105644 Matrix: Soil Date Prep: 10.28.19

MSD Sample Id: 641117-008 SD Parent Sample Id: 641117-008 MS Sample Id: 641117-008 S

MS %RPD RPD Limit Units Parent Spike MS **MSD MSD** Limits Analysis Flag **Parameter** Result %Rec Date Result Amount Result %Rec Chloride 1140 199 1320 90 1330 95 90-110 20 10.28.19 13:48 mg/kg 1

Analytical Method: Chloride by EPA 300 E300P Prep Method:

3105654 Matrix: Soil Seq Number: Date Prep: 10.28.19

Parent Sample Id: 641128-007 MS Sample Id: 641128-007 S MSD Sample Id: 641128-007 SD

Parent Spike MS MS Limits %RPD RPD Limit Units Analysis **MSD MSD** Flag **Parameter** Result Date Result Amount %Rec Result %Rec

Chloride 579 249 803 90 806 91 90-110 0 20 mg/kg 10.28.19 16:07



QC Summary 641128

LT Environmental, Inc.

PLU Delaware C

641200-021 S

Analytical Method: Chloride by EPA 300

Seq Number: 3105654

641200-021

Matrix: Soil

Prep Method:

E300P Date Prep:

10.28.19

MSD Sample Id: 641200-021 SD

Spike MS MS Limits %RPD RPD Limit Units Parent **MSD MSD Parameter** Result Amount Result %Rec %Rec Result

MS Sample Id:

90-110 10.28.19 14:55 Chloride 218 250 479 104 471 101 2 20 mg/kg

Analytical Method: TPH by SW8015 Mod

Seq Number:

Parent Sample Id:

3105660

Matrix: Solid

Prep Method: Date Prep:

SW8015P 10.28.19

Analysis

Date

Flag

Flag

MB Sample Id: 7689072-1-BLK LCS Sample Id: 7689072-1-BKS LCSD Sample Id: 7689072-1-BSD

MB Spike LCS LCS %RPD RPD Limit Units LCSD LCSD Limits Analysis **Parameter** Result Date Result Amount %Rec Result %Rec Gasoline Range Hydrocarbons (GRO) 1000 1130 113 1110 70-135 2 20 mg/kg 10.28.19 15:27 <15.0 111 Diesel Range Organics (DRO) 1080 108 1060 70-135 2 20 10.28.19 15:27 <15.0 1000 106 mg/kg

MB MB LCS LCS LCSD LCSD Limits Units Analysis Surrogate %Rec Flag %Rec Flag %Rec Flag Date 10.28.19 15:27 1-Chlorooctane 105 129 124 70-135 % 70-135 10.28.19 15:27 o-Terphenyl 105 115 111 %

Analytical Method: TPH by SW8015 Mod

Seq Number:

3105660

Matrix: Solid

Prep Method:

SW8015P

Date Prep: 10.28.19

MB Sample Id: 7689072-1-BLK

MB **Parameter** Result

Units Analysis Date

Flag

Motor Oil Range Hydrocarbons (MRO) 10.28.19 15:08 < 50.0 mg/kg

Analytical Method: TPH by SW8015 Mod

Seq Number: Parent Sample Id: 3105660

641128-001

MS Sample Id: 641128-001 S

Matrix: Soil

Prep Method:

SW8015P

Date Prep: 10.28.19

MSD Sample Id: 641128-001 SD

%RPD RPD Limit Units MS Limits Parent Spike MS **MSD MSD** Analysis Flag **Parameter** Result Date Result Amount %Rec Result %Rec Gasoline Range Hydrocarbons (GRO) 103 10.28.19 16:23 <15.0 999 1030 1050 105 70-135 2 20 mg/kg 986 70-135 10.28.19 16:23 Diesel Range Organics (DRO) <15.0 999 99 1000 100 20 mg/kg

MS MS **MSD** Limits Units Analysis **MSD Surrogate** %Rec Flag Flag Date %Rec 10.28.19 16:23 1-Chlorooctane 122 123 70-135 % o-Terphenyl 105 104 70-135 % 10.28.19 16:23

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

[D] = 100*(C-A) / BRPD = 200* | (C-E) / (C+E) |[D] = 100 * (C) / [B]

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample

A = Parent Result = MS/LCS Result

= MSD/LCSD Result

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



QC Summary 641128

LT Environmental, Inc.

PLU Delaware C

Analytical Method: BTEX by EPA 8021B

3105876

98

Matrix: Solid

Prep Method:

SW5030B

Seq Number: MB Sample Id:

7689147-1-BLK

LCS Sample Id: 7689147-1-BKS

Date Prep: 10.29.19 LCSD Sample Id: 7689147-1-BSD

Flag

				-					-			
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Fla
Benzene	< 0.00200	0.100	0.103	103	0.112	112	70-130	8	35	mg/kg	10.29.19 21:23	
Toluene	< 0.00200	0.100	0.0973	97	0.108	108	70-130	10	35	mg/kg	10.29.19 21:23	
Ethylbenzene	< 0.00200	0.100	0.0992	99	0.112	112	70-130	12	35	mg/kg	10.29.19 21:23	
m,p-Xylenes	< 0.00400	0.200	0.203	102	0.230	115	70-130	12	35	mg/kg	10.29.19 21:23	
o-Xylene	< 0.00200	0.100	0.101	101	0.117	117	70-130	15	35	mg/kg	10.29.19 21:23	
Surrogate	MB %Rec	MB Flag			.CS lag	LCSI %Re		_	Limits	Units	Analysis Date	
1,4-Difluorobenzene	95		9	97		99		7	0-130	%	10.29.19 21:23	

Analytical Method: BTEX by EPA 8021B

Seq Number:

4-Bromofluorobenzene

Parent Sample Id:

3105876

640977-001

Matrix: Soil

104

115

SW5030B

%

10.29.19 21:23

Flag

Prep Method: Date Prep:

70-130

10.29.19

MSD Sample Id: 640977-001 SD

Spike MS %RPD RPD Limit Units MS MSD Limits Analysis **Parent MSD Parameter** Result Amount Result %Rec Date Result %Rec 10.29.19 22:03 70-130 2 Benzene < 0.00200 0.100 0.087888 0.0893 90 35 mg/kg Toluene < 0.00200 0.100 0.0847 85 0.0852 86 70-130 1 35 10.29.19 22:03 mg/kg 70-130 10.29.19 22:03 Ethylbenzene < 0.00200 0.100 0.0863 86 0.0860 87 0 35 mg/kg 10.29.19 22:03 m,p-Xylenes 0.200 0.176 88 0.175 70-130 35 < 0.00401 88 mg/kg 1 88 0.0874 70-130 10.29.19 22:03 o-Xylene < 0.00200 0.100 0.0881 88 1 35 mg/kg

MS Sample Id: 640977-001 S

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		100		70-130	%	10.29.19 22:03
4-Bromofluorobenzene	111		108		70-130	%	10.29.19 22:03

Company Name: Address:

City, State ZIP:

Midland, TX 79705 (432) 236-3849

Email: slo@ltenv.com, dmoir@ltenv.com

3104 East Green Street Carlsbad, NM 88220

Reporting:Level II Level III ST/UST RRP

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Deliverables: EDD

ADaPT |

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC

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www.xenco.com

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Work Order Comments

State of Project:

LT Environmental, Inc. 3300 North A Street

Permian office

Address: City, State ZIP:

Bill to: (if different)
Company Name:

Kyle Littrell
XTO Energy

Dan Moir

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334

Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296

Hobbs,NM (575-382-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

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					inor	Thermometer ID		6,2	Temperature (°C):	Tem
					No	Wet Ice: Wes	(Yes No	Temp Blank:	SAMPLE RECEIPT	SA
					ie.	Due Date	6	Spencer Lo	Sampler's Name:	Sam
						Rush:			P.O. Number:	P.O.
					4	Routine		80081110	Project Number:	Proj
Work Order Notes	<	ANALYSIS REQUEST			Turn Around	Turn		2 many at	roject Naille.	- 10

Chain of Custody

Work Order No: _

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Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) 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

Price. Xenco will be liable only for inco. A minimum charge of \$75.00 will be liable only for inco. A minimum charge of \$75.00 will be liable only for incoming the liable only for incoming t	ervice. Xence will be liable only for the cost of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions enco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	and and an arrest of the state	Circle Method(s) and Metal(s) to be analyzed	Total 200 7 / 6010 2/		11.7	Drug 1	017U	81173	PHRZA	12414	Sample Identification	ample Custody Seals:		Received Intact:	emperature (°C):	SAMPLE RECEIPT	Sampler's Name:	P.O. Number:	Project Number:	Project Name: PLU	Phone: (432) 2	ate ZIP:	Address: 3300 I	Name:	Project Manager: Dan Moir
hath	ure)	or the cost of samples 00 will be applied to ea	Metal(s) to be anal	00 8 / 6020.		(~ (, 4	~	>		Matrix	Yes No N/A	Yes No N/A	Yes No		Temp Blank:	Spencer Lo		012918038	U Splanere C	(432) 236-3849	Midland, TX 79705	3300 North A Street	LT Environmental, Inc., Permian office	//oir
M	Received by: (Signature)	and shall not as ch project and a	yzed TCLI			10.24.16	10.14.12	10.24.14	10.W.10	10.14.15	10-24-19	ā.	Total	Correc	\	_	Yes No	Lo							, Permian of	
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09:58	Date/Time	expenses inc Xenco, but r	As Ba Be As Ba Be			**	×	× \	×	* *		BTEX (I			21)							@ltenv.con	Carlsbad, NM 88220	3104 East Green Street	XTO Energy	Kyle Littrell
AN 2 O L L R C	Relinquished by: (Signature)	ervice. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control enco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	e Cd Ca Cr Co Cu Fe Pt e Cd Cr Co Cu Pb Mn Mo			*	~	*	×	*	×	Chlorid	e (EP	A 30	00.0						ANALYSIS REQUEST		N 88220	reen Street		
200	<u>ا</u> ب	gns standard terms and conditions or circumstances beyond the control unless previously negotiated.	g SiC																		JEST		Level III	State of Project:	Program: UST/PST ¬PRP ¬Brownfields ¬PPC	Work Order
10125/1910:30)2 Na Sr Tl Sn U V Zn 1631 / 245.1 / 7470 / 7471 : Hg									Sample Comments	TAT starts the day recevied by the lab, if received by 4:30pm							The state of the s	Work Order Notes	Other:	ST/UST RRP [level IV	cus Cuve Cabellatia C		Comments

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment



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IOS Number **50900**

Date/Time: 10/25/19 15:50 Created by: Elizabeth Mcclellan Please send report to: Jessica Kramer

Lab# From: Carlsbad Delivery Priority: Address: 1089 N Canal Street

Lab# To: **Midland** Air Bill No.: 776821232900 E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
641128-001	S	PH17	10/24/19 11:00	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-001	S	PH17	10/24/19 11:00	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-001	S	PH17	10/24/19 11:00	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-002	S	PH17A	10/24/19 11:10	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-002	S	PH17A	10/24/19 11:10	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-002	S	PH17A	10/24/19 11:10	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-003	S	PH18	10/24/19 11:25	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-003	S	PH18	10/24/19 11:25	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-003	S	PH18	10/24/19 11:25	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-004	S	PH18A	10/24/19 11:30	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-004	S	PH18A	10/24/19 11:30	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-004	S	PH18A	10/24/19 11:30	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-005	S	PH19	10/24/19 11:35	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-005	S	PH19	10/24/19 11:35	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-005	S	PH19	10/24/19 11:35	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-006	S	PH19A	10/24/19 11:40	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-006	S	PH19A	10/24/19 11:40	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-006	S	PH19A	10/24/19 11:40	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-007	S	PH20	10/24/19 11:50	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-007	S	PH20	10/24/19 11:50	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-007	S	PH20	10/24/19 11:50	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-008	S	PH20A	10/24/19 11:55	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-008	S	PH20A	10/24/19 11:55	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-008	S	PH20A	10/24/19 11:55	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-009	S	PH21	10/24/19 12:10	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	

Inter-Office Shipment



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IOS Number 50900

Date/Time: 10/25/19 15:50 Created by: Elizabeth Mcclellan Please send report to: Jessica Kramer

Lab# From: Carlsbad Delivery Priority: Address: 1089 N Canal Street

Lab# To: **Midland** Air Bill No.: 776821232900 E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
641128-009	S	PH21	10/24/19 12:10	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-009	S	PH21	10/24/19 12:10	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-010	S	PH21A	10/24/19 12:15	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-010	S	PH21A	10/24/19 12:15	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-010	S	PH21A	10/24/19 12:15	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-011	S	PH22	10/24/19 12:25	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-011	S	PH22	10/24/19 12:25	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-011	S	PH22	10/24/19 12:25	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-012	S	PH22A	10/24/19 12:35	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-012	S	PH22A	10/24/19 12:35	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-012	S	PH22A	10/24/19 12:35	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-013	S	PH23	10/24/19 12:45	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-013	S	PH23	10/24/19 12:45	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-013	S	PH23	10/24/19 12:45	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-014	S	PH23A	10/24/19 12:50	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-014	S	PH23A	10/24/19 12:50	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-014	S	PH23A	10/24/19 12:50	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-015	S	PH24	10/24/19 13:10	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	
641128-015	S	PH24	10/24/19 13:10	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-015	S	PH24	10/24/19 13:10	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-016	S	PH24A	10/24/19 13:20	SW8015MOD_NM	TPH by SW8015 Mod	10/31/19	11/07/19	JKR	GRO-DRO PHCC10C28 PI	
641128-016	S	PH24A	10/24/19 13:20	SW8021B	BTEX by EPA 8021B	10/31/19	11/07/19	JKR	BR4FBZ BZ BZME EBZ X	
641128-016	S	PH24A	10/24/19 13:20	E300_CL	Chloride by EPA 300	10/31/19	04/21/20	JKR	CL	

Inter Office Shipment or Sample Comments:

Relinquished By: Received By:

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IOS Number **50900**

Date/Time: 10/25/19 15:50

Created by: Elizabeth Mcclellan

Lab# From: Carlsbad

Delivery Priority:

Lab# To: Midland

Air Bill No.: 776821232900

Inter Office Shipment or Sample Comments:

Date Relinquished:

Elizabeth McClellan

10/25/2019

Please send report to: Jessica Kramer

Address: 1089 N Canal Street

E-Mail: jessica.kramer@xenco.com

Date Received:

Cooler Temperature:

Brianna Teel

10/28/2019 07:26

0.4



XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland IOS #: 50900

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

Temperature Measuring device used: R8

Sent By:	Elizabeth McClellan	Date Sent:	10/25/2019 03:50 PM
Received By:	Brianna Teel	Date Received:	10/28/2019 07:26 AM

Received By: Brianna Teel	Date Received: 10/28/2019 07:26	AM	
	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		.4	
#2 *Shipping container in good conditi	on?	Yes	
#3 *Samples received with appropriate	e temperature?	Yes	
#4 *Custody Seals intact on shipping of	container/ cooler?	Yes	
#5 *Custody Seals Signed and dated f	or Containers/coolers	Yes	
#6 *IOS present?		Yes	
#7 Any missing/extra samples?		Yes	
#8 IOS agrees with sample label(s)/ma	atrix?	No	
#9 Sample matrix/ properties agree wi	th IOS?	Yes	
#10 Samples in proper container/ bottl	e?	Yes	
#11 Samples properly preserved?		Yes	
#12 Sample container(s) intact?		Yes	
#13 Sufficient sample amount for indic	cated test(s)?	Yes	
#14 All samples received within hold to	ime?	Yes	
* Must be completed for after-hours of NonConformance:	lelivery of samples prior to placing	in the refrigerator	
Corrective Action Taken:			
	Nonconformance Documen	tation	
Contact:	Contacted by :	Date:	
Checklist reviewed by:	Bridge Tol Brianna Teel	Date: 10/28/2019	



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: LT Environmental, Inc.

Date/ Time Received: 10/25/2019 10:32:00 AM

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

Temperature Measuring device used: T-NM-007

Work Order #: 641128

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

k Must be	completed for often being do	livery of complex prior to place	ing in the refrigerator
Analyst:	completed for after-nours de	PH Device/Lot#:	ing in the reingerator
	Checklist completed by:	Elizabeth McClellan	Date: <u>10/25/2019</u>
	Checklist reviewed by:	Jessica Kramer Jessica Kramer	Date: <u>10/28/2019</u>