

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	NVV2002451789
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.148944 Longitude -103.921771
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Muy Wayno Recycling Facility Pond	Site Type Recycling Facility
Date Release Discovered 12/28/2019	API# (if applicable) 30-015-37700 (Muy Wayno State #001H))

Unit Letter	Section	Township	Range	County
C	7	25S	30E	EDDY

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

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls) 0.0	Volume Recovered (bbls) 0.0
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 553.95	Volume Recovered (bbls) 544.0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: A connection on the produced water lay flat hose failed and the line ruptured. This resulted in a release into impermeable containment consisting of 540 bbls and 13.95 bbls onto caliche pad. A total of 553.95 bbls of produced water were released with 544 bbls recovered. Additional third party resources have been retained to assist in the remediation.

Incident ID	NVV2002451789
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Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible party consider this a major release? YES – An unauthorized release of fluid over 25 barrels. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? YES, by Kyle Littrell : 'Mike Bratcher'; 'Rob Hamlet'; 'Victoria Venegas'; 'Griswold, Jim, EMNRD'; Mann, Ryan : by email December 28, 2019 at 11:39 AM.	

Initial Response

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

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

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

N/A

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

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

Printed Name: Kyle Littrell

Title: SH&E Supervisor

Signature: 

Date: 1/10/2019

email: Kyle_Littrell@xtoenergy.com

Telephone: _____

OCD Only

Received by: Victoria Venegas

Date: 01/24/2020

Incident ID	NVV2002451789
District RP	
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Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 _____ (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

Incident ID	NVV2002451789
District RP	
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: _____ Kyle Littrell _____ Title: _____ SH&E Coordinator _____

Signature: _____  _____ Date: _____ 03/26/2020 _____

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

OCD Only

Received by: _____ Date: _____

Incident ID	NVV2002451789
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Remediation Plan

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

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

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

- Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- Extents of contamination must be fully delineated.
- Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: _____ Kyle Littrell _____ Title: _____ SH&E Coordinator _____

Signature: _____  Date: _____ 03/26/2020 _____

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

OCD Only

Received by: _____ Date: _____

Approved Approved with Attached Conditions of Approval Denied Deferral Approved

Signature: _____ Date: _____



LT Environmental, Inc.

3300 North "A" Street
Building 1, Unit 222
Midland, Texas 79705
432.704.5178

March 26, 2020

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

**RE: Deferral Request
Muy Wayno Recycling Facility Pond
Incident Number NVV2002451789
Eddy County, New Mexico**

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Deferral Request detailing site assessment, soil sampling, and remediation activities at the Muy Wayno Recycling Facility Pond (Site) in Unit C, Section 7, Township 25 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to confirm the presence or absence of impacts to soil following the release of produced water at the Site. Based on field observations, field screening, and laboratory analytical results from soil sampling following excavation activities, XTO is submitting this Deferral Request and requesting no further action (NFA) for Incident Number NVV2002451789 until the Site is reconstructed and/or the recycling pad is abandoned.

RELEASE BACKGROUND

On December 28, 2019, a connection to a produced water lay flat hose failed resulting in the line rupturing. The line rupture resulted in the release of 553.95 barrels (bbls) of produced water. Approximately 540 bbls remained in the impermeable-lined containment, while 13.95 bbls released onto the adjoining pad. A vacuum truck was immediately dispatched to the Site to recover freestanding fluid, of which approximately 544 bbls were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on January 10, 2020 and was assigned Incident Number NVV2002451789.

SITE CHARACTERIZATION

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



320857103553301, located approximately 1,225 feet west of the Site. The groundwater well has a reported depth to groundwater of 264 feet bgs and a total depth of 385 feet bgs. The closest continuously flowing water or significant watercourse to the Site is an intermittent streambed, located approximately 241 feet south 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, or church. 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 within an area underlain by unstable geology based on a low potential karst designation area by the Bureau of Land Management (BLM). The Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total Petroleum Hydrocarbons (TPH): 100 mg/kg
- Chloride: 600 mg/kg

SITE ASSESSMENT AND SOIL SAMPLING ACTIVITIES

On January 20, 2020, LTE conducted reconnaissance of the Site to evaluate the release extent. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS). The release initially occurred within the lined containment, then overflowed on all sides of the containment. The overflow was immediately surrounding the lined containment on the north, south, and west side. The majority of the fluid pooled to the east side of containment. LTE personnel collected and field screened preliminary soil assessment samples at three locations (SS01 through SS03) within the most affected areas, predominantly observed within the eastern release extent. LTE personnel returned to the Site on February 28, 2020 and collected samples within 2 feet of the lined containment to further assess the release extent immediately surrounding the containment. The locations of the preliminary soil samples are presented on Figure 2. Photographic documentation was conducted during the Site remedial activities and is included in Attachment 1.

The four preliminary soil samples were collected at an approximate depth of 0.5 feet bgs. Soil from the preliminary soil samples was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. All soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody



(COC) procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

The laboratory analytical results indicated chloride concentrations were above the Closure Criteria in preliminary assessment soil samples SS01 through SS04. Based on visible salt crusting within the release extent, field screening results, and laboratory analytical results, soil delineation and excavation appeared to be warranted for the Site. Soil analytical results are depicted on Figure 2 and summarized in Table 1. The laboratory analytical reports are provided in Attachment 2.

EXCAVATION AND DELINEATION SOIL SAMPLING ACTIVITIES

The following is a summary of the excavation and delineation activities conducted at the site.

Excavation Activities

On February 26, 2020, LTE oversaw excavation of impacted soil as indicated by visual observations, field screening results, and preliminary soil sample results. Excavation activities were performed using a track-mounted backhoe and transport vehicle within the release extent and in the vicinity of preliminary soil samples SS01 and SS03, located to the east of the lined containment. Soil in the area of preliminary sample SS04 could not be remediated, due to the presence of active production equipment and XTO safety protocol restricting work being performed within 2 feet of active production equipment. Excavation was not possible on the north, south, and west sides of the containment to ensure the structural integrity of the production equipment.

Following removal of impacted soil from the east excavation, LTE collected 5-point composite soil samples on a 200 square foot frequency from sidewalls and floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. A total of 26 composite floor soil samples (FS01 through FS26) and four composite sidewall samples (SW01 through SW04) were collected within the excavation extent. Composite floor soil samples FS01 through FS26 were collected at an approximate depth of 2.5 feet bgs and composite sidewall soil samples SW01 through SW04 were collected from ground surface to approximately 2.5 feet bgs. The excavation soil samples were collected, handled, and analyzed as described above. The excavation extent and locations of final excavation confirmation samples are presented on Figure 3 and summarized in Table 1.

The laboratory analytical results reported chloride at a concentration above the Closure Criteria in sidewall soil sample SW04, which was located along the western sidewall of the excavation, and immediately adjacent to the containment. The area of SW04 was excavated to the MEP in



compliance with XTO safety policy regarding soil disturbance within 2 feet of active production equipment. The remaining confirmation soil samples were below the Closure Criteria for benzene, BTEX, TPH, and chloride. Based the analytical results from sidewall sample SW04 and the inability to advance the excavation further to the west, soil delineation appeared to be warranted for the release extent.

The excavation extent encompassed an area of approximately 5,188 square feet. A total volume of approximately 480 cubic yards of impacted soil were removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility located in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing.

Delineation Activities

LTE personnel collected three potholes on February 28, 2020 in coordination with excavation activities to delineate remaining impacted soil immediately surrounding or beneath the containment. The excavation confirmation samples delineate residual impacted soil to the east of the containment. Potholes PH01, PH02, and PH03 were advanced to the north, south, and west, respectively, of the containment to a depth of approximately 2.5 feet bgs. Two discrete soil samples were collected from each pothole utilizing a backhoe at depths of approximately 1 foot and 2.5 feet bgs. Due to the presence of active production equipment and following XTO policy on restricting work being performed within 2 feet of active equipment, PH01 was used to laterally and vertically delineate impacted soil represented by SS04 that could not be remediated. Field screening results and observations for each pothole were logged on lithologic/soil sampling logs, which are included in Attachment 3. The discrete delineation soil samples were collected, handled, and analyzed as described above at Xenco in Carlsbad, New Mexico.

All delineation soil samples from pothole samples PH01 through PH03 were below the Closure Criteria for benzene, BTEX, TPH, and chloride. The delineation samples provide lateral delineation of impacted soil remaining in place, which exists immediatley surrounding the containment. Vertical delineation is defined at 2.5 feeet bgs by the excavation floor samples FS04 and FS07.

DEFERRAL REQUEST

The initial assessment, excavation confirmation, and delineation samples were all below the Closure Criteria for benzene, BTEX and TPH. Chloride in soil from the produced water release appeared to accumulate to the immediate east of the lined containment area at concentrations exceeding the Closure Criteria. As a result, impacted soil was remediated via excavation to the MEP. The active production equipment and associated containment limited complete removal of chloride-impacted soil surrounding the containment. Approximately 480 cubic yards of impacted soil were excavated from the Site. Although hydro-excavation and hand shoveling were conducted to remove impacted soil to the MEP in SS04, impacted soil to the immediate north,



Bratcher, M.
Page 5

west, and south of the lined containment was left in place for compliance with the XTO safety policy regarding soil-disturbing activities within 2 feet of active production equipment.

Residual impacted soil beneath or adjacent to the active production equipment is delineated laterally by delineation soil samples PH01 to the north, PH02 to the south, PH03 to the west, and excavation confirmation samples to the east. The laboratory analytical results for six delineation soil samples indicated benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. Confirmation floor soil samples FS01, FS04, and FS07 vertically delineated residual chloride impacts to 2.5 feet bgs.

An estimated 75 cubic yards of impacted soil remains in the 2 feet immediately adjacent to the containment assuming a maximum depth of 2.5 feet bgs. Due to the presence of active production equipment, attempts at excavation, hand shoveling, and hydro excavation in this area were limited. Therefore, XTO requests permission to backfill the eastern excavation and complete remediation of the remaining impacted soil in the area immediately surrounding the containment during any future major construction, final facility abandonment or when the structure is removed, whichever occurs first. LTE and XTO do not believe deferment will result in an imminent risk to human health, the environment, or groundwater.

XTO requests deferment of final remediation for Incident Number NVV2002451789. Upon approval of this Deferral Request, XTO will backfill the eastern excavation with material purchased locally and recontour the Site to match pre-existing Site conditions. A copy of the updated Form C-141 is included in this Deferral Request.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Kevin M. Axe, P.G.
Senior Geologist

Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
 Ryann Mann, State Land Office
 Robert Hamlet, NMOCD
 Victoria Venegas, NMOCD



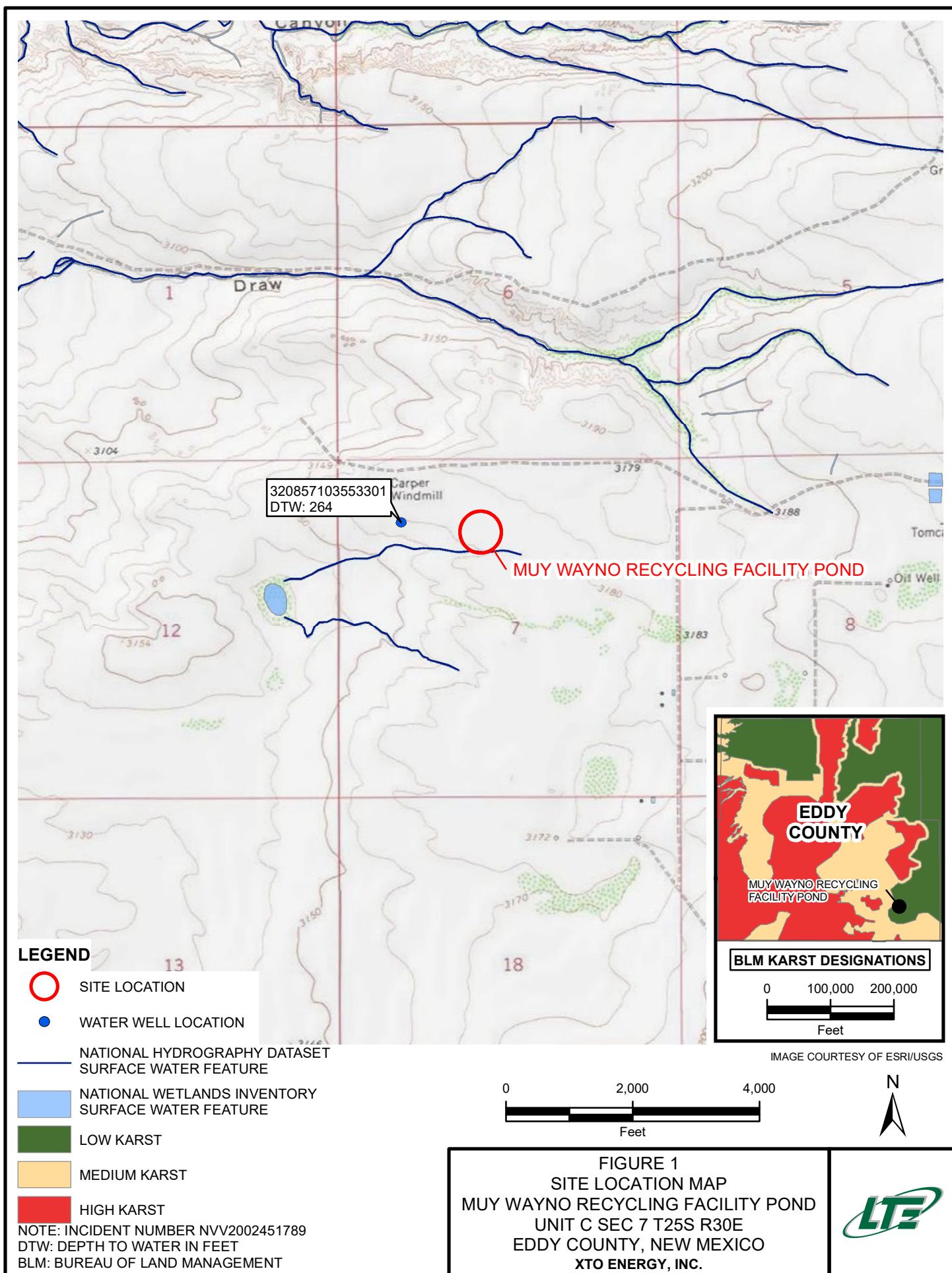
Bratcher, M.
Page 6

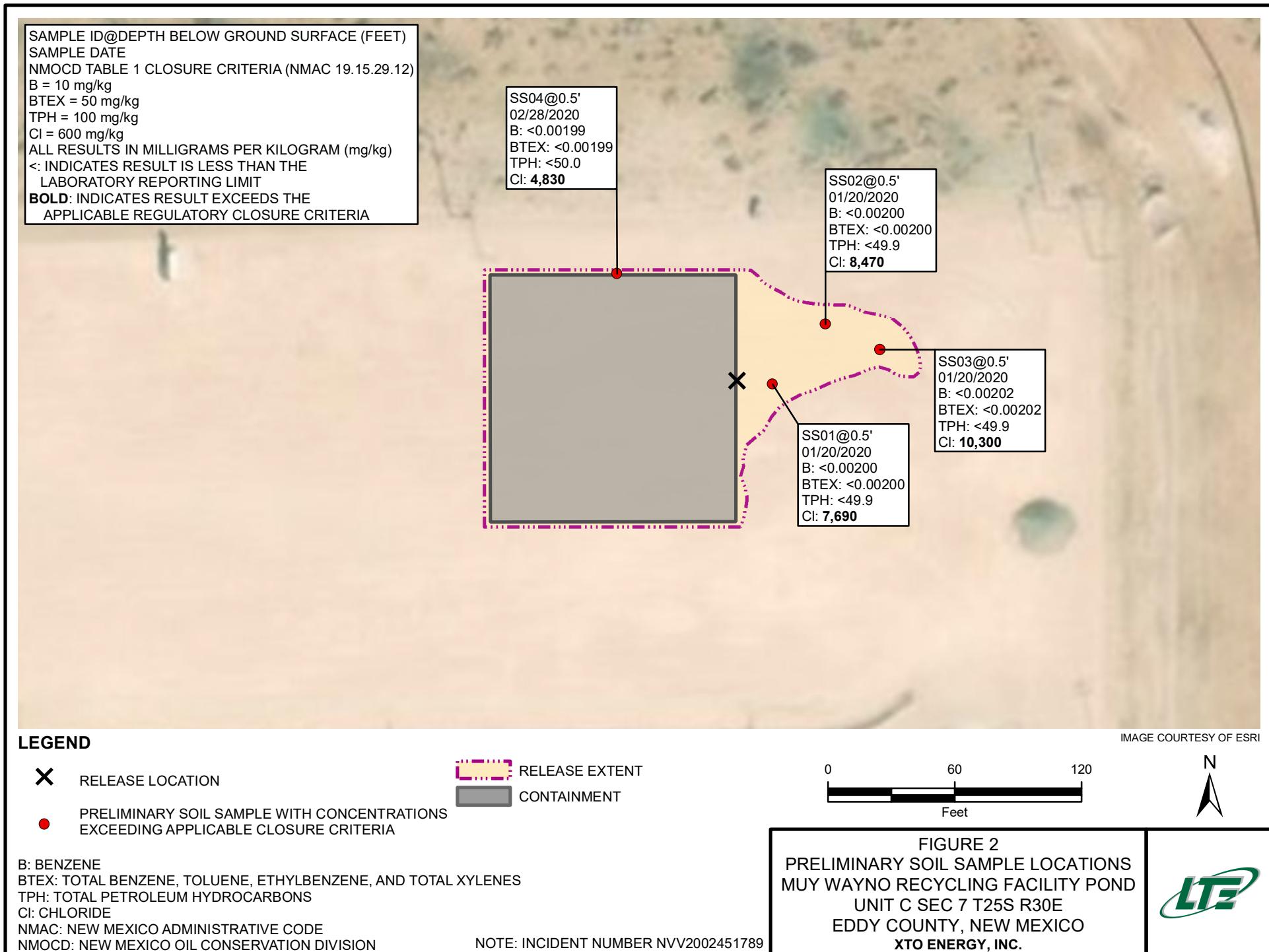
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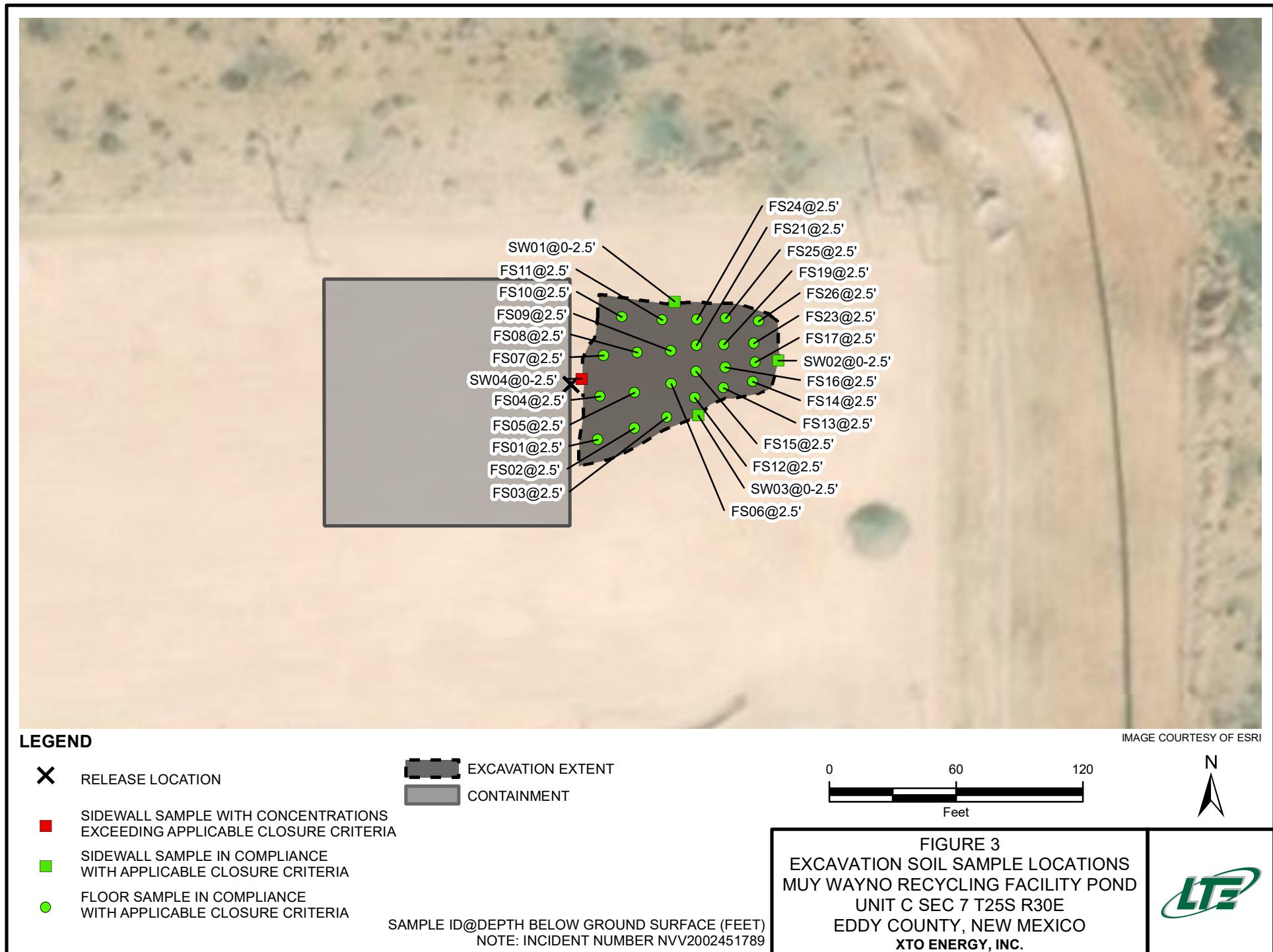
- Figure 1 Site Location Map
- Figure 2 Preliminary Soil Sample Locations
- Figure 3 Excavation Soil Sample locations
- Figure 4 Delineation Soil Sample Locations
- Table 1 Soil Analytical Results
- Attachment 1 Photographic Log
- Attachment 2 Laboratory Analytical Reports
- Attachment 3 Lithologic/Soil Sampling Logs

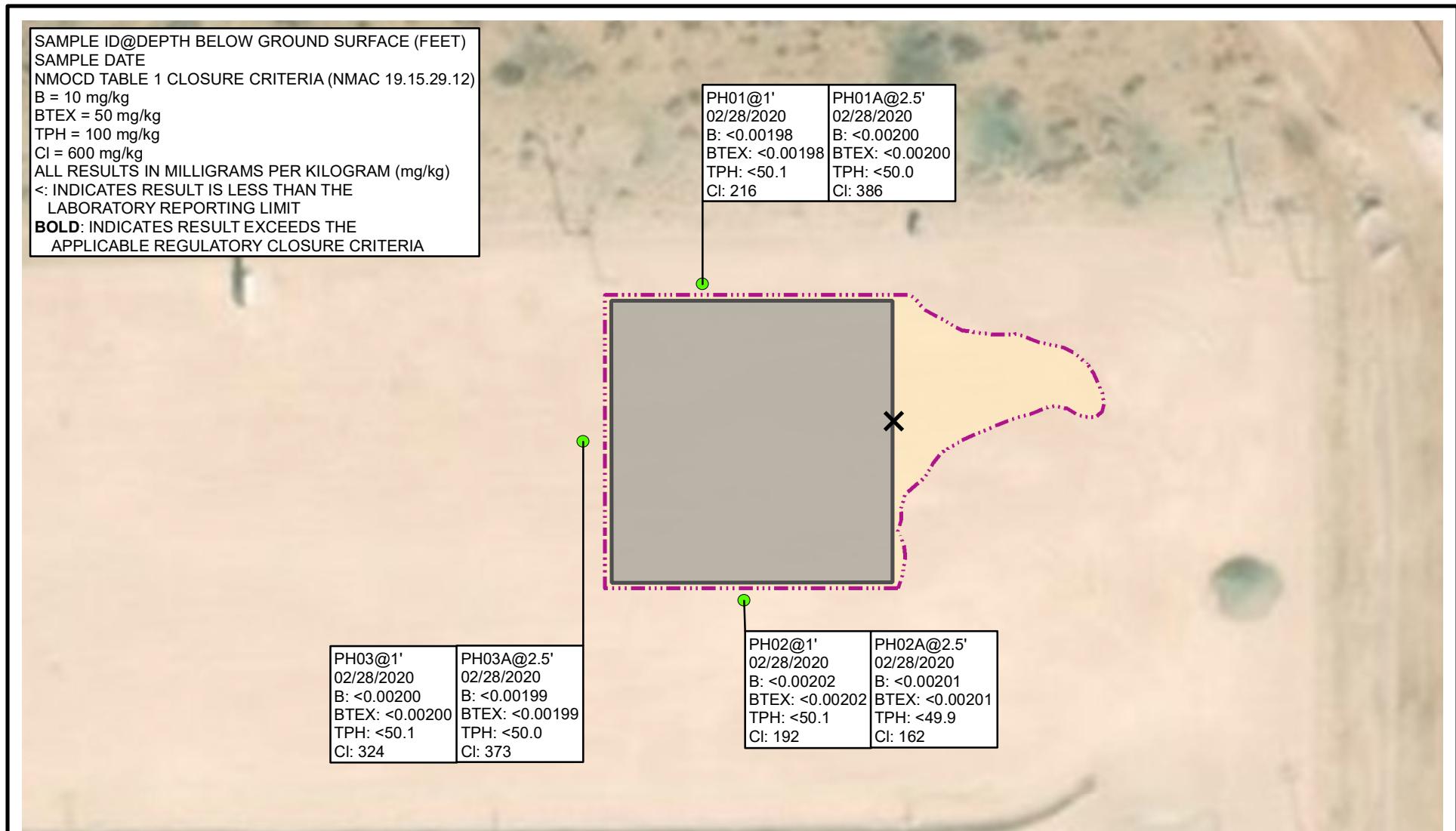
FIGURES









**LEGEND**

X RELEASE LOCATION

RELEASE EXTENT

CONTAINMENT

● DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

B: BENZENE

BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES

TPH: TOTAL PETROLEUM HYDROCARBONS

Cl: CHLORIDE

NMAC: NEW MEXICO ADMINISTRATIVE CODE

NMOCD: NEW MEXICO OIL CONSERVATION DIVISION

NOTE: INCIDENT NUMBER NVV2002451789

IMAGE COURTESY OF ESRI

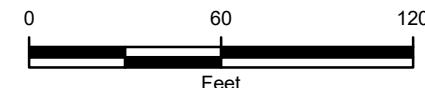


FIGURE 4
DELINEATION SOIL SAMPLE LOCATIONS
MUY WAYNO RECYCLING FACILITY POND
UNIT C SEC 7 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.



TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

MUY WAYNO RECYCLING FACILITY POND
INCIDENT NUMBER NVV200241789
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
SS01	0.5	01/20/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	7,690
SS02	0.5	01/20/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	8,470
SS03	0.5	01/20/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	10,300
SS04	0.5	02/28/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	4,830
PH01	1	02/28/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	216
PH01A	2.5	02/28/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	386
PH02	1	02/28/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	192
PH02A	2.5	02/28/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	162
PH03	1	02/28/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	324
PH03A	2.5	02/28/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	373
FS01	2.5	02/26/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	110
FS02	2.5	02/26/2020	<0.00503	<0.00503	<0.00503	<0.00503	<0.00503	<50.1	<50.1	<50.1	<50.1	<50.1	42.9
FS03	2.5	02/26/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	<9.98
FS04	2.5	02/27/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	111
FS05	2.5	02/27/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	13.5
FS06	2.5	02/27/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	<9.88
FS07	2.5	02/27/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	68.7
FS08	2.5	02/27/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	61.5
FS09	2.5	02/27/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	11.3
FS10	2.5	02/27/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	24.1
FS11	2.5	02/27/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	18.4
FS12	2.5	02/27/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	144
FS13	2.5	02/27/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	77.9



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TABLE 1
SOIL ANALYTICAL RESULTS

MUY WAYNO RECYCLING FACILITY POND
INCIDENT NUMBER NNV200241789
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
FS14	2.5	02/27/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	39.9
FS15	2.5	02/27/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	26.6
FS16	2.5	02/27/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	76.4
FS17	2.5	02/27/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	66.1
FS18	2.5	02/27/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	148
FS19	2.5	02/27/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	81.2
FS20	2.5	02/27/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	43.1
FS21	2.5	02/27/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	45.5
FS22	2.5	02/27/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	30.0
FS23	2.5	02/27/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	31.3
FS24	2.5	02/27/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	42.0
FS25	2.5	02/27/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	28.6
FS26	2.5	02/27/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	30.4
SW01	0 - 2.5	02/27/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	319
SW02	0 - 2.5	02/27/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.3	<50.3	<50.3	<50.3	<50.3	93.5
SW03	0 - 2.5	02/27/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	583
SW04	0 - 2.5	02/27/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	3,090

Notes:

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

MRO - motor oil range organics

NMAC - New Mexico Administrative Code

NMOCD - New Mexico Oil Conservation Division

NE - not established

TPH - total petroleum hydrocarbons

Bold - indicates result exceeds the applicable regulatory standard

< - indicates result is below laboratory reporting limits

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



ATTACHMENT 1: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG



Photograph 1: View from north side of containment, facing east.



Photograph 2: View of east side of lined containment where overflow occurred.



Photograph 3: View of excavation on east side of lined containment.

Muy Wayno Recycling Facility

32.148859, -103.922277

Photographs Taken: January 20 through February 27, 2020

Page 1 of 1

ATTACHMENT 2: LABORATORY ANALYTICAL REPORTS



Analytical Report 649710

for
LT Environmental, Inc.

Project Manager: Dan Moir
Muy Wayno Recycling Facility

012919306

29-JAN-20

Collected By: Client



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

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

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

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



29-JAN-20

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **649710**

Muy Wayno Recycling Facility

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 649710. 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. 649710 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer

Project Assistant

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

Certified and approved by numerous States and Agencies.

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

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

**Sample Cross Reference 649710****LT Environmental, Inc., Arvada, CO**

Muy Wayno Recycling Facility

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	01-20-20 11:30	0.5 ft	649710-001
SS02	S	01-20-20 11:35	0.5 ft	649710-002
SS03	S	01-20-20 11:40	0.5 ft	649710-003



CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: Muy Wayno Recycling Facility

Project ID: 012919306
Work Order Number(s): 649710

Report Date: 29-JAN-20
Date Received: 01/21/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3114750 BTEX by EPA 8021B

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



Certificate of Analysis Summary 649710

LT Environmental, Inc., Arvada, CO

Project Name: Muy Wayno Recycling Facility

Project Id: 012919306
 Contact: Dan Moir
 Project Location: Eddy County

Date Received in Lab: Tue Jan-21-20 08:30 am
 Report Date: 29-JAN-20
 Project Manager: Jessica Kramer

Analysis Requested		Lab Id:	649710-001	649710-002	649710-003			
		Field Id:	SS01	SS02	SS03			
		Depth:	0.5- ft	0.5- ft	0.5- ft			
		Matrix:	SOIL	SOIL	SOIL			
		Sampled:	Jan-20-20 11:30	Jan-20-20 11:35	Jan-20-20 11:40			
BTEX by EPA 8021B SUB: T104704400-19-19		Extracted:	Jan-28-20 09:30	Jan-28-20 09:30	Jan-28-20 09:30			
		Analyzed:	Jan-28-20 20:25	Jan-28-20 20:45	Jan-28-20 21:05			
		Units/RL:	mg/kg	RL	mg/kg	RL		
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	
m,p-Xylenes		<0.00399	0.00399	<0.00401	0.00401	<0.00403	0.00403	
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	
Chloride by EPA 300 SUB: T104704400-19-19		Extracted:	Jan-22-20 14:20	Jan-22-20 14:20	Jan-22-20 14:20			
		Analyzed:	Jan-23-20 11:39	Jan-23-20 12:20	Jan-23-20 12:26			
		Units/RL:	mg/kg	RL	mg/kg	RL		
Chloride		7690	50.0	8470	50.1	10300	49.6	
TPH by SW8015 Mod SUB: T104704400-19-19		Extracted:	Jan-23-20 10:00	Jan-23-20 10:00	Jan-23-20 10:00			
		Analyzed:	Jan-23-20 17:33	Jan-23-20 17:52	Jan-23-20 18:10			
		Units/RL:	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<49.9	49.9	<49.9	49.9	
Diesel Range Organics (DRO)		<49.9	49.9	<49.9	49.9	<49.9	49.9	
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<49.9	49.9	<49.9	49.9	
Total GRO-DRO		<49.9	49.9	<49.9	49.9	<49.9	49.9	
Total TPH		<49.9	49.9	<49.9	49.9	<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 Kramer
 Project Assistant



Certificate of Analytical Results 649710

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **SS01**

Matrix: Soil

Date Received: 01.21.20 08.30

Lab Sample Id: 649710-001

Date Collected: 01.20.20 11.30

Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 01.22.20 14.20

Basis: Wet Weight

Seq Number: 3114286

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7690	50.0	mg/kg	01.23.20 11.39		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 01.23.20 10.00

Basis: Wet Weight

Seq Number: 3114321

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.23.20 17.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.23.20 17.33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.23.20 17.33	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	01.23.20 17.33	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.23.20 17.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	76	%	70-135	01.23.20 17.33		
o-Terphenyl	84-15-1	79	%	70-135	01.23.20 17.33		



Certificate of Analytical Results 649710

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: SS01

Matrix: Soil

Date Received: 01.21.20 08.30

Lab Sample Id: 649710-001

Date Collected: 01.20.20 11.30

Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 01.28.20 09.30

Basis: Wet Weight

Seq Number: 3114750

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.28.20 20.25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.28.20 20.25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.28.20 20.25	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.28.20 20.25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.28.20 20.25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.28.20 20.25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.28.20 20.25	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene		540-36-3	111	%	70-130	01.28.20 20.25	
4-Bromofluorobenzene		460-00-4	75	%	70-130	01.28.20 20.25	



Certificate of Analytical Results 649710

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: SS02

Matrix: Soil

Date Received: 01.21.20 08.30

Lab Sample Id: 649710-002

Date Collected: 01.20.20 11.35

Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 01.22.20 14.20

Basis: Wet Weight

Seq Number: 3114286

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8470	50.1	mg/kg	01.23.20 12.20		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 01.23.20 10.00

Basis: Wet Weight

Seq Number: 3114321

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.23.20 17.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.23.20 17.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.23.20 17.52	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	01.23.20 17.52	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.23.20 17.52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	77	%	70-135	01.23.20 17.52		
o-Terphenyl	84-15-1	80	%	70-135	01.23.20 17.52		



Certificate of Analytical Results 649710

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: SS02

Matrix: Soil

Date Received: 01.21.20 08.30

Lab Sample Id: 649710-002

Date Collected: 01.20.20 11.35

Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 01.28.20 09.30

Basis: Wet Weight

Seq Number: 3114750

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.28.20 20.45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.28.20 20.45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.28.20 20.45	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.28.20 20.45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.28.20 20.45	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.28.20 20.45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.28.20 20.45	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	83	%	70-130	01.28.20 20.45	
1,4-Difluorobenzene		540-36-3	113	%	70-130	01.28.20 20.45	



Certificate of Analytical Results 649710

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **SS03**

Matrix: Soil

Date Received: 01.21.20 08.30

Lab Sample Id: 649710-003

Date Collected: 01.20.20 11.40

Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 01.22.20 14.20

Basis: Wet Weight

Seq Number: 3114286

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10300	49.6	mg/kg	01.23.20 12.26		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 01.23.20 10.00

Basis: Wet Weight

Seq Number: 3114321

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.23.20 18.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.23.20 18.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.23.20 18.10	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	01.23.20 18.10	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.23.20 18.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	76	%	70-135	01.23.20 18.10		
o-Terphenyl	84-15-1	79	%	70-135	01.23.20 18.10		



Certificate of Analytical Results 649710

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **SS03**

Matrix: **Soil**

Date Received: 01.21.20 08.30

Lab Sample Id: **649710-003**

Date Collected: 01.20.20 11.40

Sample Depth: 0.5 ft

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

Prep Method: **SW5030B**

Tech: **KTL**

% Moisture:

Analyst: **KTL**

Date Prep: **01.28.20 09.30**

Basis: **Wet Weight**

Seq Number: **3114750**

SUB: **T104704400-19-19**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.28.20 21.05	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.28.20 21.05	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.28.20 21.05	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.28.20 21.05	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.28.20 21.05	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.28.20 21.05	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.28.20 21.05	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene		540-36-3	110	%	70-130	01.28.20 21.05	
4-Bromofluorobenzene		460-00-4	81	%	70-130	01.28.20 21.05	



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

LT Environmental, Inc.
 Muy Wayno Recycling Facility

Analytical Method: Chloride by EPA 300

Seq Number:	3114286	Matrix:	Solid			Prep Method:	E300P
MB Sample Id:	7694959-1-BLK	LCS Sample Id:	7694959-1-BKS			Date Prep:	01.22.20
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits
Chloride	<5.00	250	256	102	254	102	90-110
							%RPD RPD Limit Units Analysis Date Flag
							mg/kg 01.23.20 09:12

Analytical Method: Chloride by EPA 300

Seq Number:	3114286	Matrix:	Soil			Prep Method:	E300P
Parent Sample Id:	649801-009	MS Sample Id:	649801-009 S			Date Prep:	01.22.20
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits
Chloride	182	249	444	105	446	106	90-110
							%RPD RPD Limit Units Analysis Date Flag
							mg/kg 01.23.20 11:57

Analytical Method: Chloride by EPA 300

Seq Number:	3114286	Matrix:	Soil			Prep Method:	E300P
Parent Sample Id:	649801-010	MS Sample Id:	649801-010 S			Date Prep:	01.22.20
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits
Chloride	41.3	252	309	106	306	105	90-110
							%RPD RPD Limit Units Analysis Date Flag
							mg/kg 01.23.20 13:22

Analytical Method: TPH by SW8015 Mod

Seq Number:	3114321	Matrix:	Solid			Prep Method:	SW8015P
MB Sample Id:	7695046-1-BLK	LCS Sample Id:	7695046-1-BKS			Date Prep:	01.23.20
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	838	84	865	87	70-135
Diesel Range Organics (DRO)	<15.0	1000	876	88	916	92	70-135
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits
1-Chlorooctane	79		100		101		70-135
o-Terphenyl	82		88		85		70-135
							% Analysis Date
							01.23.20 12:54
							% 01.23.20 12:54

Analytical Method: TPH by SW8015 Mod

Seq Number:	3114321	Matrix:	Solid			Prep Method:	SW8015P
MB Sample Id:	7695046-1-BLK					Date Prep:	01.23.20
Parameter	MB Result					Units	Analysis Date
Motor Oil Range Hydrocarbons (MRO)	<50.0					mg/kg	01.23.20 12:36

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

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

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

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



QC Summary 649710

LT Environmental, Inc.
Muy Wayno Recycling Facility

Analytical Method: TPH by SW8015 Mod

Seq Number:	3114321	Matrix: Soil				Prep Method: SW8015P				Date Prep: 01.23.20		
Parent Sample Id:	649595-001	MS Sample Id: 649595-001 S				MSD Sample Id: 649595-001 SD						
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	998	883	88	844	84	70-135	5	20	mg/kg	01.23.20 13:50	
Diesel Range Organics (DRO)	19.0	998	847	83	828	81	70-135	2	20	mg/kg	01.23.20 13:50	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag		Limits		Units	Analysis Date	
1-Chlorooctane			102		102		70-135			%	01.23.20 13:50	
o-Terphenyl			88		87		70-135			%	01.23.20 13:50	

Analytical Method: BTEX by EPA 8021B

Seq Number:	3114750	Matrix: Solid				Prep Method: SW5030B				Date Prep: 01.28.20		
MB Sample Id:	7695314-1-BLK	LCS Sample Id: 7695314-1-BKS				LCSD Sample Id: 7695314-1-BSD						
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.108	108	0.110	110	70-130	2	35	mg/kg	01.28.20 17:46	
Toluene	<0.000456	0.100	0.106	106	0.104	104	70-130	2	35	mg/kg	01.28.20 17:46	
Ethylbenzene	<0.000565	0.100	0.102	102	0.0993	99	70-130	3	35	mg/kg	01.28.20 17:46	
m,p-Xylenes	<0.00101	0.200	0.201	101	0.195	98	70-130	3	35	mg/kg	01.28.20 17:46	
o-Xylene	<0.000344	0.100	0.0993	99	0.0975	98	70-130	2	35	mg/kg	01.28.20 17:46	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag		Limits		Units	Analysis Date	
1,4-Difluorobenzene	110		111		108		70-130			%	01.28.20 17:46	
4-Bromofluorobenzene	76		88		85		70-130			%	01.28.20 17:46	

Analytical Method: BTEX by EPA 8021B

Seq Number:	3114750	Matrix: Soil				Prep Method: SW5030B				Date Prep: 01.28.20		
Parent Sample Id:	649594-001	MS Sample Id: 649594-001 S				MSD Sample Id: 649594-001 SD						
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.000584	0.100	0.104	103	0.0935	93	70-130	11	35	mg/kg	01.28.20 18:26	
Toluene	0.000624	0.100	0.103	102	0.0950	94	70-130	8	35	mg/kg	01.28.20 18:26	
Ethylbenzene	<0.000565	0.100	0.0995	100	0.0894	89	70-130	11	35	mg/kg	01.28.20 18:26	
m,p-Xylenes	<0.00101	0.200	0.194	97	0.176	88	70-130	10	35	mg/kg	01.28.20 18:26	
o-Xylene	0.000473	0.100	0.0956	95	0.0867	86	70-130	10	35	mg/kg	01.28.20 18:26	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag		Limits		Units	Analysis Date	
1,4-Difluorobenzene			112		108		70-130			%	01.28.20 18:26	
4-Bromofluorobenzene			89		89		70-130			%	01.28.20 18:26	

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

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

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

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



Chain of Custody

Work Order No: (04971)

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Austin, TX (512) 444-1111 Fort Worth, TX (817) 251-1111 Lubbock, TX (806) 794-1296

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

		Work Order Comments				
Program:	USTIPST	<input type="checkbox"/> RP	<input type="checkbox"/> Brownfields	<input type="checkbox"/> RC	<input type="checkbox"/> Superfund	<input type="checkbox"/>
State of Project:						
Reporting: Level II	<input type="checkbox"/> Level III	<input type="checkbox"/> STJUST	<input type="checkbox"/> JRP	<input type="checkbox"/> Level IV	<input type="checkbox"/>	
Deliverables: EDD	<input type="checkbox"/>	ADAPT	<input type="checkbox"/>	Other:		

Total 200.7 / 6010 200.8 / 6020:

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U

O₂ Na Sr Ti Sn U V Zn
1631 / 245.1 / 7470 / 7471 : Hg

□ □ □ □ □

Relinquished by: (Signature)
1. *Robert Nata*
3
5

for the cost of samples and shall not assume any responsibility for damage or loss of samples. A fee of \$5.00 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.					
Received by (Signature)	Date/Time	Relinquished by: (Signature)	Received by (Signature)	Date/Time	
<i>h. mch</i>	8/18 1/21/20	2	<i>h. mch</i>	1/21/20 8:30	
	4				
	6				

Date/Time
1/21/20 8:30

Inter-Office Shipment

Page 1 of 1

IOS Number 56472

Date/Time: 01/21/20 11:09

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.:

F-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
649710-001	S	SS01	01/20/20 11:30	E300_CL	Chloride by EPA 300	01/27/20	02/17/20	JKR	CL	
649710-001	S	SS01	01/20/20 11:30	SW8015MOD_NM	TPH by SW8015 Mod	01/27/20	02/03/20	JKR	GRO-DRO PHCC10C28 PI	
649710-001	S	SS01	01/20/20 11:30	SW8021B	BTEX by EPA 8021B	01/27/20	02/03/20	JKR	BZ BZME EBZ XYLENES	
649710-002	S	SS02	01/20/20 11:35	E300_CL	Chloride by EPA 300	01/27/20	02/17/20	JKR	CL	
649710-002	S	SS02	01/20/20 11:35	SW8015MOD_NM	TPH by SW8015 Mod	01/27/20	02/03/20	JKR	GRO-DRO PHCC10C28 PI	
649710-002	S	SS02	01/20/20 11:35	SW8021B	BTEX by EPA 8021B	01/27/20	02/03/20	JKR	BZ BZME EBZ XYLENES	
649710-003	S	SS03	01/20/20 11:40	E300_CL	Chloride by EPA 300	01/27/20	02/17/20	JKR	CL	
649710-003	S	SS03	01/20/20 11:40	SW8015MOD_NM	TPH by SW8015 Mod	01/27/20	02/03/20	JKR	GRO-DRO PHCC10C28 PI	
649710-003	S	SS03	01/20/20 11:40	SW8021B	BTEX by EPA 8021B	01/27/20	02/03/20	JKR	BZ BZME EBZ XYLENES	

Inter Office Shipment or Sample Comments:

Relinquished By:



Elizabeth McClellan

Date Relinquished: 01/21/2020

Received By:



Brianna Teel

Date Received: 01/22/2020 11:14Cooler Temperature: 0.5



Inter Office Report- Sample Receipt Checklist

Sent To: Midland

Acceptable Temperature Range: 0 - 6 degC

IOS #: 56472

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sent By: Elizabeth McClellan**Date Sent:** 01/21/2020 11:09 AM**Received By:** Brianna Teel**Date Received:** 01/22/2020 11:14 AM

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

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

NonConformance:**Corrective Action Taken:**

Nonconformance Documentation

Contact: _____**Contacted by :** _____**Date:** _____**Checklist reviewed by:**

 Brianna Teel

Date: 01/22/2020

XENCO Laboratories**Prelogin/Nonconformance Report- Sample Log-In****Client:** LT Environmental, Inc.**Date/ Time Received:** 01.21.2020 08.30.00 AM**Work Order #:** 649710

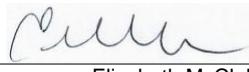
Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : T-NM-007

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

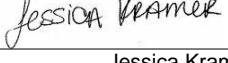
* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:

 Elizabeth McClellan

Date: 01.21.2020

Checklist reviewed by:

 Jessica Kramer

Date: 01.21.2020

Analytical Report 654051

for
LT Environmental, Inc.

Project Manager: Dan Moir

Muy Wayno Recycling Facility

012920007

02-MAR-20

Collected By: Client



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

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

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

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



02-MAR-20

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **654051**

Muy Wayno Recycling Facility

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) 654051. 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. 654051 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer

Project Assistant

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

Certified and approved by numerous States and Agencies.

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

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

Sample Cross Reference 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	02-26-20 15:04	2.5 ft	654051-001
FS02	S	02-26-20 15:06	2.5 ft	654051-002
FS03	S	02-26-20 15:10	2.5 ft	654051-003
FS04	S	02-27-20 10:32	2.5 ft	654051-004
FS05	S	02-27-20 10:34	2.5 ft	654051-005
FS06	S	02-27-20 10:37	2.5 ft	654051-006
FS07	S	02-27-20 10:40	2.5 ft	654051-007
FS08	S	02-27-20 10:45	2.5 ft	654051-008
FS09	S	02-27-20 10:49	2.5 ft	654051-009
FS10	S	02-27-20 12:02	2.5 ft	654051-010
FS11	S	02-27-20 12:04	2.5 ft	654051-011
FS12	S	02-27-20 13:52	2.5 ft	654051-012
FS13	S	02-27-20 13:53	2.5 ft	654051-013
FS14	S	02-27-20 13:55	2.5 ft	654051-014
FS15	S	02-27-20 14:08	2.5 ft	654051-015
FS16	S	02-27-20 14:09	2.5 ft	654051-016
FS17	S	02-27-20 14:12	2.5 ft	654051-017
FS18	S	02-27-20 14:50	2.5 ft	654051-018
FS19	S	02-27-20 14:52	2.5 ft	654051-019
FS20	S	02-27-20 14:54	2.5 ft	654051-020
FS22	S	02-27-20 15:08	2.5 ft	654051-021
FS23	S	02-27-20 15:10	2.5 ft	654051-022
FS24	S	02-27-20 15:23	2.5 ft	654051-023
FS25	S	02-27-20 15:25	2.5 ft	654051-024
FS26	S	02-27-20 15:26	2.5 ft	654051-025
SW01	S	02-27-20 12:44	0 - 2.5 ft	654051-026
SW02	S	02-27-20 13:25	0 - 2.5 ft	654051-027
SW03	S	02-27-20 13:31	0 - 2.5 ft	654051-028
SW04	S	02-27-20 13:35	0 - 2.5 ft	654051-029



CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: Muy Wayno Recycling Facility

Project ID: 012920007
Work Order Number(s): 654051

Report Date: 02-MAR-20
Date Received: 02/28/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3118140 BTEX by EPA 8021B

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

Batch: LBA-3118143 BTEX by EPA 8021B

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

Batch: LBA-3118145 BTEX by EPA 8021B

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

Batch: LBA-3118153 BTEX by EPA 8021B

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



Certificate of Analysis Summary 654051

LT Environmental, Inc., Arvada, CO

Project Name: Muy Wayno Recycling Facility

Project Id: 012920007

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Feb-28-20 08:35 am

Report Date: 02-MAR-20

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	654051-001	654051-002	654051-003	654051-004	654051-005	654051-006					
BTEX by EPA 8021B	Extracted:	Feb-28-20 10:34	Feb-28-20 12:13									
	Analyzed:	Feb-28-20 19:39	Feb-28-20 20:00	Feb-28-20 20:20	Feb-28-20 20:40	Feb-28-20 21:01	Feb-29-20 00:04					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL					
Benzene	<0.00201	0.00201	<0.00503	0.00503	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200		
Toluene	<0.00201	0.00201	<0.00503	0.00503	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200		
Ethylbenzene	<0.00201	0.00201	<0.00503	0.00503	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200		
m,p-Xylenes	<0.00402	0.00402	<0.0101	0.0101	<0.00399	0.00399	<0.00401	0.00401	<0.00402	0.00402	<0.00401	0.00401
o-Xylene	<0.00201	0.00201	<0.00503	0.00503	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200		
Total Xylenes	<0.00201	0.00201	<0.00503	0.00503	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200		
Total BTEX	<0.00201	0.00201	<0.00503	0.00503	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200		
Chloride by EPA 300	Extracted:	Feb-28-20 12:30										
	Analyzed:	Feb-28-20 16:19	Feb-28-20 16:26	Feb-28-20 16:33	Feb-28-20 16:39	Feb-28-20 16:45	Feb-28-20 16:52					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL					
Chloride	110	10.0	42.9	10.1	<9.98	9.98	111	9.92	13.5	9.96	<9.88	9.88
TPH by SW8015 Mod	Extracted:	Feb-28-20 15:05										
	Analyzed:	Feb-28-20 22:49	Feb-28-20 22:49	Feb-28-20 23:09	Feb-28-20 23:09	Feb-28-20 23:29	Feb-28-20 23:29					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL					
Gasoline Range Hydrocarbons (GRO)	<50.2	50.2	<50.1	50.1	<50.2	50.2	<50.0	50.0	<50.1	50.1	<50.2	50.2
Diesel Range Organics (DRO)	<50.2	50.2	<50.1	50.1	<50.2	50.2	<50.0	50.0	<50.1	50.1	<50.2	50.2
Motor Oil Range Hydrocarbons (MRO)	<50.2	50.2	<50.1	50.1	<50.2	50.2	<50.0	50.0	<50.1	50.1	<50.2	50.2
Total GRO-DRO	<50.2	50.2	<50.1	50.1	<50.2	50.2	<50.0	50.0	<50.1	50.1	<50.2	50.2
Total TPH	<50.2	50.2	<50.1	50.1	<50.2	50.2	<50.0	50.0	<50.1	50.1	<50.2	50.2

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Jessica Kramer
Project Assistant

**Certificate of Analysis Summary 654051**

Page 46 of 160

LT Environmental, Inc., Arvada, CO**Project Name: Muy Wayno Recycling Facility**

Project Id: 012920007
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri Feb-28-20 08:35 am
Report Date: 02-MAR-20
Project Manager: Jessica Kramer

Analysis Requested		Lab Id:	654051-007	654051-008	654051-009	654051-010	654051-011	654051-012	
		Field Id:	FS07	FS08	FS09	FS10	FS11	FS12	
		Depth:	2.5- ft						
		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
		Sampled:	Feb-27-20 10:40	Feb-27-20 10:45	Feb-27-20 10:49	Feb-27-20 12:02	Feb-27-20 12:04	Feb-27-20 13:52	
BTEX by EPA 8021B		Extracted:	Feb-28-20 12:13						
		Analyzed:	Feb-29-20 00:25	Feb-29-20 00:45	Feb-29-20 01:06	Feb-29-20 01:26	Feb-29-20 01:46	Feb-29-20 02:07	
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Benzene		<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00397	0.00397	<0.00398	0.00398	<0.00399	0.00399	<0.00403	0.00403
o-Xylene		<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300		Extracted:	Feb-28-20 12:30	Feb-28-20 12:30	Feb-28-20 16:00	Feb-28-20 16:00	Feb-28-20 16:00	Feb-28-20 16:00	
		Analyzed:	Feb-28-20 16:58	Feb-28-20 17:04	Feb-28-20 17:41	Feb-28-20 17:59	Feb-28-20 18:05	Feb-28-20 18:11	
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Chloride		68.7	10.0	61.5	10.0	11.3	9.98	24.1	10.1
TPH by SW8015 Mod		Extracted:	Feb-28-20 15:05	Feb-28-20 15:05	Feb-28-20 17:00	Feb-28-20 17:00	Feb-28-20 17:00	Feb-28-20 17:00	
		Analyzed:	Feb-28-20 23:49	Feb-28-20 23:49	Feb-29-20 01:28	Feb-29-20 01:47	Feb-29-20 02:07	Feb-29-20 02:07	
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.2	50.2	<50.3	50.3	<50.2	50.2
Diesel Range Organics (DRO)		<50.0	50.0	<50.2	50.2	<50.3	50.3	<50.2	50.2
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.2	50.2	<50.3	50.3	<50.2	50.2
Total GRO-DRO		<50.0	50.0	<50.2	50.2	<50.3	50.3	<50.2	50.2
Total TPH		<50.0	50.0	<50.2	50.2	<50.3	50.3	<50.2	50.2

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 654051

LT Environmental, Inc., Arvada, CO

Project Name: Muy Wayno Recycling Facility

Project Id: 012920007
 Contact: Dan Moir
 Project Location:

Date Received in Lab: Fri Feb-28-20 08:35 am
 Report Date: 02-MAR-20
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	654051-013	654051-014	654051-015	654051-016	654051-017	654051-018
BTEX by EPA 8021B	Extracted:	Feb-28-20 12:13					
	Analyzed:	Feb-29-20 02:27	Feb-29-20 02:48	Feb-29-20 03:08	Feb-29-20 04:09	Feb-29-20 04:30	Feb-29-20 04:50
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200
Toluene		<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200
Ethylbenzene		<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200
m,p-Xylenes		<0.00398	0.00398	<0.00403	0.00403	<0.00401	0.00401
o-Xylene		<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200
Total Xylenes		<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200
Total BTEX		<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200
Chloride by EPA 300	Extracted:	Feb-28-20 16:00					
	Analyzed:	Feb-28-20 18:17	Feb-28-20 18:36	Feb-28-20 18:42	Feb-28-20 18:51	Feb-28-20 18:57	Feb-28-20 19:03
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		77.9	9.96	39.9	9.98	26.6	9.96
TPH by SW8015 Mod	Extracted:	Feb-28-20 17:00					
	Analyzed:	Feb-29-20 02:27	Feb-29-20 02:27	Feb-29-20 02:47	Feb-29-20 02:47	Feb-29-20 03:07	Feb-29-20 03:07
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.2	50.2	<50.3	50.3	<50.1	50.1
Diesel Range Organics (DRO)		<50.2	50.2	<50.3	50.3	<50.1	50.1
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2	<50.3	50.3	<50.1	50.1
Total GRO-DRO		<50.2	50.2	<50.3	50.3	<50.1	50.1
Total TPH		<50.2	50.2	<50.3	50.3	<50.1	50.1

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Jessica Kramer
 Project Assistant

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Page 48 of 160

LT Environmental, Inc., Arvada, CO**Project Name: Muy Wayno Recycling Facility**

Project Id: 012920007
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri Feb-28-20 08:35 am
Report Date: 02-MAR-20
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	654051-019	654051-020	654051-021	654051-022	654051-023	654051-024
BTEX by EPA 8021B	Extracted:	Feb-28-20 12:13	Feb-28-20 18:00				
	Analyzed:	Feb-29-20 05:10	Feb-29-20 05:31	Feb-29-20 05:51	Feb-29-20 06:12	Feb-29-20 06:32	Feb-29-20 00:01
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Toluene		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Ethylbenzene		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
m,p-Xylenes		<0.00398	0.00398	<0.00402	0.00402	<0.00403	0.00403
o-Xylene		<0.00199	0.00199	<0.00201	0.00201	<0.00202	0.00202
Total Xylenes		<0.00199	0.00199	<0.00201	0.00201	<0.00202	0.00202
Total BTEX		<0.00199	0.00199	<0.00201	0.00201	<0.00202	0.00202
Chloride by EPA 300	Extracted:	Feb-28-20 16:00					
	Analyzed:	Feb-28-20 19:08	Feb-28-20 19:25	Feb-28-20 19:31	Feb-28-20 19:48	Feb-28-20 19:54	Feb-28-20 19:59
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		81.2	9.94	43.1	9.98	30.0	10.0
TPH by SW8015 Mod	Extracted:	Feb-28-20 17:00					
	Analyzed:	Feb-29-20 04:06	Feb-29-20 04:06	Feb-29-20 04:26	Feb-29-20 04:26	Feb-29-20 04:46	Feb-29-20 04:46
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.2	50.2	<50.2	50.2	<50.1	50.1
Diesel Range Organics (DRO)		<50.2	50.2	<50.2	50.2	<50.1	50.1
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2	<50.2	50.2	<50.1	50.1
Total GRO-DRO		<50.2	50.2	<50.2	50.2	<50.1	50.1
Total TPH		<50.2	50.2	<50.2	50.2	<50.1	50.1

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Jessica Kramer
Project Assistant



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Page 49 of 160

LT Environmental, Inc., Arvada, CO

Project Name: Muy Wayno Recycling Facility

Project Id: 012920007
 Contact: Dan Moir
 Project Location:

Date Received in Lab: Fri Feb-28-20 08:35 am
 Report Date: 02-MAR-20
 Project Manager: Jessica Kramer

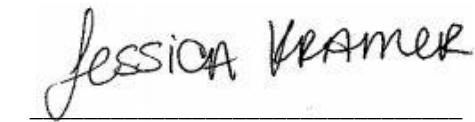
Analysis Requested		Lab Id:	654051-025	654051-026	654051-027	654051-028	654051-029	
		Field Id:	FS26	SW01	SW02	SW03	SW04	
		Depth:	2.5- ft	0-2.5 ft	0-2.5 ft	0-2.5 ft	0-2.5 ft	
		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	
		Sampled:	Feb-27-20 15:26	Feb-27-20 12:44	Feb-27-20 13:25	Feb-27-20 13:31	Feb-27-20 13:35	
BTEX by EPA 8021B		Extracted:	Feb-28-20 12:13	Feb-28-20 12:13	Feb-28-20 18:00	Feb-28-20 11:00	Feb-28-20 11:00	
		Analyzed:	Feb-29-20 06:53	Feb-29-20 07:54	Feb-29-20 00:21	Feb-28-20 20:17	Feb-28-20 20:37	
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200 0.00200
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200 0.00200
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00400	0.00400	<0.00398	0.00398	<0.00402	0.00402	<0.00401 0.00401
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200 0.00200
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200 0.00200
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200 0.00200
Chloride by EPA 300		Extracted:	Feb-28-20 16:00	Feb-28-20 16:00	Feb-28-20 16:00	Feb-28-20 16:00	Feb-28-20 17:00	
		Analyzed:	Feb-28-20 20:05	Feb-28-20 20:11	Feb-28-20 20:16	Feb-28-20 20:22	Feb-28-20 21:13	
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		30.4	9.96	319	50.1	93.5	49.7	583 49.9
TPH by SW8015 Mod		Extracted:	Feb-28-20 17:00	Feb-28-20 17:00	Feb-28-20 17:00	Feb-28-20 17:00	Feb-28-20 19:09	
		Analyzed:	Feb-29-20 05:05	Feb-29-20 05:05	Feb-29-20 05:25	Feb-29-20 05:25	Feb-29-20 07:04	
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.2	50.2	<50.2	50.2	<50.3	50.3	<50.0 50.0
Diesel Range Organics (DRO)		<50.2	50.2	<50.2	50.2	<50.3	50.3	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2	<50.2	50.2	<50.3	50.3	<50.0 50.0
Total GRO-DRO		<50.2	50.2	<50.2	50.2	<50.3	50.3	<50.0 50.0
Total TPH		<50.2	50.2	<50.2	50.2	<50.3	50.3	<50.0 50.0

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 Jessica Kramer
 Project Assistant



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS01** Matrix: Soil Date Received: 02.28.20 08.35
 Lab Sample Id: 654051-001 Date Collected: 02.26.20 15.04 Sample Depth: 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Basis: Wet Weight
 Seq Number: 3118166

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	110	10.0	mg/kg	02.28.20 16.19		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB % Moisture:
 Analyst: MAB Basis: Wet Weight
 Seq Number: 3118180

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.28.20 22.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.28.20 22.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.28.20 22.49	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.28.20 22.49	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.28.20 22.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	111	%	70-135	02.28.20 22.49		
o-Terphenyl	84-15-1	128	%	70-135	02.28.20 22.49		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS01** Matrix: Soil Date Received: 02.28.20 08.35
 Lab Sample Id: 654051-001 Date Collected: 02.26.20 15.04 Sample Depth: 2.5 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B
 Tech: MAB % Moisture:
 Analyst: MAB Basis: Wet Weight
 Seq Number: 3118140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.28.20 19.39	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.28.20 19.39	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.28.20 19.39	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.28.20 19.39	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.28.20 19.39	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.28.20 19.39	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.28.20 19.39	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	97	%	70-130	02.28.20 19.39	
1,4-Difluorobenzene		540-36-3	105	%	70-130	02.28.20 19.39	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS02**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-002

Date Collected: 02.26.20 15.06

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 12.30

Basis: Wet Weight

Seq Number: 3118166

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	42.9	10.1	mg/kg	02.28.20 16.26		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 15.05

Basis: Wet Weight

Seq Number: 3118180

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.28.20 22.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.28.20 22.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.28.20 22.49	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.28.20 22.49	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.28.20 22.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	115	%	70-135	02.28.20 22.49		
o-Terphenyl	84-15-1	128	%	70-135	02.28.20 22.49		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: FS02	Matrix: Soil	Date Received: 02.28.20 08.35
Lab Sample Id: 654051-002	Date Collected: 02.26.20 15.06	Sample Depth: 2.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: MAB	% Moisture:	
Analyst: MAB	Date Prep: 02.28.20 10.34	Basis: Wet Weight
Seq Number: 3118140		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00503	0.00503	mg/kg	02.28.20 20.00	U	1
Toluene	108-88-3	<0.00503	0.00503	mg/kg	02.28.20 20.00	U	1
Ethylbenzene	100-41-4	<0.00503	0.00503	mg/kg	02.28.20 20.00	U	1
m,p-Xylenes	179601-23-1	<0.0101	0.0101	mg/kg	02.28.20 20.00	U	1
o-Xylene	95-47-6	<0.00503	0.00503	mg/kg	02.28.20 20.00	U	1
Total Xylenes	1330-20-7	<0.00503	0.00503	mg/kg	02.28.20 20.00	U	1
Total BTEX		<0.00503	0.00503	mg/kg	02.28.20 20.00	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	98	%	70-130	02.28.20 20.00	
1,4-Difluorobenzene		540-36-3	103	%	70-130	02.28.20 20.00	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS03**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-003

Date Collected: 02.26.20 15.10

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 12.30

Basis: Wet Weight

Seq Number: 3118166

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	02.28.20 16.33	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 15.05

Basis: Wet Weight

Seq Number: 3118180

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.28.20 23.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.28.20 23.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.28.20 23.09	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.28.20 23.09	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.28.20 23.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	120	%	70-135	02.28.20 23.09		
o-Terphenyl	84-15-1	117	%	70-135	02.28.20 23.09		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS03**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-003

Date Collected: 02.26.20 15.10

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 10.34

Basis: Wet Weight

Seq Number: 3118140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.28.20 20.20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.28.20 20.20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.28.20 20.20	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.28.20 20.20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.28.20 20.20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.28.20 20.20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.28.20 20.20	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	98	%	70-130	02.28.20 20.20	
1,4-Difluorobenzene		540-36-3	104	%	70-130	02.28.20 20.20	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS04**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-004

Date Collected: 02.27.20 10.32

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 12.30

Basis: Wet Weight

Seq Number: 3118166

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	111	9.92	mg/kg	02.28.20 16.39		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 15.05

Basis: Wet Weight

Seq Number: 3118180

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.28.20 23.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.28.20 23.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.28.20 23.09	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	02.28.20 23.09	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.28.20 23.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	106	%	70-135	02.28.20 23.09		
o-Terphenyl	84-15-1	119	%	70-135	02.28.20 23.09		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS04**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-004

Date Collected: 02.27.20 10.32

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 10.34

Basis: Wet Weight

Seq Number: 3118140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.28.20 20.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.28.20 20.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.28.20 20.40	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.28.20 20.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.28.20 20.40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.28.20 20.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.28.20 20.40	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene		540-36-3	104	%	70-130	02.28.20 20.40	
4-Bromofluorobenzene		460-00-4	95	%	70-130	02.28.20 20.40	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS05**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-005

Date Collected: 02.27.20 10.34

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 12.30

Basis: Wet Weight

Seq Number: 3118166

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.5	9.96	mg/kg	02.28.20 16.45		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 15.05

Basis: Wet Weight

Seq Number: 3118180

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.28.20 23.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.28.20 23.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.28.20 23.29	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.28.20 23.29	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.28.20 23.29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	106	%	70-135	02.28.20 23.29		
o-Terphenyl	84-15-1	125	%	70-135	02.28.20 23.29		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS05**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-005

Date Collected: 02.27.20 10.34

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 10.34

Basis: Wet Weight

Seq Number: 3118140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.28.20 21.01	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.28.20 21.01	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.28.20 21.01	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.28.20 21.01	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.28.20 21.01	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.28.20 21.01	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.28.20 21.01	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	96	%	70-130	02.28.20 21.01	
1,4-Difluorobenzene		540-36-3	103	%	70-130	02.28.20 21.01	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS06**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-006

Date Collected: 02.27.20 10.37

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 12.30

Basis: Wet Weight

Seq Number: 3118166

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.88	9.88	mg/kg	02.28.20 16.52	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 15.05

Basis: Wet Weight

Seq Number: 3118180

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.28.20 23.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.28.20 23.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.28.20 23.29	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.28.20 23.29	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.28.20 23.29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	110	%	70-135	02.28.20 23.29		
o-Terphenyl	84-15-1	121	%	70-135	02.28.20 23.29		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS06**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-006

Date Collected: 02.27.20 10.37

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 12.13

Basis: Wet Weight

Seq Number: 3118145

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.29.20 00.04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.29.20 00.04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.29.20 00.04	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.29.20 00.04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.29.20 00.04	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.29.20 00.04	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.29.20 00.04	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene		540-36-3	105	%	70-130	02.29.20 00.04	
4-Bromofluorobenzene		460-00-4	95	%	70-130	02.29.20 00.04	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS07**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-007

Date Collected: 02.27.20 10.40

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 12.30

Basis: Wet Weight

Seq Number: 3118166

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	68.7	10.0	mg/kg	02.28.20 16.58		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 15.05

Basis: Wet Weight

Seq Number: 3118180

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.28.20 23.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.28.20 23.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.28.20 23.49	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	02.28.20 23.49	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.28.20 23.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	98	%	70-135	02.28.20 23.49		
o-Terphenyl	84-15-1	114	%	70-135	02.28.20 23.49		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS07**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-007

Date Collected: 02.27.20 10.40

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 12.13

Basis: Wet Weight

Seq Number: 3118145

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.29.20 00.25	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.29.20 00.25	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.29.20 00.25	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	02.29.20 00.25	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	02.29.20 00.25	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	02.29.20 00.25	U	1
Total BTEX		<0.00198	0.00198	mg/kg	02.29.20 00.25	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	108	%	70-130	02.29.20 00.25	
1,4-Difluorobenzene		540-36-3	98	%	70-130	02.29.20 00.25	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS08**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-008

Date Collected: 02.27.20 10.45

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 12.30

Basis: Wet Weight

Seq Number: 3118166

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	61.5	10.0	mg/kg	02.28.20 17.04		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 15.05

Basis: Wet Weight

Seq Number: 3118180

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.28.20 23.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.28.20 23.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.28.20 23.49	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.28.20 23.49	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.28.20 23.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	113	%	70-135	02.28.20 23.49		
o-Terphenyl	84-15-1	125	%	70-135	02.28.20 23.49		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS08**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-008

Date Collected: 02.27.20 10.45

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 12.13

Basis: Wet Weight

Seq Number: 3118145

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.29.20 00.45	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.29.20 00.45	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.29.20 00.45	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.29.20 00.45	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.29.20 00.45	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.29.20 00.45	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.29.20 00.45	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene		540-36-3	101	%	70-130	02.29.20 00.45	
4-Bromofluorobenzene		460-00-4	94	%	70-130	02.29.20 00.45	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS09**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-009

Date Collected: 02.27.20 10.49

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 16.00

Basis: Wet Weight

Seq Number: 3118168

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.3	9.98	mg/kg	02.28.20 17.41		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118175

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	02.29.20 01.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	02.29.20 01.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	02.29.20 01.28	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	02.29.20 01.28	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	02.29.20 01.28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	108	%	70-135	02.29.20 01.28		
o-Terphenyl	84-15-1	127	%	70-135	02.29.20 01.28		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS09**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-009

Date Collected: 02.27.20 10.49

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 12.13

Basis: Wet Weight

Seq Number: 3118145

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.29.20 01.06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.29.20 01.06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.29.20 01.06	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.29.20 01.06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.29.20 01.06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.29.20 01.06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.29.20 01.06	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene		540-36-3	104	%	70-130	02.29.20 01.06	
4-Bromofluorobenzene		460-00-4	98	%	70-130	02.29.20 01.06	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS10**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-010

Date Collected: 02.27.20 12.02

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 16.00

Basis: Wet Weight

Seq Number: 3118168

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	24.1	10.1	mg/kg	02.28.20 17.59		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118175

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.29.20 01.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.29.20 01.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.29.20 01.47	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.29.20 01.47	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.29.20 01.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	121	%	70-135	02.29.20 01.47		
o-Terphenyl	84-15-1	134	%	70-135	02.29.20 01.47		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS10**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-010

Date Collected: 02.27.20 12.02

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 12.13

Basis: Wet Weight

Seq Number: 3118145

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.29.20 01.26	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.29.20 01.26	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.29.20 01.26	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.29.20 01.26	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.29.20 01.26	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.29.20 01.26	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.29.20 01.26	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	96	%	70-130	02.29.20 01.26	
1,4-Difluorobenzene		540-36-3	102	%	70-130	02.29.20 01.26	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS11** Matrix: Soil Date Received: 02.28.20 08.35
 Lab Sample Id: 654051-011 Date Collected: 02.27.20 12.04 Sample Depth: 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Basis: Wet Weight
 Seq Number: 3118168

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18.4	10.1	mg/kg	02.28.20 18.05		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB % Moisture:
 Analyst: CAC Basis: Wet Weight
 Seq Number: 3118175

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.29.20 02.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.29.20 02.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.29.20 02.07	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.29.20 02.07	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.29.20 02.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	107	%	70-135	02.29.20 02.07		
o-Terphenyl	84-15-1	124	%	70-135	02.29.20 02.07		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id:	FS11	Matrix:	Soil	Date Received:	02.28.20 08.35
Lab Sample Id:	654051-011	Date Collected:	02.27.20 12.04	Sample Depth:	2.5 ft
Analytical Method: BTEX by EPA 8021B			Prep Method: SW5030B		
Tech:	MAB				% Moisture:
Analyst:	MAB	Date Prep:	02.28.20 12.13	Basis:	Wet Weight
Seq Number:		3118145			

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.29.20 01.46	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.29.20 01.46	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.29.20 01.46	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.29.20 01.46	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.29.20 01.46	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.29.20 01.46	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.29.20 01.46	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	99	%	70-130	02.29.20 01.46	
1,4-Difluorobenzene		540-36-3	103	%	70-130	02.29.20 01.46	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS12**

Matrix: **Soil**

Date Received: 02.28.20 08.35

Lab Sample Id: **654051-012**

Date Collected: 02.27.20 13.52

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: 02.28.20 16.00

Basis: **Wet Weight**

Seq Number: **3118168**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	144	10.1	mg/kg	02.28.20 18.11		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: **MAB**

% Moisture:

Analyst: **CAC**

Date Prep: 02.28.20 17.00

Basis: **Wet Weight**

Seq Number: **3118175**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.29.20 02.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.29.20 02.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.29.20 02.07	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.29.20 02.07	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.29.20 02.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	127	%	70-135	02.29.20 02.07		
o-Terphenyl	84-15-1	118	%	70-135	02.29.20 02.07		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS12**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-012

Date Collected: 02.27.20 13.52

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 12.13

Basis: Wet Weight

Seq Number: 3118145

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.29.20 02.07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.29.20 02.07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.29.20 02.07	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.29.20 02.07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.29.20 02.07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.29.20 02.07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.29.20 02.07	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	98	%	70-130	02.29.20 02.07	
1,4-Difluorobenzene		540-36-3	105	%	70-130	02.29.20 02.07	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS13**

Matrix: **Soil**

Date Received: 02.28.20 08.35

Lab Sample Id: **654051-013**

Date Collected: 02.27.20 13.53

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: 02.28.20 16.00

Basis: **Wet Weight**

Seq Number: **3118168**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	77.9	9.96	mg/kg	02.28.20 18.17		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: **MAB**

% Moisture:

Analyst: **CAC**

Date Prep: 02.28.20 17.00

Basis: **Wet Weight**

Seq Number: **3118175**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.29.20 02.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.29.20 02.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.29.20 02.27	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.29.20 02.27	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.29.20 02.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	128	%	70-135	02.29.20 02.27		
o-Terphenyl	84-15-1	126	%	70-135	02.29.20 02.27		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS13**

Matrix: **Soil**

Date Received: 02.28.20 08.35

Lab Sample Id: **654051-013**

Date Collected: 02.27.20 13.53

Sample Depth: 2.5 ft

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

Prep Method: **SW5030B**

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: **02.28.20 12.13**

Basis: **Wet Weight**

Seq Number: **3118145**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.29.20 02.27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.29.20 02.27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.29.20 02.27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.29.20 02.27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.29.20 02.27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.29.20 02.27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.29.20 02.27	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	97	%	70-130	02.29.20 02.27	
1,4-Difluorobenzene		540-36-3	104	%	70-130	02.29.20 02.27	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS14**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-014

Date Collected: 02.27.20 13.55

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 16.00

Basis: Wet Weight

Seq Number: 3118168

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	39.9	9.98	mg/kg	02.28.20 18.36		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118175

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	02.29.20 02.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	02.29.20 02.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	02.29.20 02.27	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	02.29.20 02.27	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	02.29.20 02.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	104	%	70-135	02.29.20 02.27		
o-Terphenyl	84-15-1	120	%	70-135	02.29.20 02.27		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS14**

Matrix: **Soil**

Date Received: 02.28.20 08.35

Lab Sample Id: **654051-014**

Date Collected: 02.27.20 13.55

Sample Depth: 2.5 ft

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

Prep Method: **SW5030B**

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: **02.28.20 12.13**

Basis: **Wet Weight**

Seq Number: **3118145**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.29.20 02.48	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.29.20 02.48	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.29.20 02.48	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.29.20 02.48	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.29.20 02.48	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.29.20 02.48	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.29.20 02.48	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene		540-36-3	104	%	70-130	02.29.20 02.48	
4-Bromofluorobenzene		460-00-4	99	%	70-130	02.29.20 02.48	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS15**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-015

Date Collected: 02.27.20 14.08

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 16.00

Basis: Wet Weight

Seq Number: 3118168

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	26.6	9.96	mg/kg	02.28.20 18.42		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118175

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.29.20 02.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.29.20 02.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.29.20 02.47	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.29.20 02.47	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.29.20 02.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	109	%	70-135	02.29.20 02.47		
o-Terphenyl	84-15-1	129	%	70-135	02.29.20 02.47		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS15**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-015

Date Collected: 02.27.20 14.08

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 12.13

Basis: Wet Weight

Seq Number: 3118145

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.29.20 03.08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.29.20 03.08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.29.20 03.08	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.29.20 03.08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.29.20 03.08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.29.20 03.08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.29.20 03.08	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	97	%	70-130	02.29.20 03.08	
1,4-Difluorobenzene		540-36-3	104	%	70-130	02.29.20 03.08	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS16**

Matrix: **Soil**

Date Received: 02.28.20 08.35

Lab Sample Id: **654051-016**

Date Collected: 02.27.20 14.09

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: 02.28.20 16.00

Basis: **Wet Weight**

Seq Number: **3118168**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	76.4	9.98	mg/kg	02.28.20 18.51		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: **MAB**

% Moisture:

Analyst: **CAC**

Date Prep: 02.28.20 17.00

Basis: **Wet Weight**

Seq Number: **3118175**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.29.20 02.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.29.20 02.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.29.20 02.47	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.29.20 02.47	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.29.20 02.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	115	%	70-135	02.29.20 02.47		
o-Terphenyl	84-15-1	127	%	70-135	02.29.20 02.47		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS16**

Matrix: **Soil**

Date Received: 02.28.20 08.35

Lab Sample Id: **654051-016**

Date Collected: 02.27.20 14.09

Sample Depth: 2.5 ft

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

Prep Method: **SW5030B**

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: **02.28.20 12.13**

Basis: **Wet Weight**

Seq Number: **3118145**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.29.20 04.09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.29.20 04.09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.29.20 04.09	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.29.20 04.09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.29.20 04.09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.29.20 04.09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.29.20 04.09	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	94	%	70-130	02.29.20 04.09	
1,4-Difluorobenzene		540-36-3	104	%	70-130	02.29.20 04.09	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS17**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-017

Date Collected: 02.27.20 14.12

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 16.00

Basis: Wet Weight

Seq Number: 3118168

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	66.1	10.1	mg/kg	02.28.20 18.57		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118175

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.29.20 03.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.29.20 03.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.29.20 03.07	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.29.20 03.07	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.29.20 03.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	107	%	70-135	02.29.20 03.07		
o-Terphenyl	84-15-1	122	%	70-135	02.29.20 03.07		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS17**

Matrix: **Soil**

Date Received: 02.28.20 08.35

Lab Sample Id: **654051-017**

Date Collected: 02.27.20 14.12

Sample Depth: 2.5 ft

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

Prep Method: **SW5030B**

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: **02.28.20 12.13**

Basis: **Wet Weight**

Seq Number: **3118145**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.29.20 04.30	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.29.20 04.30	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.29.20 04.30	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.29.20 04.30	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.29.20 04.30	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.29.20 04.30	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.29.20 04.30	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	94	%	70-130	02.29.20 04.30	
1,4-Difluorobenzene		540-36-3	104	%	70-130	02.29.20 04.30	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS18**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-018

Date Collected: 02.27.20 14.50

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 16.00

Basis: Wet Weight

Seq Number: 3118168

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	148	10.0	mg/kg	02.28.20 19.03		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118175

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.29.20 03.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.29.20 03.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.29.20 03.07	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.29.20 03.07	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.29.20 03.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	110	%	70-135	02.29.20 03.07		
o-Terphenyl	84-15-1	122	%	70-135	02.29.20 03.07		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS18**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-018

Date Collected: 02.27.20 14.50

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 12.13

Basis: Wet Weight

Seq Number: 3118145

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.29.20 04.50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.29.20 04.50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.29.20 04.50	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.29.20 04.50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.29.20 04.50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.29.20 04.50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.29.20 04.50	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	96	%	70-130	02.29.20 04.50	
1,4-Difluorobenzene		540-36-3	104	%	70-130	02.29.20 04.50	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS19**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-019

Date Collected: 02.27.20 14.52

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 16.00

Basis: Wet Weight

Seq Number: 3118168

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	81.2	9.94	mg/kg	02.28.20 19.08		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118175

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.29.20 04.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.29.20 04.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.29.20 04.06	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.29.20 04.06	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.29.20 04.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	114	%	70-135	02.29.20 04.06		
o-Terphenyl	84-15-1	132	%	70-135	02.29.20 04.06		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS19**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-019

Date Collected: 02.27.20 14.52

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 12.13

Basis: Wet Weight

Seq Number: 3118145

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.29.20 05.10	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.29.20 05.10	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.29.20 05.10	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.29.20 05.10	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.29.20 05.10	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.29.20 05.10	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.29.20 05.10	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene		540-36-3	104	%	70-130	02.29.20 05.10	
4-Bromofluorobenzene		460-00-4	96	%	70-130	02.29.20 05.10	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS20**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-020

Date Collected: 02.27.20 14.54

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 16.00

Basis: Wet Weight

Seq Number: 3118168

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	43.1	9.98	mg/kg	02.28.20 19.25		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118175

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.29.20 04.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.29.20 04.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.29.20 04.06	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.29.20 04.06	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.29.20 04.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	103	%	70-135	02.29.20 04.06		
o-Terphenyl	84-15-1	110	%	70-135	02.29.20 04.06		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS20**

Matrix: **Soil**

Date Received: 02.28.20 08.35

Lab Sample Id: **654051-020**

Date Collected: 02.27.20 14.54

Sample Depth: 2.5 ft

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

Prep Method: **SW5030B**

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: **02.28.20 12.13**

Basis: **Wet Weight**

Seq Number: **3118145**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.29.20 05.31	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.29.20 05.31	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.29.20 05.31	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.29.20 05.31	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.29.20 05.31	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.29.20 05.31	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.29.20 05.31	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene		540-36-3	104	%	70-130	02.29.20 05.31	
4-Bromofluorobenzene		460-00-4	104	%	70-130	02.29.20 05.31	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS22**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-021

Date Collected: 02.27.20 15.08

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 16.00

Basis: Wet Weight

Seq Number: 3118168

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	30.0	10.0	mg/kg	02.28.20 19.31		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118175

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.29.20 04.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.29.20 04.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.29.20 04.26	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.29.20 04.26	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.29.20 04.26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	119	%	70-135	02.29.20 04.26		
o-Terphenyl	84-15-1	122	%	70-135	02.29.20 04.26		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS22**

Matrix: **Soil**

Date Received: 02.28.20 08.35

Lab Sample Id: **654051-021**

Date Collected: 02.27.20 15.08

Sample Depth: 2.5 ft

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

Prep Method: **SW5030B**

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: **02.28.20 12.13**

Basis: **Wet Weight**

Seq Number: **3118145**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.29.20 05.51	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.29.20 05.51	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.29.20 05.51	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.29.20 05.51	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.29.20 05.51	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.29.20 05.51	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.29.20 05.51	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	98	%	70-130	02.29.20 05.51	
1,4-Difluorobenzene		540-36-3	104	%	70-130	02.29.20 05.51	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS23**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-022

Date Collected: 02.27.20 15.10

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 16.00

Basis: Wet Weight

Seq Number: 3118168

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.3	10.0	mg/kg	02.28.20 19.48		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118175

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.29.20 04.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.29.20 04.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.29.20 04.26	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.29.20 04.26	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.29.20 04.26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	110	%	70-135	02.29.20 04.26		
o-Terphenyl	84-15-1	122	%	70-135	02.29.20 04.26		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS23**

Matrix: **Soil**

Date Received: 02.28.20 08.35

Lab Sample Id: **654051-022**

Date Collected: 02.27.20 15.10

Sample Depth: 2.5 ft

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

Prep Method: **SW5030B**

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: **02.28.20 12.13**

Basis: **Wet Weight**

Seq Number: **3118145**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.29.20 06.12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.29.20 06.12	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.29.20 06.12	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.29.20 06.12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.29.20 06.12	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.29.20 06.12	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.29.20 06.12	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene		540-36-3	104	%	70-130	02.29.20 06.12	
4-Bromofluorobenzene		460-00-4	98	%	70-130	02.29.20 06.12	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS24**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-023

Date Collected: 02.27.20 15.23

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 16.00

Basis: Wet Weight

Seq Number: 3118168

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	42.0	10.1	mg/kg	02.28.20 19.54		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118175

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.29.20 04.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.29.20 04.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.29.20 04.46	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.29.20 04.46	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.29.20 04.46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	113	%	70-135	02.29.20 04.46		
o-Terphenyl	84-15-1	128	%	70-135	02.29.20 04.46		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS24**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-023

Date Collected: 02.27.20 15.23

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 12.13

Basis: Wet Weight

Seq Number: 3118145

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.29.20 06.32	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.29.20 06.32	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.29.20 06.32	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.29.20 06.32	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.29.20 06.32	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.29.20 06.32	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.29.20 06.32	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	98	%	70-130	02.29.20 06.32	
1,4-Difluorobenzene		540-36-3	104	%	70-130	02.29.20 06.32	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS25**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-024

Date Collected: 02.27.20 15.25

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 16.00

Basis: Wet Weight

Seq Number: 3118168

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	28.6	10.1	mg/kg	02.28.20 19.59		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: CAC

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118175

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.29.20 04.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.29.20 04.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.29.20 04.46	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.29.20 04.46	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.29.20 04.46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	117	%	70-135	02.29.20 04.46		
o-Terphenyl	84-15-1	127	%	70-135	02.29.20 04.46		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS25**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-024

Date Collected: 02.27.20 15.25

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 18.00

Basis: Wet Weight

Seq Number: 3118153

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.29.20 00.01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.29.20 00.01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.29.20 00.01	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.29.20 00.01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.29.20 00.01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.29.20 00.01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.29.20 00.01	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	95	%	70-130	02.29.20 00.01	
1,4-Difluorobenzene		540-36-3	112	%	70-130	02.29.20 00.01	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS26**

Matrix: **Soil**

Date Received: 02.28.20 08.35

Lab Sample Id: **654051-025**

Date Collected: 02.27.20 15.26

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: 02.28.20 16.00

Basis: **Wet Weight**

Seq Number: **3118168**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	30.4	9.96	mg/kg	02.28.20 20.05		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: **MAB**

% Moisture:

Analyst: **CAC**

Date Prep: 02.28.20 17.00

Basis: **Wet Weight**

Seq Number: **3118175**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.29.20 05.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.29.20 05.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.29.20 05.05	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.29.20 05.05	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.29.20 05.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	110	%	70-135	02.29.20 05.05		
o-Terphenyl	84-15-1	129	%	70-135	02.29.20 05.05		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS26**

Matrix: **Soil**

Date Received: 02.28.20 08.35

Lab Sample Id: **654051-025**

Date Collected: 02.27.20 15.26

Sample Depth: 2.5 ft

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

Prep Method: **SW5030B**

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: **02.28.20 12.13**

Basis: **Wet Weight**

Seq Number: **3118145**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.29.20 06.53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.29.20 06.53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.29.20 06.53	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.29.20 06.53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.29.20 06.53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.29.20 06.53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.29.20 06.53	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	97	%	70-130	02.29.20 06.53	
1,4-Difluorobenzene		540-36-3	104	%	70-130	02.29.20 06.53	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **SW01**Matrix: **Soil**

Date Received: 02.28.20 08.35

Lab Sample Id: **654051-026**

Date Collected: 02.27.20 12.44

Sample Depth: 0 - 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: 02.28.20 16.00

Basis: **Wet Weight**Seq Number: **3118168**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	319	50.1	mg/kg	02.28.20 20.11		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: **MAB**

% Moisture:

Analyst: **CAC**

Date Prep: 02.28.20 17.00

Basis: **Wet Weight**Seq Number: **3118175**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.29.20 05.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.29.20 05.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.29.20 05.05	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.29.20 05.05	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.29.20 05.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	125	%	70-135	02.29.20 05.05		
o-Terphenyl	84-15-1	135	%	70-135	02.29.20 05.05		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **SW01**

Matrix: **Soil**

Date Received: 02.28.20 08.35

Lab Sample Id: **654051-026**

Date Collected: 02.27.20 12.44

Sample Depth: 0 - 2.5 ft

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

Prep Method: **SW5030B**

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: **02.28.20 12.13**

Basis: **Wet Weight**

Seq Number: **3118145**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.29.20 07.54	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.29.20 07.54	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.29.20 07.54	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.29.20 07.54	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.29.20 07.54	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.29.20 07.54	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.29.20 07.54	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	98	%	70-130	02.29.20 07.54	
1,4-Difluorobenzene		540-36-3	104	%	70-130	02.29.20 07.54	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **SW02**

Matrix: **Soil**

Date Received: 02.28.20 08.35

Lab Sample Id: **654051-027**

Date Collected: 02.27.20 13.25

Sample Depth: 0 - 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: 02.28.20 16.00

Basis: **Wet Weight**

Seq Number: **3118168**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	93.5	49.7	mg/kg	02.28.20 20.16		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: **MAB**

% Moisture:

Analyst: **CAC**

Date Prep: 02.28.20 17.00

Basis: **Wet Weight**

Seq Number: **3118175**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	02.29.20 05.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	02.29.20 05.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	02.29.20 05.25	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	02.29.20 05.25	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	02.29.20 05.25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	130	%	70-135	02.29.20 05.25		
o-Terphenyl	84-15-1	126	%	70-135	02.29.20 05.25		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **SW02**

Matrix: **Soil**

Date Received: 02.28.20 08.35

Lab Sample Id: **654051-027**

Date Collected: 02.27.20 13.25

Sample Depth: 0 - 2.5 ft

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

Prep Method: **SW5030B**

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: **02.28.20 18.00**

Basis: **Wet Weight**

Seq Number: **3118153**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.29.20 00.21	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.29.20 00.21	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.29.20 00.21	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.29.20 00.21	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.29.20 00.21	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.29.20 00.21	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.29.20 00.21	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	90	%	70-130	02.29.20 00.21	
1,4-Difluorobenzene		540-36-3	90	%	70-130	02.29.20 00.21	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **SW03** Matrix: Soil Date Received: 02.28.20 08.35
 Lab Sample Id: 654051-028 Date Collected: 02.27.20 13.31 Sample Depth: 0 - 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Basis: Wet Weight
 Seq Number: 3118168

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	583	49.9	mg/kg	02.28.20 20.22		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB % Moisture:
 Analyst: CAC Basis: Wet Weight
 Seq Number: 3118175

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	02.29.20 05.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	02.29.20 05.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	02.29.20 05.25	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	02.29.20 05.25	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	02.29.20 05.25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	113	%	70-135	02.29.20 05.25		
o-Terphenyl	84-15-1	125	%	70-135	02.29.20 05.25		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id:	SW03	Matrix:	Soil	Date Received:	02.28.20 08.35	
Lab Sample Id:	654051-028	Date Collected:		02.27.20 13.31	Sample Depth:	0 - 2.5 ft
Analytical Method:			BTEX by EPA 8021B	Prep Method:	SW5030B	
Tech:	MAB				% Moisture:	
Analyst:	MAB	Date Prep:	02.28.20 11.00	Basis:	Wet Weight	
Seq Number:			3118143			

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.28.20 20.17	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.28.20 20.17	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.28.20 20.17	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.28.20 20.17	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.28.20 20.17	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.28.20 20.17	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.28.20 20.17	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	93	%	70-130	02.28.20 20.17	
1,4-Difluorobenzene		540-36-3	111	%	70-130	02.28.20 20.17	



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **SW04**

Matrix: Soil

Date Received: 02.28.20 08.35

Lab Sample Id: 654051-029

Date Collected: 02.27.20 13.35

Sample Depth: 0 - 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118170

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3090	50.4	mg/kg	02.28.20 21.13		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 19.09

Basis: Wet Weight

Seq Number: 3118192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.29.20 07.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.29.20 07.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.29.20 07.04	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	02.29.20 07.04	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.29.20 07.04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	81	%	70-135	02.29.20 07.04		
o-Terphenyl	84-15-1	94	%	70-135	02.29.20 07.04		



Certificate of Analytical Results 654051

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **SW04**

Matrix: **Soil**

Date Received: 02.28.20 08.35

Lab Sample Id: **654051-029**

Date Collected: 02.27.20 13.35

Sample Depth: 0 - 2.5 ft

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

Prep Method: **SW5030B**

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: **02.28.20 11.00**

Basis: **Wet Weight**

Seq Number: **3118143**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.28.20 20.37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.28.20 20.37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.28.20 20.37	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.28.20 20.37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.28.20 20.37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.28.20 20.37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.28.20 20.37	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene		540-36-3	90	%	70-130	02.28.20 20.37	
4-Bromofluorobenzene		460-00-4	87	%	70-130	02.28.20 20.37	



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

LT Environmental, Inc.
 Muy Wayno Recycling Facility

Analytical Method: Chloride by EPA 300

Seq Number:	3118166	Matrix: Solid				Prep Method: E300P			
MB Sample Id:	7697742-1-BLK	LCS Sample Id: 7697742-1-BKS				Date Prep: 02.28.20			
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit
Chloride	<10.0	250	261	104	262	105	90-110	0	20
							mg/kg	Analysis Date 02.28.20 13:52	

Analytical Method: Chloride by EPA 300

Seq Number:	3118168	Matrix: Solid				Prep Method: E300P			
MB Sample Id:	7697766-1-BLK	LCS Sample Id: 7697766-1-BKS				Date Prep: 02.28.20			
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit
Chloride	<10.0	250	261	104	261	104	90-110	0	20
							mg/kg	Analysis Date 02.28.20 17:28	

Analytical Method: Chloride by EPA 300

Seq Number:	3118170	Matrix: Solid				Prep Method: E300P			
MB Sample Id:	7697767-1-BLK	LCS Sample Id: 7697767-1-BKS				Date Prep: 02.28.20			
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit
Chloride	<10.0	250	251	100	225	90	90-110	11	20

Analytical Method: Chloride by EPA 300

Seq Number:	3118166	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	654048-006	MS Sample Id: 654048-006 S				Date Prep: 02.28.20			
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit
Chloride	588	201	799	105	792	102	90-110	1	20

Analytical Method: Chloride by EPA 300

Seq Number:	3118166	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	654048-016	MS Sample Id: 654048-016 S				Date Prep: 02.28.20			
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit
Chloride	626	201	838	105	839	105	90-110	0	20

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

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

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

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



QC Summary 654051

LT Environmental, Inc.
Muy Wayno Recycling Facility
Analytical Method: Chloride by EPA 300

Seq Number: 3118168

Parent Sample Id: 654051-009

Matrix: Soil

MS Sample Id: 654051-009 S

Prep Method: E300P

Date Prep: 02.28.20

MSD Sample Id: 654051-009 SD

Parameter

Parent Result

Spike Amount

MS Result

MS %Rec

MSD Result

MSD %Rec

Limits

%RPD

RPD

Limit

Units

Analysis Date

Flag

Chloride

11.3

200

222

105

224

106

90-110

1

20

mg/kg

02.28.20 17:47

Analytical Method: Chloride by EPA 300

Seq Number: 3118168

Parent Sample Id: 654051-019

Matrix: Soil

MS Sample Id: 654051-019 S

Prep Method: E300P

Date Prep: 02.28.20

MSD Sample Id: 654051-019 SD

Parameter

Parent Result

Spike Amount

MS Result

MS %Rec

MSD Result

MSD %Rec

Limits

%RPD

RPD

Limit

Units

Analysis Date

Flag

Chloride

81.2

200

294

106

295

107

90-110

0

20

mg/kg

02.28.20 19:14

Analytical Method: Chloride by EPA 300

Seq Number: 3118170

Parent Sample Id: 654052-001

Matrix: Soil

MS Sample Id: 654052-001 S

Prep Method: E300P

Date Prep: 02.28.20

MSD Sample Id: 654052-001 SD

Parameter

Parent Result

Spike Amount

MS Result

MS %Rec

MSD Result

MSD %Rec

Limits

%RPD

RPD

Limit

Units

Analysis Date

Flag

Chloride

45.5

200

258

106

260

107

90-110

1

20

mg/kg

02.28.20 21:02

Analytical Method: Chloride by EPA 300

Seq Number: 3118170

Parent Sample Id: 654164-001

Matrix: Soil

MS Sample Id: 654164-001 S

Prep Method: E300P

Date Prep: 02.28.20

MSD Sample Id: 654164-001 SD

Parameter

Parent Result

Spike Amount

MS Result

MS %Rec

MSD Result

MSD %Rec

Limits

%RPD

RPD

Limit

Units

Analysis Date

Flag

Chloride

216

199

420

103

423

104

90-110

1

20

mg/kg

02.28.20 22:27

Analytical Method: TPH by SW8015 Mod

Seq Number: 3118180

MB Sample Id: 7697770-1-BLK

Matrix: Solid

LCS Sample Id: 7697770-1-BKS

Prep Method: SW8015P

Date Prep: 02.28.20

LCSD Sample Id: 7697770-1-BSD

Parameter

MB Result

Spike Amount

LCS Result

LCS %Rec

LCSD Result

LCSD %Rec

Limits

%RPD

RPD

Limit

Units

Analysis Date

Flag

Gasoline Range Hydrocarbons (GRO)

<50.0

1000

1110

111

996

100

70-135

11

35

mg/kg

02.28.20 19:12

Diesel Range Organics (DRO)

<50.0

1000

1110

111

1030

103

70-135

7

35

mg/kg

02.28.20 19:12

Surrogate

MB %Rec

MB Flag

LCS %Rec

LCS Flag

LCSD %Rec

LCSD Flag

Limits

Units

Analysis Date

1-Chlorooctane

91

127

114

70-135

%

02.28.20 19:12

o-Terphenyl

101

129

120

70-135

%

02.28.20 19:12

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

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

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

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

LT Environmental, Inc.
 Muy Wayno Recycling Facility

Analytical Method: TPH by SW8015 Mod

Seq Number:	3118175	Matrix: Solid				Prep Method: SW8015P			
MB Sample Id:	7697769-1-BLK	LCS Sample Id: 7697769-1-BKS				Date Prep: 02.28.20			
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1070	107	974	97	70-135	9	35
Diesel Range Organics (DRO)	<50.0	1000	1100	110	985	99	70-135	11	35
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		123		110		70-135	%	02.29.20 00:48
o-Terphenyl	101		130		116		70-135	%	02.29.20 00:48

Analytical Method: TPH by SW8015 Mod

Seq Number:	3118192	Matrix: Solid				Prep Method: SW8015P			
MB Sample Id:	7697771-1-BLK	LCS Sample Id: 7697771-1-BKS				Date Prep: 02.28.20			
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	885	89	910	91	70-135	3	35
Diesel Range Organics (DRO)	<50.0	1000	961	96	987	99	70-135	3	35
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		111		113		70-135	%	02.29.20 06:24
o-Terphenyl	108		109		111		70-135	%	02.29.20 06:24

Analytical Method: TPH by SW8015 Mod

Seq Number:	3118180	Matrix: Solid				Prep Method: SW8015P			
MB Sample Id:	7697770-1-BLK					Date Prep: 02.28.20			
Parameter		MB Result					Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)		<50.0					mg/kg	02.28.20 18:52	

Analytical Method: TPH by SW8015 Mod

Seq Number:	3118175	Matrix: Solid				Prep Method: SW8015P			
MB Sample Id:	7697769-1-BLK					Date Prep: 02.28.20			
Parameter		MB Result					Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)		<50.0					mg/kg	02.29.20 00:28	

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

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

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

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

LT Environmental, Inc.
 Muy Wayno Recycling Facility

Analytical Method: TPH by SW8015 Mod

Seq Number: 3118192

Matrix: Solid

Prep Method: SW8015P

Date Prep: 02.28.20

MB Sample Id: 7697771-1-BLK

Parameter

Motor Oil Range Hydrocarbons (MRO)

**MB
Result**

<50.0

Units

**Analysis
Date**

Flag

mg/kg 02.29.20 06:05

Analytical Method: TPH by SW8015 Mod

Seq Number: 3118180

Matrix: Soil

Prep Method: SW8015P

Date Prep: 02.28.20

Parent Sample Id: 654048-006

MS Sample Id: 654048-006 S

MSD Sample Id: 654048-006 SD

Parameter

Parameter	Parent Result	Spike Amount	MS	MS	MSD	MSD	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
			Result	%Rec	Result	%Rec						
Gasoline Range Hydrocarbons (GRO)	<49.9	998	846	85	903	89	70-135	7	35	mg/kg	02.28.20 19:51	
Diesel Range Organics (DRO)	<49.9	998	975	98	1010	100	70-135	4	35	mg/kg	02.28.20 19:51	

Surrogate

Surrogate		MS	MS	MSD	MSD	Limits	Units	Analysis Date
		%Rec	Flag	%Rec	Flag			
1-Chlorooctane		111		122		70-135	%	02.28.20 19:51
o-Terphenyl		119		112		70-135	%	02.28.20 19:51

Analytical Method: TPH by SW8015 Mod

Seq Number: 3118175

Matrix: Soil

Prep Method: SW8015P

Date Prep: 02.28.20

Parent Sample Id: 654051-009

MS Sample Id: 654051-009 S

MSD Sample Id: 654051-009 SD

Parameter

Parameter	Parent Result	Spike Amount	MS	MS	MSD	MSD	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
			Result	%Rec	Result	%Rec						
Gasoline Range Hydrocarbons (GRO)	<50.0	999	805	81	831	83	70-135	3	35	mg/kg	02.29.20 01:28	
Diesel Range Organics (DRO)	<50.0	999	916	92	940	94	70-135	3	35	mg/kg	02.29.20 01:28	

Surrogate

Surrogate		MS	MS	MSD	MSD	Limits	Units	Analysis Date
		%Rec	Flag	%Rec	Flag			
1-Chlorooctane		124		117		70-135	%	02.29.20 01:28
o-Terphenyl		114		129		70-135	%	02.29.20 01:28

Analytical Method: TPH by SW8015 Mod

Seq Number: 3118192

Matrix: Soil

Prep Method: SW8015P

Date Prep: 02.28.20

Parent Sample Id: 654051-029

MS Sample Id: 654051-029 S

MSD Sample Id: 654051-029 SD

Parameter

Parameter	Parent Result	Spike Amount	MS	MS	MSD	MSD	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
			Result	%Rec	Result	%Rec						
Gasoline Range Hydrocarbons (GRO)	<50.5	1010	964	95	906	91	70-135	6	35	mg/kg	03.02.20 12:44	
Diesel Range Organics (DRO)	<50.5	1010	1190	118	1020	102	70-135	15	35	mg/kg	03.02.20 12:44	

Surrogate

Surrogate		MS	MS	MSD	MSD	Limits	Units	Analysis Date
		%Rec	Flag	%Rec	Flag			
1-Chlorooctane		115		115		70-135	%	03.02.20 12:44
o-Terphenyl		128		114		70-135	%	03.02.20 12:44

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

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

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

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

LT Environmental, Inc.
 Muy Wayno Recycling Facility

Analytical Method: BTEX by EPA 8021B

Seq Number:	3118140	Matrix: Solid				Prep Method: SW5030B			
MB Sample Id:	7697713-1-BLK	LCS Sample Id: 7697713-1-BKS				Date Prep: 02.28.20			
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit
Benzene	<0.00200	0.100	0.109	109	0.106	106	70-130	3	35
Toluene	<0.00200	0.100	0.106	106	0.103	103	70-130	3	35
Ethylbenzene	<0.00200	0.100	0.102	102	0.0993	99	71-129	3	35
m,p-Xylenes	<0.00400	0.200	0.212	106	0.205	103	70-135	3	35
o-Xylene	<0.00200	0.100	0.105	105	0.102	102	71-133	3	35
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		104		105		70-130	%	02.28.20 11:09
4-Bromofluorobenzene	94		95		95		70-130	%	02.28.20 11:09

Analytical Method: BTEX by EPA 8021B

Seq Number:	3118143	Matrix: Solid				Prep Method: SW5030B			
MB Sample Id:	7697714-1-BLK	LCS Sample Id: 7697714-1-BKS				Date Prep: 02.28.20			
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit
Benzene	<0.00200	0.100	0.119	119	0.120	120	70-130	1	35
Toluene	<0.00200	0.100	0.110	110	0.111	111	70-130	1	35
Ethylbenzene	<0.00200	0.100	0.105	105	0.106	106	71-129	1	35
m,p-Xylenes	<0.00400	0.200	0.205	103	0.207	104	70-135	1	35
o-Xylene	<0.00200	0.100	0.103	103	0.104	104	71-133	1	35
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		111		110		70-130	%	02.28.20 12:08
4-Bromofluorobenzene	90		88		89		70-130	%	02.28.20 12:08

Analytical Method: BTEX by EPA 8021B

Seq Number:	3118145	Matrix: Solid				Prep Method: SW5030B			
MB Sample Id:	7697746-1-BLK	LCS Sample Id: 7697746-1-BKS				Date Prep: 02.28.20			
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit
Benzene	<0.00200	0.100	0.111	111	0.106	106	70-130	5	35
Toluene	<0.00200	0.100	0.106	106	0.102	102	70-130	4	35
Ethylbenzene	<0.00200	0.100	0.100	100	0.0960	96	71-129	4	35
m,p-Xylenes	<0.00400	0.200	0.205	103	0.197	99	70-135	4	35
o-Xylene	<0.00200	0.100	0.104	104	0.0999	100	71-133	4	35
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		104		104		70-130	%	02.28.20 22:22
4-Bromofluorobenzene	92		92		92		70-130	%	02.28.20 22:22

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

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

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

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

LT Environmental, Inc.
 Muy Wayno Recycling Facility

Analytical Method: BTEX by EPA 8021B

Seq Number:	3118153	Matrix: Solid				Prep Method: SW5030B			
MB Sample Id:	7697768-1-BLK	LCS Sample Id: 7697768-1-BKS				Date Prep: 02.28.20			
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit
Benzene	<0.00200	0.100	0.119	119	0.116	116	70-130	3	35
Toluene	<0.00200	0.100	0.108	108	0.106	106	70-130	2	35
Ethylbenzene	<0.00200	0.100	0.103	103	0.101	101	71-129	2	35
m,p-Xylenes	<0.00400	0.200	0.201	101	0.198	99	70-135	2	35
o-Xylene	<0.00200	0.100	0.103	103	0.101	101	71-133	2	35
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		111		110		70-130	%	02.28.20 22:19
4-Bromofluorobenzene	92		88		88		70-130	%	02.28.20 22:19

Analytical Method: BTEX by EPA 8021B

Seq Number:	3118140	Matrix: Soil				Prep Method: SW5030B			
Parent Sample Id:	654041-015	MS Sample Id: 654041-015 S				Date Prep: 02.28.20			
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit
Benzene	<0.00201	0.100	0.114	114	0.119	119	70-130	4	35
Toluene	<0.00201	0.100	0.111	111	0.116	116	70-130	4	35
Ethylbenzene	<0.00201	0.100	0.105	105	0.111	111	71-129	6	35
m,p-Xylenes	<0.00402	0.201	0.214	106	0.233	117	70-135	9	35
o-Xylene	<0.00201	0.100	0.106	106	0.111	111	71-133	5	35
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene			102		103		70-130	%	02.28.20 11:50
4-Bromofluorobenzene			96		122		70-130	%	02.28.20 11:50

Analytical Method: BTEX by EPA 8021B

Seq Number:	3118143	Matrix: Soil				Prep Method: SW5030B			
Parent Sample Id:	654048-001	MS Sample Id: 654048-001 S				Date Prep: 02.28.20			
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit
Benzene	<0.00200	0.100	0.125	125	0.126	126	70-130	1	35
Toluene	<0.00200	0.100	0.125	125	0.116	116	70-130	7	35
Ethylbenzene	<0.00200	0.100	0.119	119	0.108	108	71-129	10	35
m,p-Xylenes	<0.00401	0.200	0.231	116	0.210	105	70-135	10	35
o-Xylene	<0.00200	0.100	0.115	115	0.107	107	71-133	7	35
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene			110		109		70-130	%	02.28.20 12:48
4-Bromofluorobenzene			89		91		70-130	%	02.28.20 12:48

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

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

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

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

LT Environmental, Inc.
 Muy Wayno Recycling Facility

Analytical Method: BTEX by EPA 8021B

Seq Number: 3118145

Parent Sample Id: 654051-006

Matrix: Soil

MS Sample Id: 654051-006 S

Prep Method: SW5030B

Date Prep: 02.28.20

MSD Sample Id: 654051-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.114	114	0.103	103	70-130	10	35	mg/kg	02.28.20 23:03	
Toluene	<0.00201	0.100	0.109	109	0.0981	98	70-130	11	35	mg/kg	02.28.20 23:03	
Ethylbenzene	<0.00201	0.100	0.104	104	0.0921	92	71-129	12	35	mg/kg	02.28.20 23:03	
m,p-Xylenes	<0.00402	0.201	0.214	106	0.188	94	70-135	13	35	mg/kg	02.28.20 23:03	
o-Xylene	<0.00201	0.100	0.107	107	0.0949	95	71-133	12	35	mg/kg	02.28.20 23:03	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date			
1,4-Difluorobenzene			105		104		70-130	%		02.28.20 23:03		
4-Bromofluorobenzene			96		95		70-130	%		02.28.20 23:03		

Analytical Method: BTEX by EPA 8021B

Seq Number: 3118153

Parent Sample Id: 654051-024

Matrix: Soil

MS Sample Id: 654051-024 S

Prep Method: SW5030B

Date Prep: 02.28.20

MSD Sample Id: 654051-024 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.113	114	0.104	104	70-130	8	35	mg/kg	02.28.20 23:00	
Toluene	<0.00199	0.0994	0.104	105	0.0941	94	70-130	10	35	mg/kg	02.28.20 23:00	
Ethylbenzene	<0.00199	0.0994	0.0990	100	0.0878	88	71-129	12	35	mg/kg	02.28.20 23:00	
m,p-Xylenes	<0.00398	0.199	0.192	96	0.170	85	70-135	12	35	mg/kg	02.28.20 23:00	
o-Xylene	<0.00199	0.0994	0.0973	98	0.0873	87	71-133	11	35	mg/kg	02.28.20 23:00	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date			
1,4-Difluorobenzene			110		109		70-130	%		02.28.20 23:00		
4-Bromofluorobenzene			92		89		70-130	%		02.28.20 23:00		

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

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

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

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



Chain of Custody

Work Order No: 1054051

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) 704-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

www.xenco.com Page 1 of 3

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

ANALYSIS REQUEST						Work Order Notes
Project Name:	May Wayne Recycling Facility	Turn Around	Routine: <input type="checkbox"/>	Rush: <input checked="" type="checkbox"/> 3 day	Due Date:	
Project Number:	012920087	Fatima Smith	Temp Blank: <input checked="" type="checkbox"/> Yes	No	Wet Ice: <input checked="" type="checkbox"/> Yes	No
PO #:	12/28/19 spill date					
Sampler's Name:						
SAMPLE RECEIPT	1.2					
Temperature (°C):	1.2					
Received Intact:	Yes	No	0	0	Thermometer ID: <u>12345678901234567890</u>	
Cooler Custody Seals:	Yes	No	N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes	No	N/A	Total Containers:	29	
Number of Containers						
TPH (EPA 8015)						
BTEX (EPA 0=8021)						
Chloride (EPA 300.0)						
						TAT starts the day received by the lab, if received by 4:30pm
Sample Identification						Sample Comments
FS01	5	2/26/20	1504	2.5	1	X X X
FS02		2/26/20	1506			
FS03		2/26/20	1510			
FS04		2/21/20	1032			
FS05			1034			
FS06			1037			
FS07			1040			
FS08			1045			
FS09			1047			
FS10		✓	1202	✓	✓	

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Anne Byers	2/29/20 0750	2	2/29/20 0833	
3		4			
5		6			



Chain of Custody

Work Order No: 1054 051

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

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ANALYSIS REQUEST							Work Order Notes	
Project Name:	May Waving Recycling Facility			Turn Around	Routine:	<input type="checkbox"/>	Bill to: (if different)	Kyle Littrell
Project Number:	012920007			Rush:	3 day	<input type="checkbox"/>	Company Name:	XTO Energy, Inc.
PO #:	12/28/19 spill date			Due Date:		<input type="checkbox"/>	Program: UST/PST	<input type="checkbox"/>
Sampler's Name:	Fatima Smith			Net Ice:	<input type="checkbox"/>	<input type="checkbox"/>	PRP	<input type="checkbox"/>
SAMPLE RECEIPT	Temp Blank:	Yes	No	Thermometer ID			Brownfield	<input type="checkbox"/>
Temperature (°C):	1.2						RR	<input type="checkbox"/>
Received Intact:	Yes	No	N/A	Correction Factor:			Superfund	<input type="checkbox"/>
Cooler Custody Seals:	Yes	No	N/A	Total Containers:	29			
Sample Custody Seals:				Number of Containers				
				TPH (EPA 8015)				
				BTEX (EPA 0=8021)				
				Chloride (EPA 300.0)				
							TAT starts the day received by the lab, if received by 4:30pm	
Sample Comments								

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	X	X	X	
FS11		2/27/20	1204	2.5'				
FS12			1352					
FS13			1353					
FS14			1355					
FS15			1408					
FS16			1409					
FS17			1412					
FS18			1450					
FS19			1452					
FS20			1454	✓	✓	✓	✓	

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

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>[Signature]</i>	Anna Byers	2/28/20 0450	2 <i>[Signature]</i>	Anna Byers	2/28/20 08:35
3		4			6
5					



Chain of Custody

Work Order No: W54051

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-5900
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

www.xenco.com Page 3 of 3

ANALYSIS REQUEST						Work Order Notes	
Project Name:	<u>MayWayne Recycling Facility</u>			Turn Around			
Project Number:	<u>012920007</u>			Routine:	<input type="checkbox"/>		
PO #:	<u>12/28/19 spill date</u>			Rush:	<u>3 day</u>		
Sampler's Name:	<u>Fatima Smith</u>			Due Date:			
SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	<input checked="" type="checkbox"/> Yes		
Temperature (°C):							
Received Intact:	<input checked="" type="checkbox"/>						
Cooler Custody Seals:	<input checked="" type="checkbox"/>						
Sample Custody Seals:	Yes	No	N/A	Total Containers:			
						Number of Containers	
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	TPH (EPA 8015)		
<u>FS22</u>	<u>S</u>	<u>2/27/20</u>	<u>1508</u>	<u>2.5'</u>	<u>X</u>		
<u>FS23</u>					<u>X</u>		
<u>FS24</u>					<u>X</u>		
<u>FS25</u>							
<u>FS26</u>							
<u>GNO1</u>							
<u>GNO2</u>							
<u>GNO3</u>							
<u>GNO4</u>							
						TAT starts the day received by the lab, if received by 4:30pm	
						Sample Comments	
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		
<u>Anne Byers</u>	<u>Anne Byers</u>	<u>2/28/20 0750</u>	<u>Anne Byers</u>	<u>2/28/20 08:35</u>			
1							
3							
5							

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

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<u>Anne Byers</u>	<u>Anne Byers</u>	<u>2/28/20 0750</u>	<u>Anne Byers</u>	<u>2/28/20 08:35</u>	
1					
3					
5					

XENCO Laboratories**Prelogin/Nonconformance Report- Sample Log-In****Client:** LT Environmental, Inc.**Date/ Time Received:** 02.28.2020 08.35.00 AM**Work Order #:** 654051

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : T-NM-007

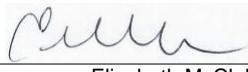
Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6*Custody Seals Signed and dated?	Yes
#7 *Chain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

- #1 *Temperature of cooler(s)?
#2 *Shipping container in good condition?
#3 *Samples received on ice?
#4 *Custody Seals intact on shipping container/ cooler?
#5 Custody Seals intact on sample bottles?
#6*Custody Seals Signed and dated?
#7 *Chain of Custody present?
#8 Any missing/extra samples?
#9 Chain of Custody signed when relinquished/ received?
#10 Chain of Custody agrees with sample labels/matrix?
#11 Container label(s) legible and intact?
#12 Samples in proper container/ bottle?
#13 Samples properly preserved?
#14 Sample container(s) intact?
#15 Sufficient sample amount for indicated test(s)?
#16 All samples received within hold time?
#17 Subcontract of sample(s)?
#18 Water VOC samples have zero headspace?

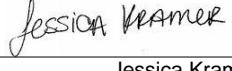
* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 02.28.2020

Checklist reviewed by:

Jessica Kramer

Date: 02.28.2020

Analytical Report 654052

for
LT Environmental, Inc.

Project Manager: Dan Moir

Muy Wayno Recycling Facility

012920007

02-MAR-20

Collected By: Client



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

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

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

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



02-MAR-20

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **654052**

Muy Wayno Recycling Facility

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 654052. 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. 654052 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer". It is written in a cursive style with some variations in letter height and slant.

Jessica Kramer

Project Assistant

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

Certified and approved by numerous States and Agencies.

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

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

**Sample Cross Reference 654052****LT Environmental, Inc., Arvada, CO**

Muy Wayno Recycling Facility

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS21	S	02-27-20 15:06	2.5 ft	654052-001



CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: Muy Wayno Recycling Facility

Project ID: 012920007
Work Order Number(s): 654052

Report Date: 02-MAR-20
Date Received: 02/28/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3118143 BTEX by EPA 8021B

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



Certificate of Analysis Summary 654052

LT Environmental, Inc., Arvada, CO

Project Name: Muy Wayno Recycling Facility

Project Id: 012920007
 Contact: Dan Moir
 Project Location: Eddy County

Date Received in Lab: Fri Feb-28-20 08:35 am
 Report Date: 02-MAR-20
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: Field Id: Depth: Matrix: Sampled:	654052-001 FS21 2.5- ft SOIL Feb-27-20 15:06					
BTEX by EPA 8021B	Extracted: Analyzed: Units/RL:	Feb-28-20 11:00 Feb-28-20 20:58 mg/kg RL					
Benzene		<0.00199 0.00199					
Toluene		<0.00199 0.00199					
Ethylbenzene		<0.00199 0.00199					
m,p-Xylenes		<0.00398 0.00398					
o-Xylene		<0.00199 0.00199					
Total Xylenes		<0.00199 0.00199					
Total BTEX		<0.00199 0.00199					
Chloride by EPA 300	Extracted: Analyzed: Units/RL:	Feb-28-20 17:00 Feb-28-20 20:56 mg/kg RL					
Chloride		45.5 9.96					
TPH by SW8015 Mod	Extracted: Analyzed: Units/RL:	Feb-28-20 19:09 Feb-29-20 07:23 mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1					
Diesel Range Organics (DRO)		<50.1 50.1					
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1					
Total GRO-DRO		<50.1 50.1					
Total TPH		<50.1 50.1					

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

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

Jessica Kramer
 Project Assistant



Certificate of Analytical Results 654052

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS21**
Lab Sample Id: 654052-001

Matrix: Soil
Date Received: 02.28.20 08.35
Date Collected: 02.27.20 15.06
Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118170

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	45.5	9.96	mg/kg	02.28.20 20.56		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 19.09

Basis: Wet Weight

Seq Number: 3118192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.29.20 07.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.29.20 07.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.29.20 07.23	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.29.20 07.23	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.29.20 07.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	113	%	70-135	02.29.20 07.23		
o-Terphenyl	84-15-1	121	%	70-135	02.29.20 07.23		



Certificate of Analytical Results 654052

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **FS21**
 Lab Sample Id: 654052-001
 Matrix: Soil Date Received: 02.28.20 08.35
 Date Collected: 02.27.20 15.06 Sample Depth: 2.5 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B
 Tech: MAB % Moisture:
 Analyst: MAB Basis: Wet Weight
 Seq Number: 3118143

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.28.20 20.58	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.28.20 20.58	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.28.20 20.58	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.28.20 20.58	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.28.20 20.58	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.28.20 20.58	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.28.20 20.58	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	93	%	70-130	02.28.20 20.58	
1,4-Difluorobenzene		540-36-3	111	%	70-130	02.28.20 20.58	



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

LT Environmental, Inc.
 Muy Wayno Recycling Facility

Analytical Method: Chloride by EPA 300

Seq Number:	3118170	Matrix: Solid				Prep Method: E300P			
MB Sample Id:	7697767-1-BLK	LCS Sample Id: 7697767-1-BKS				Date Prep: 02.28.20			
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit
Chloride	<10.0	250	251	100	225	90	90-110	11	20
							mg/kg		Analysis Date
									Flag

Analytical Method: Chloride by EPA 300

Seq Number:	3118170	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	654052-001	MS Sample Id: 654052-001 S				Date Prep: 02.28.20			
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit
Chloride	45.5	200	258	106	260	107	90-110	1	20
							mg/kg		Analysis Date
									Flag

Analytical Method: Chloride by EPA 300

Seq Number:	3118170	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	654164-001	MS Sample Id: 654164-001 S				Date Prep: 02.28.20			
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit
Chloride	216	199	420	103	423	104	90-110	1	20
							mg/kg		Analysis Date
									Flag

Analytical Method: TPH by SW8015 Mod

Seq Number:	3118192	Matrix: Solid				Prep Method: SW8015P			
MB Sample Id:	7697771-1-BLK	LCS Sample Id: 7697771-1-BKS				Date Prep: 02.28.20			
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	885	89	910	91	70-135	3	35
Diesel Range Organics (DRO)	<50.0	1000	961	96	987	99	70-135	3	35
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		111		113		70-135	%	02.29.20 06:24
o-Terphenyl	108		109		111		70-135	%	02.29.20 06:24

Analytical Method: TPH by SW8015 Mod

Seq Number:	3118192	Matrix: Solid				Prep Method: SW8015P			
MB Sample Id:	7697771-1-BLK	LCS Sample Id: 7697771-1-BKS				Date Prep: 02.28.20			
Parameter	MB Result							Units	Analysis Date
Motor Oil Range Hydrocarbons (MRO)	<50.0							mg/kg	02.29.20 06:05

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

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

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

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



QC Summary 654052

LT Environmental, Inc.
Muy Wayno Recycling Facility

Analytical Method: TPH by SW8015 Mod

Seq Number:	3118192	Matrix: Soil				Prep Method: SW8015P			
Parent Sample Id:	654051-029	MS Sample Id: 654051-029 S				Date Prep: 02.28.20			
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit
Gasoline Range Hydrocarbons (GRO)	<50.5	1010	964	95	906	91	70-135	6	35
Diesel Range Organics (DRO)	<50.5	1010	1190	118	1020	102	70-135	15	35
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane			115		115		70-135	%	03.02.20 12:44
o-Terphenyl			128		114		70-135	%	03.02.20 12:44

Analytical Method: BTEX by EPA 8021B

Seq Number:	3118143	Matrix: Solid				Prep Method: SW5030B			
MB Sample Id:	7697714-1-BLK	LCS Sample Id: 7697714-1-BKS				Date Prep: 02.28.20			
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit
Benzene	<0.00200	0.100	0.119	119	0.120	120	70-130	1	35
Toluene	<0.00200	0.100	0.110	110	0.111	111	70-130	1	35
Ethylbenzene	<0.00200	0.100	0.105	105	0.106	106	71-129	1	35
m,p-Xylenes	<0.00400	0.200	0.205	103	0.207	104	70-135	1	35
o-Xylene	<0.00200	0.100	0.103	103	0.104	104	71-133	1	35
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		111		110		70-130	%	02.28.20 12:08
4-Bromofluorobenzene	90		88		89		70-130	%	02.28.20 12:08

Analytical Method: BTEX by EPA 8021B

Seq Number:	3118143	Matrix: Soil				Prep Method: SW5030B			
Parent Sample Id:	654048-001	MS Sample Id: 654048-001 S				Date Prep: 02.28.20			
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit
Benzene	<0.00200	0.100	0.125	125	0.126	126	70-130	1	35
Toluene	<0.00200	0.100	0.125	125	0.116	116	70-130	7	35
Ethylbenzene	<0.00200	0.100	0.119	119	0.108	108	71-129	10	35
m,p-Xylenes	<0.00401	0.200	0.231	116	0.210	105	70-135	10	35
o-Xylene	<0.00200	0.100	0.115	115	0.107	107	71-133	7	35
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene			110		109		70-130	%	02.28.20 12:48
4-Bromofluorobenzene			89		91		70-130	%	02.28.20 12:48

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

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

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

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



Chain of Custody

Work Order No.: 1254052

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) 794-1298 Crasbad, NM (432) 704-5440
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-5701

www.xenco.com

Page 1 of 1

Project Manager:	Don Meir	Bill to: (if different)	Kyle Littrell
Company Name:	LIT Environmental, Permian Office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3041 E. Greene Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	fsmith@litenv.com & dmeir@henryton.com

ANALYSIS REQUEST					Preservative Codes
Project Name:	Muffy Wayne Recycling Facility	Turn Around			MeOH: Me
Project Number:	0812914 0129420067	Routine	<input type="checkbox"/>	Pres. Code	None: NO
Project Location	Eddy County	Rush:	3 Day		HNO3: HN
Sampler's Name:	Fatima Smith	Due Date:			H2SO4: H2
PO #:	12/30/19 spill date	Quote #:			HCl: HL
SAMPLE RECEIPT	Temp Blank:	Yes	No	Number of Containers	NaOH: Na
Temperature (°C):	11.2			TPH (EPA 8015)	Zn Acetate+ NaOH: Zn
Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	N/A		T - NM - 007	TAT starts the day received by the lab, if received by 4:00pm
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	N/A		-0.2	
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	N/A	Total Containers:	1	

Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:
Reporting Level: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/JUST <input type="checkbox"/> TRRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables: EDI <input type="checkbox"/> Adapt <input type="checkbox"/> Other: _____

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Sample Comments
FS21	5	2/27/20	1506	2.5'	1	composite

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Fatima Smith	Anne Byers	2/28/20 07:50	Anne Byers	<u>JG</u>	2/28/20 08:35
3	4				
5	6				

XENCO Laboratories**Prelogin/Nonconformance Report- Sample Log-In****Client:** LT Environmental, Inc.**Date/ Time Received:** 02.28.2020 08.35.00 AM**Work Order #:** 654052

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : T-NM-007

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

#1 *Temperature of cooler(s)?

1.2

#2 *Shipping container in good condition?

Yes

#3 *Samples received on ice?

Yes

#4 *Custody Seals intact on shipping container/ cooler?

Yes

#5 Custody Seals intact on sample bottles?

Yes

#6*Custody Seals Signed and dated?

Yes

#7 *Chain of Custody present?

Yes

#8 Any missing/extra samples?

No

#9 Chain of Custody signed when relinquished/ received?

Yes

#10 Chain of Custody agrees with sample labels/matrix?

Yes

#11 Container label(s) legible and intact?

Yes

#12 Samples in proper container/ bottle?

Yes

#13 Samples properly preserved?

Yes

#14 Sample container(s) intact?

Yes

#15 Sufficient sample amount for indicated test(s)?

Yes

#16 All samples received within hold time?

Yes

#17 Subcontract of sample(s)?

No

#18 Water VOC samples have zero headspace?

N/A

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

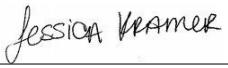
Analyst:

PH Device/Lot#:

Checklist completed by:

 Elizabeth McClellan

Date: 02.28.2020

Checklist reviewed by:

 Jessica Kramer

Date: 02.28.2020

Analytical Report 654164

for
LT Environmental, Inc.

Project Manager: Dan Moir

Muy Wayno Recycling Facility

012920007

03-MAR-20

Collected By: Client



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

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

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

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



03-MAR-20

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **654164**

Muy Wayno Recycling Facility

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) 654164. 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. 654164 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer

Project Assistant

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

Certified and approved by numerous States and Agencies.

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

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

Sample Cross Reference 654164**LT Environmental, Inc., Arvada, CO**

Muy Wayno Recycling Facility

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	02-28-20 09:24	1 ft	654164-001
PH01A	S	02-28-20 09:25	2.5 ft	654164-002
PH02	S	02-28-20 10:06	1 ft	654164-003
PH02A	S	02-28-20 10:07	2.5 ft	654164-004
PH03	S	02-28-20 10:20	1 ft	654164-005
PH03A	S	02-28-20 10:22	2.5 ft	654164-006
SS04	S	02-28-20 10:45	0.5 ft	654164-007



CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: Muy Wayno Recycling Facility

Project ID: 012920007
Work Order Number(s): 654164

Report Date: 03-MAR-20
Date Received: 02/28/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3118153 BTEX by EPA 8021B

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



Certificate of Analysis Summary 654164

LT Environmental, Inc., Arvada, CO

Project Name: Muy Wayno Recycling Facility

Project Id: 012920007
 Contact: Dan Moir
 Project Location:

Date Received in Lab: Fri Feb-28-20 03:20 pm
 Report Date: 03-MAR-20
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	654164-001	654164-002	654164-003	654164-004	654164-005	654164-006
BTEX by EPA 8021B	Extracted:	Feb-28-20 18:00					
	Analyzed:	Feb-29-20 04:26	Feb-29-20 04:47	Feb-29-20 05:07	Feb-29-20 05:27	Feb-29-20 05:48	Feb-29-20 06:08
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201
Toluene		<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201
Ethylbenzene		<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201
m,p-Xylenes		<0.00395	0.00395	<0.00399	0.00399	<0.00403	0.00403
o-Xylene		<0.00198	0.00198	<0.00200	0.00200	<0.00202	0.00202
Total Xylenes		<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201
Total BTEX		<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201
Chloride by EPA 300	Extracted:	Feb-28-20 17:00					
	Analyzed:	Feb-28-20 22:21	Feb-28-20 22:38	Feb-28-20 22:44	Feb-28-20 23:01	Feb-28-20 23:06	Feb-28-20 23:12
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		216	49.6	386	49.9	192	50.4
						162	50.3
						324	50.1
							373
							49.8
TPH by SW8015 Mod	Extracted:	Feb-28-20 19:09					
	Analyzed:	Feb-29-20 09:41	Feb-29-20 10:01	Feb-29-20 10:01	Feb-29-20 10:21	Feb-29-20 10:21	Feb-29-20 10:40
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<50.0	50.0	<49.9	49.9
Diesel Range Organics (DRO)		<50.1	50.1	<50.0	50.0	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<50.0	50.0	<49.9	49.9
Total GRO-DRO		<50.1	50.1	<50.0	50.0	<49.9	49.9
Total TPH		<50.1	50.1	<50.0	50.0	<49.9	49.9
						<50.1	50.1
							<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 Kramer
 Project Assistant



Certificate of Analysis Summary 654164

LT Environmental, Inc., Arvada, CO

Project Name: Muy Wayno Recycling Facility

Project Id: 012920007
 Contact: Dan Moir
 Project Location:

Date Received in Lab: Fri Feb-28-20 03:20 pm
 Report Date: 03-MAR-20
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id: Field Id: Depth: Matrix: Sampled:	654164-007 SS04 0.5- ft SOIL Feb-28-20 10:45					
BTEX by EPA 8021B	Extracted: Analyzed: Units/RL:	Feb-28-20 18:00 Feb-29-20 06:29 mg/kg RL					
Benzene		<0.00199 0.00199					
Toluene		<0.00199 0.00199					
Ethylbenzene		<0.00199 0.00199					
m,p-Xylenes		<0.00398 0.00398					
o-Xylene		<0.00199 0.00199					
Total Xylenes		<0.00199 0.00199					
Total BTEX		<0.00199 0.00199					
Chloride by EPA 300	Extracted: Analyzed: Units/RL:	Feb-28-20 17:00 Feb-28-20 23:18 mg/kg RL					
Chloride		4830 49.9					
TPH by SW8015 Mod	Extracted: Analyzed: Units/RL:	Feb-28-20 19:09 Feb-29-20 10:40 mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0					
Diesel Range Organics (DRO)		<50.0 50.0					
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0					
Total GRO-DRO		<50.0 50.0					
Total TPH		<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 Kramer
 Project Assistant



Certificate of Analytical Results 654164

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **PH01**

Matrix: Soil

Date Received: 02.28.20 15.20

Lab Sample Id: 654164-001

Date Collected: 02.28.20 09.24

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118170

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	216	49.6	mg/kg	02.28.20 22.21		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 19.09

Basis: Wet Weight

Seq Number: 3118192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.29.20 09.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.29.20 09.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.29.20 09.41	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.29.20 09.41	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.29.20 09.41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	75	%	70-135	02.29.20 09.41		
o-Terphenyl	84-15-1	81	%	70-135	02.29.20 09.41		



Certificate of Analytical Results 654164

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **PH01**

Matrix: Soil

Date Received: 02.28.20 15.20

Lab Sample Id: 654164-001

Date Collected: 02.28.20 09.24

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 18.00

Basis: Wet Weight

Seq Number: 3118153

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.29.20 04.26	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.29.20 04.26	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.29.20 04.26	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	02.29.20 04.26	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	02.29.20 04.26	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	02.29.20 04.26	U	1
Total BTEX		<0.00198	0.00198	mg/kg	02.29.20 04.26	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	95	%	70-130	02.29.20 04.26	
1,4-Difluorobenzene		540-36-3	111	%	70-130	02.29.20 04.26	



Certificate of Analytical Results 654164

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **PH01A**

Matrix: Soil

Date Received: 02.28.20 15.20

Lab Sample Id: 654164-002

Date Collected: 02.28.20 09.25

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118170

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	386	49.9	mg/kg	02.28.20 22.38		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 19.09

Basis: Wet Weight

Seq Number: 3118192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.29.20 10.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.29.20 10.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.29.20 10.01	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	02.29.20 10.01	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.29.20 10.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	95	%	70-135	02.29.20 10.01		
o-Terphenyl	84-15-1	114	%	70-135	02.29.20 10.01		



Certificate of Analytical Results 654164

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **PH01A**

Matrix: Soil

Date Received: 02.28.20 15.20

Lab Sample Id: 654164-002

Date Collected: 02.28.20 09.25

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 18.00

Basis: Wet Weight

Seq Number: 3118153

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.29.20 04.47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.29.20 04.47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.29.20 04.47	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.29.20 04.47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.29.20 04.47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.29.20 04.47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.29.20 04.47	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	93	%	70-130	02.29.20 04.47	
1,4-Difluorobenzene		540-36-3	111	%	70-130	02.29.20 04.47	



Certificate of Analytical Results 654164

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **PH02**
 Lab Sample Id: 654164-003
 Analytical Method: Chloride by EPA 300
 Tech: MAB
 Analyst: MAB
 Seq Number: 3118170

Matrix: Soil Date Received: 02.28.20 15.20
 Date Collected: 02.28.20 10.06 Sample Depth: 1 ft

Prep Method: E300P % Moisture:
 Date Prep: 02.28.20 17.00 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	192	50.4	mg/kg	02.28.20 22.44		5

Analytical Method: TPH by SW8015 Mod
 Tech: MAB
 Analyst: MAB
 Seq Number: 3118192

Prep Method: SW8015P % Moisture:
 Date Prep: 02.28.20 19.09 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.29.20 10.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.29.20 10.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.29.20 10.01	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.29.20 10.01	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.29.20 10.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	72	%	70-135	02.29.20 10.01		
o-Terphenyl	84-15-1	79	%	70-135	02.29.20 10.01		



Certificate of Analytical Results 654164

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **PH02**

Matrix: Soil

Date Received: 02.28.20 15.20

Lab Sample Id: 654164-003

Date Collected: 02.28.20 10.06

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 18.00

Basis: Wet Weight

Seq Number: 3118153

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.29.20 05.07	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.29.20 05.07	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.29.20 05.07	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.29.20 05.07	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.29.20 05.07	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.29.20 05.07	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.29.20 05.07	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene		540-36-3	112	%	70-130	02.29.20 05.07	
4-Bromofluorobenzene		460-00-4	94	%	70-130	02.29.20 05.07	



Certificate of Analytical Results 654164

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **PH02A**

Matrix: Soil

Date Received: 02.28.20 15.20

Lab Sample Id: 654164-004

Date Collected: 02.28.20 10.07

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118170

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	162	50.3	mg/kg	02.28.20 23.01		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 19.09

Basis: Wet Weight

Seq Number: 3118192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.29.20 10.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.29.20 10.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.29.20 10.21	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	02.29.20 10.21	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.29.20 10.21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	81	%	70-135	02.29.20 10.21		
o-Terphenyl	84-15-1	94	%	70-135	02.29.20 10.21		



Certificate of Analytical Results 654164

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **PH02A**

Matrix: Soil

Date Received: 02.28.20 15.20

Lab Sample Id: 654164-004

Date Collected: 02.28.20 10.07

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 18.00

Basis: Wet Weight

Seq Number: 3118153

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.29.20 05.27	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.29.20 05.27	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.29.20 05.27	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.29.20 05.27	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.29.20 05.27	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.29.20 05.27	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.29.20 05.27	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	92	%	70-130	02.29.20 05.27	
1,4-Difluorobenzene		540-36-3	112	%	70-130	02.29.20 05.27	



Certificate of Analytical Results 654164

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **PH03**

Matrix: Soil

Date Received: 02.28.20 15.20

Lab Sample Id: 654164-005

Date Collected: 02.28.20 10.20

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118170

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	324	50.1	mg/kg	02.28.20 23.06		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 19.09

Basis: Wet Weight

Seq Number: 3118192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.29.20 10.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.29.20 10.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.29.20 10.21	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.29.20 10.21	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.29.20 10.21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	93	%	70-135	02.29.20 10.21		
o-Terphenyl	84-15-1	100	%	70-135	02.29.20 10.21		



Certificate of Analytical Results 654164

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **PH03**

Matrix: Soil

Date Received: 02.28.20 15.20

Lab Sample Id: 654164-005

Date Collected: 02.28.20 10.20

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 18.00

Basis: Wet Weight

Seq Number: 3118153

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.29.20 05.48	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.29.20 05.48	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.29.20 05.48	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.29.20 05.48	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.29.20 05.48	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.29.20 05.48	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.29.20 05.48	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	94	%	70-130	02.29.20 05.48	
1,4-Difluorobenzene		540-36-3	113	%	70-130	02.29.20 05.48	



Certificate of Analytical Results 654164

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **PH03A**

Matrix: Soil

Date Received: 02.28.20 15.20

Lab Sample Id: 654164-006

Date Collected: 02.28.20 10.22

Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118170

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	373	49.8	mg/kg	02.28.20 23.12		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 19.09

Basis: Wet Weight

Seq Number: 3118192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.29.20 10.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.29.20 10.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.29.20 10.40	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	02.29.20 10.40	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.29.20 10.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	95	%	70-135	02.29.20 10.40		
o-Terphenyl	84-15-1	107	%	70-135	02.29.20 10.40		



Certificate of Analytical Results 654164

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **PH03A**

Matrix: Soil

Date Received: 02.28.20 15.20

Lab Sample Id: 654164-006

Date Collected: 02.28.20 10.22

Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 18.00

Basis: Wet Weight

Seq Number: 3118153

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.29.20 06.08	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.29.20 06.08	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.29.20 06.08	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.29.20 06.08	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.29.20 06.08	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.29.20 06.08	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.29.20 06.08	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene		540-36-3	104	%	70-130	02.29.20 06.08	
4-Bromofluorobenzene		460-00-4	90	%	70-130	02.29.20 06.08	



Certificate of Analytical Results 654164

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **SS04**

Matrix: Soil

Date Received: 02.28.20 15.20

Lab Sample Id: 654164-007

Date Collected: 02.28.20 10.45

Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 17.00

Basis: Wet Weight

Seq Number: 3118170

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4830	49.9	mg/kg	02.28.20 23.18		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.28.20 19.09

Basis: Wet Weight

Seq Number: 3118192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.29.20 10.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.29.20 10.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.29.20 10.40	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	02.29.20 10.40	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.29.20 10.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	102	%	70-135	02.29.20 10.40		
o-Terphenyl	84-15-1	112	%	70-135	02.29.20 10.40		



Certificate of Analytical Results 654164

LT Environmental, Inc., Arvada, CO

Muy Wayno Recycling Facility

Sample Id: **SS04**

Matrix: **Soil**

Date Received: 02.28.20 15.20

Lab Sample Id: **654164-007**

Date Collected: 02.28.20 10.45

Sample Depth: 0.5 ft

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

Prep Method: **SW5030B**

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: **02.28.20 18.00**

Basis: **Wet Weight**

Seq Number: **3118153**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.29.20 06.29	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.29.20 06.29	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.29.20 06.29	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.29.20 06.29	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.29.20 06.29	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.29.20 06.29	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.29.20 06.29	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene		460-00-4	88	%	70-130	02.29.20 06.29	
1,4-Difluorobenzene		540-36-3	106	%	70-130	02.29.20 06.29	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

LT Environmental, Inc.
 Muy Wayno Recycling Facility

Analytical Method: Chloride by EPA 300

Seq Number:	3118170	Matrix: Solid				Prep Method: E300P			
MB Sample Id:	7697767-1-BLK	LCS Sample Id: 7697767-1-BKS				Date Prep: 02.28.20			
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit
Chloride	<10.0	250	251	100	225	90	90-110	11	20
							mg/kg	Analysis Date 02.28.20 20:45	

Analytical Method: Chloride by EPA 300

Seq Number:	3118170	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	654052-001	MS Sample Id: 654052-001 S				Date Prep: 02.28.20			
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit
Chloride	45.5	200	258	106	260	107	90-110	1	20
							mg/kg	Analysis Date 02.28.20 21:02	

Analytical Method: Chloride by EPA 300

Seq Number:	3118170	Matrix: Soil				Prep Method: E300P			
Parent Sample Id:	654164-001	MS Sample Id: 654164-001 S				Date Prep: 02.28.20			
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit
Chloride	216	199	420	103	423	104	90-110	1	20
							mg/kg	Analysis Date 02.28.20 22:27	

Analytical Method: TPH by SW8015 Mod

Seq Number:	3118192	Matrix: Solid				Prep Method: SW8015P			
MB Sample Id:	7697771-1-BLK	LCS Sample Id: 7697771-1-BKS				Date Prep: 02.28.20			
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	885	89	910	91	70-135	3	35
Diesel Range Organics (DRO)	<50.0	1000	961	96	987	99	70-135	3	35
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		111		113		70-135	%	02.29.20 06:24
o-Terphenyl	108		109		111		70-135	%	02.29.20 06:24

Analytical Method: TPH by SW8015 Mod

Seq Number:	3118192	Matrix: Solid				Prep Method: SW8015P			
MB Sample Id:	7697771-1-BLK	MB Sample Id: 7697771-1-BLK				Date Prep: 02.28.20			
Parameter	MB Result						Units	Analysis Date	
Motor Oil Range Hydrocarbons (MRO)	<50.0						mg/kg	02.29.20 06:05	

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

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

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

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



QC Summary 654164

LT Environmental, Inc.
Muy Wayno Recycling Facility

Analytical Method: TPH by SW8015 Mod

Seq Number:	3118192	Matrix: Soil				Prep Method: SW8015P			
Parent Sample Id:	654051-029	MS Sample Id: 654051-029 S				Date Prep: 02.28.20			
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD RPD Limit	Units Analysis Date Flag
Gasoline Range Hydrocarbons (GRO)	<50.5	1010	964	95	906	91	70-135	6 35	mg/kg 03.02.20 12:44
Diesel Range Organics (DRO)	<50.5	1010	1190	118	1020	102	70-135	15 35	mg/kg 03.02.20 12:44
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane			115		115		70-135	%	03.02.20 12:44
o-Terphenyl			128		114		70-135	%	03.02.20 12:44

Analytical Method: BTEX by EPA 8021B

Seq Number:	3118153	Matrix: Solid				Prep Method: SW5030B			
MB Sample Id:	7697768-1-BLK	LCS Sample Id: 7697768-1-BKS				Date Prep: 02.28.20			
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD RPD Limit	Units Analysis Date Flag
Benzene	<0.00200	0.100	0.119	119	0.116	116	70-130	3 35	mg/kg 02.28.20 22:19
Toluene	<0.00200	0.100	0.108	108	0.106	106	70-130	2 35	mg/kg 02.28.20 22:19
Ethylbenzene	<0.00200	0.100	0.103	103	0.101	101	71-129	2 35	mg/kg 02.28.20 22:19
m,p-Xylenes	<0.00400	0.200	0.201	101	0.198	99	70-135	2 35	mg/kg 02.28.20 22:19
o-Xylene	<0.00200	0.100	0.103	103	0.101	101	71-133	2 35	mg/kg 02.28.20 22:19
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		111		110		70-130	%	02.28.20 22:19
4-Bromofluorobenzene	92		88		88		70-130	%	02.28.20 22:19

Analytical Method: BTEX by EPA 8021B

Seq Number:	3118153	Matrix: Soil				Prep Method: SW5030B			
Parent Sample Id:	654051-024	MS Sample Id: 654051-024 S				Date Prep: 02.28.20			
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD RPD Limit	Units Analysis Date Flag
Benzene	<0.00199	0.0994	0.113	114	0.104	104	70-130	8 35	mg/kg 02.28.20 23:00
Toluene	<0.00199	0.0994	0.104	105	0.0941	94	70-130	10 35	mg/kg 02.28.20 23:00
Ethylbenzene	<0.00199	0.0994	0.0990	100	0.0878	88	71-129	12 35	mg/kg 02.28.20 23:00
m,p-Xylenes	<0.00398	0.199	0.192	96	0.170	85	70-135	12 35	mg/kg 02.28.20 23:00
o-Xylene	<0.00199	0.0994	0.0973	98	0.0873	87	71-133	11 35	mg/kg 02.28.20 23:00
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene			110		109		70-130	%	02.28.20 23:00
4-Bromofluorobenzene			92		89		70-130	%	02.28.20 23:00

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

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

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

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



Chain of Custody

Work Order No: 1054114

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-9000
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701

Atlanta, GA (770) 449-8800

www.xenco.com Page 1 of 1

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

ANALYSIS REQUEST			
Work Order Notes			
<input type="checkbox"/> UST/PS <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RR <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: <input type="checkbox"/> Reporting Level <input type="checkbox"/> Level <input type="checkbox"/> PST/UST <input type="checkbox"/> TRF <input type="checkbox"/> Level <input type="checkbox"/> V <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:			

SAMPLE RECEIPT				ANALYSIS REQUEST			
Project Name:	<u>Muy Wayne Recycling Facility</u>	Turn Around	Routine: <input type="checkbox"/>	Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Project Number:	<u>012920007</u>	PO #:	<u>12/28/19 spill date</u>	Due Date:	<u>3 day</u>		
Sampler's Name:	<u>Fatima Smith</u>						
Temperature (°C):	<u>11.5</u>						
Received In-Intact:	<u>No</u>						
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	N/A	Correction Factor:	<u>T - 1.14 - 0.07</u>			
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	N/A	Total Containers:	<u>7</u>			
Number of Containers							
TPH (EPA 8015)							
BTEX (EPA 0=8021)							
Chloride (EPA 300.0)							
<small>TAT starts the day received by the lab, if received by 4:30pm</small>							
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Sample Comments		
PHO1	S	2/28/20	0924	1'	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		
PHO1A	S		0925	2.5'	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		
PHO2	S		1006	1'	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		
PHO2A	S		1007	2.5'	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		
PHO3	S		1020	1'	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		
PHO3A	S		1022	2.5'	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		
SSO4	S		1045	0.5'	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		

Patricia M. Littrell

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

1631 / 245.1 / 7470 / 7471: Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<u>Patricia M. Littrell</u>		2/28/20 15:20			
1					
3					
5					



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: LT Environmental, Inc.

Date/ Time Received: 02/28/2020 03:20:00 PM

Work Order #: 654164

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : T-NM-007

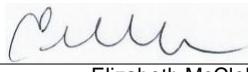
Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6* Custody Seals Signed and dated?	Yes
#7 *Chain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

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

Analyst:

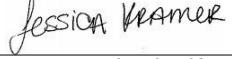
PH Device/Lot#:

Checklist completed by:


Elizabeth McClellan

Date: 02/28/2020

Checklist reviewed by:

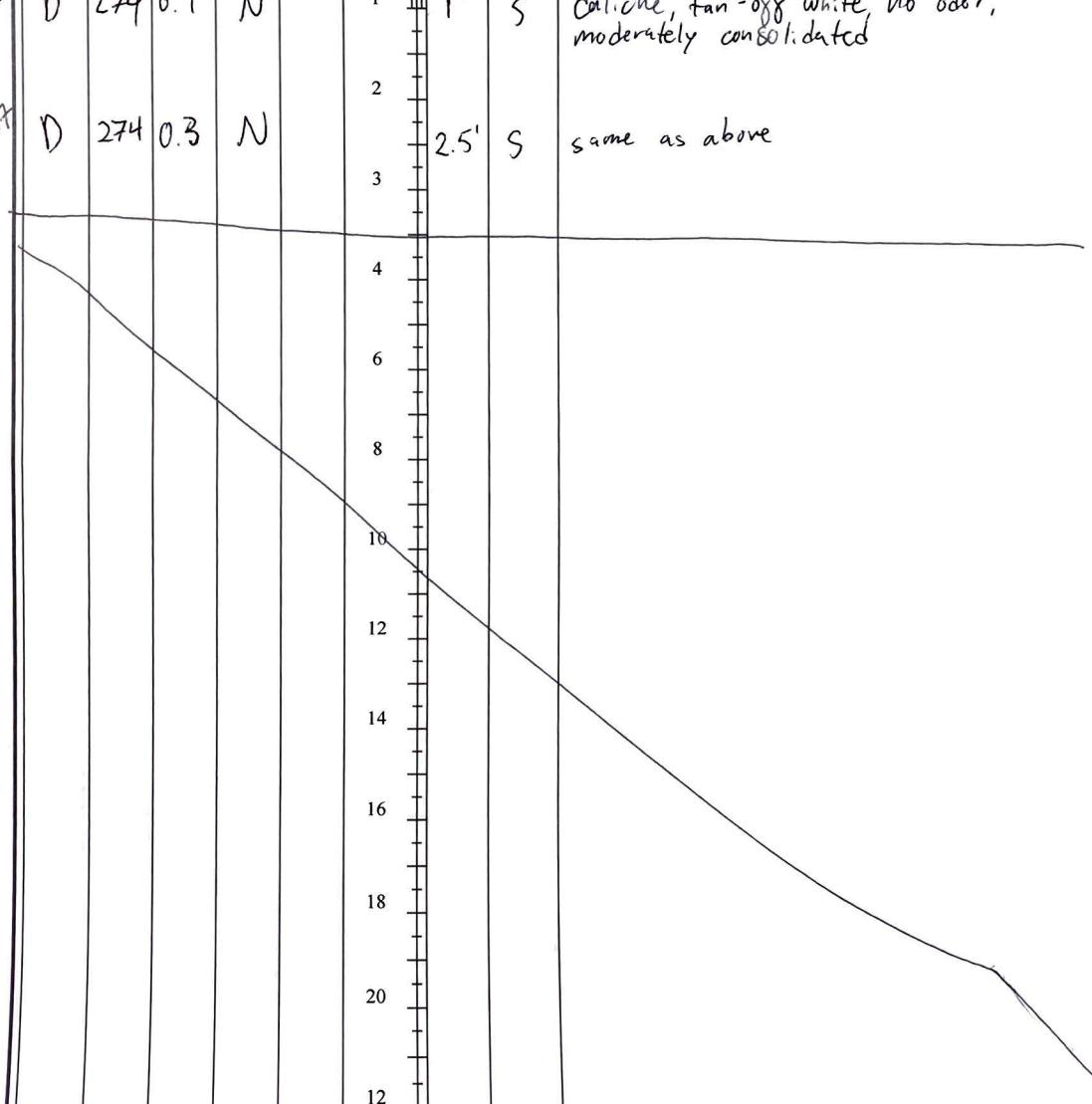

Jessica Kramer

Date: 02/28/2020

ATTACHMENT 3: LITHOLOGIC / SOIL SAMPLING LOG

 <p>LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation</p>								Identifier: PM01	Date: 02/28/20	
								Project Name: Muj Wayno Recycling facility	RP Number: Not assigned	
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Fatima Smith	Method:	
Lat/Long:				Field Screening: Chloride + PID				Hole Diameter:	Total Depth: 2.5'	
Comments:										
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks		
D	312	0.0	N		1	1'	S	Caliche, tan-off white, moderately consolidated, no odor		
D	<173	0.1	N		2					
					3	2.5'	↓	Same as above		
					4					
					6					
					8					
					10					
					12					
					14					
					16					
					18					
					20					
					12					

 <p>LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220</p> <p>Compliance · Engineering · Remediation</p>								Identifier: PH02	Date: 02/28/20	
								Project Name: Muy Wayno Recycling facility	RP Number: Not Assigned	
								Logged By: Fatima Smith	Method:	
Lat/Long:				Field Screening: Chloride + PID				Hole Diameter:	Total Depth: 2.5'	
Comments:										
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks		
D	274	0.1	N		1	1'	S	Caliche, tan - off white, no odor, moderately consol. dated		
D	274	0.3	N		2	2.5'	S	same as above		
					3					
					4					
					6					
					8					
					10					
					12					
					14					
					16					
					18					
					20					
					12					



 <p>LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation</p>								Identifier: PHO4 EN PH03	Date: 02/28/20
								Project Name: Muj Wayno Recycling Facility	RP Number: Not Assigned
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Fatima Smith	Method:
Lat/Long:				Field Screening: Chloride + PID				Hole Diameter:	Total Depth: 25'
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks	
D	392	0.3	N		1	1'	S	caliche, tan - off white, no odor moderately consolidated	
D	347	0.3	N		2		S	same as above	
					3	2.5'			
					4				
					6				
					8				
					10				
					12				
					14				
					16				
					18				
					20				
					12				

