

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

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

Incident ID	NAPP2102934064
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@exxonmobil.com	Incident # (assigned by OCD)
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.30929 Longitude -103.9086
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Nash 4	Site Type SWD
Date Release Discovered 01/23/2021	API# (if applicable)

Unit Letter	Section	Township	Range	County
A	13	23S	29E	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)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 77	Volume Recovered (bbls) 72
	Is the concentration of total dissolved solids (TDS) 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 LO reported that the PW tanks were spilling over upon his arrival due to alarm failure. A third-party contractor has been retained for remediation activities.

Form C-141

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Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? A release equal to or greater than 25 barrels.
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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 to 'Bratcher, Mike, EMNRD'; 'Hamlet, Robert, EMNRD'; 'Venegas, Victoria, EMNRD'; Mann, Ryan; 'emily.hernandez@state.nm.us' on Saturday, January 23, 2021 5:05 PM via email.

Initial Response


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

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

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

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: Environmental Manager
 Signature:  Date: 1-29-21
 email: kyle.littrell@exxonmobil.com Telephone: 432-221-7331

OCD Only

Received by: _____ Date: _____

Location:	Nash 4	
Spill Date:	1/23/2021	
Area 1		
Approximate Area =	7489.00	sq. ft.
Average Saturation (or depth) of spill =	1.50	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Produced Water =	77.00	bbls

TOTAL VOLUME OF LEAK		
Total Produced Water =	77.00	bbls
TOTAL VOLUME RECOVERED		
Total Produced Water =	72.00	bbls

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 23699

CONDITIONS OF APPROVAL

Operator: XTO ENERGY, INC Building #5	6401 Holiday Hill Road Midland, TX79707	OGRID: 5380	Action Number: 23699	Action Type: C-141
OCD Reviewer rmarcus		Condition None		

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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?	<u>50</u> (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 checked="" type="checkbox"/> Yes <input 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.

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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: Adrian Baker Title: SSHE Coordinator

Signature: *Adrian Baker* Date: 8/2/2021

email: Adrian.Baker@exxonmobil.com Telephone: (432)-236-3808

OCD Only

Received by: _____ Date: _____

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Remediation Plan

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

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

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

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

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

Printed Name: Adrian Baker Title: SSHE Coordinator
 Signature: *Adrian Baker* Date: 8/2/2021
 email: Adrian.baker@exxonmobil.com Telephone: (432) 236-3808

OCD Only

Received by: Chad Hensley Date: 08/31/2021

- Approved Approved with Attached Conditions of Approval Denied Deferral Approved

Signature: *Chad Hensley* Date: 08/31/2021



WSP USA

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

July 29, 2021

District II
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210

**RE: Remediation Work Plan
Nash Unit #53 SWD
Remediation Permit Number 2RP-5513
Incident Numbers NAB1918643207, NRM2022758966, NAPP2100838523,
NAPP2100847227, and NAPP2102934064
Eddy County, New Mexico**

To Whom It May Concern:

WSP USA Inc. (WSP) on behalf of XTO Energy, Inc. (XTO), presents the following Remediation Work Plan (Work Plan) detailing remediation activities completed to date and a proposed Work Plan to address residual impacted soil at the Nash Unit #53 SWD (Site) in Unit H, Section 13, Township 23 South, Range 29 East, in Eddy County, New Mexico (Figure 1). The purpose of the remediation activities completed to date was to address impacts to soil resulting from multiple releases at the Site and to address the denial of the Deferral Request submitted on February 24, 2020 for Remediation Permit Number (RP) 2RP-5513/Incident Number NAB1918643207. The proposed Work Plan is designed to fully delineate impacted soil at the Site and complete final remediation activities following the upcoming removal of production equipment and abandonment of the Site.

RELEASE BACKGROUND

2RP-5513 / NAB1918643207

On June 11, 2019, a power outage caused the saltwater disposal (SWD) programmable logic controller to fault. The gun barrels overflowed and released fluids to an engineered clay-lined containment. No fluids reached the well pad. An estimated 21.71 barrels (bbls) of crude oil and 98.89 bbls of produced water were released. Vacuum trucks were dispatched to the Site to recover free-standing fluids; an estimated 20 bbls of crude oil and 90 bbls of produced water were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on June 25, 2019. The release and was assigned RP Number 2RP-5513/Incident ID NAB1918643207.

Since the release was contained, WSP personnel visited the Site to inspect impacted material inside the containment and visually inspect the integrity of the clay liner. Surficial staining was



observed within the earthen berm above the clay liner. Between September 10 and October 24, 2019 WSP oversaw the excavation of impacted soil within the earthen containment as indicated by visual observations, field screening results, and/or preliminary sampling results. Where possible between active production equipment, earthen material above the engineered clay liner was excavated with a hydrovacuum to expose the clay liner. The clay liner was then visually inspected for integrity by a person familiar with liner construction and production equipment. A total of approximately 115 cubic yards of impacted soil inside the containment were removed from above the engineered clay liner; however, residual impacted soil was left in place for compliance with the XTO safety policy regarding earth moving activities within two feet of active pipelines or utility lines and active production equipment. Where the clay liner was inspected, no damage was observed. No samples were collected from the clay liner to avoid potential damage to the liner.

Following the excavation of impacted soil and inspection of the clay liner, a Deferral Request was submitted on February 24, 2020. NMOCD denied the Deferral Request on June 5, 2020 for the following reasons:

- When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided. If evidence of depth to ground water within a ½ mile radius of the site cannot be provided, impacted soils will need to meet Table 1 Closure Criteria for ground water at a depth of 50 feet or less.
- If you feel the depth to groundwater is >50', a shallow borehole can be drilled to 51' allowing for verification of the depth. If water is not visible after reaching bottom-hole and waiting 72 hours, the OCD will accept this as evidence. We would just need a copy of the driller's log.
- A deferral cannot be granted on a release if the depth to water is <50' depth to groundwater. At that point, a hydrovac/shovel would need to be used to safely remove the contaminated soil. Additionally, this spill is in a high potential karst area.

XTO submitted an email to the NMOCD on July 7, 2020, to clarify that impacted soil was removed from above the engineered clay liner to the extent possible and the area requested for deferral is restricted to the area above the clay liner. However, pending a response from NMOCD regarding the denial, four additional releases and subsequent remediation activities have occurred at the Site. The four additional releases are described below.

NRM2022758966

On August 3, 2020, fluids were released from a thief hatch and collar of an equalizing line due to an alarm malfunction. An estimated 2.04 barrels (bbls) of crude oil and 38.65 bbls of produced water were released. The fluids released to lined tank battery area where the tanks had been



removed. The liner allowed the liquids to pool so that a vacuum truck could recover free-standing fluids; an estimated 0.5 bbls of crude oil and 9.5 bbls of produced water were recovered. However, the tears were observed in the liner. XTO reported the release to the NMOCD on a Form C-141 on August 14, 2020. The release was assigned Incident Number NRM2022758966.

NAPP2100838523

On January 2, 2021, automation failures resulted in tanks overflowing and the release of an estimated 20 bbls of produced water. Vacuum trucks were dispatched to the Site to recover free-standing fluids; an estimated 12 bbls of produced water were recovered. XTO reported the release to the NMOCD on a Form C-141 on January 8, 2021. The release was assigned Incident Number NAPP2100838523.

NAPP2100847227

On January 2, 2021, a second alarm failure resulted in tanks overflowing and the release of an estimated 35 bbls of produced water from the water tanks into secondary containment. Vacuum trucks were dispatched to the Site to recover free-standing fluids; an estimated 33 bbls of produced water were recovered. XTO reported the release to the NMOCD on a Form C-141 on January 8, 2021 and was assigned Incident Number NAPP2100847227.

NAPP2102934064

On January 23, 2021, an alarm failure resulted in the produced water tanks overflowing. An estimated 77 bbls of produced water were released onto the well pad. Vacuum trucks were dispatched to the Site to recover free-standing fluids; an estimated 72 bbls of produced water were recovered. XTO reported the release to the NMOCD on a Form C-141 on January 29, 2021. The release was assigned Incident Number NAPP2102934064.

SITE CHARACTERIZATION

WSP 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). In an effort to confirm the depth to groundwater determination, WSP installed a soil boring (C-4472) within 0.5 miles of the Site utilizing a truck-mounted hollow-stem auger rig. Soil boring C-4472 was drilled to a depth of 55 feet bgs. A WSP geologist logged and describes soils continuously. Groundwater was encountered at 37 feet bgs. The borehole was left open for over 72 hours to allow for slow infill of groundwater. After the 72-hour waiting period, it was confirmed that groundwater in the region is less than 50 feet bgs. The borehole was properly abandoned with grout. The borehole location is shown on Figure 1 and the well record and log are included in Attachment 1.



The closest continuously flowing water or significant watercourse to the Site is an intermittent dry wash located 968 feet east of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than a 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 underlain by unstable geology (high potential karst designation area). Site receptors are depicted on Figure 1. 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 DELINEATION ACTIVITIES AND ANALYTICAL RESULTS

The following sections of this report describe the remediation activities completed at the Site since the submittal of the original Deferral Request on February 24, 2020. The previous remediation activities and soil sample analytical results can be referenced in the original report.

On August 4, 2020, WSP personnel visited the Site to evaluate the release extent for Incident Number NRM2022758966 based on information provided on the Form C-141 and visual observations. WSP personnel advanced two delineation potholes (PH11 and PH12) within the release extent to assess the vertical and lateral extent of the release. Discrete delineation soil samples were collected from each pothole at depths ranging from 1 foot bgs to 16 feet bgs. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Attachment 2. The release extent and delineation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. The delineation soil samples were collected, handled, and analyzed as described above at Eurofins in Carlsbad, New Mexico.

Laboratory analytical results for delineation soil samples PH11 through PH11C and PH12 through PH12D indicated that TPH and/or chloride concentrations exceeded the Closure Criteria. Based on visible staining in the release area and laboratory analytical results for the delineation soil samples, further delineation and excavation activities were warranted.

WSP personnel continued to oversee delineation and excavation activities at the Site between August 5, 2020 and June 2021. The following section details the additional delineation activities completed following the August 3, 2020 release (Incident Number NRM2022758966) and the



three January 2021 releases (Incident Numbers NAPP2100838523, NAPP2100847227, and NAPP2102934064).

Delineation potholes PH11 and PH12 were deepened and additional potholes PH13 through PH25 were advanced in and around the area of the west tank battery, which had been removed. Soil samples were collected from the delineation potholes at depths ranging from 1 foot bgs to 27 feet bgs. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Attachment 2. The release extents and delineation soil sample locations are depicted on Figure 2. The delineation soil samples were collected, handled, and analyzed as described above at Eurofins in Carlsbad, New Mexico. Photo documentation was completed during the Site visits and a photographic log is included in Attachment 3.

Laboratory analytical results for delineation samples PH13A at 19 feet bgs, PH17A at 3 feet bgs, PH19A at 4 feet bgs, PH21A at 4 feet bgs, and PH22A at 8 feet bgs indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria in soil samples collected at the terminal depth. All other pothole delineation soil samples collected exceeded the Closure Criteria for TPH and/or chloride. TPH concentrations exceeding the Closure Criteria ranged from 199 mg/kg to 9,560 mg/kg at depths ranging from 1 foot bgs in samples PH11, PH12, and PH14 to 27 feet bgs in samples PH12F and PH24A. Chloride concentrations exceeding the Closure Criteria ranged from 646 mg/kg to 8,580 mg/kg at depths ranging from 1 foot bgs in samples PH15 through PH17, PH19, PH21, and PH22 to 27 feet bgs in samples PH12F, PH24A, and PH25A. The analytical results are summarized in Table 1 and the laboratory analytical reports are included in Attachment 4.

EXCAVATION SOIL SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

Concurrently with delineation activities, WSP personnel oversaw the removal of impacted soil via excavation between August 12, 2020 and June 4, 2021. Excavation activities were performed using a track-mounted backhoe and transport vehicle. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach chloride QuanTab test strips, respectively. Currently, there are 2 excavations, the main excavation located beneath the former location of the west tank battery and a smaller excavation to the southwest at the location of pothole PH14. The small excavation to the southwest was completed to address TPH impacts observed at 1 foot bgs in pothole PH14. To date, the main excavation has been completed to depths ranging from 5 feet bgs to 20 feet bgs, and the smaller excavation at pothole sample PH14 has been completed to a depth of 2 feet bgs.

Following removal of impacted soil to the extent possible, WSP collected composite soil samples from the sidewalls and floors of the excavations at a frequency of every 200 square feet. The composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon,



resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite sidewall samples (SW01 through SW23) were collected from the sidewalls of the excavation at depths ranging from the ground surface to 18 feet bgs. Composite floor samples (FS01 through FS34) were collected from the floor of the main excavation at depths ranging from 5 feet to 20 feet bgs. Floor sample FS35 was collected from the southwest excavation at pothole PH14 and covered both the floor and sidewalls of the excavation. The excavation extents and excavation soil sample locations are presented on Figure 4. The excavation soil samples were collected, handled, and analyzed as described above.

The main excavation area measured approximately 7,200 square feet and the southwest excavation area measured approximately 175 square feet. A total of approximately 2,550 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing.

Laboratory analytical results indicated that sidewall samples SW02 through SW11, SW15 through SW17, and SW19 exceeded the Closure Criteria for TPH and/or chloride and were subsequently excavated. Sidewall sample SW01 exceeded the Closure Criteria for TPH and chloride, SW01 is located next to the gun barrel equipment that is pending removal and will be excavated once the equipment is removed. Sidewall samples SW12 through SW14, and SW18 exceeded the Closure Criteria for chloride. Laboratory analytical results for final excavation sidewall samples SW20 through SW22 indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria.

Floor samples FS14B and FS19A collected at 20 feet bgs exceeded the Closure Criteria for TPH. Floor samples FS01A through FS03A, FS07A through FS15B, FS19A, through FS35 collected at depths ranging from 2 feet bgs to 20 feet bgs exceeded the Closure Criteria for chloride. Laboratory analytical results for final excavation floor samples FS04A, FS05A, FS06A, FS16A, FS17A, and FS18A indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria.

PROPOSED REMEDIATION WORK PLAN

Approximately 2,550 cubic yards of impacted soil were excavated from the Site; however, residual TPH and chloride impacted soil remains in place in the floors and sidewalls of the main excavation at depths ranging from 5 feet bgs to 20 feet bgs and chloride impacted soil remains in place in the floor of the smaller excavation at a depth of 2 feet bgs. An estimated 2,000 cubic yards of impacted soil remain in place, assuming a maximum 30-foot depth based on delineation soil samples collected from potholes PH12, PH24, and PH25. TPH concentrations at 27 feet in delineation potholes PH12, PH24, and PH25 are decreasing with depth and PH25A at 27 feet bgs is in compliance with the Closure Criteria for TPH. Chloride concentrations continue to exceed the Closure Criteria at depths greater than 20 feet bgs.



Delineation and excavation soil sampling provide only partial delineation of the remaining impacted soil. Impacted soil containing TPH or chloride concentrations exceeding the Closure Criteria to a maximum depth of 27 feet bgs was identified in all delineation potholes. To achieve full vertical and lateral delineation, XTO proposes to drill, at minimum, five boreholes, one within the excavation and one in each cardinal direction of the release extent to provide full vertical and lateral delineation. XTO also proposes to drill four additional boreholes at a distance from any disturbed areas to determine if naturally occurring chloride is present at depth at the Site. The proposed delineation and background borehole locations are depicted on Figure 4. The boreholes will be drilled with a track-mounted drill rig with direct push or hollow-stem auger. The boreholes will be drilled to approximately 30 feet bgs or until full delineation has been reached.

Following a review of the analytical results from the delineation boring activities, impacted soil will be excavated to below Closure Criteria or background chloride concentrations in order to be protective of human health, the environment, and groundwater. Due to the size of the excavation XTO requests a Variance to increase the sampling frequency of any subsequent confirmation sampling to every 500 square feet and each 5-point composite will represent a 500 square foot area.

If groundwater is encountered during delineation or excavation activities, additional remediation alternatives will be proposed in a follow-up Work Plan, as appropriate. The Site is scheduled for abandonment by the Fall of this year. XTO proposes to complete the above proposed remediation activities within 90 days of Site abandonment.

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

Sincerely,

WSP USA Inc.

A handwritten signature in black ink that reads "Morrissey".

Tacoma Morrissey
Consultant Geologist

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

Ashley L. Ager, P.G.
Managing Director, Geologist

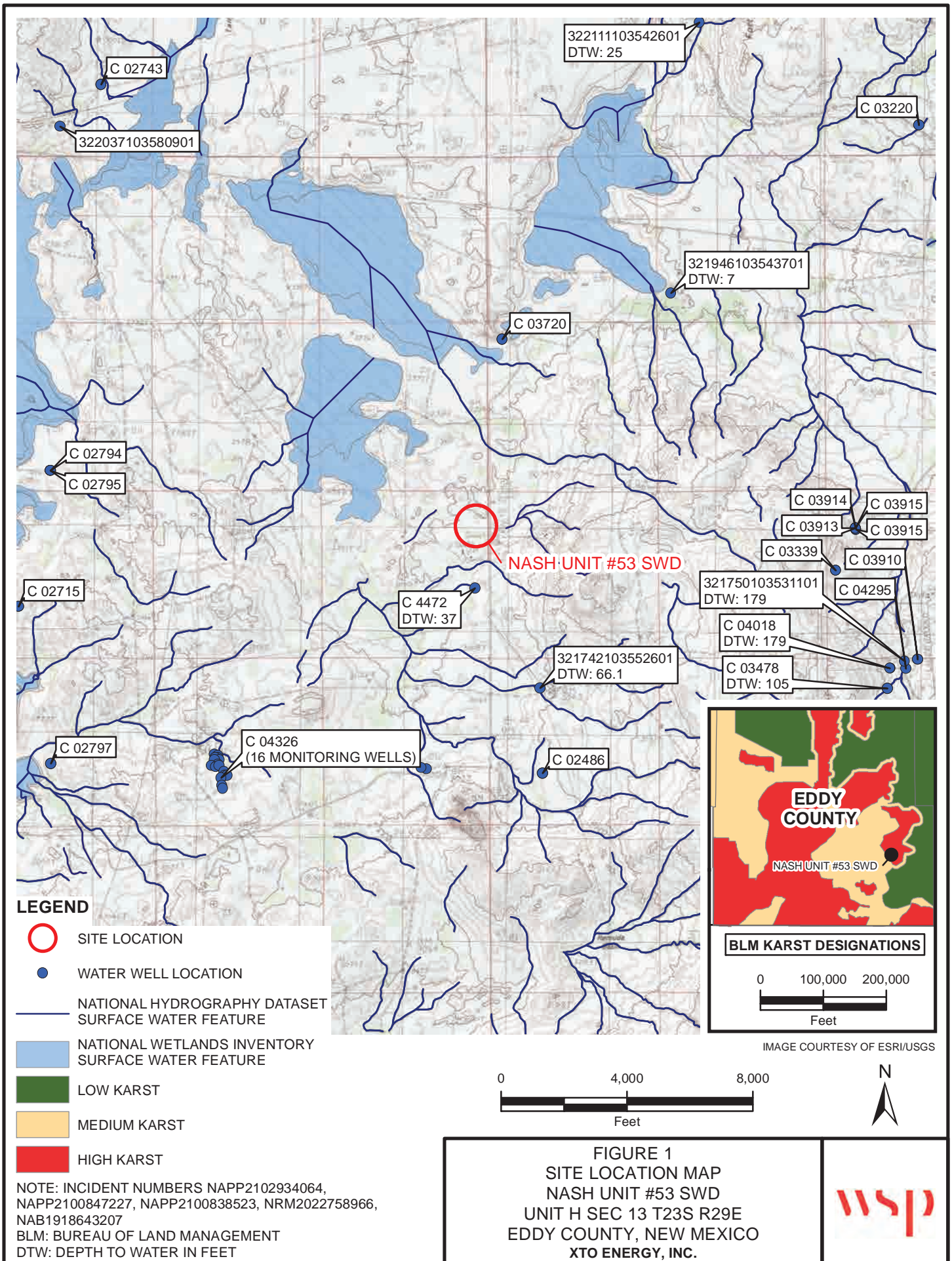
cc: Shelby Pennington, XTO
Adrian Baker, XTO

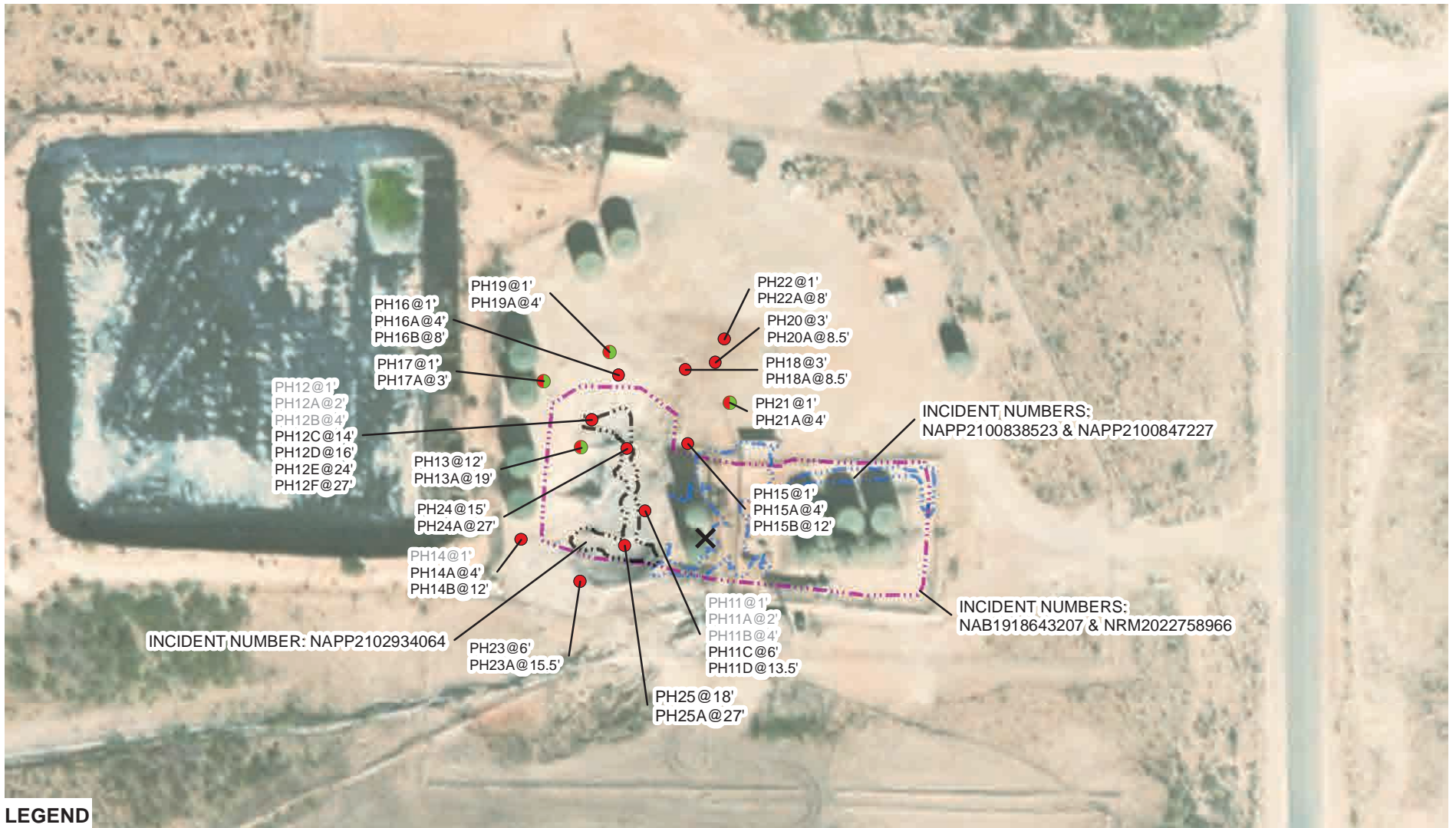


Attachments:

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

FIGURES





LEGEND

- X** RELEASE LOCATION
- DELINEATION SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- DELINEATION SOIL SAMPLE WITH CONCENTRATIONS PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA
- RELEASE EXTENT (INCIDENT NUMBERS: NAB1918643207 & NRM2022758966)
- RELEASE EXTENT (INCIDENT NUMBERS: NAPP2100838523 & NAPP2100847227)
- RELEASE EXTENT (INCIDENT NUMBER: NAPP2102934064)

NOTE: INCIDENT NUMBERS NAPP2102934064, NAPP2100847227, NAPP2100838523, NRM2022758966, NAB1918643207

TEXT: INDICATES SOIL REPRESENTED BY SAMPLE THAT WAS REMOVED

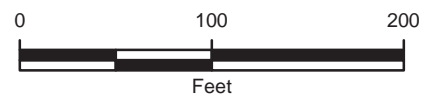
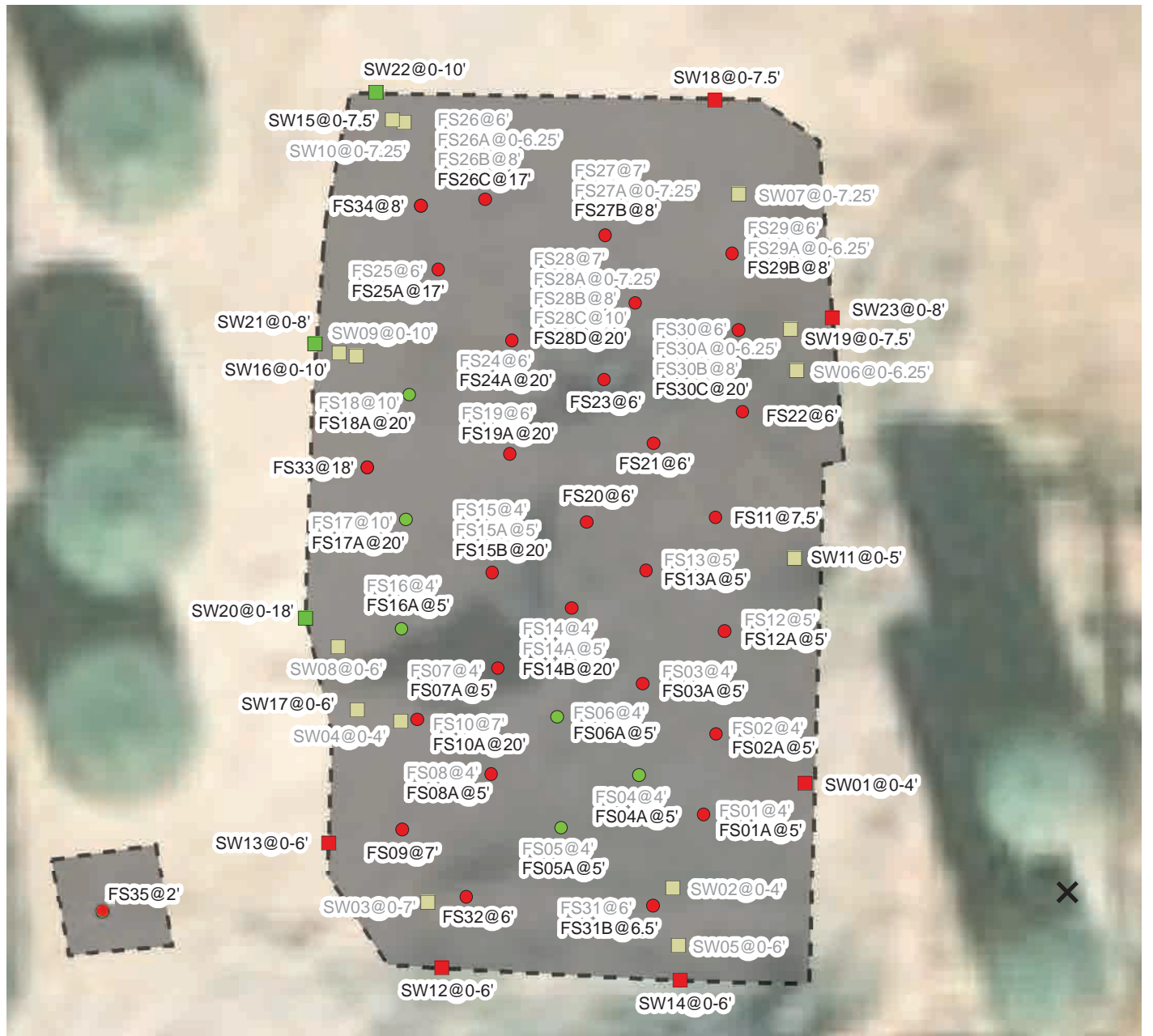


IMAGE COURTESY OF ESRI

FIGURE 2
DELINEATION SOIL SAMPLE LOCATIONS
NASH SWD BATTERY
UNIT A SEC 13 T23S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.





LEGEND

- RELEASE LOCATION
- EXCAVATION EXTENT
- FLOOR SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- FLOOR SAMPLE WITH CONCENTRATIONS PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA AND HAS BEEN EXCAVATED
- SIDEWALL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE WITH CONCENTRATIONS PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA AND HAS BEEN EXCAVATED

NOTE: INCIDENT NUMBERS NAPP2102934064, NAPP2100847227, NAPP2100838523, NRM2022758966, NAB1918643207
 SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
 TEXT: INDICATES SOIL REPRESENTED BY SAMPLE THAT WAS REMOVED

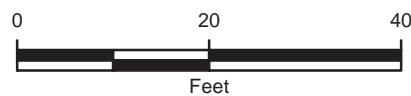


IMAGE COURTESY OF ESRI

FIGURE 3
 EXCAVATION EXTENTS
 NASH UNIT #53 SWD
 UNIT H SEC 13 T23S R29E
 EDDY COUNTY, NEW MEXICO
 XTO ENERGY, INC.





IMAGE COURTESY OF ESRI

LEGEND

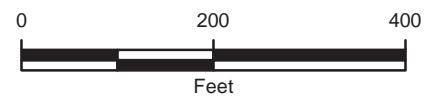
X RELEASE LOCATION

● PROPOSED DELINEATION BOREHOLE

--- RELEASE EXTENT (INCIDENT NUMBERS: NAPP2100838523 & NAPP2100847227)

--- RELEASE EXTENT (INCIDENT NUMBER: NAPP2102934064)

--- RELEASE EXTENT (INCIDENT NUMBERS: NAB1918643207 & NRM2022758966)



NOTE: INCIDENT NUMBERS NAPP2102934064, NAPP2100847227, NAPP2100838523, NRM2022758966, NAB1918643207

TEXT: INDICATES SOIL REPRESENTED BY SAMPLE THAT WAS REMOVED

FIGURE 4
PROPOSED DELINEATION BOREHOLE LOCATIONS
 NASH SWD BATTERY
 UNIT A SEC 13 T23S R29E
 EDDY COUNTY, NEW MEXICO
 XTO ENERGY, INC.



TABLES

Table 1

Soil Analytical Results
Nash Unit #53 SWD
Incident Numbers NAPP2102934064, NAPP2100847227, NAPP2100838523, NRM2022758966, NAB1918643207
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Delineation Samples										
PH11	08/04/2020	1	<0.00198	0.0244	<250	1,180	<250	1,180	1,180	585
PH11A	08/04/2020	2	<0.002	0.0453	<49.8	<49.8	<49.8	<49.8	<49.8	399
PH11B	08/04/2020	4	<0.002	<0.002	<49.9	<49.9	<49.9	<49.9	<49.9	815
PH11C	08/04/2020	6	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	947
PH11D	08/13/2020	13.5	<0.0025	<0.0025	<50.3	<50.3	<50.3	<50.3	<50.3	931
PH12	08/04/2020	1	<0.0401	0.128	333	8,490	735	8,820	9,560	20.6
PH12A	08/04/2020	2	<0.002	0.00207	<251	2,190	288	2,190	2,480	24.7
PH12B	08/04/2020	4	<0.00199	0.00594	<250	1,150	<250	1,150	1,150	147
PH12C	08/04/2020	14	<0.00199	0.0109	<49.8	359	<49.8	359	359	1,030
PH12D	08/04/2020	16	<0.00198	0.00883	<50.1	510	56.8	510	567	557
PH12E	06/01/2021	24	<0.00199	0.458	107	3,100	451	3,551	3,660	1,490
PH12F	06/01/2021	27	0.00871	0.833	253	2,430	351	2,665	3,030	1,660
PH13	09/01/2020	12	<0.00200	0.00984	<49.9	2,550	297	2,550	2,850	1,160
PH13A	09/01/2020	19	<0.002	<0.002	<49.9	<49.9	<49.9	<49.9	<49.9	468
PH14	09/01/2020	1	<0.002	<0.002	<50.3	165	<50.3	165	165	463
PH14A	09/01/2020	4	<0.002	<0.002	<50.2	<50.2	<50.2	<50.2	<50.2	1,430
PH14B	09/01/2020	12	<0.002	<0.002	<49.9	<49.9	<49.9	<49.9	<49.9	1,720
PH15	09/01/2020	1	<0.002	<0.002	<50.2	<50.2	<50.2	<50.2	<50.2	8,580
PH15A	09/01/2020	4	<0.002	<0.002	<49.9	<49.9	<49.9	<49.9	<49.9	4,050
PH15B	09/01/2020	12	<0.002	<0.002	<50.1	<50.1	<50.1	<50.1	<50.1	3,060

Table 1

Soil Analytical Results
Nash Unit #53 SWD
Incident Numbers NAPP2102934064, NAPP2100847227, NAPP2100838523, NRM2022758966, NAB1918643207
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
PH16	09/01/2020	1	<0.002	<0.002	<50.2	<50.2	<50.2	<50.2	<50.2	3,310
PH16A	09/01/2020	4	<0.002	<0.002	<50.1	<50.1	<50.1	<50.1	<50.1	3,000
PH16B	09/01/2020	8	<0.002	<0.002	<50.2	<50.2	<50.2	<50.2	<50.2	920
PH17	09/09/2020	1	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	1,090
PH17A	09/09/2020	3	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	393
PH18	09/09/2020	3	<0.002	<0.002	<49.9	<49.9	<49.9	<49.9	<49.9	5,860
PH18A	09/09/2020	8.5	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	4,950
PH19	09/14/2020	1	<0.002	<0.002	<50.2	<50.2	<50.2	<50.2	<50.2	646
PH19A	09/14/2020	4	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	503
PH20	09/14/2020	3	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	6,450
PH20A	09/14/2020	8.5	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	4,230
PH21	09/14/2020	1	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	1,020
PH21A	09/14/2020	4	<0.002	<0.002	<49.9	<49.9	<49.9	<49.9	<49.9	416
PH22	09/14/2020	1	<0.002	<0.002	<50.2	<50.2	<50.2	<50.2	<50.2	2,360
PH22A	09/14/2020	8	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	246
PH23	09/14/2020	6	<0.002	<0.002	<49.9	<49.9	<49.9	<49.9	<49.9	1,650
PH23A	09/14/2020	15.5	<0.002	<0.002	<49.8	<49.8	<49.8	<49.8	<49.8	875
PH24	06/01/2021	15	0.00491	1.54	250	1,690	201	1,940	2,140	3,340
PH24A	06/01/2021	27	<0.002	0.0243	<49.9	199	<49.9	199	199	808
PH25	06/02/2021	18	0.0227	4.97	289	2,000	289	2,289	2,580	4,640
PH25A	06/02/2021	27	0.0433	7.73	<50.0	<50.0	<50.0	<50.0	<50.0	2,300

Table 1

Soil Analytical Results
Nash Unit #53 SWD
Incident Numbers NAPP2102934064, NAPP2100847227, NAPP2100838523, NRM2022758966, NAB1918643207
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Excavation Floor Samples										
FS01	08/12/2020	4	<0.00201	<0.00201	<50.1	676	99.1	676	775	2,080
FS01A	08/17/2020	5	<0.002	<0.002	<49.8	<49.8	<49.8	<49.8	<49.8	2,680
FS02	08/12/2020	4	<0.00199	<0.00199	<50.3	995	118	995	1,110	2,340
FS02A	08/17/2020	5	<0.00201	<0.00201	<49.9	60.1	<49.9	60.1	60.1	1,010
FS03	08/12/2020	4	<0.00200	<0.002	<49.8	388	53.6	388	442	2,500
FS03A	08/17/2020	5	<0.002	<0.002	<50.3	59.6	<50.3	59.6	59.6	863
FS04	08/12/2020	4	<0.002	<0.002	<49.9	495	62.1	495	557	8,130
FS04A	08/17/2020	5	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	474
FS05	08/12/2020	4	<0.00201	<0.00201	<50.1	908	105	908	1,010	2,200
FS05A	08/17/2020	5	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	441
FS06	08/12/2020	4	<0.00202	<0.00202	<50.2	179	<50.2	179	179	1,370
FS06A	08/17/2020	5	<0.002	<0.002	<49.9	<49.9	<49.9	<49.9	<49.9	392
FS07	08/12/2020	4	<0.002	<0.002	<50.0	344	50.7	344	395	3,820
FS07A	08/17/2020	5	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	2,080
FS08	08/12/2020	4	<0.002	<0.002	<49.9	413	55.7	413	469	2,930
FS08A	08/17/2020	5	<0.002	<0.002	<49.9	<49.9	<49.9	<49.9	<49.9	1,800
FS09	08/12/2020	7	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	3,090
FS10	08/12/2020	7	<0.002	<0.002	<49.8	<49.8	<49.8	<49.8	<49.8	3,290
FS10A	06/08/2021	20	<0.00199	<0.00398	<49.8	91.2	<49.8	91.2	91.2	1,390

Table 1

Soil Analytical Results
Nash Unit #53 SWD
Incident Numbers NAPP2102934064, NAPP2100847227, NAPP2100838523, NRM2022758966, NAB1918643207
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
FS11	08/12/2020	7.5	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	1,110
FS12	08/12/2020	5	<0.00201	<0.00201	<49.9	303	<49.9	303	303	1,500
FS012A	08/17/2020	5	<0.002	<0.002	<50.1	<50.1	<50.1	<50.1	<50.1	1,910
FS13	08/12/2020	5	<0.002	<0.002	<49.8	297	<49.8	297	297	1,910
FS013A	08/17/2020	5	<0.002	<0.002	<50.2	52.7	<50.2	52.7	52.7	672
FS14	08/12/2020	4	<0.00202	<0.00202	<50.1	232	<50.1	232	232	1,710
FS014A	08/17/2020	5	<0.002	<0.002	<50.1	<50.1	<50.1	<50.1	<50.1	1,370
FS014B	06/08/2021	20	<0.002	<0.004	<49.8	251	<49.8	251	251	1,070
FS15	08/12/2020	4	<0.00202	<0.00202	<50.1	202	<50.1	202	202	2,180
FS015A	08/17/2020	5	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	1,800
FS015B	06/04/2021	20	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,690
FS16	08/12/2020	4	<0.00201	<0.00201	<49.8	226	<49.8	226	226	996
FS16A	08/17/2020	5	<0.002	<0.002	<50.2	<50.2	<50.2	<50.2	<50.2	222
FS17	08/12/2020	10	<0.002	<0.002	<49.9	<49.9	<49.9	<49.9	<49.9	82.7
FS17A	06/04/2021	20	<0.00199	<0.00398	<49.7	<49.7	<49.7	<49.7	<49.7	295
FS18	08/12/2020	10	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	96.4
FS18A	06/04/2021	20	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	79.7
FS019	08/17/2020	6	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	646
FS019A	06/08/2021	20	<0.002	<0.00399	<49.9	544	79.0	544	623	1,100
FS20	08/17/2020	6	<0.002	<0.002	<50.0	89.6	<50.0	89.6	89.6	729

Table 1

Soil Analytical Results
Nash Unit #53 SWD
Incident Numbers NAPP2102934064, NAPP2100847227, NAPP2100838523, NRM2022758966, NAB1918643207
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
FS21	08/17/2020	6	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	1,450
FS22	08/18/2020	6	<0.002	<0.002	<50.2	<50.2	<50.2	<50.2	<50.2	1,030
FS23	08/18/2020	6	<0.002	<0.002	<50.2	<50.2	<50.2	<50.2	<50.2	3,740
FS24	08/18/2020	6	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	4,700
FS24A	06/04/2021	20	<0.002	<.004	<49.7	<49.7	<49.7	<49.7	<49.7	677
FS25	08/18/2020	6	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	2,140
FS25A	11/10/2020	17	<0.002	<0.002	<50.0	<50.0	<50.0	<50.0	<50.0	2,200
FS26	08/18/2020	6	<0.002	<0.002	<49.9	646	79.7	646	726	2,290
FS26A	08/25/2020	0 - 6.25	<0.002	<0.002	<49.8	1200	205	1,200	1,410	713
FS26B	08/31/2020	8	<0.00201	<0.00201	<50.2	72.3	<50.2	72.3	72.3	1,440
FS26C	11/10/2020	17	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	1,630
FS27	08/18/2020	7	<0.00199	<0.00199	<50.2	853	98.8	853	952	1,010
FS27A	08/25/2020	0 - 7.25	<0.00199	<0.00199	<49.9	197	<49.9	197	197	1,600
FS27B	08/31/2020	8	<0.00198	<0.00198	<50.0	942	125	942	1,070	1,790
FS27C	09/03/2020	10	<0.002	<0.002	<50.1	<50.1	<50.1	<50.1	<50.1	2,380
FS28	08/18/2020	7	<0.00198	<0.00198	<50.2	493	68.6	493	562	2,870
FS28A	08/25/2020	0 - 7.25	<0.002	<0.002	<50.0	120	<50.0	120	120	4,760
FS28B	08/31/2020	8	<0.002	<0.002	<49.9	870	121	870	991	2,220
FS28C	09/03/2020	10	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	18,000
FS28D	06/04/2021	20	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	<49.8	624

Table 1

Soil Analytical Results
Nash Unit #53 SWD
Incident Numbers NAPP2102934064, NAPP2100847227, NAPP2100838523, NRM2022758966, NAB1918643207
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
FS29	08/18/2020	6	<0.002	<0.002	<49.8	227	<49.8	227	227	309
FS29A	08/25/2020	0 - 6.25	<0.00201	<0.00201	<49.9	133	<49.9	133	133	1,650
FS29B	08/31/2020	8	<0.002	<0.002	<50.0	<49.8	<49.8	<49.8	<49.8	1,160
FS30	08/18/2020	6	<0.00198	<0.00198	<50.2	847	85.9	847	933	1,040
FS30A	08/25/2020	0 - 6.25	<0.00198	<0.00198	<50.0	115	<50.0	115	115	4,070
FS30B	08/31/2020	8	<0.002	<0.002	<49.8	<49.8	<49.8	<49.8	<49.8	912
FS30C	06/04/2021	20	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	1,090
FS31	08/25/2020	6	<0.002	<0.002	<49.9	139	<49.9	139	139	2,890
FS31B	08/31/2020	6.5	<0.00199	<0.00199	<50.2	73.3	<50.2	73.3	73.3	1,560
FS32	08/25/2020	6	<0.002	<0.002	<50.0	69.9	<50.0	69.9	69.9	2,460
FS33	09/02/2020	18	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	1,880
FS34	09/03/2020	8	<0.002	<0.002	<49.9	<49.9	<49.9	<49.9	<49.9	2,050
FS35	11/10/2020	2	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	776
Excavation Sidewall Samples										
SW01	08/13/2020	0 - 4	<0.00198	<0.00198	<50.0	1,060	146	1,060	1,210	4,680
SW02	08/13/2020	0 - 4	<0.00198	<0.00198	<50.3	1,730	173	1,730	1,900	3,970
SW03	08/13/2020	0 - 7	<0.00248	<0.00248	<50.1	1,730	219	1,730	1,950	3,180
SW04	08/13/2020	0 - 4	<0.00240	<0.00240	<50.2	1,020	132	1,020	1,150	10,900
SW05	08/25/2020	0-6	<0.00198	<0.00198	<49.9	122	<49.9	122	122	1,270
SW06	08/25/2020	0 - 6.25	<0.00199	<0.00199	<50.0	2,520	343	2,520	2,860	5,260

Table 1

Soil Analytical Results
 Nash Unit #53 SWD
 Incident Numbers NAPP2102934064, NAPP2100847227, NAPP2100838523, NRM2022758966, NAB1918643207
 Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
SW07	08/25/2020	0 - 7.25	<0.002	<0.002	<50.0	658	104	658	762	5,010
SW08	08/25/2020	0-6	<0.002	<0.002	<50.0	367	<50.0	367	367	2,550
SW09	08/25/2020	0 - 10	<0.002	<0.002	<50.0	1,340	170	1,340	1,510	1,900
SW10	08/25/2020	0 - 7.25	<0.002	<0.002	<49.8	919	167	919	1,090	4,780
SW11	08/25/2020	0 - 5	<0.002	<0.002	<49.9	1,830	250	1,830	2,080	15,200
SW12	08/25/2020	0 - 6	<0.002	<0.002	<49.9	<49.9	<49.9	<49.9	<49.9	1,440
SW13	08/25/2020	0 - 6	<0.002	<0.002	<49.9	93.1	<49.9	93.1	93.1	2,230
SW14	08/31/2020	0 - 6	<0.002	<0.002	<50.2	85.8	<50.2	85.8	85.8	1,410

Table 1

Soil Analytical Results
Nash Unit #53 SWD
Incident Numbers NAPP2102934064, NAPP2100847227, NAPP2100838523, NRM2022758966, NAB1918643207
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
SW15	08/31/2020	0 - 7.5	<0.00199	<0.00199	<49.9	314	<49.9	314	314	1,930
SW16	08/31/2020	0 - 10	<0.002	<0.002	<49.9	279	<49.9	279	279	1,140
SW17	08/31/2020	0 - 6	<0.002	<0.002	<49.8	230	<49.8	230	230	2,690
SW18	08/31/2020	0 - 7.5	<0.002	<0.002	<49.8	<49.8	<49.8	<49.8	<49.8	2,800
SW19	08/31/2020	0 - 7.5	<0.002	<0.002	<50.0	603	95.5	603	699	2,420
SW20	09/02/2020	0 - 18	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	189
SW21	09/03/2020	0 - 8	<0.002	<0.002	<50.0	60.2	<50.0	60.2	60.2	386
SW22	09/03/2020	0 - 10	<0.00199	<0.00199	<49.8	67.8	<49.8	67.8	67.8	370
SW23	09/03/2020	0 - 8	<0.00199	<0.00199	<49.9	67.1	<49.9	67.1	67.1	1,280

ft - feet/foot

mg/kg - milligrams per kilograms

BTEX - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - motor oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

< - indicates result is less than the stated laboratory method practical quantitation limit

NE - Not Established

BOLD - indicates results exceed the higher of the background sample result or applicable regulatory standard

Greyed data represents samples that were excavated

USGS 321742103552601 23S.30E.19.123421

Available data for this site: [SUMMARY OF ALL AVAILABLE DATA](#)

Well Site

DESCRIPTION:

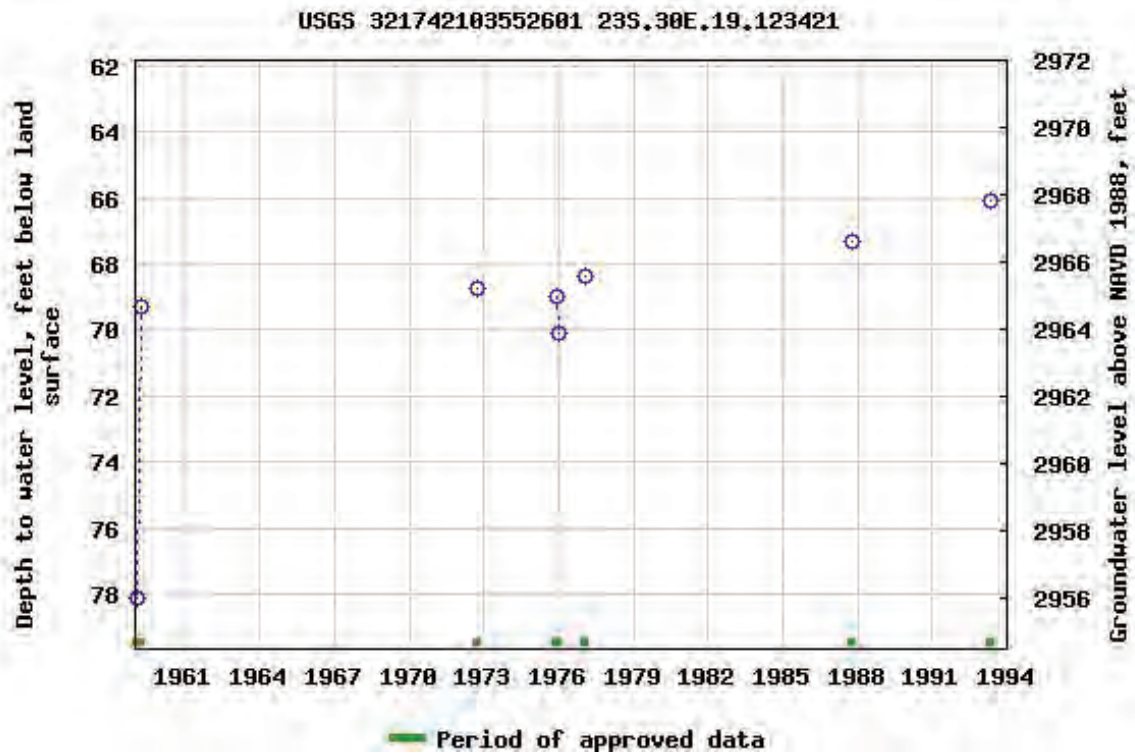
Latitude 32°17'42", Longitude 103°55'26" NAD27
 Eddy County, New Mexico, Hydrologic Unit 13060011
 Well depth: 100 feet
 Land surface altitude: 3,034 feet above NAVD88.
 Well completed in "Other aquifers" (N9999OTHER) national aquifer.
 Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1959-02-06	1993-05-06	8
Field/Lab water-quality samples	1972-09-20	1972-09-20	1
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center.
 Email questions about this site to: [New Mexico Water Science Center Water-Data Inquiries](#)





WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

OSE OF, OCT 5 2020 10:11



1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1 (BH-01)		WELL TAG ID NO. n/a		OSE FILE NO(S). C-4472			
	WELL OWNER NAME(S) XTO Energy (Kyle Littrell)				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 6401 Holiday Hill Dr.				CITY Midland	STATE TX	ZIP 79707	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32°	MINUTES 18'	SECONDS 13.90"	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND		
	LONGITUDE -103°	55'	51.66"	W	* DATUM REQUIRED: WGS 84			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NE NE SE (Unit 1) Sec. 13 T23S R29E								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 09/11/20	DRILLING ENDED 09/11/20	DEPTH OF COMPLETED WELL (FT) temporary well material	BORE HOLE DEPTH (FT) 55	DEPTH WATER FIRST ENCOUNTERED (FT) ±37			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input type="checkbox"/> DRY HOLE <input checked="" type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) 37		
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD		ADDITIVES - SPECIFY:					
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY:		Hollow Stem Auger					
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	55	±8.5	Boring- HSA	--	--	--	--
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

APPLICABLE
08E 07 OCT 6 21 00 00 11


4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
	FROM	TO				
	0	2	2	Sand, Medium , poorly-graded with silt and gravel , no plasticity, Brown	Y ✓ N	
	2	19	17	Caliche, increased cementation with depth, Light Gray	Y ✓ N	
	19	40	21	Dolomite/Dolostone with micro crystalline matrix, Yellow-Gray	✓ Y N	
	40	55	15	Clay, Fat inorganic, High Plasticity. Tan, Red	✓ Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER - SPECIFY:					TOTAL ESTIMATED WELL YIELD (gpm): 0.00	

5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.
	MISCELLANEOUS INFORMATION:	Temporary well materials removed and the soil boring plugged using Type I/II Neat Cement Slurry (<6.0 gallons per 94 lbs. sack) from total depth to surface. Logs adapted from LTE on-site geologist.
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Shane Eldridge	

6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:	
	<i>Jackie D. Atkins</i>	10/06/2020
	SIGNATURE OF DRILLER / PRINT SIGNEE NAME	DATE

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 06/30/2017)	
FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 2 OF 2

<p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>					BH or PH Name: PH11		Date: 8/4/2020-8/13/2020									
					Site Name: Nash 53 SWD				RP or Incident Number: NAB1918643207							
					LTE Job Number: TE012919139				Logged By: EN				Method: Track hoe			
					Lat/Long:				Field Screening: Chloride, PID				Hole Diameter:			
Comments:																
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks								
dry	3,617	65.1	N	PH11	1'	0	SM	SAND, dry, brown, fine to medium grain, no stain, slight odor								
dry	520	4.8	N	PH11A	2'											
dry	352	4.7	N		3'											
dry	520	0.8	N	PH11B	4'	5										
dry	352	1.3	N	PH11C	6'											
						10										
dry	504	0.7	N	PH11D	13.5'											
						15										
						20										
						25										
								Total Depth: 13.5 feet bgs								


 <p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>					BH or PH Name: PH12		Date: 8/4/2020-6/1/2021							
					Site Name: Nash 53 SWD				RP or Incident Number: NAB1918643207					
					LTE Job Number: TE012919139				Logged By: EN				Method: Track hoe	
					LITHOLOGIC / SOIL SAMPLING LOG					Hole Diameter:		Total Depth: 27'		
Lat/Long:			Field Screening: Chloride, PID			Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks						
dry	173	239	N	PH12	1'	0	SM	SAND, dry, red/brown, fine to medium grain, no stain, slight odor						
dry	212	226	N	PH12A	2'									
dry	173	165	N		3'									
dry	173	124	N	PH12B	4'									
dry	352	1.3	N		6'	5	CH							
dry	256	35.3	N		8'									
dry	163	6.1	N		10'	10								
dry	163	25.8	N		12'									
dry	817	12.8	N	PH12C	14'									
dry	352	36.1	N	PH12D	16'	15								
dry	1,224	365	N	PH12E	24'	25								
dry	1,144	518.0	N	PH12F	27'									
								Total Depth: 27 feet bgs						


<p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>	BH or PH Name: PH13	Date: 9/1/2020
	Site Name: Nash 53 SWD	
	RP or Incident Number: NAB1918643207	
	LTE Job Number: TE012919139	

LITHOLOGIC / SOIL SAMPLING LOG		Logged By: TC	Method: Track hoe
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth: 19'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
						0		Open Excavation	
dry	1,204	160.2	N	PH13	12'	10	SW		SAND, dry, medium - course grain, no stain, no odor
dry	296	98.4	N		14'				
dry	185	1.1	N		16'	15			
dry dry	296 257	1.4 1.0	N N	PH13A	18' 19'	20			
								Total Depth: 19 feet bgs	


 <p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>					BH or PH Name: PH14		Date: 9/1/2020							
					Site Name: Nash 53 SWD				RP or Incident Number: NAB1918643207					
					LTE Job Number: TE012919139				Logged By: EN				Method: Track hoe	
					LITHOLOGIC / SOIL SAMPLING LOG					Hole Diameter:		Total Depth: 12'		
Lat/Long:			Field Screening: Chloride, PID			Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks						
dry	543	13.7	N	PH14	1'	0	SM	SAND, dry, brown, fine to medium grain, no stain, slight odor						
dry	1,097	0.2	N	PH14A	4'	5								
dry	868	0.0	N		8'									
dry	1,204	0.0	N	PH14B	12'	10								
								Total Depth: 12 feet bgs						


 <p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>	BH or PH Name: PH15	Date: 9/1/2020
	Site Name: Nash 53 SWD	
	RP or Incident Number: NAB1918643207	
	LTE Job Number: TE012919139	

LITHOLOGIC / SOIL SAMPLING LOG		Logged By: EN	Method: Track hoe
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth: 12'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
dry	7,330	0.0	N	PH15	1'	0	SM	SAND, dry, reddish brown, fine to medium grain, no stain, no odor
dry	2,486	0.0	N	PH15A	4'	5		
dry	2,312	0.0	N		8'			
dry	2,156	0.0	N	PH15B	12'	10		
								Total Depth: 12 feet bgs

 <p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>					BH or PH Name:		Date:	
					PH16		9/1/2020	
					Site Name: Nash 53 SWD			
					RP or Incident Number: NAB1918643207			
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: EN		Method: Track hoe		
Lat/Long:		Field Screening:		Hole Diameter:		Total Depth:		
		Chloride, PID				8'		
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
dry	2,156	0.0	N	PH16	1'	0	SM	SAND, dry, brown, fine to medium grain, no stain, no odor
dry	1,506	0.0	N	PH16A	4'	5		
dry	543	0.0	N	PH16B	8'			
Total Depth: 8 feet bgs								

 <p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>	BH or PH Name: PH17	Date: 9/9/2020
	Site Name: Nash 53 SWD	
	RP or Incident Number: NAB1918643207	
	LTE Job Number: TE012919139	


LITHOLOGIC / SOIL SAMPLING LOG		Logged By: EN	Method: Track hoe
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth: 3'


Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SM	SAND, dry, brown, fine to medium grain, no stain, no odor
dry	668	0.0	N	PH17	1'			
dry	386	0.0	N		2'			
dry	224	0.0	N	PH17A	3'			
						5		
								Total Depth: 3 feet bgs

<p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>					BH or PH Name: PH18		Date: 9/9/2020			
					Site Name: Nash 53 SWD					
					RP or Incident Number: NAB1918643207					
					LTE Job Number: TE012919139					
LITHOLOGIC / SOIL SAMPLING LOG						Logged By: EN		Method: Track hoe		
Lat/Long:			Field Screening: Chloride, PID			Hole Diameter:		Total Depth: 8.5'		
Comments:										
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks		
dry	2,005	0.0	N	PH18	1'	0	SM	SAND, dry, brown, fine to medium grain, no stain, no odor		
dry	3,096	0.0	N		2'	5				
dry	3,343	0.0	N		3'					
dry	3,096	0.0	N		4'					
dry	3,096	0.0	N	6'						
dry	2,872	0.0	N	PH18A	8.5'					
								Total Depth: 8.5 feet bgs		

<p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>					BH or PH Name: PH19		Date: 9/14/2020					
					Site Name: Nash 53 SWD				RP or Incident Number: NAB1918643207			
					LTE Job Number: TE012919139				Logged By: EN		Method: Track hoe	
					Lat/Long:		Field Screening: Chloride, PID		Hole Diameter:		Total Depth: 4'	
Comments:												
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks				
dry	604	0.0	N	PH19	1'	0	SM	SAND, dry, brown, fine to medium grain, no stain, no odor				
dry	487	0.0	N		2'							
dry	224	0.0	N		3'							
dry	224	0.0	N	PH19A	4'	5						
Total Depth: 4 feet bgs												


 <p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>					BH or PH Name: PH20		Date: 9/14/2020	
					Site Name: Nash 53 SWD			
					RP or Incident Number: NAB1918643207			
					LTE Job Number: TE012919139			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: EN		Method: Track hoe	
Lat/Long:			Field Screening: Chloride, PID		Hole Diameter:		Total Depth: 8.5'	
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
dry	5,297	4.1	N		1'	0	SM	SAND, dry, brown, fine to medium grain, no stain, no odor
dry	5,756	0.0	N		2'			
dry	6,770	0.0	N	PH20	3'			
dry	3,404	0.0	N		4'	5		
dry	2,805	0.0	N		6'			
dry	3,730	0.0	N	PH20A	8.5'	10		
								Total Depth: 8.5 feet bgs


 <p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>	BH or PH Name: PH21	Date: 9/14/2020
	Site Name: Nash 53 SWD	
	RP or Incident Number: NAB1918643207	
	LTE Job Number: TE012919139	

LITHOLOGIC / SOIL SAMPLING LOG		Logged By: EN	Method: Track hoe
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth: 4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
dry	1,024	0.0	N	PH21	1'	0	SM	SAND, dry, brown, fine to medium grain, no stain, no odor
dry	632	0.0	N		2'			
dry	890	0.0	N		3'			
dry	436	0.0	N	PH21A	4'	5		
								Total Depth: 4 feet bgs


 <p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>					BH or PH Name: PH22		Date: 9/14/2020							
					Site Name: Nash 53 SWD				RP or Incident Number: NAB1918643207					
					LTE Job Number: TE012919139				Logged By: EN				Method: Track hoe	
					LITHOLOGIC / SOIL SAMPLING LOG				Hole Diameter:		Total Depth: 8'			
Lat/Long:		Field Screening: Chloride, PID			Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks						
dry	2,312	0.0	N	PH22	1'	0	SM	SAND, dry, brown, fine to medium grain, no stain, no odor						
dry	1,618	0.0	N		2'									
dry	1,702	0.0	N		3'									
dry	1,569	0.0	N		4'	5								
dry	1,388	0.0	N		6'									
dry	397	0.0	N	PH22A	8'									
								Total Depth: 8 feet bgs						

 <p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>	BH or PH Name: PH23	Date: 9/14/2020
	Site Name: Nash 53 SWD	
	RP or Incident Number: NAB1918643207	
	LTE Job Number: TE012919139	

LITHOLOGIC / SOIL SAMPLING LOG		Logged By: EN	Method: Track hoe
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth: 15.5'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
dry	817	0.0	N	PH23	1'	0	SM	SAND, dry, brown, fine to medium grain, no stain, no odor
dry	654	0.0	N		2'	5		
dry	1,596	0.0	N		3'			
dry	1,943	0.0	N		4'			
dry	1,943	0.0	N		6'			
dry	1,125	0.0	N		8'	10		
dry	1,299	0.0	N		10'			
dry	1,702	0.0	N		12'			
dry	1,388	0.0	N		14'	15		
dry	504	0.0	N		PH23A 15.5'			
								Total Depth: 15.5 feet bgs

 <p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>	BH or PH Name: PH24	Date: 6/1/2021
	Site Name: Nash 53 SWD	
	RP or Incident Number: NAB1918643207	
	LTE Job Number: TE012919139	

LITHOLOGIC / SOIL SAMPLING LOG		Logged By: JH	Method: Track hoe
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth: 27'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
					0			Open Excavation
dry	544	0.6	N		13'	13	SW	SAND w/ gravel, dry, grey, no stain, no odor
dry	1,728	761.5	N	PH24	15'			
dry	640	238.5	N		17'	20		
dry	744	93.5	N		21'			
dry	588	113.2	N		25'	25		
dry	544	42.1	N	PH24A	27'			
								Total Depth: 27 feet bgs

<p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>						BH or PH Name: PH25		Date: 6/2/2021	
						Site Name: Nash 53 SWD			
						RP or Incident Number: NAB1918643207			
						LTE Job Number: TE012919139			
LITHOLOGIC / SOIL SAMPLING LOG						Logged By: TC		Method: Track hoe	
Lat/Long:			Field Screening: Chloride, PID			Hole Diameter:		Total Depth: 27'	
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
						0		Open Excavation	
dry	3,040	616.8	N	PH25	14'	13	SW	SAND w/ gravel, dry, grey, no stain, no odor	
dry	3,807	447.6	N		16'				
dry	3,505	675.3	N		18'				
dry	2,111	327.4	N		20'	20			
						25			
dry	2,895	393.2	N	PH25A	27'				
								Total Depth: 27 feet bgs	

ATTACHMENT 3: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG

XTO Energy, Inc.	Nash Unit #53 SWD Eddy County, New Mexico	NAB1918643207, NRM2022758966, NAPP2100838523, NAPP2100847227, NAPP2102934064
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Photo No.	Date	
1	August 4, 2020	
Southeast facing view of release extent.		

Photo No.	Date	
2	August 13, 2020	
West facing view of delineation and excavation activities.		



PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Nash Unit #53 SWD Eddy County, New Mexico	NAB1918643207, NRM2022758966, NAPP2100838523, NAPP2100847227, NAPP2102934064

Photo No.	Date	
3	June 1, 2021	
Southwest facing view of delineation and excavation activities.		

Photo No.	Date	
4	June 9, 2021	
South facing view of final excavation.		

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS



Environment Testing
America

ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-770-1
Laboratory Sample Delivery Group: TE012919139
Client Project/Site: Nash 53/ Nash 4 SWD

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Dan Moir

Authorized for release by:
6/8/2021 3:09:05 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?

**Ask
The
Expert**

Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Laboratory Job ID: 890-770-1
SDG: TE012919139

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-770-1
SDG: TE012919139

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-770-1
SDG: TE012919139

Job ID: 890-770-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-770-1

Receipt

The samples were received on 6/2/2021 3:49 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.0°C

GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-770-1
SDG: TE012919139

Client Sample ID: PH12E

Lab Sample ID: 890-770-1

Date Collected: 06/01/21 09:16

Matrix: Solid

Date Received: 06/02/21 15:49

Sample Depth: - 24

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		06/04/21 08:00	06/04/21 14:12	1
Toluene	0.0993		0.00199	mg/Kg		06/04/21 08:00	06/04/21 14:12	1
Ethylbenzene	0.0471		0.00199	mg/Kg		06/04/21 08:00	06/04/21 14:12	1
m-Xylene & p-Xylene	0.203		0.00398	mg/Kg		06/04/21 08:00	06/04/21 14:12	1
o-Xylene	0.109		0.00199	mg/Kg		06/04/21 08:00	06/04/21 14:12	1
Xylenes, Total	0.312		0.00398	mg/Kg		06/04/21 08:00	06/04/21 14:12	1
Total BTEX	0.458		0.00398	mg/Kg		06/04/21 08:00	06/04/21 14:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	154	S1+	70 - 130	06/04/21 08:00	06/04/21 14:12	1
1,4-Difluorobenzene (Surr)	105		70 - 130	06/04/21 08:00	06/04/21 14:12	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	107		49.9	mg/Kg		06/07/21 14:43	06/08/21 00:48	1
Diesel Range Organics (Over C10-C28)	3100		49.9	mg/Kg		06/07/21 14:43	06/08/21 00:48	1
Oil Range Organics (Over C28-C36)	451		49.9	mg/Kg		06/07/21 14:43	06/08/21 00:48	1
Total TPH	3660		49.9	mg/Kg		06/07/21 14:43	06/08/21 00:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	06/07/21 14:43	06/08/21 00:48	1
o-Terphenyl	94		70 - 130	06/07/21 14:43	06/08/21 00:48	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1490		25.0	mg/Kg			06/07/21 18:14	5

Client Sample ID: PH12F

Lab Sample ID: 890-770-2

Date Collected: 06/01/21 10:16

Matrix: Solid

Date Received: 06/02/21 15:49

Sample Depth: - 27

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00871		0.00198	mg/Kg		06/04/21 08:00	06/04/21 14:33	1
Toluene	0.0924		0.00198	mg/Kg		06/04/21 08:00	06/04/21 14:33	1
Ethylbenzene	0.0900		0.00198	mg/Kg		06/04/21 08:00	06/04/21 14:33	1
m-Xylene & p-Xylene	0.360		0.00396	mg/Kg		06/04/21 08:00	06/04/21 14:33	1
o-Xylene	0.282		0.00198	mg/Kg		06/04/21 08:00	06/04/21 14:33	1
Xylenes, Total	0.642		0.00396	mg/Kg		06/04/21 08:00	06/04/21 14:33	1
Total BTEX	0.833		0.00396	mg/Kg		06/04/21 08:00	06/04/21 14:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	205	S1+	70 - 130	06/04/21 08:00	06/04/21 14:33	1
1,4-Difluorobenzene (Surr)	116		70 - 130	06/04/21 08:00	06/04/21 14:33	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-770-1
SDG: TE012919139

Client Sample ID: PH12F

Lab Sample ID: 890-770-2

Date Collected: 06/01/21 10:16

Matrix: Solid

Date Received: 06/02/21 15:49

Sample Depth: - 27

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	253		49.8	mg/Kg		06/07/21 14:43	06/08/21 01:09	1
Diesel Range Organics (Over C10-C28)	2430		49.8	mg/Kg		06/07/21 14:43	06/08/21 01:09	1
Oil Range Organics (Over C28-C36)	351		49.8	mg/Kg		06/07/21 14:43	06/08/21 01:09	1
Total TPH	3030		49.8	mg/Kg		06/07/21 14:43	06/08/21 01:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130	06/07/21 14:43	06/08/21 01:09	1
o-Terphenyl	95		70 - 130	06/07/21 14:43	06/08/21 01:09	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1660		24.9	mg/Kg			06/07/21 13:23	5

Client Sample ID: PH24

Lab Sample ID: 890-770-3

Date Collected: 06/01/21 11:02

Matrix: Solid

Date Received: 06/02/21 15:49

Sample Depth: - 15

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00491		0.00200	mg/Kg		06/04/21 08:00	06/04/21 14:53	1
Toluene	0.252		0.00200	mg/Kg		06/04/21 08:00	06/04/21 14:53	1
Ethylbenzene	0.148		0.00200	mg/Kg		06/04/21 08:00	06/04/21 14:53	1
m-Xylene & p-Xylene	0.768		0.00400	mg/Kg		06/04/21 08:00	06/04/21 14:53	1
o-Xylene	0.371		0.00200	mg/Kg		06/04/21 08:00	06/04/21 14:53	1
Xylenes, Total	1.14		0.00400	mg/Kg		06/04/21 08:00	06/04/21 14:53	1
Total BTEX	1.54		0.00400	mg/Kg		06/04/21 08:00	06/04/21 14:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	203	S1+	70 - 130	06/04/21 08:00	06/04/21 14:53	1
1,4-Difluorobenzene (Surr)	97		70 - 130	06/04/21 08:00	06/04/21 14:53	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	250		49.8	mg/Kg		06/07/21 14:43	06/08/21 01:29	1
Diesel Range Organics (Over C10-C28)	1690		49.8	mg/Kg		06/07/21 14:43	06/08/21 01:29	1
Oil Range Organics (Over C28-C36)	201		49.8	mg/Kg		06/07/21 14:43	06/08/21 01:29	1
Total TPH	2140		49.8	mg/Kg		06/07/21 14:43	06/08/21 01:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	06/07/21 14:43	06/08/21 01:29	1
o-Terphenyl	92		70 - 130	06/07/21 14:43	06/08/21 01:29	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3340		25.2	mg/Kg			06/07/21 13:38	5

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-770-1
SDG: TE012919139

Client Sample ID: PH24A

Lab Sample ID: 890-770-4

Date Collected: 06/01/21 14:34

Matrix: Solid

Date Received: 06/02/21 15:49

Sample Depth: - 27

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/04/21 08:00	06/04/21 15:14	1
Toluene	0.00797		0.00200	mg/Kg		06/04/21 08:00	06/04/21 15:14	1
Ethylbenzene	0.00309		0.00200	mg/Kg		06/04/21 08:00	06/04/21 15:14	1
m-Xylene & p-Xylene	0.00962		0.00399	mg/Kg		06/04/21 08:00	06/04/21 15:14	1
o-Xylene	0.00358		0.00200	mg/Kg		06/04/21 08:00	06/04/21 15:14	1
Xylenes, Total	0.0132		0.00399	mg/Kg		06/04/21 08:00	06/04/21 15:14	1
Total BTEX	0.0243		0.00399	mg/Kg		06/04/21 08:00	06/04/21 15:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130	06/04/21 08:00	06/04/21 15:14	1
1,4-Difluorobenzene (Surr)	112		70 - 130	06/04/21 08:00	06/04/21 15:14	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		06/07/21 14:43	06/08/21 01:50	1
Diesel Range Organics (Over C10-C28)	199		49.9	mg/Kg		06/07/21 14:43	06/08/21 01:50	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/07/21 14:43	06/08/21 01:50	1
Total TPH	199		49.9	mg/Kg		06/07/21 14:43	06/08/21 01:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	127		70 - 130	06/07/21 14:43	06/08/21 01:50	1
o-Terphenyl	122		70 - 130	06/07/21 14:43	06/08/21 01:50	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	808		5.05	mg/Kg			06/07/21 13:43	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-770-1
SDG: TE012919139

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-770-1	PH12E	154 S1+	105
890-770-2	PH12F	205 S1+	116
890-770-3	PH24	203 S1+	97
890-770-4	PH24A	118	112
LCS 880-3777/1-A	Lab Control Sample	115	104
LCSD 880-3777/2-A	Lab Control Sample Dup	112	104
MB 880-3777/5-A	Method Blank	88	92

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-770-1	PH12E	104	94
890-770-2	PH12F	108	95
890-770-3	PH24	111	92
890-770-4	PH24A	127	122
LCS 880-3863/2-A	Lab Control Sample	97	87
LCSD 880-3863/3-A	Lab Control Sample Dup	99	92
MB 880-3863/1-A	Method Blank	120	116

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-770-1
SDG: TE012919139

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3777/5-A
Matrix: Solid
Analysis Batch: 3787

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3777

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/04/21 08:00	06/04/21 12:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/04/21 08:00	06/04/21 12:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/04/21 08:00	06/04/21 12:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/04/21 08:00	06/04/21 12:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/04/21 08:00	06/04/21 12:09	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/04/21 08:00	06/04/21 12:09	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		06/04/21 08:00	06/04/21 12:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	06/04/21 08:00	06/04/21 12:09	1
1,4-Difluorobenzene (Surr)	92		70 - 130	06/04/21 08:00	06/04/21 12:09	1

Lab Sample ID: LCS 880-3777/1-A
Matrix: Solid
Analysis Batch: 3787

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3777

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09657		mg/Kg		97	70 - 130
Toluene	0.100	0.09386		mg/Kg		94	70 - 130
Ethylbenzene	0.100	0.09879		mg/Kg		99	70 - 130
m-Xylene & p-Xylene	0.200	0.2112		mg/Kg		106	70 - 130
o-Xylene	0.100	0.1071		mg/Kg		107	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-3777/2-A
Matrix: Solid
Analysis Batch: 3787

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3777

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09276		mg/Kg		93	70 - 130	4	35
Toluene	0.100	0.08908		mg/Kg		89	70 - 130	5	35
Ethylbenzene	0.100	0.09228		mg/Kg		92	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.1962		mg/Kg		98	70 - 130	7	35
o-Xylene	0.100	0.09994		mg/Kg		100	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-770-1
SDG: TE012919139

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-3863/1-A
Matrix: Solid
Analysis Batch: 3855

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3863

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		06/07/21 14:43	06/07/21 21:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/07/21 14:43	06/07/21 21:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/07/21 14:43	06/07/21 21:40	1
Total TPH	<50.0	U	50.0	mg/Kg		06/07/21 14:43	06/07/21 21:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130	06/07/21 14:43	06/07/21 21:40	1
o-Terphenyl	116		70 - 130	06/07/21 14:43	06/07/21 21:40	1

Lab Sample ID: LCS 880-3863/2-A
Matrix: Solid
Analysis Batch: 3855

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	809.9		mg/Kg		81	70 - 130
Diesel Range Organics (Over C10-C28)	1000	946.9		mg/Kg		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	87		70 - 130

Lab Sample ID: LCSD 880-3863/3-A
Matrix: Solid
Analysis Batch: 3855

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3863

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	879.0		mg/Kg		88	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	992.3		mg/Kg		99	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	92		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3793/1-A
Matrix: Solid
Analysis Batch: 3853

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			06/07/21 13:09	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-770-1
SDG: TE012919139

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-3793/2-A Matrix: Solid Analysis Batch: 3853				Client Sample ID: Lab Control Sample Prep Type: Soluble					
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	250	252.2		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-3793/3-A Matrix: Solid Analysis Batch: 3853				Client Sample ID: Lab Control Sample Dup Prep Type: Soluble					
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	252.4		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 890-770-2 MS Matrix: Solid Analysis Batch: 3853				Client Sample ID: PH12F Prep Type: Soluble							
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1660		1250	2967		mg/Kg		105	90 - 110		

Lab Sample ID: 890-770-2 MSD Matrix: Solid Analysis Batch: 3853				Client Sample ID: PH12F Prep Type: Soluble							
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1660		1250	2968		mg/Kg		105	90 - 110	0	20

Lab Sample ID: MB 880-3792/1-A Matrix: Solid Analysis Batch: 3857				Client Sample ID: Method Blank Prep Type: Soluble					
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac
Chloride	<5.00	U	5.00	mg/Kg			06/07/21 15:30		1

Lab Sample ID: LCS 880-3792/2-A Matrix: Solid Analysis Batch: 3857				Client Sample ID: Lab Control Sample Prep Type: Soluble					
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	250	241.9		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-3792/3-A Matrix: Solid Analysis Batch: 3857				Client Sample ID: Lab Control Sample Dup Prep Type: Soluble					
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	242.4		mg/Kg		97	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-770-1
SDG: TE012919139

GC VOA

Prep Batch: 3777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-770-1	PH12E	Total/NA	Solid	5035	
890-770-2	PH12F	Total/NA	Solid	5035	
890-770-3	PH24	Total/NA	Solid	5035	
890-770-4	PH24A	Total/NA	Solid	5035	
MB 880-3777/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3777/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3777/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-770-1	PH12E	Total/NA	Solid	8021B	3777
890-770-2	PH12F	Total/NA	Solid	8021B	3777
890-770-3	PH24	Total/NA	Solid	8021B	3777
890-770-4	PH24A	Total/NA	Solid	8021B	3777
MB 880-3777/5-A	Method Blank	Total/NA	Solid	8021B	3777
LCS 880-3777/1-A	Lab Control Sample	Total/NA	Solid	8021B	3777
LCSD 880-3777/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3777

GC Semi VOA

Analysis Batch: 3855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-770-1	PH12E	Total/NA	Solid	8015B NM	3863
890-770-2	PH12F	Total/NA	Solid	8015B NM	3863
890-770-3	PH24	Total/NA	Solid	8015B NM	3863
890-770-4	PH24A	Total/NA	Solid	8015B NM	3863
MB 880-3863/1-A	Method Blank	Total/NA	Solid	8015B NM	3863
LCS 880-3863/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3863
LCSD 880-3863/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3863

Prep Batch: 3863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-770-1	PH12E	Total/NA	Solid	8015NM Prep	
890-770-2	PH12F	Total/NA	Solid	8015NM Prep	
890-770-3	PH24	Total/NA	Solid	8015NM Prep	
890-770-4	PH24A	Total/NA	Solid	8015NM Prep	
MB 880-3863/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3863/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3863/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 3792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-770-1	PH12E	Soluble	Solid	DI Leach	
MB 880-3792/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3792/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3792/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Leach Batch: 3793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-770-2	PH12F	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-770-1
SDG: TE012919139

HPLC/IC (Continued)

Leach Batch: 3793 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-770-3	PH24	Soluble	Solid	DI Leach	
890-770-4	PH24A	Soluble	Solid	DI Leach	
MB 880-3793/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3793/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3793/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-770-2 MS	PH12F	Soluble	Solid	DI Leach	
890-770-2 MSD	PH12F	Soluble	Solid	DI Leach	

Analysis Batch: 3853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-770-2	PH12F	Soluble	Solid	300.0	3793
890-770-3	PH24	Soluble	Solid	300.0	3793
890-770-4	PH24A	Soluble	Solid	300.0	3793
MB 880-3793/1-A	Method Blank	Soluble	Solid	300.0	3793
LCS 880-3793/2-A	Lab Control Sample	Soluble	Solid	300.0	3793
LCSD 880-3793/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3793
890-770-2 MS	PH12F	Soluble	Solid	300.0	3793
890-770-2 MSD	PH12F	Soluble	Solid	300.0	3793

Analysis Batch: 3857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-770-1	PH12E	Soluble	Solid	300.0	3792
MB 880-3792/1-A	Method Blank	Soluble	Solid	300.0	3792
LCS 880-3792/2-A	Lab Control Sample	Soluble	Solid	300.0	3792
LCSD 880-3792/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3792

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-770-1
SDG: TE012919139

Client Sample ID: PH12E

Lab Sample ID: 890-770-1

Date Collected: 06/01/21 09:16

Matrix: Solid

Date Received: 06/02/21 15:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3777	06/04/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3787	06/04/21 14:12	KL	XEN MID
Total/NA	Prep	8015NM Prep			3863	06/07/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3855	06/08/21 00:48	AJ	XEN MID
Soluble	Leach	DI Leach			3792	06/04/21 09:44	CH	XEN MID
Soluble	Analysis	300.0		5	3857	06/07/21 18:14	CH	XEN MID

Client Sample ID: PH12F

Lab Sample ID: 890-770-2

Date Collected: 06/01/21 10:16

Matrix: Solid

Date Received: 06/02/21 15:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3777	06/04/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3787	06/04/21 14:33	KL	XEN MID
Total/NA	Prep	8015NM Prep			3863	06/07/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3855	06/08/21 01:09	AJ	XEN MID
Soluble	Leach	DI Leach			3793	06/04/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		5	3853	06/07/21 13:23	CH	XEN MID

Client Sample ID: PH24

Lab Sample ID: 890-770-3

Date Collected: 06/01/21 11:02

Matrix: Solid

Date Received: 06/02/21 15:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3777	06/04/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3787	06/04/21 14:53	KL	XEN MID
Total/NA	Prep	8015NM Prep			3863	06/07/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3855	06/08/21 01:29	AJ	XEN MID
Soluble	Leach	DI Leach			3793	06/04/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		5	3853	06/07/21 13:38	CH	XEN MID

Client Sample ID: PH24A

Lab Sample ID: 890-770-4

Date Collected: 06/01/21 14:34

Matrix: Solid

Date Received: 06/02/21 15:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3777	06/04/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3787	06/04/21 15:14	KL	XEN MID
Total/NA	Prep	8015NM Prep			3863	06/07/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3855	06/08/21 01:50	AJ	XEN MID
Soluble	Leach	DI Leach			3793	06/04/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		1	3853	06/07/21 13:43	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-770-1
SDG: TE012919139

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

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Method Summary

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-770-1
SDG: TE012919139

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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Sample Summary

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-770-1
SDG: TE012919139

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-770-1	PH12E	Solid	06/01/21 09:16	06/02/21 15:49	- 24
890-770-2	PH12F	Solid	06/01/21 10:16	06/02/21 15:49	- 27
890-770-3	PH24	Solid	06/01/21 11:02	06/02/21 15:49	- 15
890-770-4	PH24A	Solid	06/01/21 14:34	06/02/21 15:49	- 27

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Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 520-2000

Chain of Custody

Work Order No: _____

Project Manager: Dan Moir
 Company Name: WSP USA
 Address: 3300 North A Street
 City, State ZIP: Midland, TX 79705
 Phone: (432) 236-3849
 Email: Jeremy.Hill@wsp.com, Dan.Moir@wsp.com

Bill to: (if different)
 Company Name: XTO Energy
 Address: 522 W. Mermod St.
 City, State ZIP: Carlsbad, NM 88220

Program: STP/PST RP Brownfields RC \$perfund
 State of Project: _____
 Reporting Level: I II III IV
 Deliverables: EDD ADAPT Other: _____

Project Name: Wash 53 / 11/23/4 5-0
 Project Number: TEO18919139
 P.O. Number: _____
 Sampler's Name: Jeremy Hill

Turn Around: _____
 Routine:
 Rush: _____
 Due Date: _____

Temp Blank: Yes No
 Received Intact: Yes No
 Cooler Custody Seals: Yes No N/A
 Sample Custody Seals: Yes No N/A

Wet Ice: Yes No
 Thermometer ID: TTM-507
 Correction Factor: -0.2
 Total Containers: _____

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	Work Order Notes
P111E	S	6/11/21	0916	24.0'	1	C	X	0	CC 1055491601
P111F	S		1016	27.0'	1	C	X	0	APF GAL DECUB 63753 EXP-1
P111Y	S		1102	15.0'	1	C	X	0	API 30-CV5-39460
P111A	S		1434	27.0'	1	C	X	0	INC NAB1418643207
TAT starts the day received by the lab, if received by 4:30pm									

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed: TCLP / SLP / 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 17471 - 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: 6/2/20 1540

Relinquished by: (Signature) _____ Received by: (Signature) _____ Date/Time: 6-2-21 1549

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-770-1
SDG Number: TE012919139

Login Number: 770
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-770-1
SDG Number: TE012919139

Login Number: 770
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 06/04/21 11:11 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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Environment Testing
America

ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-773-1
Client Project/Site: Nash 53

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Tacoma Morrissey

Authorized for release by:
6/9/2021 8:28:45 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

LINKS

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The
Expert**

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: WSP USA Inc.
Project/Site: Nash 53

Laboratory Job ID: 890-773-1

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Nash 53

Job ID: 890-773-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: Nash 53

Job ID: 890-773-1

Job ID: 890-773-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-773-1

Receipt

The samples were received on 6/3/2021 1:54 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: PH25 (890-773-1) and PH25A (890-773-2).

GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53

Job ID: 890-773-1

Client Sample ID: H2 EM

Lab Sample ID: 890-771-P

Date Cdlle6tec: 0/ 0EVEP 09:18

r atxio: Sdllic

Date Re6ei5ec: 0/ 01VEP P1:MM

Sample Depth: - P8

r ethdc: 80EPB - Vdlatile Ovgani6 Cdmprncs (GC)

Fnalzte	Result	f ualiTex	RL	Qnit	D	Херахес	FnalzAec	Dil Ua6
BenAene	0y0EE7		0.00199	mg/Kg		06/04/21 08:00	06/04/21 18:38	1
. dluene	0yE98		0.00199	mg/Kg		06/04/21 08:00	06/04/21 18:38	1
3thzIbenAene	0yP84		0.00199	mg/Kg		06/04/21 08:00	06/04/21 18:38	1
m-Xzlene & p-Xzlene	0y 81		0.00398	mg/Kg		06/04/21 08:00	06/04/21 18:38	1
d-Xzlene	0y04/ 1		0.0396	mg/Kg		06/07/21 08:46	06/07/21 16:24	20
Xzlenes, . dtal	1y 0		0.0792	mg/Kg		06/07/21 08:46	06/07/21 16:24	20
. dtal B. 3X	4y7		0.0792	mg/Kg		06/07/21 08:46	06/07/21 16:24	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	15+	S17	03 - 163	3/ 2421 3: ,33	3/ 2421 1: ,6:	1
1,4-di fluorobenzene (Surr)	::		03 - 163	3/ 2421 3: ,33	3/ 2421 1: ,6:	1

r ethdc: 80PMB Nr - Diesel Range Ovgani6s (DRO) (GC)

Fnalzte	Result	f ualiTex	RL	Qnit	D	Херахес	FnalzAec	Dil Ua6
Gasdline Range Ovgani6s (GRO)-C/ -CP0	E89		50.0	mg/Kg		06/09/21 15:00	06/09/21 18:49	1
Diesel Range Ovgani6s (O5ex CP0-CE8)	E000		50.0	mg/Kg		06/09/21 15:00	06/09/21 18:49	1
Oil Range Ovgani6s (O5ex CE8-C1/)	E89		50.0	mg/Kg		06/09/21 15:00	06/09/21 18:49	1
. dtal . H2	EM80		50.0	mg/Kg		06/09/21 15:00	06/09/21 18:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-h chloroot aItne	136		03 - 163	3/ 2521 1+,33	3/ 2521 1: ,45	1
o-perycen9l	::		03 - 163	3/ 2521 1+,33	3/ 2521 1: ,45	1

r ethdc: 100y0 - Fnidns, Idn Chxdmatdgrphz - Sdluble

Fnalzte	Result	f ualiTex	RL	Qnit	D	Херахес	FnalzAec	Dil Ua6
Chldxice	4/ 40		49.8	mg/Kg			06/07/21 14:27	10

Client Sample ID: H2 EMF

Lab Sample ID: 890-771-E

Date Cdlle6tec: 0/ 0EVEP P4:44

r atxio: Sdllic

Date Re6ei5ec: 0/ 01VEP P1:MM

Sample Depth: - E7

r ethdc: 80EPB - Vdlatile Ovgani6 Cdmprncs (GC)

Fnalzte	Result	f ualiTex	RL	Qnit	D	Херахес	FnalzAec	Dil Ua6
BenAene	0y0411		0.00200	mg/Kg		06/04/21 08:00	06/04/21 18:58	1
. dluene	0y7P4		0.201	mg/Kg		06/07/21 08:46	06/07/21 16:44	100
3thzIbenAene	0yP99		0.00200	mg/Kg		06/04/21 08:00	06/04/21 18:58	1
m-Xzlene & p-Xzlene	4y01		0.402	mg/Kg		06/07/21 08:46	06/07/21 16:44	100
d-Xzlene	Py88		0.201	mg/Kg		06/07/21 08:46	06/07/21 16:44	100
Xzlenes, . dtal	M0P		0.402	mg/Kg		06/07/21 08:46	06/07/21 16:44	100
. dtal B. 3X	7y71		0.402	mg/Kg		06/07/21 08:46	06/07/21 16:44	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	1: 3	S17	03 - 163	3/ 2421 3: ,33	3/ 2421 1: ,+:	1
1,4-di fluorobenzene (Surr)	: +		03 - 163	3/ 2421 3: ,33	3/ 2421 1: ,+:	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53

Job ID: 890-773-1

Client Sample ID: H2 EMF
Date Cdll6tec: 0/ 0EVEP P4:44
Date Re6ei5ec: 0/ 01VEP P1:MM
Sample Depth: - E7

Lab Sample ID: 890-771-E
r atxio: Sdlic

r ethdc: 80PMB Nr - Diesel Range Organics (DRO) (GC)

Fnalzte	Result	f ualiTex	RL	Qnit	D	Херарес	FnalzAec	Dil Ua6
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		06/04/21 11:00	06/04/21 23:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/04/21 11:00	06/04/21 23:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/04/21 11:00	06/04/21 23:53	1
Total TPH	<50.0	U	50.0	mg/Kg		06/04/21 11:00	06/04/21 23:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-h chloroot aTne	131		03 - 163	3/ 2421 11,33	3/ 2421 86,+6	1
o-perycen9l	133		03 - 163	3/ 2421 11,33	3/ 2421 86,+6	1

r ethdc: 100y0 - Fnidns, ldn Chxmatdgraphz - Sdluble

Fnalzte	Result	f ualiTex	RL	Qnit	D	Херарес	FnalzAec	Dil Ua6
Chldxice	E100		25.3	mg/Kg			06/07/21 14:32	5

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Nash 53

Job ID: 890-773-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-773-1	PH25	195 S1+	88
890-773-2	PH25A	180 S1+	85
LCS 880-3777/1-A	Lab Control Sample	115	104
LCS 880-3824/1-A	Lab Control Sample	111	104
LCSD 880-3777/2-A	Lab Control Sample Dup	112	104
LCSD 880-3824/2-A	Lab Control Sample Dup	108	106
MB 880-3777/5-A	Method Blank	88	92
MB 880-3824/5-A	Method Blank	85	94

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-773-1	PH25	103	88
890-773-2	PH25A	101	100
LCS 880-3796/2-A	Lab Control Sample	101	94
LCS 880-3917/2-A	Lab Control Sample	88	82
LCSD 880-3796/3-A	Lab Control Sample Dup	101	92
LCSD 880-3917/3-A	Lab Control Sample Dup	90	83
MB 880-3796/1-A	Method Blank	100	105
MB 880-3917/1-A	Method Blank	110	111

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Eurofins Xenco, Carlsbad

QC Sample Results

Ident WS PU APc It . G
 UT to E. WPAW: 3rj/ N1

Job ID: 890-771-C

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3777/5-A
 Matrix: Solid
 Analysis Batch: 3787

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 3777

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
ant snt n	h000500	A	000500	4 Bz B		0<2m5C 08:00	0<2m5C C5:09	C
goiKnt n	h000500	A	000500	4 Bz B		0<2m5C 08:00	0<2m5C C5:09	C
6Wuibnt snt n	h000500	A	000500	4 Bz B		0<2m5C 08:00	0<2m5C C5:09	C
4 -y uint n X &-y uint n	h000m00	A	000m00	4 Bz B		0<2m5C 08:00	0<2m5C C5:09	C
o-y uint n	h000500	A	000500	4 Bz B		0<2m5C 08:00	0<2m5C C5:09	C
y uint nj pgoWi	h000m00	A	000m00	4 Bz B		0<2m5C 08:00	0<2m5C C5:09	C
goMi ag6y	h000m00	A	000m00	4 Bz B		0<2m5C 08:00	0<2m5C C5:09	C

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	06/04/21 08:00	06/04/21 12:09	1
1,4-Difluorobenzene (Surr)	92		70 - 130	06/04/21 08:00	06/04/21 12:09	1

Lab Sample ID: LCS 880-3777/1-A
 Matrix: Solid
 Analysis Batch: 3787

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 3777

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
ant snt n	0000	009<N7		4 Bz B		97	70 - C10
goiKnt n	0000	00918<		4 Bz B		9m	70 - C10
6Wuibnt snt n	0000	009879		4 Bz B		99	70 - C10
4 -y uint n X &-y uint n	0000	00005		4 Bz B		00<	70 - C10
o-y uint n	0000	0007C		4 Bz B		007	70 - C10

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-3777/2-A
 Matrix: Solid
 Analysis Batch: 3787

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 3777

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
ant snt n	0000	00957<		4 Bz B		91	70 - C10	m	1N
goiKnt n	0000	008908		4 Bz B		89	70 - C10	N	1N
6Wuibnt snt n	0000	009558		4 Bz B		95	70 - C10	7	1N
4 -y uint n X &-y uint n	0000	009<5		4 Bz B		98	70 - C10	7	1N
o-y uint n	0000	00999m		4 Bz B		000	70 - C10	7	1N

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: MB 880-3824/5-A
 Matrix: Solid
 Analysis Batch: 3827

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 3824

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
ant snt n	h000500	A	000500	4 Bz B		0<2075C 08:00	0<2075C C1:00	C

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QC Sample Results

Int WS PU APc It . G
 UToE. WPAW: 3rj/ N1

Job ID: 890-771-C

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 880-3824/5-A
 Matrix: Solid
 Analysis Batch: 3827

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 3824

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
goiKnt n	h000500	A	000500	4 B2 B		0<20725C08:m	0<20725CC1:m0	C
6 Wuibnt snt n	h000500	A	000500	4 B2 B		0<20725C08:m	0<20725CC1:m0	C
4 -y uint n X &y uint n	h000m00	A	000m00	4 B2 B		0<20725C08:m	0<20725CC1:m0	C
o-y uint n	h000500	A	000500	4 B2 B		0<20725C08:m	0<20725CC1:m0	C
y uint nj pgoWi	h000m00	A	000m00	4 B2 B		0<20725C08:m	0<20725CC1:m0	C
goWi ag6y	h000m00	A	000m00	4 B2 B		0<20725C08:m	0<20725CC1:m0	C

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	06/07/21 08:46	06/07/21 13:40	1
1,4-Difluorobenzene (Surr)	94		70 - 130	06/07/21 08:46	06/07/21 13:40	1

Lab Sample ID: LCS 880-3824/1-A
 Matrix: Solid
 Analysis Batch: 3827

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 3824

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
ant snt n	0000	00950N		4 B2 B		95	70 - C10
goiKnt n	0000	008919		4 B2 B		89	70 - C10
6 Wuibnt snt n	0000	00918C		4 B2 B		9m	70 - C10
4 -y uint n X &y uint n	0000	0000N		4 B2 B		000	70 - C10
o-y uint n	0000	0000N		4 B2 B		005	70 - C10

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-3824/2-A
 Matrix: Solid
 Analysis Batch: 3827

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 3824

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
ant snt n	0000	009N03		4 B2 B		9N	70 - C10	1	1N
goiKnt n	0000	0090NC		4 B2 B		95	70 - C10	5	1N
6 Wuibnt snt n	0000	00971C		4 B2 B		97	70 - C10	m	1N
4 -y uint n X &y uint n	0000	00071		4 B2 B		00m	70 - C10	1	1N
o-y uint n	0000	000n0		4 B2 B		00N	70 - C10	1	1N

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

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QC Sample Results

Int WS PUAPlt . G
 UToE. WPAW: 3rj/ N1

Job ID: 890-771-C

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-3796/1-A
 Matrix: Solid
 Analysis Batch: 3802

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 3796

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
d r j o i e n R r t B n O T B r t e j (d RO)-I <-I O	hNDG	A	NDG	4 Bz B		0<20m5C C0:00	0<20m5C C0:00	C
D e j n i R r t B n O T B r t e j (OvnT I O-I 58)	hNDG	A	NDG	4 Bz B		0<20m5C C0:00	0<20m5C C0:00	C
O l i R r t B n O T B r t e j (OvnTl 58-I 1<)	hNDG	A	NDG	4 Bz B		0<20m5C C0:00	0<20m5C C0:00	C
g o W i g U H	hNDG	A	NDG	4 Bz B		0<20m5C C0:00	0<20m5C C0:00	C

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	06/04/21 11:00	06/04/21 15:13	1
o-Terphenyl	105		70 - 130	06/04/21 11:00	06/04/21 15:13	1

Lab Sample ID: LCS 880-3796/2-A
 Matrix: Solid
 Analysis Batch: 3802

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 3796

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
d r j o i e n R r t B n O T B r t e j (d RO)-I <-I O	000	95NS		4 Bz B		91	70 - C10
D e j n i R r t B n O T B r t e j (OvnT I O-I 58)	000	008m		4 Bz B		008	70 - C10

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: LCSD 880-3796/3-A
 Matrix: Solid
 Analysis Batch: 3802

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 3796

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
d r j o i e n R r t B n O T B r t e j (d RO)-I <-I O	000	90NG		4 Bz B		95	70 - C10	C	50
D e j n i R r t B n O T B r t e j (OvnT I O-I 58)	000	00<7		4 Bz B		007	70 - C10	5	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	92		70 - 130

Lab Sample ID: MB 880-3917/1-A
 Matrix: Solid
 Analysis Batch: 3925

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 3917

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
d r j o i e n R r t B n O T B r t e j (d RO)-I <-I O	hNDG	A	NDG	4 Bz B		0<20m5C 09:1C	0<20m5C 05:09	C
D e j n i R r t B n O T B r t e j (OvnT I O-I 58)	hNDG	A	NDG	4 Bz B		0<20m5C 09:1C	0<20m5C 05:09	C
O l i R r t B n O T B r t e j (OvnTl 58-I 1<)	hNDG	A	NDG	4 Bz B		0<20m5C 09:1C	0<20m5C 05:09	C
g o W i g U H	hNDG	A	NDG	4 Bz B		0<20m5C 09:1C	0<20m5C 05:09	C

6K6, # j y n t . o p l r T j b r f

QC Sample Results

Ident WS PU APc It . G
 UT to E. WPAW: 3rj/ N1

Job ID: 890-771-C

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	06/09/21 09:31	06/09/21 12:09	1
o-Terphenyl	111		70 - 130	06/09/21 09:31	06/09/21 12:09	1

Lab Sample ID: LCS 880-3917/2-A
 Matrix: Solid
 Analysis Batch: 3925

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 3917

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
d r j o i e n R r t B n O T B r t e j (d RO)-I <-I C0	0000	80mG		4 Bz B		80	70 - C10
D e j n i R r t B n O T B r t e j (OvnT I C0-I 58)	0000	970G		4 Bz B		97	70 - C10

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	88		70 - 130
o-Terphenyl	82		70 - 130

Lab Sample ID: LCSD 880-3917/3-A
 Matrix: Solid
 Analysis Batch: 3925

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 3917

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
d r j o i e n R r t B n O T B r t e j (d RO)-I <-I C0	0000	80mG		4 Bz B		80	70 - C10	0	50
D e j n i R r t B n O T B r t e j (OvnT I C0-I 58)	0000	995G		4 Bz B		99	70 - C10	5	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	83		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3793/1-A
 Matrix: Solid
 Analysis Batch: 3853

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
I / i o T e n	hN0	A	N00	4 Bz B			0<27ZCC1:09	C

Lab Sample ID: LCS 880-3793/2-A
 Matrix: Solid
 Analysis Batch: 3853

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
I / i o T e n	5N0	5N5G		4 Bz B		00C	90 - C00

Lab Sample ID: LCSD 880-3793/3-A
 Matrix: Solid
 Analysis Batch: 3853

Client Sample ID: Lab Control Sample Dup
 Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
I / i o T e n	5N0	5N5G		4 Bz B		00C	90 - C00	0	50

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QC Sample Results

Int WS PU APc It . G
 UToE. WPAW: 3rj/ N1

Job ID: 890-771-C

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-773-2 MS
 Matrix: Solid
 Analysis Batch: 3853

Client Sample ID: PH25A
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
l / ioT n	5100		C5<0	1N1C		4 Bz B		97	90 - 00

Lab Sample ID: 890-773-2 MSD
 Matrix: Solid
 Analysis Batch: 3853

Client Sample ID: PH25A
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
l / ioT n	5100		C5<0	1N10		4 Bz B		97	90 - 00	0	50

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Nash 53

Job ID: 890-773-1

GC VOA

Prep Batch: 3777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-773-1	PH25	Total/NA	Solid	5035	
890-773-2	PH25A	Total/NA	Solid	5035	
MB 880-3777/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3777/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3777/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-773-1	PH25	Total/NA	Solid	8021B	3777
890-773-2	PH25A	Total/NA	Solid	8021B	3777
MB 880-3777/5-A	Method Blank	Total/NA	Solid	8021B	3777
LCS 880-3777/1-A	Lab Control Sample	Total/NA	Solid	8021B	3777
LCSD 880-3777/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3777

Prep Batch: 3824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-773-1	PH25	Total/NA	Solid	5035	
890-773-2	PH25A	Total/NA	Solid	5035	
MB 880-3824/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3824/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3824/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-773-1	PH25	Total/NA	Solid	8021B	3824
890-773-2	PH25A	Total/NA	Solid	8021B	3824
MB 880-3824/5-A	Method Blank	Total/NA	Solid	8021B	3824
LCS 880-3824/1-A	Lab Control Sample	Total/NA	Solid	8021B	3824
LCSD 880-3824/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3824

GC Semi VOA

Prep Batch: 3796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-773-2	PH25A	Total/NA	Solid	8015NM Prep	
MB 880-3796/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3796/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3796/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 3802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-773-2	PH25A	Total/NA	Solid	8015B NM	3796
MB 880-3796/1-A	Method Blank	Total/NA	Solid	8015B NM	3796
LCS 880-3796/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3796
LCSD 880-3796/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3796

Prep Batch: 3917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-773-1	PH25	Total/NA	Solid	8015NM Prep	
MB 880-3917/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3917/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Nash 53

Job ID: 890-773-1

GC Semi VOA (Continued)

Prep Batch: 3917 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-3917/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 3925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-773-1	PH25	Total/NA	Solid	8015B NM	3917
MB 880-3917/1-A	Method Blank	Total/NA	Solid	8015B NM	3917
LCS 880-3917/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3917
LCSD 880-3917/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3917

HPLC/IC

Leach Batch: 3793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-773-1	PH25	Soluble	Solid	DI Leach	
890-773-2	PH25A	Soluble	Solid	DI Leach	
MB 880-3793/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3793/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3793/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-773-2 MS	PH25A	Soluble	Solid	DI Leach	
890-773-2 MSD	PH25A	Soluble	Solid	DI Leach	

Analysis Batch: 3853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-773-1	PH25	Soluble	Solid	300.0	3793
890-773-2	PH25A	Soluble	Solid	300.0	3793
MB 880-3793/1-A	Method Blank	Soluble	Solid	300.0	3793
LCS 880-3793/2-A	Lab Control Sample	Soluble	Solid	300.0	3793
LCSD 880-3793/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3793
890-773-2 MS	PH25A	Soluble	Solid	300.0	3793
890-773-2 MSD	PH25A	Soluble	Solid	300.0	3793

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Nash 53

Job ID: 890-773-1

Client Sample ID: PH25

Lab Sample ID: 890-773-1

Date Collected: 06/02/21 09:38

Matrix: Solid

Date Received: 06/03/21 13:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3777	06/04/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3787	06/04/21 18:38	KL	XEN MID
Total/NA	Prep	5035			3824	06/07/21 08:46	KL	XEN MID
Total/NA	Analysis	8021B		20	3827	06/07/21 16:24	KL	XEN MID
Total/NA	Prep	8015NM Prep			3917	06/09/21 15:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3925	06/09/21 18:49	AJ	XEN MID
Soluble	Leach	DI Leach			3793	06/04/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		10	3853	06/07/21 14:27	CH	XEN MID

Client Sample ID: PH25A

Lab Sample ID: 890-773-2

Date Collected: 06/02/21 14:44

Matrix: Solid

Date Received: 06/03/21 13:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3777	06/04/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3787	06/04/21 18:58	KL	XEN MID
Total/NA	Prep	5035			3824	06/07/21 08:46	KL	XEN MID
Total/NA	Analysis	8021B		100	3827	06/07/21 16:44	KL	XEN MID
Total/NA	Prep	8015NM Prep			3796	06/04/21 11:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3802	06/04/21 23:53	AM	XEN MID
Soluble	Leach	DI Leach			3793	06/04/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		5	3853	06/07/21 14:32	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Nash 53

Job ID: 890-773-1

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

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Method Summary

Internet WS PUA Pc It . G
UToE. WPAN: 3rj/ N1

Job ID: 890-771-C

Method	Method Description	Protocol	Laboratory
80hC5	4oir Vh 6 TBr te l oV Cggt mj pul d	PS 8as	() 3 XID
80CN5 3X	Døj ni Mrt Bn 6 TBr te j pDM6 dpul d	PS 8as	() 3 XID
100G	ct et j Rlot l / TōVr WBTi O ,	XI cS S	() 3 XID
N01N	l ioj nmP, j VV UgTbn rt myTt O	PS 8as	() 3 XID
80CN3X UthO	X e TōnxVt . Vot	PS 8as	() 3 XID
DI Lnr . /	Dnet enmS r WTLnr . / ē B Utō. nngTn	cPyX	() 3 XID

Protocol References:

cPyX = cPyX It WTr Wtri

XI cS S = "XnWoj FoTI / nVerictri, jē 6 f Sr WTctmS rj Wj "R) Uc-s002a-79-0h0RXrT/ C981 ct mPgbj nqgnt Wlvē et j G

PS 8as = "ynj VX nWoj FoT) vrigr W B PoiēnS rj WRU/ ,jeri2 / nVeri XnWoj "Ry/ ēm) nēt R3 ovnV bnTC98s ct mlV AQt Wj G

Laboratory References:

() 3 XID =) gTōfē j (nt . oRX enirt nRChCCS GFioTn cvnRX enirt nRy(7970CRy) L pa1hd70a-Naa0

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Sample Summary

Client: WSP USA Inc.
Project/Site: Nash 53

Job ID: 890-773-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-773-1	PH25	Solid	06/02/21 09:38	06/03/21 13:54	- 18
890-773-2	PH25A	Solid	06/02/21 14:44	06/03/21 13:54	- 27

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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)555-3443 Lubbock, TX (805)784-1296
Hobbs, NM (575-982-7250) Phoenix, AZ (480-355-0900) Atlanta, GA (770-446-8800) Tampa, FL (813-820-2000)

Chain of Custody

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	TACOMA MORISSCY	Bill to: (if different)	Kyle Littlell
Company Name:	WSP USA Inc, Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 704-5178	Email:	travis.casey@wsp.com, kalai.jennings@wsp.com, dan.moir@wsp.com

Work Order Comments	
Program: UST/PST	<input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund
State of Project:	NM
Reporting Level II	<input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> PRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables: EDD	<input type="checkbox"/> ADAPT <input type="checkbox"/> Other:

Project Name:	Ms 54 53	Turn Around	
Project Number:		Routine	<input checked="" type="checkbox"/>
P.O. Number:		Rush:	
Sampler's Name:	Travis Casey	Due Date:	

SAMPLE RECEIPT		Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Loc:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Temperature (°C):	10.0 / 5.8	Thermometer ID	LNU2007		
Received In tact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	0.2		
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Total Containers:			
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				

Number of Containers		
TPH (EPA 8015)		
BTEX (EPA 8021)		
Chloride (EPA 300.0)		



890-773 Chain of Custody

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
PH25	S	06/01/21	0938	18"	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	COMPOSIT
PH25A	S	06/02/21	1444	27"	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	COMPOSIT
<i>[Handwritten signature across the table]</i>									
<i>[Handwritten signature across the table]</i>									

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

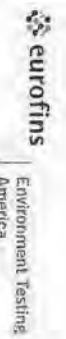
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility 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
<i>[Signature]</i>	<i>[Signature]</i>	6/3/21 13:46	<i>[Signature]</i>	<i>[Signature]</i>	6/3/21 13:54

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Eurofins Xenco, Carlsbad

Chain of Custody Record



1089 N Canal St
Carlsbad NM 88220
Phone 575-988-3199 Fax: 575-988-3199

Client Information (Sub Contract Lab)

Client Contact: _____
Shipping/Receiving: _____
Company: Eurofins Xenco

Lab PM: Kramer, Jessica
E-Mail: jessica.kramer@eurofinsnet.com
Accreditations Required (See note): NELAP - Louisiana NELAP - Texas

Carrier Tracking Note(s): _____
State of Origin: New Mexico
Page: 1 of 1
Job #: 890-773-1

Address: 1211 W Florida Ave
City: Midland
State, Zip: TX 79701

Due Date Requested: 6/9/2021
TAT Requested (days): _____

Analysis Requested: _____
Preservation Codes: A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amidol, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsHAcO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4.5, Z other (specify)

Phone: 432-704-5440(Tel)
Email: _____
Project #: 88000004
SSCOM#: _____

PO #: _____
WC #: _____

Field Filtered Sample (Yes or No):
Perform MS/MSD (Yes or No):
8015MOD_NM/8015NM_S_Prep Full TPH
300_ORGFM_28D/DI_LEACH Chloride
8021B/5035FP_Calc BTEX

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Soil, O=Organic, C=Carbon)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of containers	Special Instructions/Note
PH25 (890-773-1)	6/2/21	09:38	Mountain	Solid		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		3	
PH25A (890-773-2)	6/2/21	14:44	Mountain	Solid		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		1	

Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method, analyze & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. (If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/method being analyzed, the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Xenco LLC.

Possible Hazard Identification

Unconfirmed Deliverable Requested: I II III IV Other (specify) _____
Primary Deliverable Rank: 2
Special Instructions/QC Requirements: _____
Archive For: _____ Months

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No
Custody Seal No: _____

Coder Temperature(s): _____ °C and Other Remarks: _____

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Bottle Order Information

Bottle Order
 Bottle Order #
 Request From Client 6/3/2021
 Date Order Posted
 Order Status Ready To Process
 Prepared By
 Deliver By Date: 6/3/2021 11:59:00PM
 Lab Project Number

Order Completion Information

Creator Cioe Clifton
 Filled by
 Sent Date
 Sent Via
 Tracking #

Sets	Bottles/Set	Qty	Bottle Type Description	Preservative	Method	Matrix	Sample Type	Comments	Lot #
------	-------------	-----	-------------------------	--------------	--------	--------	-------------	----------	-------

Notes to Field Staff:

Health and Safety Notes:

Preservative

Comment



Scan QR code for field sampler instructions

Relinquished By	Company	Date	Time	Received By	Company	Seal #
Relinquished By	Company	Date	Time	Received By	Company	Seal #
<i>Cue Giffy</i>	<i>6-3-21</i>					

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-773-1

SDG Number:

Login Number: 773

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-773-1

SDG Number:

Login Number: 773

List Number: 2

Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland

List Creation: 06/04/21 11:09 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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Environment Testing
America

ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-785-1
Laboratory Sample Delivery Group: TS012919139
Client Project/Site: Nash 53/ Nash 4SUP

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Dan Moir

Authorized for release by:
6/10/2021 6:38:18 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?

**Ask
The
Expert**

Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4SUP

Laboratory Job ID: 890-785-1
SDG: TS012919139

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4SUP

Job ID: 890-785-1
SDG: TS012919139

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4SUP

Job ID: 890-785-1
SDG: TS012919139

Job ID: 890-785-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

**Job Narrative
890-785-1**

Receipt

The samples were received on 6/7/2021 10:56 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: FS15B (890-785-1), FS17A (890-785-2), FS18A (890-785-3), FS24A (890-785-4), FS28D (890-785-5) and FS30C (890-785-6).

GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

Method 8015MOD_NM: Manual integration was performed on the following samples: FS15B (890-785-1), FS17A (890-785-2), FS18A (890-785-3), FS24A (890-785-4), FS28D (890-785-5), FS30C (890-785-6), (MB 880-3906/1-A) and (890-783-A-1-E). A manual integration was performed in the >C12-C28 hydrocarbon range and the >C28-C36 hydrocarbon range due to a baseline rise creating a false detections.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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- 2
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- 13
- 14

Client Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4SUP

Job ID: 890-785-1
SDG: TS012919139

Client Sample ID: FS15B

Lab Sample ID: 890-785-1

Date Collected: 06/04/21 13:30

Matrix: Solid

Date Received: 06/07/21 10:56

Sample Depth: - 20

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U F1	0.00199	mg/Kg		06/08/21 08:54	06/08/21 14:59	1
Toluene	<0.00199	U	0.00199	mg/Kg		06/08/21 08:54	06/08/21 14:59	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/08/21 08:54	06/08/21 14:59	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/08/21 08:54	06/08/21 14:59	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		06/08/21 08:54	06/08/21 14:59	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/08/21 08:54	06/08/21 14:59	1
Total BTEX	<0.00398	U	0.00398	mg/Kg		06/08/21 08:54	06/08/21 14:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	06/02: 1 029 4	06/02: 1 149 8	1
1,2,4-Trifluorobenzene (Surr)	87		70 - 130	06/02: 1 029 4	06/02: 1 149 8	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		06/08/21 16:28	06/09/21 02:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/08/21 16:28	06/09/21 02:55	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/08/21 16:28	06/09/21 02:55	1
Total TPH	<50.0	U	50.0	mg/Kg		06/08/21 16:28	06/09/21 02:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	06/02: 1 169 2	06/08: 1 0: 9 ,	1
o-Terphenyl	1: 0		70 - 130	06/02: 1 169 2	06/08: 1 0: 9 ,	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1690		24.8	mg/Kg			06/10/21 09:31	5

Client Sample ID: FS17A

Lab Sample ID: 890-785-2

Date Collected: 06/04/21 13:28

Matrix: Solid

Date Received: 06/07/21 10:56

Sample Depth: - 20

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		06/08/21 08:54	06/08/21 15:19	1
Toluene	<0.00199	U	0.00199	mg/Kg		06/08/21 08:54	06/08/21 15:19	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/08/21 08:54	06/08/21 15:19	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/08/21 08:54	06/08/21 15:19	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		06/08/21 08:54	06/08/21 15:19	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/08/21 08:54	06/08/21 15:19	1
Total BTEX	<0.00398	U	0.00398	mg/Kg		06/08/21 08:54	06/08/21 15:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	06/02: 1 029 4	06/02: 1 1, 918	1
1,2,4-Trifluorobenzene (Surr)	82		70 - 130	06/02: 1 029 4	06/02: 1 1, 918	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4SUP

Job ID: 890-785-1
SDG: TS012919139

Client Sample ID: FS17A

Lab Sample ID: 890-785-2

Date Collected: 06/04/21 13:28

Matrix: Solid

Date Received: 06/07/21 10:56

Sample Depth: - 20

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		06/08/21 16:28	06/09/21 03:15	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		06/08/21 16:28	06/09/21 03:15	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		06/08/21 16:28	06/09/21 03:15	1
Total TPH	<49.7	U	49.7	mg/Kg		06/08/21 16:28	06/09/21 03:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	1: 1		70 - 130	06/02: 1 169 2	06/08: 1 039,	1
o-Terphenyl	1: 4		70 - 130	06/02: 1 169 2	06/08: 1 039,	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	295		5.05	mg/Kg			06/09/21 18:38	1

Client Sample ID: FS18A

Lab Sample ID: 890-785-3

Date Collected: 06/04/21 13:25

Matrix: Solid

Date Received: 06/07/21 10:56

Sample Depth: - 20

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/08/21 08:54	06/08/21 15:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/08/21 08:54	06/08/21 15:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/08/21 08:54	06/08/21 15:40	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		06/08/21 08:54	06/08/21 15:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/08/21 08:54	06/08/21 15:40	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		06/08/21 08:54	06/08/21 15:40	1
Total BTEX	<0.00399	U	0.00399	mg/Kg		06/08/21 08:54	06/08/21 15:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130	06/02: 1 029 4	06/02: 1 1, 90	1
1,2-Difluorobenzene (Surr)	10:		70 - 130	06/02: 1 029 4	06/02: 1 1, 90	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		06/08/21 16:28	06/09/21 03:35	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		06/08/21 16:28	06/09/21 03:35	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		06/08/21 16:28	06/09/21 03:35	1
Total TPH	<49.8	U	49.8	mg/Kg		06/08/21 16:28	06/09/21 03:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	11,		70 - 130	06/02: 1 169 2	06/08: 1 039,	1
o-Terphenyl	112		70 - 130	06/02: 1 169 2	06/08: 1 039,	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	79.7		4.97	mg/Kg			06/09/21 18:43	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4SUP

Job ID: 890-785-1
SDG: TS012919139

Client Sample ID: FS24A

Lab Sample ID: 890-785-4

Date Collected: 06/04/21 13:23

Matrix: Solid

Date Received: 06/07/21 10:56

Sample Depth: - 20

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/08/21 08:54	06/08/21 16:00	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/08/21 08:54	06/08/21 16:00	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/08/21 08:54	06/08/21 16:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/08/21 08:54	06/08/21 16:00	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/08/21 08:54	06/08/21 16:00	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/08/21 08:54	06/08/21 16:00	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		06/08/21 08:54	06/08/21 16:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	06/02: 1 029 4	06/02: 1 16900	1
1,2,4-Trifluorobenzene (Surr)	103		70 - 130	06/02: 1 029 4	06/02: 1 16900	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		06/08/21 16:28	06/09/21 03:55	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		06/08/21 16:28	06/09/21 03:55	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		06/08/21 16:28	06/09/21 03:55	1
Total TPH	<49.7	U	49.7	mg/Kg		06/08/21 16:28	06/09/21 03:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	06/02: 1 169 2	06/08: 1 039 ,	1
o-Terphenyl	11,		70 - 130	06/02: 1 169 2	06/08: 1 039 ,	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	677		4.96	mg/Kg			06/09/21 18:58	1

Client Sample ID: FS28D

Lab Sample ID: 890-785-5

Date Collected: 06/04/21 13:21

Matrix: Solid

Date Received: 06/07/21 10:56

Sample Depth: - 20

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		06/08/21 08:54	06/08/21 16:21	1
Toluene	<0.00198	U	0.00198	mg/Kg		06/08/21 08:54	06/08/21 16:21	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		06/08/21 08:54	06/08/21 16:21	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		06/08/21 08:54	06/08/21 16:21	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		06/08/21 08:54	06/08/21 16:21	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		06/08/21 08:54	06/08/21 16:21	1
Total BTEX	<0.00396	U	0.00396	mg/Kg		06/08/21 08:54	06/08/21 16:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130	06/02: 1 029 4	06/02: 1 169 1	1
1,2,4-Trifluorobenzene (Surr)	101		70 - 130	06/02: 1 029 4	06/02: 1 169 1	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4SUP

Job ID: 890-785-1
SDG: TS012919139

Client Sample ID: FS28D

Lab Sample ID: 890-785-5

Date Collected: 06/04/21 13:21

Matrix: Solid

Date Received: 06/07/21 10:56

Sample Depth: - 20

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		06/08/21 16:28	06/09/21 04:15	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		06/08/21 16:28	06/09/21 04:15	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		06/08/21 16:28	06/09/21 04:15	1
Total TPH	<49.8	U	49.8	mg/Kg		06/08/21 16:28	06/09/21 04:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	06/02: 1 169 2	06/08: 1 049,	1
o-Terphenyl	88		70 - 130	06/02: 1 169 2	06/08: 1 049,	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	624		5.02	mg/Kg			06/09/21 19:02	1

Client Sample ID: FS30C

Lab Sample ID: 890-785-6

Date Collected: 06/04/21 13:18

Matrix: Solid

Date Received: 06/07/21 10:56

Sample Depth: - 20

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		06/08/21 08:54	06/08/21 16:41	1
Toluene	<0.00201	U	0.00201	mg/Kg		06/08/21 08:54	06/08/21 16:41	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		06/08/21 08:54	06/08/21 16:41	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		06/08/21 08:54	06/08/21 16:41	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		06/08/21 08:54	06/08/21 16:41	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		06/08/21 08:54	06/08/21 16:41	1
Total BTEX	<0.00402	U	0.00402	mg/Kg		06/08/21 08:54	06/08/21 16:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	06/02: 1 029 4	06/02: 1 169 1	1
1,2-Difluorobenzene (Surr)	88		70 - 130	06/02: 1 029 4	06/02: 1 169 1	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		06/08/21 16:28	06/09/21 04:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/08/21 16:28	06/09/21 04:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/08/21 16:28	06/09/21 04:36	1
Total TPH	<50.0	U	50.0	mg/Kg		06/08/21 16:28	06/09/21 04:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	10		70 - 130	06/02: 1 169 2	06/08: 1 049 6	1
o-Terphenyl	111		70 - 130	06/02: 1 169 2	06/08: 1 049 6	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1090		4.98	mg/Kg			06/09/21 19:07	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4SUP

Job ID: 890-785-1
SDG: TS012919139

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-785-1	FS15B	99	97
890-785-1 MS	FS15B	94	93
890-785-1 MSD	FS15B	113	103
890-785-2	FS17A	106	98
890-785-3	FS18A	98	102
890-785-4	FS24A	107	103
890-785-5	FS28D	94	101
890-785-6	FS30C	103	99
LCS 880-3867/1-A	Lab Control Sample	110	104
LCSD 880-3867/2-A	Lab Control Sample Dup	115	102
MB 880-3867/5-A	Method Blank	91	94

Surrogate Legend
BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-785-1	FS15B	118	120
890-785-2	FS17A	121	124
890-785-3	FS18A	115	118
890-785-4	FS24A	111	115
890-785-5	FS28D	108	99
890-785-6	FS30C	105	111
LCS 880-3906/2-A	Lab Control Sample	98	98
LCSD 880-3906/3-A	Lab Control Sample Dup	99	99
MB 880-3906/1-A	Method Blank	94	0.003 S1-

Surrogate Legend
1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4SUP

Job ID: 890-785-1
SDG: TS012919139

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3867/5-A
Matrix: Solid
Analysis Batch: 3871

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3867

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	F mg/m		0K/08/21 08:54	0K/08/21 14:37	1
TolGene	<0.00200	U	0.00200	F mg/m		0K/08/21 08:54	0K/08/21 14:37	1
uthElbenzene	<0.00200	U	0.00200	F mg/m		0K/08/21 08:54	0K/08/21 14:37	1
F -y Elene X &y Elene	<0.00400	U	0.00400	F mg/m		0K/08/21 08:54	0K/08/21 14:37	1
o-y Elene	<0.00200	U	0.00200	F mg/m		0K/08/21 08:54	0K/08/21 14:37	1
y ElenespTotal	<0.00400	U	0.00400	F mg/m		0K/08/21 08:54	0K/08/21 14:37	1
Total BTuy	<0.00400	U	0.00400	F mg/m		0K/08/21 08:54	0K/08/21 14:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130	06/08/21 08:54	06/08/21 14:37	1
1,4-Difluorobenzene (Surr)	94		70 - 130	06/08/21 08:54	06/08/21 14:37	1

Lab Sample ID: LCS 880-3867/1-A
Matrix: Solid
Analysis Batch: 3871

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3867

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09151		F mg/m		92	70 - 130
TolGene	0.100	0.08805		F mg/m		88	70 - 130
uthElbenzene	0.100	0.094K1		F mg/m		95	70 - 130
F -y Elene X &y Elene	0.200	0.202K		F mg/m		101	70 - 130
o-y Elene	0.100	0.1029		F mg/m		103	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-3867/2-A
Matrix: Solid
Analysis Batch: 3871

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3867

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.09332		F mg/m		93	70 - 130	2	35
TolGene	0.100	0.09229		F mg/m		92	70 - 130	5	35
uthElbenzene	0.100	0.09791		F mg/m		98	70 - 130	3	35
F -y Elene X &y Elene	0.200	0.2101		F mg/m		105	70 - 130	4	35
o-y Elene	0.100	0.1073		F mg/m		107	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 890-785-1 MS
Matrix: Solid
Analysis Batch: 3871

Client Sample ID: FS15B
Prep Type: Total/NA
Prep Batch: 3867

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U , 1	0.099K	0.0K491	, 1	F mg/m		K5	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4SUP

Job ID: 890-785-1
SDG: TS012919139

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-785-1 MS
Matrix: Solid
Analysis Batch: 3871

Client Sample ID: FS15B
Prep Type: Total/NA
Prep Batch: 3867

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec. Limits	
	Result	Qualifier		Result	Qualifier					
Tol6ene	<0.00199	U	0.099K	0.07907		F n/gm		79	70 - 130	
uthEbenzene	<0.00199	U	0.099K	0.08112		F n/gm		81	70 - 130	
F -y Eene X &y Eene	<0.00398	U	0.199	0.1K17		F n/gm		81	70 - 130	
o-y Eene	<0.00199	U	0.099K	0.08048		F n/gm		81	70 - 130	
		MS	MS							
Surrogate	%Recovery	Qualifier	Limits							
4-Bromofluorobenzene (Surr)	94		70 - 130							
1,4-Difluorobenzene (Surr)	93		70 - 130							

Lab Sample ID: 890-785-1 MSD
Matrix: Solid
Analysis Batch: 3871

Client Sample ID: FS15B
Prep Type: Total/NA
Prep Batch: 3867

Analyte	Sample	Sample	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
	Result	Qualifier		Result	Qualifier						
Benzene	<0.00199	U, 1	0.0990	0.07991		F n/gm		81	70 - 130	21	35
Tol6ene	<0.00199	U	0.0990	0.07872		F n/gm		80	70 - 130	0	35
uthEbenzene	<0.00199	U	0.0990	0.08388		F n/gm		85	70 - 130	3	35
F -y Eene X &y Eene	<0.00398	U	0.198	0.1787		F n/gm		90	70 - 130	10	35
o-y Eene	<0.00199	U	0.0990	0.0913K		F n/gm		92	70 - 130	13	35
		MSD	MSD								
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	113		70 - 130								
1,4-Difluorobenzene (Surr)	103		70 - 130								

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-3906/1-A
Matrix: Solid
Analysis Batch: 3875

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3906

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline (anre) rmanics	<50.0	U	50.0	F n/gm		0K/08/21 1K:28	0K/08/21 21:32	1
vG() HCK-C10								
Diesel (anre) rmanics v fer	<50.0	U	50.0	F n/gm		0K/08/21 1K:28	0K/08/21 21:32	1
C10-C28H								
) ll (anre) rmanics v fer C28-C3KH	<50.0	U	50.0	F n/gm		0K/08/21 1K:28	0K/08/21 21:32	1
Total TPd	<50.0	U	50.0	F n/gm		0K/08/21 1K:28	0K/08/21 21:32	1
		MB	MB					
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	94		70 - 130	06/08/21 16:28	06/08/21 21:32	1		
o-Terphenyl	0.003	S1-	70 - 130	06/08/21 16:28	06/08/21 21:32	1		

Lab Sample ID: LCS 880-3906/2-A
Matrix: Solid
Analysis Batch: 3875

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3906

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Gasoline (anre) rmanics	1000	892.1		F n/gm		89	70 - 130
vG() HCK-C10							

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4SUP

Job ID: 890-785-1
SDG: TS012919139

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-3906/2-A
Matrix: Solid
Analysis Batch: 3875

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3906

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel (antr) manics v fer C10-C28H	1000	1035		F mgm		103	70 - 130
Surrogate		LCS %Recovery	LCS Qualifier				Limits
1-Chlorooctane		98					70 - 130
o-Terphenyl		98					70 - 130

Lab Sample ID: LCSD 880-3906/3-A
Matrix: Solid
Analysis Batch: 3875

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3906

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline (antr) manics vG() HCK-C10	1000	888.3		F mgm		89	70 - 130	0	20
Diesel (antr) manics v fer C10-C28H	1000	103K		F mgm		104	70 - 130	0	20
Surrogate		LCSD %Recovery	LCSD Qualifier				Limits		
1-Chlorooctane		99					70 - 130		
o-Terphenyl		99					70 - 130		

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3883/1-A
Matrix: Solid
Analysis Batch: 3932

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
ChloriCe	<5.00	U	5.00	F mgm			0K/09/21 17:00	1

Lab Sample ID: LCS 880-3883/2-A
Matrix: Solid
Analysis Batch: 3932

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
ChloriCe	250	248.5		F mgm		99	90 - 110

Lab Sample ID: LCSD 880-3883/3-A
Matrix: Solid
Analysis Batch: 3932

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
ChloriCe	250	248.1		F mgm		99	90 - 110	0	20

Lab Sample ID: 890-785-1 MS
Matrix: Solid
Analysis Batch: 3932

Client Sample ID: FS15B
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
ChloriCe	1K90		1240	29K0		F mgm		103	90 - 110

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4SUP

Job ID: 890-785-1
SDG: TS012919139

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-785-1 MSD
Matrix: Solid
Analysis Batch: 3932

Client Sample ID: FS15B
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1K90		1240	2959		mg		103	90 - 110	0	20

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- 13
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QC Association Summary

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4SUP

Job ID: 890-785-1
SDG: TS012919139

GC VOA

Prep Batch: 3867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-785-1	FS15B	Total/NA	Solid	5035	
890-785-2	FS17A	Total/NA	Solid	5035	
890-785-3	FS18A	Total/NA	Solid	5035	
890-785-4	FS24A	Total/NA	Solid	5035	
890-785-5	FS28D	Total/NA	Solid	5035	
890-785-6	FS30C	Total/NA	Solid	5035	
MB 880-3867/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3867/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3867/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-785-1 MS	FS15B	Total/NA	Solid	5035	
890-785-1 MSD	FS15B	Total/NA	Solid	5035	

Analysis Batch: 3871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-785-1	FS15B	Total/NA	Solid	8021B	3867
890-785-2	FS17A	Total/NA	Solid	8021B	3867
890-785-3	FS18A	Total/NA	Solid	8021B	3867
890-785-4	FS24A	Total/NA	Solid	8021B	3867
890-785-5	FS28D	Total/NA	Solid	8021B	3867
890-785-6	FS30C	Total/NA	Solid	8021B	3867
MB 880-3867/5-A	Method Blank	Total/NA	Solid	8021B	3867
LCS 880-3867/1-A	Lab Control Sample	Total/NA	Solid	8021B	3867
LCSD 880-3867/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3867
890-785-1 MS	FS15B	Total/NA	Solid	8021B	3867
890-785-1 MSD	FS15B	Total/NA	Solid	8021B	3867

GC Semi VOA

Analysis Batch: 3875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-785-1	FS15B	Total/NA	Solid	8015B NM	3906
890-785-2	FS17A	Total/NA	Solid	8015B NM	3906
890-785-3	FS18A	Total/NA	Solid	8015B NM	3906
890-785-4	FS24A	Total/NA	Solid	8015B NM	3906
890-785-5	FS28D	Total/NA	Solid	8015B NM	3906
890-785-6	FS30C	Total/NA	Solid	8015B NM	3906
MB 880-3906/1-A	Method Blank	Total/NA	Solid	8015B NM	3906
LCS 880-3906/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3906
LCSD 880-3906/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3906

Prep Batch: 3906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-785-1	FS15B	Total/NA	Solid	8015NM Prep	
890-785-2	FS17A	Total/NA	Solid	8015NM Prep	
890-785-3	FS18A	Total/NA	Solid	8015NM Prep	
890-785-4	FS24A	Total/NA	Solid	8015NM Prep	
890-785-5	FS28D	Total/NA	Solid	8015NM Prep	
890-785-6	FS30C	Total/NA	Solid	8015NM Prep	
MB 880-3906/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3906/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3906/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4SUP

Job ID: 890-785-1
SDG: TS012919139

HPLC/IC

Leach Batch: 3883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-785-1	FS15B	Soluble	Solid	DI Leach	
890-785-2	FS17A	Soluble	Solid	DI Leach	
890-785-3	FS18A	Soluble	Solid	DI Leach	
890-785-4	FS24A	Soluble	Solid	DI Leach	
890-785-5	FS28D	Soluble	Solid	DI Leach	
890-785-6	FS30C	Soluble	Solid	DI Leach	
MB 880-3883/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3883/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3883/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-785-1 MS	FS15B	Soluble	Solid	DI Leach	
890-785-1 MSD	FS15B	Soluble	Solid	DI Leach	

Analysis Batch: 3932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-785-1	FS15B	Soluble	Solid	300.0	3883
890-785-2	FS17A	Soluble	Solid	300.0	3883
890-785-3	FS18A	Soluble	Solid	300.0	3883
890-785-4	FS24A	Soluble	Solid	300.0	3883
890-785-5	FS28D	Soluble	Solid	300.0	3883
890-785-6	FS30C	Soluble	Solid	300.0	3883
MB 880-3883/1-A	Method Blank	Soluble	Solid	300.0	3883
LCS 880-3883/2-A	Lab Control Sample	Soluble	Solid	300.0	3883
LCSD 880-3883/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3883
890-785-1 MS	FS15B	Soluble	Solid	300.0	3883
890-785-1 MSD	FS15B	Soluble	Solid	300.0	3883

Lab Chronicle

Client: WSP USA Inc.
 Project Site: ash5 13Na sh5 4SUP

Job ID: 890-781-r
 SDG: TS0r E9r 9r 39

Client Sample ID: FS15B

Lab Sample ID: 890-785-1

Date Collected: 06/04/21 13:30

Matrix: Solid

Date Received: 06/07/21 10:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Totals A	Pje2	1031			38p7	0p08NEr 08:14	6K	LXa MID
Totals A	Anslyhih	80Er B		r	387r	0p08NEr r 4:19	6K	LXa MID
Totals A	Pje2	80r 1a M Pje2			390p	0p08NEr r p:E8	DM	LXa MID
Totals A	Anslyhih	80r 1B a M		r	3871	0p09NEr 0E:11	AJ	LXa MID
Soluble	Kesc5	DI Kesc5			3883	0p08NEr rr:43	CH	LXa MID
Soluble	Anslyhih	300.0		1	393E	0pN 0NEr 09:3r	CH	LXa MID

Client Sample ID: FS17A

Lab Sample ID: 890-785-2

Date Collected: 06/04/21 13:28

Matrix: Solid

Date Received: 06/07/21 10:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Totals A	Pje2	1031			38p7	0p08NEr 08:14	6K	LXa MID
Totals A	Anslyhih	80Er B		r	387r	0p08NEr r 1:r 9	6K	LXa MID
Totals A	Pje2	80r 1a M Pje2			390p	0p08NEr r p:E8	DM	LXa MID
Totals A	Anslyhih	80r 1B a M		r	3871	0p09NEr 03:r 1	AJ	LXa MID
Soluble	Kesc5	DI Kesc5			3883	0p08NEr rr:43	CH	LXa MID
Soluble	Anslyhih	300.0		r	393E	0p09NEr r 8:38	CH	LXa MID

Client Sample ID: FS18A

Lab Sample ID: 890-785-3

Date Collected: 06/04/21 13:25

Matrix: Solid

Date Received: 06/07/21 10:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Totals A	Pje2	1031			38p7	0p08NEr 08:14	6K	LXa MID
Totals A	Anslyhih	80Er B		r	387r	0p08NEr r 1:40	6K	LXa MID
Totals A	Pje2	80r 1a M Pje2			390p	0p08NEr r p:E8	DM	LXa MID
Totals A	Anslyhih	80r 1B a M		r	3871	0p09NEr 03:31	AJ	LXa MID
Soluble	Kesc5	DI Kesc5			3883	0p08NEr rr:43	CH	LXa MID
Soluble	Anslyhih	300.0		r	393E	0p09NEr r 8:43	CH	LXa MID

Client Sample ID: FS24A

Lab Sample ID: 890-785-4

Date Collected: 06/04/21 13:23

Matrix: Solid

Date Received: 06/07/21 10:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Totals A	Pje2	1031			38p7	0p08NEr 08:14	6K	LXa MID
Totals A	Anslyhih	80Er B		r	387r	0p08NEr r p:00	6K	LXa MID
Totals A	Pje2	80r 1a M Pje2			390p	0p08NEr r p:E8	DM	LXa MID
Totals A	Anslyhih	80r 1B a M		r	3871	0p09NEr 03:11	AJ	LXa MID
Soluble	Kesc5	DI Kesc5			3883	0p08NEr rr:43	CH	LXa MID
Soluble	Anslyhih	300.0		r	393E	0p09NEr r 8:18	CH	LXa MID

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Lab Chronicle

Client: WSP USA Inc.
 Project Site: a sh5 13Na sh5 4SUP

Job ID: 890-781-r
 SDG: TS0r E9r 9r 39

Client Sample ID: FS28D

Lab Sample ID: 890-785-5

Date Collected: 06/04/21 13:21

Matrix: Solid

Date Received: 06/07/21 10:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Totals A	Pje2	1031			38p7	0p08NEr 08:14	6K	LXa MID
Totals A	Anslyhih	80Er B		r	387r	0p08NEr r p:Er	6K	LXa MID
Totals A	Pje2	80r 1a M Pje2			390p	0p08NEr r p:E8	DM	LXa MID
Totals A	Anslyhih	80r 1B a M		r	3871	0p09NEr 04:r 1	AJ	LXa MID
Soluble	Kesc5	DI Kesc5			3883	0p08NEr rr:43	CH	LXa MID
Soluble	Anslyhih	300.0		r	393E	0p09NEr r 9:0E	CH	LXa MID

Client Sample ID: FS30C

Lab Sample ID: 890-785-6

Date Collected: 06/04/21 13:18

Matrix: Solid

Date Received: 06/07/21 10:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Totals A	Pje2	1031			38p7	0p08NEr 08:14	6K	LXa MID
Totals A	Anslyhih	80Er B		r	387r	0p08NEr r p:4r	6K	LXa MID
Totals A	Pje2	80r 1a M Pje2			390p	0p08NEr r p:E8	DM	LXa MID
Totals A	Anslyhih	80r 1B a M		r	3871	0p09NEr 04:3p	AJ	LXa MID
Soluble	Kesc5	DI Kesc5			3883	0p08NEr rr:43	CH	LXa MID
Soluble	Anslyhih	300.0		r	393E	0p09NEr r 9:07	CH	LXa MID

Laboratory References:

LXa MID d Xujo#nh Lencof Mi, Isn, f r Err W. Floji, s Avef Mi, Isn, f TL 7970r f TXK(43E)704-1440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project Site: a sh5 13Na sh5 4SUP

Job ID: 890-781-r
SDG: TS0r E9r 9r 39

Laboratory: Eurofins Xenco, Midland

Unlehh ot5ej2 ihe notewdsll snsl, teh yoj t5ih lsbojstoj, 2 eje cof ejewvnwej esc5 sccjewitstionMzejtjycstion belo2.

Authority	Program	Identification Number	Expiration Date
Teush	a x LAP	Tr 04704400-E0-Er	06-30-Er
T5e yollo2 ing snsl, teh sje inclvwewin t5ih jepojtdbvt t5e lsbojstoj, ih not cejtijewb, t5e gof ejning svt5ojit, . T5ih liht ms, inclwwe snsl, teh yoj 2 5ic5 t5e sgenc, woeh not oyej cejtijycstion.			
Ansl, hih Met5ow 80r 1B a M 80Er B	Pjep Met5ow 80r 1a M Pjep 1031	Mstjiu Soliw Soliw	Ansl, te Totsl TPH Totsl BTx X

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Method Summary

Location: WS PU APc It . G
 Urojn. WPAN: Nash 13/ Nash 5PAU

Job ID: 890-781-C
 PDT: EP0C29C9C39

Method	Method Description	Protocol	Laboratory
80206	Boialh VrCat e l og nropt us d'I (PS 854) XN MID
80C16 NM	Dæsnri Rat On VrCat es dDRV(d'I (PS 854) XN MID
3000	ct æt s, lot l hrog aWOranhy	MI cS S) XN MID
1031	l iosnu PysWg UprOn at u Eram	PS 854) XN MID
80C1NM Urnm	Mer onxVæ. Væt	PS 854) XN MID
DI Lna. h	Dnæt ænu S aWl Lna. hæ OUro. nuprn	cPEM) XN MID

Protocol References:

cPEM = cPEM It Wrt aWt ai
 MI cS S = "MnWous For l hng eai ct aiysæ Vf S aWl ct u S asW", XUC-400/5-79-020, Mar. h C983 ct u Ppbsnqpnt VRnvæst sG
 PS 854 = "EnsWnWous For XvaipaW OPoia S asW, Uhyse ai/ l hng eai MnWous", Ehaæ Xuaæ, Novng bnr C984 ct u lW AmuaW sG

Laboratory References:

) XN MID = Xprofæ s) nt . o, Mæiat u, C2CCS GFioræa cvn, Mæiat u, E) 7970C, EXL æ32(705-1550



Sample Summary

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4SUP

Job ID: 890-785-1
SDG: TS012919139

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-785-1	FS15B	Solid	06/04/21 13:30	06/07/21 10:56	- 20
890-785-2	FS17A	Solid	06/04/21 13:28	06/07/21 10:56	- 20
890-785-3	FS18A	Solid	06/04/21 13:25	06/07/21 10:56	- 20
890-785-4	FS24A	Solid	06/04/21 13:23	06/07/21 10:56	- 20
890-785-5	FS28D	Solid	06/04/21 13:21	06/07/21 10:56	- 20
890-785-6	FS30C	Solid	06/04/21 13:18	06/07/21 10:56	- 20

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Houston, TX (281) 240-4200 Dallas, TX (214) 802-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296
Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-820-2000)

Chain of Custody

Work Order No: _____

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Project Manager:	Travis Casey	Bill to: (if different):	Kyle Littlell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Garlsbad, NM
Phone:	(432) 704-5178	Email:	travis.casey@wsp.com, kallej.lennings@wsp.com, dan.moir@wsp.com

Program: UST/PST	<input type="checkbox"/>	PRP	<input type="checkbox"/>	Brownfields	<input type="checkbox"/>	RC	<input type="checkbox"/>	Superfund	<input type="checkbox"/>	
State of Project:	NIM									
Reporting Level:	Level II	<input type="checkbox"/>	Level III	<input type="checkbox"/>	PST/UST	<input type="checkbox"/>	RRP	<input type="checkbox"/>	Level IV	<input type="checkbox"/>
Deliverables:	EDD	<input type="checkbox"/>	ADAPT	<input type="checkbox"/>	Other:					

Project Name:	17th St / 45th St	Turn Around	
Project Number:	78012919139	Routine	<input checked="" type="checkbox"/>
P.O. Number:		Rush:	
Sampler's Name:	Travis Casey	Due Date:	

Temperature (°C):	26.24	Temp Blank	<input checked="" type="checkbox"/>	Yes	No	Wet Ice:	<input checked="" type="checkbox"/>	Yes	No
Received In tact:	Yes	No	Thermometer ID						
Cooler Custody Seals:	Yes	No	Correction Factor:	-0.2					
Sample Custody Seals:	Yes	No	Total Containers:						



990-785 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers			Sample Comments
					TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	
FS 1501	S	6-4-21	1330	20'	1	1	1	
FS 174			1328		1	1	1	
FS 184			1325		1	1	1	
FS 24A			1323		1	1	1	
FS 28D			1321		1	1	1	
FS 30C			1318		1	1	1	

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: TELP-SPLP-6010-8RCRA-Sb-As-Ba-Be-Cd-Cr-Co-Cu-Pb-Mn-Mo-Ni-Se-Ag-Ti-U 1031124517737017471.HG

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Tom S. Coy</i>	<i>John D. ...</i>	6/7/21 1045	<i>N. ...</i>	<i>N. ...</i>	6/7/21 10:56

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Eurofins Xenco, Carlsbad

1089 N Canal St
Carlsbad, NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record



Environment Testing
America

Client Information (Sub Contract Lab)		Sampler	Lab PM	Carrier Tracking No(s)	COC No:
Client Contact:	Phone		Kramer Jessica		890-253-1
Shipping/Receiving	E-Mail		Jessica.kramer@eurofinsnet.com	State of Origin:	Page 1 of 1
Company:			Accreditations Required (See note)	NEW Mexico	Page 1 of 1
Eurofins Xenco			NE LAP - Louisiana	NE LAP - Texas	Job #: 890-785-1
Address:	Due Date Requested				890-785-1
1211 W Florida Ave	6/11/2021				
City:	TAT Requested (days)				
Midland					
State Zip:					
TX 79701					
Phone:	PO #				
432-704-5440 (Te)					
Email:	WO #				
Project Name:	Project #				
Nash 53/ Nash 4SUP	89000004				
Site:	SSQVW#				
Analysis Requested					
Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>					
Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>					
8016MOD_NM/8016NM_S_Prep Full TPH					
300_ORGFM_28D/DI_LEACH Chloride					
8021B/6035FP_Calc BTEX					
Total Number of containers					
Special Instructions/Note					
A. HCL B. NaOH C. Zn Acetate D. Nitric Acid E. NaHSO4 F. MeOH G. Amphib H. Ascorbic Acid I. Ice J. DI Water K. EDTA L. EDA M. Hexane N. None O. AsNaO2 P. Na2OAS Q. Na2SO3 R. Na2S2O3 S. H2SO4 T. TSP Dodecahydrate U. Acetone V. MCAA W. pH 4.5 Z. other (specify)					

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Whether Sampled, St-Tissue, A=Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8016MOD_NM/8016NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/6035FP_Calc BTEX	Total Number of containers	Special Instructions/Note
FS15B (890-785-1)	6/4/21	13:30	Mountain	Solid		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	1	
FS17A (890-785-2)	6/4/21	13:28	Mountain	Solid		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	1	
FS18A (890-785-3)	6/4/21	13:25	Mountain	Solid		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	1	
FS24A (890-785-4)	6/4/21	13:23	Mountain	Solid		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	1	
FS28D (890-785-5)	6/4/21	13:21	Mountain	Solid		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	1	
FS30C (890-785-6)	6/4/21	13:18	Mountain	Solid		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method, analyte & accreditation compliance upon our subcontracted laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/testing/mark being analyzed, the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Xenco LLC.

Possible Hazard Identification
Unconfirmed

Deliverable Requested I II III IV Other (specify) _____ Primary Deliverable Rank 2

Empty Kit Relinquished by _____ Date _____

Relinquished by _____ Date/Time _____ Company _____

Relinquished by *Core Corp 6.7.21* Date/Time _____ Company _____

Relinquished by _____ Date/Time _____ Company _____

Custody Seals Intact Yes No Custody Seal No _____

Prepared by _____ Date/Time _____ Company _____

Received by _____ Date/Time _____ Company _____

Cooler Temperature(s) °C and Other Remarks _____

Special Instructions/QC Requirements _____

Return To Client Disposal By Lab Archive For _____ Months

Method of Shipment _____

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-785-1
SDG Number: TS012919139

Login Number: 785
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-785-1
SDG Number: TS012919139

Login Number: 785
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 06/08/21 01:17 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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Environment Testing
America

ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-789-1
Laboratory Sample Delivery Group: TE012919139
Client Project/Site: Nash 53/ Nash 4 SWD

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Dan Moir

Authorized for release by:
6/14/2021 9:46:42 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

LINKS

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Expert**

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Laboratory Job ID: 890-789-1
SDG: TE012919139

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Definitions/Glossary

1 0 ent WS PWU leAc
Sroji Ar/Wri : Nash 43/ Nash F W D

Job ID: 890-789-5
WD. : GT052959539

Qualifiers

GC VOA

Qualifier	Qualifier Description
P	leMAari s rhi aea@ri v as aea@yi Mxor brmeonM ri Ari M:

GC Semi VOA

Qualifier	Qualifier Description
P	leMAari s rhi aea@ri v as aea@yi Mxor brmeonM ri Ari M:

HPLC/IC

Qualifier	Qualifier Description
P	leMAari s rhi aea@ri v as aea@yi Mxor brmeonM ri Ari M:

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
w	zlsri MreM r rhi fDf Ao@u e ro M slgeari rhanrhi ri sn@ls ri , orri Moe a Md v i lghnbasts
± L	Si rAi enLi Ao"i rd
1 pz	1 oerales pri i zl%niM
1 pP	1 o@ed poru leg Peln
1 Np	1 oerales No pri i zl%niM
DTL	Dm @Ari Trror L arto R@oru a@yi Mabso@ri Mxi ri eAi q
DIQpaA	DI@rioe paAror
Dz	Di ri Arloe zlu InF@oD/DE Tq
Dz(LU(LT(IN	leMAari s a DI@rioe(Li -aea@sls(Li -i) rraArloe(or aMMrioeaC@lriaCu i ra@/aeloe aea@sls oxrhi sau , @
Dz1	Di Asloe zi "i Ci oeAi errarloe R. aMoAhi u Isrdq
TDz	Tsriu ari MDi ri Arloe zlu InF@lo)leq
zED	zlu InoxDi ri Arloe F@oD/DE Tq
zEO	zlu InoxOraerlarloe F@oD/DE Tq
Q1z	TSU ri Au u i eM MfQa)lu nu 1 oerau leaenzi "i @
QDU	Qlelu nu Di ri Arab@ UAi" lrd R. aMoAhi u Isrdq
QD1	Qlelu nu Di ri Arab@ 1 oeAi errarloe R. aMoAhi u Isrdq
QDz	Qi rhoMDi ri Arloe zlu In
Qz	Qlelu nu zi "i CF@lo)leq
QSN	QosnSrobab@ Nmu bi r
QOz	Qi rhoMOraerlarloe zlu In
N1	Non1 a@ri M
ND	NonDi ri Ari Manrhi ri , orrlag @u InR@r QDz or TDz lxshov eq
NT.	Ni gar"i / Ubsi en
SEW	Sosir"i / Sri si en
SOz	SraAriAaCOraerlarloe zlu In
SLTW	Sri smu , ri"i
O1	Ora@rd 1 oerroC
LTL	Li @ri"i Trror L arto R. aMoAhi u Isrdq
Lz	Li , orrlag zlu Inor Li %ni sri Mzlu InR. aMoAhi u Isrdq
LSD	Li @ri"i Si rAi enDlx ri eAi (a u i asni oxrhi ri @ri"i Mxi ri eAi bi nvi i e rvo , olers
GTp	@)I@rd T%ni" aC@npaAror F@lo)leq
GTO	@)I@rd T%ni" aC@nOrorti enF@lo)leq
NGI	@o Nmu i roms @ 1 onen

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Case Narrative

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-789-1
SDG: TE012919139

Job ID: 890-789-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

**Job Narrative
890-789-1**

Receipt

The samples were received on 6/8/2021 3:46 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: FS19A (890-789-1), FS14B (890-789-2) and FS10A (890-789-3).

GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-789-1
SDG: TE012919139

Client Sample ID: FS19A

Lab Sample ID: 890-789-1

Date Collected: 06/08/21 12:48

Matrix: Solid

Date Received: 06/08/21 15:46

Sample Depth: - 20.0

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/09/21 15:45	06/09/21 22:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/09/21 15:45	06/09/21 22:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/09/21 15:45	06/09/21 22:43	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		06/09/21 15:45	06/09/21 22:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/09/21 15:45	06/09/21 22:43	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		06/09/21 15:45	06/09/21 22:43	1
Total BTEX	<0.00399	U	0.00399	mg/Kg		06/09/21 15:45	06/09/21 22:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	870		17 - 837	76/72/: 8 89,49	76/72/: 8 : : ,43	8
8 <i>D</i> -i Fluorobenzene (Surr)	21		17 - 837	76/72/: 8 89,49	76/72/: 8 : : ,43	8

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		06/10/21 08:29	06/10/21 14:35	1
Diesel Range Organics (Over C10-C28)	544		49.9	mg/Kg		06/10/21 08:29	06/10/21 14:35	1
Oil Range Organics (Over C28-C36)	79.0		49.9	mg/Kg		06/10/21 08:29	06/10/21 14:35	1
Total TPH	623		49.9	mg/Kg		06/10/21 08:29	06/10/21 14:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
8-Chlorooctane	26		17 - 837	76/87/: 8 70,: 2	76/87/: 8 84,39	8
o-Terphenyl	21		17 - 837	76/87/: 8 70,: 2	76/87/: 8 84,39	8

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1100		25.2	mg/Kg			06/11/21 10:18	5

Client Sample ID: FS14B

Lab Sample ID: 890-789-2

Date Collected: 06/08/21 12:57

Matrix: Solid

Date Received: 06/08/21 15:46

Sample Depth: - 20.0

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		06/09/21 15:45	06/09/21 23:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/09/21 15:45	06/09/21 23:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/09/21 15:45	06/09/21 23:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/09/21 15:45	06/09/21 23:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/09/21 15:45	06/09/21 23:04	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/09/21 15:45	06/09/21 23:04	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		06/09/21 15:45	06/09/21 23:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	886		17 - 837	76/72/: 8 89,49	76/72/: 8 : 3,74	8
8 <i>D</i> -i Fluorobenzene (Surr)	20		17 - 837	76/72/: 8 89,49	76/72/: 8 : 3,74	8

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-789-1
SDG: TE012919139

Client Sample ID: FS14B

Lab Sample ID: 890-789-2

Date Collected: 06/08/21 12:57

Matrix: Solid

Date Received: 06/08/21 15:46

Sample Depth: - 20.0

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		06/10/21 08:29	06/10/21 14:56	1
Diesel Range Organics (Over C10-C28)	251		49.8	mg/Kg		06/10/21 08:29	06/10/21 14:56	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		06/10/21 08:29	06/10/21 14:56	1
Total TPH	251		49.8	mg/Kg		06/10/21 08:29	06/10/21 14:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
8-Chlorooctane	876		17 - 837	76/87/: 8 70,: 2	76/87/: 8 84,96	8
o-Terphenyl	888		17 - 837	76/87/: 8 70,: 2	76/87/: 8 84,96	8

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1070		25.2	mg/Kg			06/11/21 10:32	5

Client Sample ID: FS10A

Lab Sample ID: 890-789-3

Date Collected: 06/08/21 13:28

Matrix: Solid

Date Received: 06/08/21 15:46

Sample Depth: - 20.0

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		06/09/21 15:45	06/09/21 23:24	1
Toluene	<0.00199	U	0.00199	mg/Kg		06/09/21 15:45	06/09/21 23:24	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/09/21 15:45	06/09/21 23:24	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/09/21 15:45	06/09/21 23:24	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		06/09/21 15:45	06/09/21 23:24	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/09/21 15:45	06/09/21 23:24	1
Total BTEX	<0.00398	U	0.00398	mg/Kg		06/09/21 15:45	06/09/21 23:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	880		17 - 837	76/72/: 8 89,49	76/72/: 8 : 3,: 4	8
8 <i>D</i> -i Fluorobenzene (Surr)	22		17 - 837	76/72/: 8 89,49	76/72/: 8 : 3,: 4	8

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		06/10/21 08:29	06/10/21 15:17	1
Diesel Range Organics (Over C10-C28)	91.2		49.8	mg/Kg		06/10/21 08:29	06/10/21 15:17	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		06/10/21 08:29	06/10/21 15:17	1
Total TPH	91.2		49.8	mg/Kg		06/10/21 08:29	06/10/21 15:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
8-Chlorooctane	28		17 - 837	76/87/: 8 70,: 2	76/87/: 8 89,81	8
o-Terphenyl	23		17 - 837	76/87/: 8 70,: 2	76/87/: 8 89,81	8

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1390		24.8	mg/Kg			06/11/21 10:37	5

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-789-1
SDG: TE012919139

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-789-1	FS19A	108	97
890-789-2	FS14B	116	98
890-789-3	FS10A	118	99
LCS 880-3911/1-A	Lab Control Sample	108	96
LCSD 880-3911/2-A	Lab Control Sample Dup	107	99
MB 880-3911/5-A	Method Blank	110	95

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-789-1	FS19A	96	97
890-789-2	FS14B	106	111
890-789-3	FS10A	91	93
LCS 880-3950/2-A	Lab Control Sample	87	86
LCSD 880-3950/3-A	Lab Control Sample Dup	89	89
MB 880-3950/1-A	Method Blank	96	102

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-789-1
SDG: TE012919139

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3911/5-A
Matrix: Solid
Analysis Batch: 3913

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3911

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		06/09/21 15:45	06/09/21 17:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/09/21 15:45	06/09/21 17:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/09/21 15:45	06/09/21 17:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/09/21 15:45	06/09/21 17:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/09/21 15:45	06/09/21 17:21	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/09/21 15:45	06/09/21 17:21	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		06/09/21 15:45	06/09/21 17:21	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	887		07 - 817	7367/ 028 89:49	7367/ 028 80:28	8
8,4-Difluorobenzene (Surr)	/ 9		07 - 817	7367/ 028 89:49	7367/ 028 80:28	8

Lab Sample ID: LCS 880-3911/1-A
Matrix: Solid
Analysis Batch: 3913

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3911

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzene	0.100	0.07945		mg/Kg		79	70 - 130
Toluene	0.100	0.09493		mg/Kg		95	70 - 130
Ethylbenzene	0.100	0.1009		mg/Kg		101	70 - 130
m-Xylene & p-Xylene	0.200	0.2055		mg/Kg		103	70 - 130
o-Xylene	0.100	0.1053		mg/Kg		105	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	875		07 - 817
8,4-Difluorobenzene (Surr)	/ 3		07 - 817

Lab Sample ID: LCSD 880-3911/2-A
Matrix: Solid
Analysis Batch: 3913

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3911

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec. Limits	RPD	
		Result	Qualifier					RPD	Limit
Benzene	0.100	0.08466		mg/Kg		85	70 - 130	6	35
Toluene	0.100	0.09593		mg/Kg		96	70 - 130	1	35
Ethylbenzene	0.100	0.1015		mg/Kg		102	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2068		mg/Kg		103	70 - 130	1	35
o-Xylene	0.100	0.1058		mg/Kg		106	70 - 130	0	35

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	870		07 - 817
8,4-Difluorobenzene (Surr)	//		07 - 817

QC Sample Results

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-789-1
SDG: TE012919139

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-3950/1-A
Matrix: Solid
Analysis Batch: 3963

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3950

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		06/10/21 08:29	06/10/21 11:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/10/21 08:29	06/10/21 11:17	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/10/21 08:29	06/10/21 11:17	1
Total TPH	<50.0	U	50.0	mg/Kg		06/10/21 08:29	06/10/21 11:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
8-Chlorooctane	73		07 - 817	73	73	8
o-Terphenyl	872		07 - 817	73	73	8

Lab Sample ID: LCS 880-3950/2-A
Matrix: Solid
Analysis Batch: 3963

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3950

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	829.1		mg/Kg		83	70 - 130
Diesel Range Organics (Over C10-C28)	1000	984.1		mg/Kg		98	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
8-Chlorooctane	50		07 - 817
o-Terphenyl	53		07 - 817

Lab Sample ID: LCSD 880-3950/3-A
Matrix: Solid
Analysis Batch: 3963

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3950

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	798.9		mg/Kg		80	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	1024		mg/Kg		102	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
8-Chlorooctane	57		07 - 817
o-Terphenyl	57		07 - 817

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3919/1-A
Matrix: Solid
Analysis Batch: 3992

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			06/11/21 09:34	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
 Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-789-1
 SDG: TE012919139

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-3919/2-A
 Matrix: Solid
 Analysis Batch: 3992

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	247.7		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-3919/3-A
 Matrix: Solid
 Analysis Batch: 3992

Client Sample ID: Lab Control Sample Dup
 Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	247.5		mg/Kg		99	90 - 110	0	20

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-789-1
SDG: TE012919139

GC VOA

Prep Batch: 3911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-789-1	FS19A	Total/NA	Solid	5035	
890-789-2	FS14B	Total/NA	Solid	5035	
890-789-3	FS10A	Total/NA	Solid	5035	
MB 880-3911/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3911/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3911/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-789-1	FS19A	Total/NA	Solid	8021B	3911
890-789-2	FS14B	Total/NA	Solid	8021B	3911
890-789-3	FS10A	Total/NA	Solid	8021B	3911
MB 880-3911/5-A	Method Blank	Total/NA	Solid	8021B	3911
LCS 880-3911/1-A	Lab Control Sample	Total/NA	Solid	8021B	3911
LCSD 880-3911/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3911

GC Semi VOA

Prep Batch: 3950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-789-1	FS19A	Total/NA	Solid	8015NM Prep	
890-789-2	FS14B	Total/NA	Solid	8015NM Prep	
890-789-3	FS10A	Total/NA	Solid	8015NM Prep	
MB 880-3950/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3950/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3950/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 3963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-789-1	FS19A	Total/NA	Solid	8015B NM	3950
890-789-2	FS14B	Total/NA	Solid	8015B NM	3950
890-789-3	FS10A	Total/NA	Solid	8015B NM	3950
MB 880-3950/1-A	Method Blank	Total/NA	Solid	8015B NM	3950
LCS 880-3950/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3950
LCSD 880-3950/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3950

HPLC/IC

Leach Batch: 3919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-789-1	FS19A	Soluble	Solid	DI Leach	
890-789-2	FS14B	Soluble	Solid	DI Leach	
890-789-3	FS10A	Soluble	Solid	DI Leach	
MB 880-3919/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3919/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3919/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 3992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-789-1	FS19A	Soluble	Solid	300.0	3919
890-789-2	FS14B	Soluble	Solid	300.0	3919
890-789-3	FS10A	Soluble	Solid	300.0	3919

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-789-1
SDG: TE012919139

HPLC/IC (Continued)

Analysis Batch: 3992 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-3919/1-A	Method Blank	Soluble	Solid	300.0	3919
LCS 880-3919/2-A	Lab Control Sample	Soluble	Solid	300.0	3919
LCSD 880-3919/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3919

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Lab Chronicle

Client: WSP USA Inc.
 Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-789-1
 SDG: TE012919139

Client Sample ID: FS15B

Lab Sample ID: 8590-8501

Date Collectex: 9d088 1 1/ :48

7 atriM Solix

Date 2 ecei3ex: 9d088 1 1R:4d

Prep vTpe	y atch vTpe	y atch 7 ethox	2 sn	Dilstion Factor	y atch z smber	Preparex or BnalTuex	BnalTA	Lab
Total/NA	Prep	5035			3911	06/09/21 15:45	MR	XEN MID
Total/NA	Analysis	8021B		1	3913	06/09/21 22:43	MR	XEN MID
Total/NA	Prep	8015NM Prep			3950	06/10/21 08:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3963	06/10/21 14:35	AJ	XEN MID
Soluble	Leach	DI Leach			3919	06/09/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		5	3992	06/11/21 10:18	CH	XEN MID

Client Sample ID: FS14y

Lab Sample ID: 8590-8501

Date Collectex: 9d088 1 1/ :R-

7 atriM Solix

Date 2 ecei3ex: 9d088 1 1R:4d

Prep vTpe	y atch vTpe	y atch 7 ethox	2 sn	Dilstion Factor	y atch z smber	Preparex or BnalTuex	BnalTA	Lab
Total/NA	Prep	5035			3911	06/09/21 15:45	MR	XEN MID
Total/NA	Analysis	8021B		1	3913	06/09/21 23:04	MR	XEN MID
Total/NA	Prep	8015NM Prep			3950	06/10/21 08:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3963	06/10/21 14:56	AJ	XEN MID
Soluble	Leach	DI Leach			3919	06/09/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		5	3992	06/11/21 10:32	CH	XEN MID

Client Sample ID: FS19B

Lab Sample ID: 8590-8501

Date Collectex: 9d088 1 1N/ 8

7 atriM Solix

Date 2 ecei3ex: 9d088 1 1R:4d

Prep vTpe	y atch vTpe	y atch 7 ethox	2 sn	Dilstion Factor	y atch z smber	Preparex or BnalTuex	BnalTA	Lab
Total/NA	Prep	5035			3911	06/09/21 15:45	MR	XEN MID
Total/NA	Analysis	8021B		1	3913	06/09/21 23:24	MR	XEN MID
Total/NA	Prep	8015NM Prep			3950	06/10/21 08:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3963	06/10/21 15:17	AJ	XEN MID
Soluble	Leach	DI Leach			3919	06/09/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		5	3992	06/11/21 10:37	CH	XEN MID

LaboratorT 2 eferenceA:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-789-1
SDG: TE012919139

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

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Method Summary

Client: WSP USA Inc.
Project/Site: Nash 53/ Nash 4 SWD

Job ID: 890-789-1
SDG: TE012919139

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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Sample Summary

1 Client: WS PWJ leAc
Sroji Ar/Wri : Nash 43/ Nash F W D

Job ID: 890-789-5
WD. : GT052959539

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-789-5	BW59U	Vb0	06/08/25 52:F8	06/08/25 54:F6	- 200
890-789-2	BW5FE	Vb0	06/08/25 52:47	06/08/25 54:F6	- 200
890-789-3	BW50U	Vb0	06/08/25 53:28	06/08/25 54:F6	- 200

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Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432-704-5440) El Paso, TX (915)585-3443 Lubbock, TX (806)794-1296
 Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-820-2000)

Chain of Custody

Work Order No: _____

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Little
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 W. Mermod St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carrsbad, NM 88220
Phone:	(432) 236-3849	Email:	Jeremy.Hill@wsp.com Dan.Moir@wsp.com

Program:	UST/PST	<input type="checkbox"/> RP	<input type="checkbox"/> Groundfields	<input type="checkbox"/> RC	<input type="checkbox"/> \$perfund
State of Project:					
Reporting Level II:	<input type="checkbox"/> Level III	<input type="checkbox"/> PST/UST	<input type="checkbox"/> RP	<input type="checkbox"/> Level IV	<input type="checkbox"/>
Deliverables:	EDD	<input type="checkbox"/>	ADAPT	<input type="checkbox"/>	Other: _____

Project Name:	Nash 53 / Nash 4 SW	Turn Around	
Project Number:	75618919139	Routine	<input checked="" type="checkbox"/>
P.O. Number:	Felds	Rush:	
Sampler's Name:	Jeremy Hill	Due Date:	

SAMPLE RECEIPT	Temp Blank:	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Temperature (°C):	2.4 / 2.4	Thermometer ID		2M/1000-1		
Received In tact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Correction Factor:	-0.2		
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Total Containers:			
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No				



Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers			Sample Comments
					TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	
FS19A	S	6/8/11	1348	20.0'	X	X	X	
FS14B	U	U	1357	U	X	X	X	
FS10A	U	U	1358	U	X	X	X	
[Large scribble]								

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 Fe Pb Mn Mo Ni Se Ag Ti V

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.

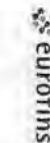
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
[Signature]	[Signature]	6.8.21 1544p	[Signature]	[Signature]	

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Eurofins Xenco, Carlsbad

1089 N Canal St
Carlsbad, NM 88220
Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



Environment Testing
America

Client Information (Sub Contract Lab)		Sampler	Lab PM	Carrier Tracking No(s)	COC No
Client Contact:	Phone	Kramer	Jessica	890-255-1	890-255-1
Shipping/Receiving	E-Mail	jessica.kramer@eurofinsnet.com		State of Origin	Page 1 of 1
Company	Address	Accreditations Required (See notes)		Job #	Page 1 of 1
Eurofins Xenco	1211 W Florida Ave	NELAP - Louisiana NELAP - Texas		890-789-1	
City	Midland	Due Date Requested	6/14/2021	Preservation Codes	
State, Zip	TX, 79701	TAT Requested (days)		A HCL B NaOH C Zn Acetate D Nitric Acid E NH4SO4 F MAOH G Antichlor H Ascorbic Acid I Ice J DI Water K EDTA L EDA Other	
Phone	432-704-5440(Tel)	PO #		M Hexane N None O AsH2O2 P Na2O4S Q Na2SO3 R Na2S2O3 S H2SO4 T TSP Dodecylglyrate U Acetone V MCAA W pH 4.5 Z other (specify)	
Email		WQ #			
Project Name	Nash 531 Nash 4 SWD	Project #	89000004		
Site		SSOW#			
Sample Identification - Client ID (Lab ID)					
FS19A (890-789-1)	6/8/21	12 48	Mountain	Solid	X
FS14B (890-789-2)	6/8/21	12 57	Mountain	Solid	X
FS10A (890-789-3)	6/8/21	13 28	Mountain	Solid	X
Field Filtered Sample (Yes or No)					
Perform MS/MSD (Yes or No)					
8015MOD_NM/8016NM_S_Prep Full TPH					
300_ORGFM_23D/DL_LEACH Chloride					
8021B/6036FP_Calc BTEX					
Total Number of containers					
Special Instructions/Note:					

Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method, analyte & accreditation compliance upon our subcontracted laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/method being analyzed, the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Xenco LLC.

Possible Hazard Identification

Unconfirmed

Deliverable Requested I II III, IV Other (specify) _____ Primary Deliverable Rank 2 _____

Empty Kit Relinquished by _____ Date _____

Relinquished by *Coe AFS* Date/Time *6-9-21* Company _____

Relinquished by _____ Date/Time _____ Company _____

Relinquished by _____ Date/Time _____ Company _____

Custody Seals Intact Custody Seal No _____

Δ Yes Δ No

Cooler Temperature(s) °C and Other Remarks: _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements: _____

Method of Shipment: _____

Received by *[Signature]* Date/Time *6-9-21 4:00 PM* Company _____

Ver 11/01/2020

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Bottle Order Information

Bottle Order
 Bottle Order #
 Request From Client 6/9/2021
 Date Order Posted
 Order Status Ready To Process
 Prepared By
 Deliver By Date: 6/9/2021 11:59:00PM
 Lab Project Number

Order Completion Information

Creator Cloe Clifton
 Filled by
 Sent Date
 Sent Via
 Tracking #

Sets	Bottles/Sal	Qty	Bottle Type	Description	Preservative	Method	Matrix	Sample Type	Comments	Lot #
------	-------------	-----	-------------	-------------	--------------	--------	--------	-------------	----------	-------

Notes to Field Staff:



Scan QR code for field sampler instructions

Health and Safety Notes:

Preservative Comment

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

Relinquished By	Company	Date	Time	Received By	Company	Seal #
One Cups	6.9.21					
Relinquished By	Company	Date	Time	Received By	Company	Seal #

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-789-1
SDG Number: TE012919139

Login Number: 789
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-789-1
SDG Number: TE012919139

Login Number: 789
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 06/09/21 03:50 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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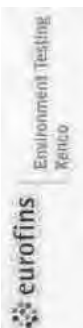
Certificate of Analysis Summary 669107

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Date Received in Lab: Tue 08.04.2020 17:12
Report Date: 08.05.2020 13:39
Project Manager: Jessica Kramer

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County



Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	669107-001	669107-002	669107-003	669107-004	669107-005	669107-006	
Analysis Requested											
BTEX by EPA 8021B											
PH11	PH11A	PH11B	PH11C	PH12	PH12A						
1- ft SOIL	2- ft SOIL	4- ft SOIL	6- ft SOIL	1- ft SOIL	2- ft SOIL						
08.04.2020 12:08	08.04.2020 12:10	08.04.2020 12:20	08.04.2020 12:45	08.04.2020 13:20	08.04.2020 13:25						
08.04.2020 17:50	08.04.2020 17:50	08.04.2020 17:50	08.04.2020 17:50	08.04.2020 17:50	08.04.2020 17:50						
08.05.2020 06:29	08.05.2020 06:52	08.05.2020 07:14	08.05.2020 07:37	08.05.2020 09:29	08.05.2020 10:47						
mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL						
<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.0401 0.0401	<0.00200 0.00200						
0.00523 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.0401 0.0401	<0.00200 0.00200						
0.00287 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	0.0776 0.0401	0.00207 0.00200						
0.0117 0.00395	0.0406 0.00399	<0.00401 0.00401	<0.00402 0.00402	<0.0802 0.0802	<0.00399 0.00399						
0.00457 0.00198	0.00468 0.00200	<0.00200 0.00200	<0.00201 0.00201	0.0499 0.0401	<0.00200 0.00200						
0.0163 0.00198	0.0453 0.00200	<0.00200 0.00200	<0.00201 0.00201	0.0499 0.0401	<0.00200 0.00200						
0.0244 0.00198	0.0453 0.00200	<0.00200 0.00200	<0.00201 0.00201	0.128 0.0401	0.00207 0.00200						
Chloride by EPA 300											
08.04.2020 17:40	08.04.2020 17:40	08.04.2020 17:40	08.04.2020 17:40	08.04.2020 17:40	08.04.2020 17:40						
08.04.2020 22:38	08.04.2020 22:43	08.04.2020 23:00	08.04.2020 23:05	08.04.2020 23:22	08.04.2020 23:28						
mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL						
585 10.0	399 50.1	815 50.1	947 49.9	20.6 9.92	24.7 9.98						
TPH by SW8015 Mod											
Gasoline Range Hydrocarbons (GRO)											
08.04.2020 17:30	08.04.2020 17:30	08.04.2020 17:30	08.04.2020 17:30	08.04.2020 17:30	08.04.2020 17:30						
08.05.2020 05:49	08.05.2020 03:07	08.05.2020 03:28	08.05.2020 03:48	08.05.2020 04:48	08.05.2020 05:09						
mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL						
<250 250	<49.8 49.8	<49.9 49.9	<49.8 49.8	333 250	<251 251						
1180 250	<49.8 49.8	<49.9 49.9	<49.8 49.8	8490 250	2190 251						
<250 250	<49.8 49.8	<49.9 49.9	<49.8 49.8	735 250	288 251						
1180 250	<49.8 49.8	<49.9 49.9	<49.8 49.8	8820 250	2190 251						
1180 250	<49.8 49.8	<49.9 49.9	<49.8 49.8	9560 250	2480 251						

Jessica Kramer

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 669107

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue 08.04.2020 17:12
Report Date: 08.05.2020 13:39
Project Manager: Jessica Kramer



<i>Analysis Requested</i>		669107-007	669107-008	669107-009
<i>Lab Id:</i>	PH12B	PH12C	PH12D	
<i>Field Id:</i>	4- ft	14- ft	16- ft	
<i>Depth:</i>	SOIL	SOIL	SOIL	
<i>Matrix:</i>				
<i>Sampled:</i>	08.04.2020 13:35	08.04.2020 15:05	08.04.2020 15:25	
BTEX by EPA 8021B				
<i>Extracted:</i>	08.04.2020 17:50	08.04.2020 17:50	08.04.2020 17:50	
<i>Analyzed:</i>	08.05.2020 07:59	08.05.2020 08:22	08.05.2020 08:44	
<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene	<0.00199	<0.00199	<0.00198	0.00198
Toluene	<0.00199	<0.00199	<0.00198	0.00198
Ethylbenzene	0.00301	0.00199	<0.00198	0.00198
m,p-Xylenes	<0.00398	0.0109	0.00663	0.00397
o-Xylene	0.00293	<0.00199	0.00220	0.00198
Total Xylenes	0.00293	0.0109	0.00883	0.00198
Total BTEX	0.00594	0.0109	0.00883	0.00198
Chloride by EPA 300				
<i>Extracted:</i>	08.04.2020 17:40	08.04.2020 17:40	08.04.2020 17:40	
<i>Analyzed:</i>	08.04.2020 23:33	08.04.2020 23:39	08.04.2020 23:45	
<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride	147	1030	557	49.9
TPH by SW8015 Mod				
<i>Extracted:</i>	08.04.2020 17:30	08.04.2020 17:30	08.04.2020 17:30	
<i>Analyzed:</i>	08.05.2020 05:29	08.05.2020 04:08	08.05.2020 04:28	
<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)	<250	<49.8	<50.1	50.1
Diesel Range Organics (DRO)	1150	359	510	50.1
Motor Oil Range Hydrocarbons (MRO)	<250	<49.8	56.8	50.1
Total GRO-DRO	1150	359	510	50.1
Total TPH	1150	359	567	50.1

Jessica Kramer

BRL - Below Reporting Limit

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



Analytical Report 669107

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash 53 SWD

012919139

08.05.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



08.05.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **669107**
Nash 53 SWD
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 Eurofins Xenco, LLC Report Number(s) 669107. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 669107 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer
Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 669107

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH11	S	08.04.2020 12:08	1 ft	669107-001
PH11A	S	08.04.2020 12:10	2 ft	669107-002
PH11B	S	08.04.2020 12:20	4 ft	669107-003
PH11C	S	08.04.2020 12:45	6 ft	669107-004
PH12	S	08.04.2020 13:20	1 ft	669107-005
PH12A	S	08.04.2020 13:25	2 ft	669107-006
PH12B	S	08.04.2020 13:35	4 ft	669107-007
PH12C	S	08.04.2020 15:05	14 ft	669107-008
PH12D	S	08.04.2020 15:25	16 ft	669107-009

CASE NARRATIVE



Client Name: LT Environmental, Inc.

Project Name: Nash 53 SWD

Project ID: 012919139
Work Order Number(s): 669107

Report Date: 08.05.2020
Date Received: 08.04.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 669107

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH11	Matrix: Soil	Date Received: 08.04.2020 17:12
Lab Sample Id: 669107-001	Date Collected: 08.04.2020 12:08	Sample Depth: 1 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.04.2020 17:40	Basis: Wet Weight
Seq Number: 3133578		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	585	10.0	mg/kg	08.04.2020 22:38		1

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.04.2020 17:30	Basis: Wet Weight
Seq Number: 3133550		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<250	250	mg/kg	08.05.2020 05:49	U	5
Diesel Range Organics (DRO)	C10C28DRO	1180	250	mg/kg	08.05.2020 05:49		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<250	250	mg/kg	08.05.2020 05:49	U	5
Total GRO-DRO	PHC628	1180	250	mg/kg	08.05.2020 05:49		5
Total TPH	PHC635	1180	250	mg/kg	08.05.2020 05:49		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	08.05.2020 05:49	
o-Terphenyl	84-15-1	105	%	70-135	08.05.2020 05:49	



Certificate of Analytical Results 669107

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH11	Matrix: Soil	Date Received: 08.04.2020 17:12
Lab Sample Id: 669107-001	Date Collected: 08.04.2020 12:08	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.04.2020 17:50	Basis: Wet Weight
Seq Number: 3133584		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.05.2020 06:29	U	1
Toluene	108-88-3	0.00523	0.00198	mg/kg	08.05.2020 06:29		1
Ethylbenzene	100-41-4	0.00287	0.00198	mg/kg	08.05.2020 06:29		1
m,p-Xylenes	179601-23-1	0.0117	0.00395	mg/kg	08.05.2020 06:29		1
o-Xylene	95-47-6	0.00457	0.00198	mg/kg	08.05.2020 06:29		1
Total Xylenes	1330-20-7	0.0163	0.00198	mg/kg	08.05.2020 06:29		1
Total BTEX		0.0244	0.00198	mg/kg	08.05.2020 06:29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	08.05.2020 06:29	
1,4-Difluorobenzene	540-36-3	97	%	70-130	08.05.2020 06:29	



Certificate of Analytical Results 669107

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **PH11A** Matrix: Soil Date Received: 08.04.2020 17:12
 Lab Sample Id: 669107-002 Date Collected: 08.04.2020 12:10 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.04.2020 17:40 Basis: Wet Weight
 Seq Number: 3133578

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	399	50.1	mg/kg	08.04.2020 22:43		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.04.2020 17:30 Basis: Wet Weight
 Seq Number: 3133550

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.05.2020 03:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.05.2020 03:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.05.2020 03:07	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	08.05.2020 03:07	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.05.2020 03:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	08.05.2020 03:07	
o-Terphenyl	84-15-1	96	%	70-135	08.05.2020 03:07	



Certificate of Analytical Results 669107

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH11A	Matrix: Soil	Date Received: 08.04.2020 17:12
Lab Sample Id: 669107-002	Date Collected: 08.04.2020 12:10	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.04.2020 17:50	Basis: Wet Weight
Seq Number: 3133584		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.05.2020 06:52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.05.2020 06:52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.05.2020 06:52	U	1
m,p-Xylenes	179601-23-1	0.0406	0.00399	mg/kg	08.05.2020 06:52		1
o-Xylene	95-47-6	0.00468	0.00200	mg/kg	08.05.2020 06:52		1
Total Xylenes	1330-20-7	0.0453	0.00200	mg/kg	08.05.2020 06:52		1
Total BTEX		0.0453	0.00200	mg/kg	08.05.2020 06:52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	08.05.2020 06:52	
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.05.2020 06:52	



Certificate of Analytical Results 669107

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH11B	Matrix: Soil	Date Received: 08.04.2020 17:12
Lab Sample Id: 669107-003	Date Collected: 08.04.2020 12:20	Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.04.2020 17:40	Basis: Wet Weight
Seq Number: 3133578		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	815	50.1	mg/kg	08.04.2020 23:00		5

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.04.2020 17:30	Basis: Wet Weight
Seq Number: 3133550		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.05.2020 03:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.05.2020 03:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.05.2020 03:28	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	08.05.2020 03:28	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.05.2020 03:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	08.05.2020 03:28	
o-Terphenyl	84-15-1	92	%	70-135	08.05.2020 03:28	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH11B	Matrix: Soil	Date Received: 08.04.2020 17:12
Lab Sample Id: 669107-003	Date Collected: 08.04.2020 12:20	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.04.2020 17:50	Basis: Wet Weight
Seq Number: 3133584		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.05.2020 07:14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.05.2020 07:14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.05.2020 07:14	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.05.2020 07:14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.05.2020 07:14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.05.2020 07:14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.05.2020 07:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.05.2020 07:14	
4-Bromofluorobenzene	460-00-4	107	%	70-130	08.05.2020 07:14	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **PH11C** Matrix: Soil Date Received: 08.04.2020 17:12
 Lab Sample Id: 669107-004 Date Collected: 08.04.2020 12:45 Sample Depth: 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.04.2020 17:40 Basis: Wet Weight
 Seq Number: 3133578

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	947	49.9	mg/kg	08.04.2020 23:05		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.04.2020 17:30 Basis: Wet Weight
 Seq Number: 3133550

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.05.2020 03:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.05.2020 03:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.05.2020 03:48	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	08.05.2020 03:48	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.05.2020 03:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	08.05.2020 03:48	
o-Terphenyl	84-15-1	94	%	70-135	08.05.2020 03:48	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH11C	Matrix: Soil	Date Received: 08.04.2020 17:12
Lab Sample Id: 669107-004	Date Collected: 08.04.2020 12:45	Sample Depth: 6 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.04.2020 17:50	Basis: Wet Weight
Seq Number: 3133584		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.05.2020 07:37	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.05.2020 07:37	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.05.2020 07:37	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.05.2020 07:37	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.05.2020 07:37	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.05.2020 07:37	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.05.2020 07:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	08.05.2020 07:37	
1,4-Difluorobenzene	540-36-3	100	%	70-130	08.05.2020 07:37	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **PH12** Matrix: Soil Date Received: 08.04.2020 17:12
 Lab Sample Id: 669107-005 Date Collected: 08.04.2020 13:20 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.04.2020 17:40 Basis: Wet Weight
 Seq Number: 3133578

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.6	9.92	mg/kg	08.04.2020 23:22		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.04.2020 17:30 Basis: Wet Weight
 Seq Number: 3133550

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	333	250	mg/kg	08.05.2020 04:48		5
Diesel Range Organics (DRO)	C10C28DRO	8490	250	mg/kg	08.05.2020 04:48		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	735	250	mg/kg	08.05.2020 04:48		5
Total GRO-DRO	PHC628	8820	250	mg/kg	08.05.2020 04:48		5
Total TPH	PHC635	9560	250	mg/kg	08.05.2020 04:48		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	08.05.2020 04:48	
o-Terphenyl	84-15-1	117	%	70-135	08.05.2020 04:48	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH12	Matrix: Soil	Date Received: 08.04.2020 17:12
Lab Sample Id: 669107-005	Date Collected: 08.04.2020 13:20	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.04.2020 17:50	Basis: Wet Weight
Seq Number: 3133584		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0401	0.0401	mg/kg	08.05.2020 09:29	U	20
Toluene	108-88-3	<0.0401	0.0401	mg/kg	08.05.2020 09:29	U	20
Ethylbenzene	100-41-4	0.0776	0.0401	mg/kg	08.05.2020 09:29		20
m,p-Xylenes	179601-23-1	<0.0802	0.0802	mg/kg	08.05.2020 09:29	U	20
o-Xylene	95-47-6	0.0499	0.0401	mg/kg	08.05.2020 09:29		20
Total Xylenes	1330-20-7	0.0499	0.0401	mg/kg	08.05.2020 09:29		20
Total BTEX		0.128	0.0401	mg/kg	08.05.2020 09:29		20

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.05.2020 09:29	
1,4-Difluorobenzene	540-36-3	96	%	70-130	08.05.2020 09:29	



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LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **PH12A** Matrix: Soil Date Received: 08.04.2020 17:12
 Lab Sample Id: 669107-006 Date Collected: 08.04.2020 13:25 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.04.2020 17:40 Basis: Wet Weight
 Seq Number: 3133578

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	24.7	9.98	mg/kg	08.04.2020 23:28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.04.2020 17:30 Basis: Wet Weight
 Seq Number: 3133550

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<251	251	mg/kg	08.05.2020 05:09	U	5
Diesel Range Organics (DRO)	C10C28DRO	2190	251	mg/kg	08.05.2020 05:09		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	288	251	mg/kg	08.05.2020 05:09		5
Total GRO-DRO	PHC628	2190	251	mg/kg	08.05.2020 05:09		5
Total TPH	PHC635	2480	251	mg/kg	08.05.2020 05:09		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	08.05.2020 05:09	
o-Terphenyl	84-15-1	105	%	70-135	08.05.2020 05:09	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH12A	Matrix: Soil	Date Received: 08.04.2020 17:12
Lab Sample Id: 669107-006	Date Collected: 08.04.2020 13:25	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.04.2020 17:50	Basis: Wet Weight
Seq Number: 3133584		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.05.2020 10:47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.05.2020 10:47	U	1
Ethylbenzene	100-41-4	0.00207	0.00200	mg/kg	08.05.2020 10:47		1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.05.2020 10:47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.05.2020 10:47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.05.2020 10:47	U	1
Total BTEX		0.00207	0.00200	mg/kg	08.05.2020 10:47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	08.05.2020 10:47	
1,4-Difluorobenzene	540-36-3	94	%	70-130	08.05.2020 10:47	



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LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **PH12B** Matrix: Soil Date Received: 08.04.2020 17:12
 Lab Sample Id: 669107-007 Date Collected: 08.04.2020 13:35 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.04.2020 17:40 Basis: Wet Weight
 Seq Number: 3133578

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	147	49.8	mg/kg	08.04.2020 23:33		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.04.2020 17:30 Basis: Wet Weight
 Seq Number: 3133550

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<250	250	mg/kg	08.05.2020 05:29	U	5
Diesel Range Organics (DRO)	C10C28DRO	1150	250	mg/kg	08.05.2020 05:29		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<250	250	mg/kg	08.05.2020 05:29	U	5
Total GRO-DRO	PHC628	1150	250	mg/kg	08.05.2020 05:29		5
Total TPH	PHC635	1150	250	mg/kg	08.05.2020 05:29		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	08.05.2020 05:29	
o-Terphenyl	84-15-1	100	%	70-135	08.05.2020 05:29	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH12B	Matrix: Soil	Date Received: 08.04.2020 17:12
Lab Sample Id: 669107-007	Date Collected: 08.04.2020 13:35	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.04.2020 17:50	Basis: Wet Weight
Seq Number: 3133584		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.05.2020 07:59	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.05.2020 07:59	U	1
Ethylbenzene	100-41-4	0.00301	0.00199	mg/kg	08.05.2020 07:59		1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.05.2020 07:59	U	1
o-Xylene	95-47-6	0.00293	0.00199	mg/kg	08.05.2020 07:59		1
Total Xylenes	1330-20-7	0.00293	0.00199	mg/kg	08.05.2020 07:59		1
Total BTEX		0.00594	0.00199	mg/kg	08.05.2020 07:59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.05.2020 07:59	
1,4-Difluorobenzene	540-36-3	95	%	70-130	08.05.2020 07:59	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **PH12C** Matrix: Soil Date Received: 08.04.2020 17:12
 Lab Sample Id: 669107-008 Date Collected: 08.04.2020 15:05 Sample Depth: 14 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.04.2020 17:40 Basis: Wet Weight
 Seq Number: 3133578

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1030	49.9	mg/kg	08.04.2020 23:39		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.04.2020 17:30 Basis: Wet Weight
 Seq Number: 3133550

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.05.2020 04:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	359	49.8	mg/kg	08.05.2020 04:08		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.05.2020 04:08	U	1
Total GRO-DRO	PHC628	359	49.8	mg/kg	08.05.2020 04:08		1
Total TPH	PHC635	359	49.8	mg/kg	08.05.2020 04:08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	08.05.2020 04:08	
o-Terphenyl	84-15-1	99	%	70-135	08.05.2020 04:08	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH12C	Matrix: Soil	Date Received: 08.04.2020 17:12
Lab Sample Id: 669107-008	Date Collected: 08.04.2020 15:05	Sample Depth: 14 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.04.2020 17:50	Basis: Wet Weight
Seq Number: 3133584		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.05.2020 08:22	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.05.2020 08:22	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.05.2020 08:22	U	1
m,p-Xylenes	179601-23-1	0.0109	0.00398	mg/kg	08.05.2020 08:22		1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.05.2020 08:22	U	1
Total Xylenes	1330-20-7	0.0109	0.00199	mg/kg	08.05.2020 08:22		1
Total BTEX		0.0109	0.00199	mg/kg	08.05.2020 08:22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	08.05.2020 08:22	
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.05.2020 08:22	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **PH12D** Matrix: Soil Date Received: 08.04.2020 17:12
 Lab Sample Id: 669107-009 Date Collected: 08.04.2020 15:25 Sample Depth: 16 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.04.2020 17:40 Basis: Wet Weight
 Seq Number: 3133578

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	557	49.9	mg/kg	08.04.2020 23:45		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.04.2020 17:30 Basis: Wet Weight
 Seq Number: 3133550

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	08.05.2020 04:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	510	50.1	mg/kg	08.05.2020 04:28		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	56.8	50.1	mg/kg	08.05.2020 04:28		1
Total GRO-DRO	PHC628	510	50.1	mg/kg	08.05.2020 04:28		1
Total TPH	PHC635	567	50.1	mg/kg	08.05.2020 04:28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	08.05.2020 04:28	
o-Terphenyl	84-15-1	97	%	70-135	08.05.2020 04:28	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH12D	Matrix: Soil	Date Received: 08.04.2020 17:12
Lab Sample Id: 669107-009	Date Collected: 08.04.2020 15:25	Sample Depth: 16 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.04.2020 17:50	Basis: Wet Weight
Seq Number: 3133584		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.05.2020 08:44	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.05.2020 08:44	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.05.2020 08:44	U	1
m,p-Xylenes	179601-23-1	0.00663	0.00397	mg/kg	08.05.2020 08:44		1
o-Xylene	95-47-6	0.00220	0.00198	mg/kg	08.05.2020 08:44		1
Total Xylenes	1330-20-7	0.00883	0.00198	mg/kg	08.05.2020 08:44		1
Total BTEX		0.00883	0.00198	mg/kg	08.05.2020 08:44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	08.05.2020 08:44	
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.05.2020 08:44	



LT Environmental, Inc.
Nash 53 SWD

Analytical Method: Chloride by EPA 300

Seq Number: 3133578
MB Sample Id: 7708740-1-BLK

Matrix: Solid
LCS Sample Id: 7708740-1-BKS

Prep Method: E300P
Date Prep: 08.04.2020
LCSD Sample Id: 7708740-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	269	108	268	107	90-110	0	20	mg/kg	08.04.2020 21:14	

Analytical Method: Chloride by EPA 300

Seq Number: 3133578
Parent Sample Id: 669080-011

Matrix: Soil
MS Sample Id: 669080-011 S

Prep Method: E300P
Date Prep: 08.04.2020
MSD Sample Id: 669080-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	20.2	200	225	102	225	102	90-110	0	20	mg/kg	08.04.2020 21:31	

Analytical Method: Chloride by EPA 300

Seq Number: 3133578
Parent Sample Id: 669107-002

Matrix: Soil
MS Sample Id: 669107-002 S

Prep Method: E300P
Date Prep: 08.04.2020
MSD Sample Id: 669107-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	399	201	604	102	619	109	90-110	2	20	mg/kg	08.04.2020 22:49	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3133550
MB Sample Id: 7708721-1-BLK

Matrix: Solid
LCS Sample Id: 7708721-1-BKS

Prep Method: SW8015P
Date Prep: 08.04.2020
LCSD Sample Id: 7708721-1-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	961	96	947	95	70-135	1	35	mg/kg	08.05.2020 01:26	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	1010	101	70-135	2	35	mg/kg	08.05.2020 01:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		117		114		70-135	%	08.05.2020 01:26
o-Terphenyl	100		110		107		70-135	%	08.05.2020 01:26

Analytical Method: TPH by SW8015 Mod

Seq Number: 3133550
MB Sample Id: 7708721-1-BLK

Matrix: Solid

Prep Method: SW8015P
Date Prep: 08.04.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.05.2020 01:06	

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

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

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

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



LT Environmental, Inc.
Nash 53 SWD

Analytical Method: TPH by SW8015 Mod

Seq Number: 3133550
Parent Sample Id: 669089-002

Matrix: Soil
MS Sample Id: 669089-002 S

Prep Method: SW8015P
Date Prep: 08.04.2020
MSD Sample Id: 669089-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	901	90	878	88	70-135	3	35	mg/kg	08.05.2020 02:27	
Diesel Range Organics (DRO)	<50.1	1000	949	95	930	93	70-135	2	35	mg/kg	08.05.2020 02:27	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		110		70-135	%	08.05.2020 02:27
o-Terphenyl	104		104		70-135	%	08.05.2020 02:27

Analytical Method: BTEX by EPA 8021B

Seq Number: 3133584
MB Sample Id: 7708727-1-BLK

Matrix: Solid
LCS Sample Id: 7708727-1-BKS

Prep Method: SW5035A
Date Prep: 08.04.2020
LCSD Sample Id: 7708727-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.109	109	0.112	112	70-130	3	35	mg/kg	08.05.2020 04:04	
Toluene	<0.00200	0.100	0.103	103	0.106	106	70-130	3	35	mg/kg	08.05.2020 04:04	
Ethylbenzene	<0.00200	0.100	0.0956	96	0.0978	98	71-129	2	35	mg/kg	08.05.2020 04:04	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.198	99	70-135	2	35	mg/kg	08.05.2020 04:04	
o-Xylene	<0.00200	0.100	0.0963	96	0.0983	98	71-133	2	35	mg/kg	08.05.2020 04:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		99		99		70-130	%	08.05.2020 04:04
4-Bromofluorobenzene	95		102		102		70-130	%	08.05.2020 04:04

Analytical Method: BTEX by EPA 8021B

Seq Number: 3133584
Parent Sample Id: 669080-012

Matrix: Soil
MS Sample Id: 669080-012 S

Prep Method: SW5035A
Date Prep: 08.04.2020
MSD Sample Id: 669080-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.110	110	0.112	112	70-130	2	35	mg/kg	08.05.2020 09:06	
Toluene	<0.00200	0.0998	0.103	103	0.104	104	70-130	1	35	mg/kg	08.05.2020 09:06	
Ethylbenzene	<0.00200	0.0998	0.0949	95	0.0946	95	71-129	0	35	mg/kg	08.05.2020 09:06	
m,p-Xylenes	<0.00399	0.200	0.198	99	0.178	89	70-135	11	35	mg/kg	08.05.2020 09:06	
o-Xylene	<0.00200	0.0998	0.122	122	0.0934	94	71-133	27	35	mg/kg	08.05.2020 09:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		70-130	%	08.05.2020 09:06
4-Bromofluorobenzene	115		105		70-130	%	08.05.2020 09:06

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

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

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

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



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

Chain of Custody

Work Order No: 269107

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different):	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 West Memorial
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	anaka@ltenv.com, dmoir@ltenv.com

Program: UST/PST	<input type="checkbox"/> RP	<input type="checkbox"/> Brownfields	<input type="checkbox"/> RC	<input type="checkbox"/> Superfund
State of Project:				
Reporting Level II	<input type="checkbox"/> Level III	<input type="checkbox"/> PST/UST	<input type="checkbox"/> RP	<input type="checkbox"/> Level IV
Deliverables: EDD	<input type="checkbox"/>	Adapt	<input type="checkbox"/>	Other:

Project Name:	Nash 53 SWD	Turn Around	
Project Number:	01211139	Routine:	<input type="checkbox"/>
P.O. Number:		Rush:	24 hr
Sampler's Name:	Elizabeth Naka	Due Date:	

SAMPLE RECEIPT	Temp Blank:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Temperature (°C):	11.4	Thermometer ID				
Received Intact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Correction Factor: -0.2			
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Total Containers: 24			
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	N/A			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST	Work Order Notes
PH11A	S	08/04/20	12:05	1'	1	X	X	X		
PH11B	S	08/04/20	12:20	2'	1	X	X	X		
PH11C	S	08/04/20	12:45	6'	1	X	X	X		
PH12	S	08/04/20	13:20	1'	1	X	X	X		
PH12A	S	08/04/20	13:25	6'	1	X	X	X		
PH12B	S	08/04/20	13:35	4'	1	X	X	X		
PH12C	S	08/04/20	15:05	14"	1	X	X	X		
PH12D	S	08/04/20	15:25	16"	1	X	X	X		

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr 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
<i>[Signature]</i>	<i>[Signature]</i>	8/4/20 17:12			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08.04.2020 05.12.00 PM

Work Order #: 669107

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)?	1.4	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	Yes	
#6*Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	Samples received in bulk containers.
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	No	
#18 Water VOC samples have zero headspace?	N/A	

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 08.04.2020

Checklist reviewed by:



Jessica Kramer

Date: 08.04.2020

Certificate of Analysis Summary 669902

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Wed 08.12.2020 16:42
Report Date: 08.14.2020 15:06
Project Manager: Jessica Kramer

<i>Lab Id:</i>		669902-001	669902-002	669902-003	669902-004	669902-005	669902-006
<i>Field Id:</i>		FS01	FS02	FS03	FS04	FS05	FS06
<i>Depth:</i>		4- ft	4- ft	4- ft	4- ft	4- ft	4- ft
<i>Matrix:</i>		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
<i>Sampled:</i>		08.12.2020 08:20	08.12.2020 08:15	08.12.2020 09:25	08.12.2020 10:30	08.12.2020 10:35	08.12.2020 10:40
BTEX by EPA 8021B							
<i>Extracted:</i>		08.13.2020 10:09	08.13.2020 10:09	08.13.2020 10:09	08.13.2020 10:09	08.13.2020 10:09	08.13.2020 10:09
<i>Analyzed:</i>		08.13.2020 14:57	08.13.2020 15:17	08.13.2020 15:37	08.13.2020 15:58	08.13.2020 16:18	08.13.2020 16:39
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Toluene		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Ethylbenzene		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
m,p-Xylenes		<0.00402 0.00402	<0.00398 0.00398	<0.00400 0.00400	<0.00401 0.00401	<0.00402 0.00402	<0.00404 0.00404
o-Xylene		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Total Xylenes		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Total BTEX		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Chloride by EPA 300							
<i>Extracted:</i>		08.13.2020 10:13	08.13.2020 10:13	08.13.2020 10:13	08.13.2020 10:13	08.13.2020 10:13	08.13.2020 10:13
<i>Analyzed:</i>		08.13.2020 11:58	08.13.2020 12:15	08.13.2020 12:20	08.13.2020 12:26	08.13.2020 12:31	08.13.2020 12:48
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		2080 100	2340 101	2500 101	8130 202	2200 100	1370 99.2
TPH by SW8015 Mod							
<i>Extracted:</i>		08.13.2020 17:10	08.13.2020 17:10	08.13.2020 17:10	08.13.2020 17:10	08.13.2020 17:10	08.13.2020 17:10
<i>Analyzed:</i>		08.13.2020 20:53	08.14.2020 02:37	08.14.2020 02:17	08.14.2020 02:57	08.14.2020 03:18	08.14.2020 10:45
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<50.3 50.3	<49.8 49.8	<49.9 49.9	<50.1 50.1	<50.2 50.2
Diesel Range Organics (DRO)		676 50.1	995 50.3	388 49.8	495 49.9	908 50.1	179 50.2
Motor Oil Range Hydrocarbons (MRO)		99.1 50.1	118 50.3	53.6 49.8	62.1 49.9	105 50.1	<50.2 50.2
Total GRO-DRO		676 50.1	995 50.3	388 49.8	495 49.9	908 50.1	179 50.2
Total TPH		775 50.1	1110 50.3	442 49.8	557 49.9	1010 50.1	179 50.2

Jessica Kramer

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 669902

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Wed 08.12.2020 16:42
Report Date: 08.14.2020 15:06
Project Manager: Jessica Kramer

<i>Lab Id:</i>		669902-007	669902-008	669902-009	669902-010	669902-011	669902-012
<i>Field Id:</i>		FS07	FS08	FS09	FS10	FS11	FS12
<i>Depth:</i>		4- ft	4- ft	7- ft	7- ft	7.5- ft	5- ft
<i>Matrix:</i>		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
<i>Sampled:</i>		08.12.2020 11:20	08.12.2020 11:25	08.12.2020 11:30	08.12.2020 11:35	08.12.2020 12:30	08.12.2020 13:05
<i>Extracted:</i>		08.13.2020 10:09	08.13.2020 10:09	08.13.2020 10:09	08.13.2020 10:09	08.13.2020 10:09	08.13.2020 10:09
<i>Analyzed:</i>		08.13.2020 16:59	08.13.2020 17:20	08.13.2020 17:40	08.13.2020 18:01	08.13.2020 19:16	08.13.2020 19:37
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
m,p-Xylenes		<0.00401 0.00401	<0.00399 0.00399	<0.00397 0.00397	<0.00399 0.00399	<0.00398 0.00398	<0.00402 0.00402
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
Chloride by EPA 300							
<i>Extracted:</i>		08.13.2020 10:13	08.13.2020 10:13	08.13.2020 10:13	08.13.2020 10:13	08.13.2020 10:13	08.13.2020 10:13
<i>Analyzed:</i>		08.13.2020 12:54	08.13.2020 12:59	08.13.2020 13:05	08.13.2020 13:11	08.13.2020 13:16	08.13.2020 13:33
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		3820 99.8	2930 99.6	3090 99.6	3290 99.2	1110 49.7	1500 100
TPH by SW8015 Mod							
<i>Extracted:</i>		08.13.2020 17:10	08.13.2020 17:10	08.13.2020 17:10	08.13.2020 17:10	08.13.2020 17:10	08.13.2020 17:10
<i>Analyzed:</i>		08.14.2020 11:06	08.14.2020 11:26	08.14.2020 10:25	08.13.2020 23:34	08.14.2020 00:15	08.14.2020 00:35
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<49.9 49.9	<49.8 49.8	<49.8 49.8	<49.9 49.9
Diesel Range Organics (DRO)		344 50.0	413 49.9	<49.9 49.9	<49.8 49.8	<49.8 49.8	303 49.9
Motor Oil Range Hydrocarbons (MRO)		50.7 50.0	55.7 49.9	<49.9 49.9	<49.8 49.8	<49.8 49.8	<49.9 49.9
Total GRO-DRO		344 50.0	413 49.9	<49.9 49.9	<49.8 49.8	<49.8 49.8	303 49.9
Total TPH		395 50.0	469 49.9	<49.9 49.9	<49.8 49.8	<49.8 49.8	303 49.9

Jessica Kramer

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 669902

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Wed 08.12.2020 16:42
Report Date: 08.14.2020 15:06
Project Manager: Jessica Kramer

<i>Lab Id:</i>		669902-013	669902-014	669902-015	669902-016	669902-017	669902-018
<i>Field Id:</i>		FS13	FS14	FS15	FS16	FS17	FS18
<i>Depth:</i>		5- ft	4- ft	4- ft	4- ft	10- ft	10- ft
<i>Matrix:</i>		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
<i>Sampled:</i>		08.12.2020 13:10	08.12.2020 13:15	08.12.2020 13:20	08.12.2020 13:25	08.12.2020 14:05	08.12.2020 14:10
<i>Extracted:</i>		08.13.2020 10:09	08.13.2020 10:09	08.13.2020 10:09	08.13.2020 10:09	08.13.2020 10:09	08.13.2020 10:09
<i>Analyzed:</i>		08.13.2020 19:57	08.13.2020 20:18	08.13.2020 20:38	08.13.2020 20:59	08.13.2020 21:19	08.13.2020 21:39
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Toluene		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Ethylbenzene		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
m,p-Xylenes		<0.00401 0.00401	<0.00403 0.00403	<0.00403 0.00403	<0.00402 0.00402	<0.00401 0.00401	<0.00403 0.00403
o-Xylene		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Total BTEX		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Chloride by EPA 300							
<i>Extracted:</i>		08.13.2020 10:13	08.13.2020 10:13	08.13.2020 10:13	08.13.2020 10:13	08.13.2020 10:13	08.13.2020 10:13
<i>Analyzed:</i>		08.13.2020 13:39	08.13.2020 13:55	08.13.2020 14:01	08.13.2020 14:06	08.13.2020 14:12	08.13.2020 14:18
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1910 101	1710 101	2180 101	996 101	82.7 9.94	96.4 9.96
TPH by SW8015 Mod							
<i>Extracted:</i>		08.13.2020 17:10	08.13.2020 17:10	08.13.2020 17:10	08.13.2020 17:10	08.13.2020 17:10	08.13.2020 17:10
<i>Analyzed:</i>		08.14.2020 00:56	08.14.2020 01:16	08.14.2020 01:36	08.14.2020 01:56	08.13.2020 21:13	08.13.2020 21:33
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<50.1 50.1	<50.1 50.1	<49.8 49.8	<49.9 49.9	<49.8 49.8
Diesel Range Organics (DRO)		297 49.8	232 50.1	202 50.1	226 49.8	<49.9 49.9	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.1 50.1	<50.1 50.1	<49.8 49.8	<49.9 49.9	<49.8 49.8
Total GRO-DRO		297 49.8	232 50.1	202 50.1	226 49.8	<49.9 49.9	<49.8 49.8
Total TPH		297 49.8	232 50.1	202 50.1	226 49.8	<49.9 49.9	<49.8 49.8

Jessica Kramer

BRL - Below Reporting Limit

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



Analytical Report 669902

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash 53 SWD

012919139

08.14.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



08.14.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **669902**
Nash 53 SWD
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 Eurofins Xenco, LLC Report Number(s) 669902. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 669902 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer
Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 669902

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	08.12.2020 08:20	4 ft	669902-001
FS02	S	08.12.2020 08:15	4 ft	669902-002
FS03	S	08.12.2020 09:25	4 ft	669902-003
FS04	S	08.12.2020 10:30	4 ft	669902-004
FS05	S	08.12.2020 10:35	4 ft	669902-005
FS06	S	08.12.2020 10:40	4 ft	669902-006
FS07	S	08.12.2020 11:20	4 ft	669902-007
FS08	S	08.12.2020 11:25	4 ft	669902-008
FS09	S	08.12.2020 11:30	7 ft	669902-009
FS10	S	08.12.2020 11:35	7 ft	669902-010
FS11	S	08.12.2020 12:30	7.5 ft	669902-011
FS12	S	08.12.2020 13:05	5 ft	669902-012
FS13	S	08.12.2020 13:10	5 ft	669902-013
FS14	S	08.12.2020 13:15	4 ft	669902-014
FS15	S	08.12.2020 13:20	4 ft	669902-015
FS16	S	08.12.2020 13:25	4 ft	669902-016
FS17	S	08.12.2020 14:05	10 ft	669902-017
FS18	S	08.12.2020 14:10	10 ft	669902-018

CASE NARRATIVE



Client Name: LT Environmental, Inc.

Project Name: Nash 53 SWD

Project ID: 012919139
Work Order Number(s): 669902

Report Date: 08.14.2020
Date Received: 08.12.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 669902

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS01** Matrix: Soil Date Received: 08.12.2020 16:42
 Lab Sample Id: 669902-001 Date Collected: 08.12.2020 08:20 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.13.2020 10:13 Basis: Wet Weight
 Seq Number: 3134553

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2080	100	mg/kg	08.13.2020 11:58		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134547

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	08.13.2020 20:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	676	50.1	mg/kg	08.13.2020 20:53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	99.1	50.1	mg/kg	08.13.2020 20:53		1
Total GRO-DRO	PHC628	676	50.1	mg/kg	08.13.2020 20:53		1
Total TPH	PHC635	775	50.1	mg/kg	08.13.2020 20:53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.13.2020 20:53	
o-Terphenyl	84-15-1	93	%	70-135	08.13.2020 20:53	



Certificate of Analytical Results 669902

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS01	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-001	Date Collected: 08.12.2020 08:20	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:09	Basis: Wet Weight
Seq Number: 3134544		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.13.2020 14:57	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.13.2020 14:57	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.13.2020 14:57	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.13.2020 14:57	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.13.2020 14:57	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.13.2020 14:57	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.13.2020 14:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	08.13.2020 14:57	
4-Bromofluorobenzene	460-00-4	99	%	70-130	08.13.2020 14:57	



Certificate of Analytical Results 669902

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **FS02** Matrix: Soil Date Received: 08.12.2020 16:42
 Lab Sample Id: 669902-002 Date Collected: 08.12.2020 08:15 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.13.2020 10:13 Basis: Wet Weight
 Seq Number: 3134553

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2340	101	mg/kg	08.13.2020 12:15		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134576

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	08.14.2020 02:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	995	50.3	mg/kg	08.14.2020 02:37		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	118	50.3	mg/kg	08.14.2020 02:37		1
Total GRO-DRO	PHC628	995	50.3	mg/kg	08.14.2020 02:37		1
Total TPH	PHC635	1110	50.3	mg/kg	08.14.2020 02:37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	08.14.2020 02:37	
o-Terphenyl	84-15-1	99	%	70-135	08.14.2020 02:37	



Certificate of Analytical Results 669902

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS02	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-002	Date Collected: 08.12.2020 08:15	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:09	Basis: Wet Weight
Seq Number: 3134544		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.13.2020 15:17	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.13.2020 15:17	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.13.2020 15:17	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.13.2020 15:17	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.13.2020 15:17	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.13.2020 15:17	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.13.2020 15:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	08.13.2020 15:17	
4-Bromofluorobenzene	460-00-4	94	%	70-130	08.13.2020 15:17	



Certificate of Analytical Results 669902

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS03	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-003	Date Collected: 08.12.2020 09:25	Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:13	Basis: Wet Weight
Seq Number: 3134553		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2500	101	mg/kg	08.13.2020 12:20		10

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.13.2020 17:10	Basis: Wet Weight
Seq Number: 3134576		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.14.2020 02:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	388	49.8	mg/kg	08.14.2020 02:17		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	53.6	49.8	mg/kg	08.14.2020 02:17		1
Total GRO-DRO	PHC628	388	49.8	mg/kg	08.14.2020 02:17		1
Total TPH	PHC635	442	49.8	mg/kg	08.14.2020 02:17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	08.14.2020 02:17	
o-Terphenyl	84-15-1	97	%	70-135	08.14.2020 02:17	



Certificate of Analytical Results 669902

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS03	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-003	Date Collected: 08.12.2020 09:25	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:09	Basis: Wet Weight
Seq Number: 3134544		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.2020 15:37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.2020 15:37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.2020 15:37	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.13.2020 15:37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.13.2020 15:37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.13.2020 15:37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.13.2020 15:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	08.13.2020 15:37	
1,4-Difluorobenzene	540-36-3	93	%	70-130	08.13.2020 15:37	



Certificate of Analytical Results 669902

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **FS04** Matrix: Soil Date Received: 08.12.2020 16:42
 Lab Sample Id: 669902-004 Date Collected: 08.12.2020 10:30 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.13.2020 10:13 Basis: Wet Weight
 Seq Number: 3134553

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8130	202	mg/kg	08.13.2020 12:26		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134576

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.14.2020 02:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	495	49.9	mg/kg	08.14.2020 02:57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	62.1	49.9	mg/kg	08.14.2020 02:57		1
Total GRO-DRO	PHC628	495	49.9	mg/kg	08.14.2020 02:57		1
Total TPH	PHC635	557	49.9	mg/kg	08.14.2020 02:57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	08.14.2020 02:57	
o-Terphenyl	84-15-1	95	%	70-135	08.14.2020 02:57	



Certificate of Analytical Results 669902

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS04	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-004	Date Collected: 08.12.2020 10:30	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:09	Basis: Wet Weight
Seq Number: 3134544		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.2020 15:58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.2020 15:58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.2020 15:58	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.13.2020 15:58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.13.2020 15:58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.13.2020 15:58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.13.2020 15:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	08.13.2020 15:58	
1,4-Difluorobenzene	540-36-3	94	%	70-130	08.13.2020 15:58	



Certificate of Analytical Results 669902

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **FS05** Matrix: Soil Date Received: 08.12.2020 16:42
 Lab Sample Id: 669902-005 Date Collected: 08.12.2020 10:35 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.13.2020 10:13 Basis: Wet Weight
 Seq Number: 3134553

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2200	100	mg/kg	08.13.2020 12:31		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134576

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	08.14.2020 03:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	908	50.1	mg/kg	08.14.2020 03:18		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	105	50.1	mg/kg	08.14.2020 03:18		1
Total GRO-DRO	PHC628	908	50.1	mg/kg	08.14.2020 03:18		1
Total TPH	PHC635	1010	50.1	mg/kg	08.14.2020 03:18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	08.14.2020 03:18	
o-Terphenyl	84-15-1	92	%	70-135	08.14.2020 03:18	



Certificate of Analytical Results 669902

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS05	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-005	Date Collected: 08.12.2020 10:35	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:09	Basis: Wet Weight
Seq Number: 3134544		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.13.2020 16:18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.13.2020 16:18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.13.2020 16:18	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.13.2020 16:18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.13.2020 16:18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.13.2020 16:18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.13.2020 16:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	08.13.2020 16:18	
4-Bromofluorobenzene	460-00-4	98	%	70-130	08.13.2020 16:18	



Certificate of Analytical Results 669902

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **FS06** Matrix: Soil Date Received: 08.12.2020 16:42
 Lab Sample Id: 669902-006 Date Collected: 08.12.2020 10:40 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.13.2020 10:13 Basis: Wet Weight
 Seq Number: 3134553

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1370	99.2	mg/kg	08.13.2020 12:48		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134576

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	08.14.2020 10:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	179	50.2	mg/kg	08.14.2020 10:45		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	08.14.2020 10:45	U	1
Total GRO-DRO	PHC628	179	50.2	mg/kg	08.14.2020 10:45		1
Total TPH	PHC635	179	50.2	mg/kg	08.14.2020 10:45		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	08.14.2020 10:45	
o-Terphenyl	84-15-1	100	%	70-135	08.14.2020 10:45	



Certificate of Analytical Results 669902

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS06	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-006	Date Collected: 08.12.2020 10:40	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:09	Basis: Wet Weight
Seq Number: 3134544		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.13.2020 16:39	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.13.2020 16:39	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.13.2020 16:39	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	08.13.2020 16:39	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.13.2020 16:39	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.13.2020 16:39	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.13.2020 16:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.13.2020 16:39	
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.13.2020 16:39	



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Nash 53 SWD

Sample Id: **FS07** Matrix: Soil Date Received: 08.12.2020 16:42
 Lab Sample Id: 669902-007 Date Collected: 08.12.2020 11:20 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.13.2020 10:13 Basis: Wet Weight
 Seq Number: 3134553

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3820	99.8	mg/kg	08.13.2020 12:54		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134576

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.14.2020 11:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	344	50.0	mg/kg	08.14.2020 11:06		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	50.7	50.0	mg/kg	08.14.2020 11:06		1
Total GRO-DRO	PHC628	344	50.0	mg/kg	08.14.2020 11:06		1
Total TPH	PHC635	395	50.0	mg/kg	08.14.2020 11:06		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	08.14.2020 11:06	
o-Terphenyl	84-15-1	100	%	70-135	08.14.2020 11:06	



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Sample Id: FS07	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-007	Date Collected: 08.12.2020 11:20	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:09	Basis: Wet Weight
Seq Number: 3134544		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.2020 16:59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.2020 16:59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.2020 16:59	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.13.2020 16:59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.13.2020 16:59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.13.2020 16:59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.13.2020 16:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.13.2020 16:59	
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.13.2020 16:59	



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Nash 53 SWD

Sample Id: **FS08** Matrix: Soil Date Received: 08.12.2020 16:42
 Lab Sample Id: 669902-008 Date Collected: 08.12.2020 11:25 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.13.2020 10:13 Basis: Wet Weight
 Seq Number: 3134553

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2930	99.6	mg/kg	08.13.2020 12:59		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134576

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.14.2020 11:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	413	49.9	mg/kg	08.14.2020 11:26		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	55.7	49.9	mg/kg	08.14.2020 11:26		1
Total GRO-DRO	PHC628	413	49.9	mg/kg	08.14.2020 11:26		1
Total TPH	PHC635	469	49.9	mg/kg	08.14.2020 11:26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	08.14.2020 11:26	
o-Terphenyl	84-15-1	98	%	70-135	08.14.2020 11:26	



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Sample Id: FS08	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-008	Date Collected: 08.12.2020 11:25	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:09	Basis: Wet Weight
Seq Number: 3134544		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.2020 17:20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.2020 17:20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.2020 17:20	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.13.2020 17:20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.13.2020 17:20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.13.2020 17:20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.13.2020 17:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	08.13.2020 17:20	
4-Bromofluorobenzene	460-00-4	99	%	70-130	08.13.2020 17:20	



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Nash 53 SWD

Sample Id: **FS09** Matrix: Soil Date Received: 08.12.2020 16:42
 Lab Sample Id: 669902-009 Date Collected: 08.12.2020 11:30 Sample Depth: 7 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.13.2020 10:13 Basis: Wet Weight
 Seq Number: 3134553

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3090	99.6	mg/kg	08.13.2020 13:05		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134576

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.14.2020 10:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.14.2020 10:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.14.2020 10:25	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	08.14.2020 10:25	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.14.2020 10:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	08.14.2020 10:25	
o-Terphenyl	84-15-1	95	%	70-135	08.14.2020 10:25	



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Nash 53 SWD

Sample Id: FS09	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-009	Date Collected: 08.12.2020 11:30	Sample Depth: 7 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:09	Basis: Wet Weight
Seq Number: 3134544		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.13.2020 17:40	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.13.2020 17:40	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.13.2020 17:40	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.13.2020 17:40	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.13.2020 17:40	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.13.2020 17:40	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.13.2020 17:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.13.2020 17:40	
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.13.2020 17:40	



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Nash 53 SWD

Sample Id: **FS10** Matrix: Soil Date Received: 08.12.2020 16:42
 Lab Sample Id: 669902-010 Date Collected: 08.12.2020 11:35 Sample Depth: 7 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.13.2020 10:13 Basis: Wet Weight
 Seq Number: 3134553

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3290	99.2	mg/kg	08.13.2020 13:11		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134576

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.13.2020 23:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.13.2020 23:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.13.2020 23:34	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	08.13.2020 23:34	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.13.2020 23:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	08.13.2020 23:34	
o-Terphenyl	84-15-1	96	%	70-135	08.13.2020 23:34	



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Sample Id: FS10	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-010	Date Collected: 08.12.2020 11:35	Sample Depth: 7 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:09	Basis: Wet Weight
Seq Number: 3134544		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.2020 18:01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.2020 18:01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.2020 18:01	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.13.2020 18:01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.13.2020 18:01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.13.2020 18:01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.13.2020 18:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	08.13.2020 18:01	
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.13.2020 18:01	



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Sample Id: FS11	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-011	Date Collected: 08.12.2020 12:30	Sample Depth: 7.5 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:13	Basis: Wet Weight
Seq Number: 3134553		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1110	49.7	mg/kg	08.13.2020 13:16		5

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.13.2020 17:10	Basis: Wet Weight
Seq Number: 3134576		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.14.2020 00:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.14.2020 00:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.14.2020 00:15	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	08.14.2020 00:15	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.14.2020 00:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	08.14.2020 00:15	
o-Terphenyl	84-15-1	95	%	70-135	08.14.2020 00:15	



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Sample Id: FS11	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-011	Date Collected: 08.12.2020 12:30	Sample Depth: 7.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:09	Basis: Wet Weight
Seq Number: 3134544		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.13.2020 19:16	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.13.2020 19:16	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.13.2020 19:16	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.13.2020 19:16	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.13.2020 19:16	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.13.2020 19:16	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.13.2020 19:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	08.13.2020 19:16	
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.13.2020 19:16	



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Sample Id: **FS12** Matrix: Soil Date Received: 08.12.2020 16:42
 Lab Sample Id: 669902-012 Date Collected: 08.12.2020 13:05 Sample Depth: 5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.13.2020 10:13 Basis: Wet Weight
 Seq Number: 3134553

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1500	100	mg/kg	08.13.2020 13:33		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134576

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.14.2020 00:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	303	49.9	mg/kg	08.14.2020 00:35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.14.2020 00:35	U	1
Total GRO-DRO	PHC628	303	49.9	mg/kg	08.14.2020 00:35		1
Total TPH	PHC635	303	49.9	mg/kg	08.14.2020 00:35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	08.14.2020 00:35	
o-Terphenyl	84-15-1	98	%	70-135	08.14.2020 00:35	



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Sample Id: FS12	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-012	Date Collected: 08.12.2020 13:05	Sample Depth: 5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:09	Basis: Wet Weight
Seq Number: 3134544		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.13.2020 19:37	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.13.2020 19:37	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.13.2020 19:37	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.13.2020 19:37	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.13.2020 19:37	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.13.2020 19:37	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.13.2020 19:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	08.13.2020 19:37	
1,4-Difluorobenzene	540-36-3	100	%	70-130	08.13.2020 19:37	



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Nash 53 SWD

Sample Id: **FS13** Matrix: Soil Date Received: 08.12.2020 16:42
 Lab Sample Id: 669902-013 Date Collected: 08.12.2020 13:10 Sample Depth: 5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.13.2020 10:13 Basis: Wet Weight
 Seq Number: 3134553

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1910	101	mg/kg	08.13.2020 13:39		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134576

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.14.2020 00:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	297	49.8	mg/kg	08.14.2020 00:56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.14.2020 00:56	U	1
Total GRO-DRO	PHC628	297	49.8	mg/kg	08.14.2020 00:56		1
Total TPH	PHC635	297	49.8	mg/kg	08.14.2020 00:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.14.2020 00:56	
o-Terphenyl	84-15-1	96	%	70-135	08.14.2020 00:56	



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Sample Id: FS13	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-013	Date Collected: 08.12.2020 13:10	Sample Depth: 5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:09	Basis: Wet Weight
Seq Number: 3134544		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.2020 19:57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.2020 19:57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.2020 19:57	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.13.2020 19:57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.13.2020 19:57	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.13.2020 19:57	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.13.2020 19:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.13.2020 19:57	
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.13.2020 19:57	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS14	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-014	Date Collected: 08.12.2020 13:15	Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:13	Basis: Wet Weight
Seq Number: 3134553		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1710	101	mg/kg	08.13.2020 13:55		10

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.13.2020 17:10	Basis: Wet Weight
Seq Number: 3134576		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	08.14.2020 01:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	232	50.1	mg/kg	08.14.2020 01:16		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	08.14.2020 01:16	U	1
Total GRO-DRO	PHC628	232	50.1	mg/kg	08.14.2020 01:16		1
Total TPH	PHC635	232	50.1	mg/kg	08.14.2020 01:16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.14.2020 01:16	
o-Terphenyl	84-15-1	101	%	70-135	08.14.2020 01:16	



Certificate of Analytical Results 669902

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS14	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-014	Date Collected: 08.12.2020 13:15	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:09	Basis: Wet Weight
Seq Number: 3134544		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.13.2020 20:18	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.13.2020 20:18	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.13.2020 20:18	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	08.13.2020 20:18	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.13.2020 20:18	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.13.2020 20:18	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.13.2020 20:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	08.13.2020 20:18	
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.13.2020 20:18	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS15** Matrix: Soil Date Received: 08.12.2020 16:42
 Lab Sample Id: 669902-015 Date Collected: 08.12.2020 13:20 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.13.2020 10:13 Basis: Wet Weight
 Seq Number: 3134553

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2180	101	mg/kg	08.13.2020 14:01		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134576

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	08.14.2020 01:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	202	50.1	mg/kg	08.14.2020 01:36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	08.14.2020 01:36	U	1
Total GRO-DRO	PHC628	202	50.1	mg/kg	08.14.2020 01:36		1
Total TPH	PHC635	202	50.1	mg/kg	08.14.2020 01:36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	08.14.2020 01:36	
o-Terphenyl	84-15-1	95	%	70-135	08.14.2020 01:36	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS15	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-015	Date Collected: 08.12.2020 13:20	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:09	Basis: Wet Weight
Seq Number: 3134544		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.13.2020 20:38	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.13.2020 20:38	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.13.2020 20:38	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	08.13.2020 20:38	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.13.2020 20:38	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.13.2020 20:38	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.13.2020 20:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.13.2020 20:38	
1,4-Difluorobenzene	540-36-3	97	%	70-130	08.13.2020 20:38	



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LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **FS16** Matrix: Soil Date Received: 08.12.2020 16:42
 Lab Sample Id: 669902-016 Date Collected: 08.12.2020 13:25 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.13.2020 10:13 Basis: Wet Weight
 Seq Number: 3134553

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	996	101	mg/kg	08.13.2020 14:06		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134576

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.14.2020 01:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	226	49.8	mg/kg	08.14.2020 01:56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.14.2020 01:56	U	1
Total GRO-DRO	PHC628	226	49.8	mg/kg	08.14.2020 01:56		1
Total TPH	PHC635	226	49.8	mg/kg	08.14.2020 01:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	08.14.2020 01:56	
o-Terphenyl	84-15-1	96	%	70-135	08.14.2020 01:56	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS16	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-016	Date Collected: 08.12.2020 13:25	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:09	Basis: Wet Weight
Seq Number: 3134544		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.13.2020 20:59	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.13.2020 20:59	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.13.2020 20:59	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.13.2020 20:59	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.13.2020 20:59	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.13.2020 20:59	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.13.2020 20:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	08.13.2020 20:59	
1,4-Difluorobenzene	540-36-3	96	%	70-130	08.13.2020 20:59	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS17** Matrix: Soil Date Received: 08.12.2020 16:42
 Lab Sample Id: 669902-017 Date Collected: 08.12.2020 14:05 Sample Depth: 10 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.13.2020 10:13 Basis: Wet Weight
 Seq Number: 3134553

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	82.7	9.94	mg/kg	08.13.2020 14:12		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134547

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.13.2020 21:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.13.2020 21:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.13.2020 21:13	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	08.13.2020 21:13	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.13.2020 21:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.13.2020 21:13	
o-Terphenyl	84-15-1	91	%	70-135	08.13.2020 21:13	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS17	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-017	Date Collected: 08.12.2020 14:05	Sample Depth: 10 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:09	Basis: Wet Weight
Seq Number: 3134544		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.2020 21:19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.2020 21:19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.2020 21:19	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.13.2020 21:19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.13.2020 21:19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.13.2020 21:19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.13.2020 21:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	08.13.2020 21:19	
1,4-Difluorobenzene	540-36-3	99	%	70-130	08.13.2020 21:19	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS18** Matrix: Soil Date Received: 08.12.2020 16:42
 Lab Sample Id: 669902-018 Date Collected: 08.12.2020 14:10 Sample Depth: 10 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.13.2020 10:13 Basis: Wet Weight
 Seq Number: 3134553

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	96.4	9.96	mg/kg	08.13.2020 14:18		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134547

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.13.2020 21:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.13.2020 21:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.13.2020 21:33	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	08.13.2020 21:33	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.13.2020 21:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.13.2020 21:33	
o-Terphenyl	84-15-1	90	%	70-135	08.13.2020 21:33	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS18	Matrix: Soil	Date Received: 08.12.2020 16:42
Lab Sample Id: 669902-018	Date Collected: 08.12.2020 14:10	Sample Depth: 10 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.13.2020 10:09	Basis: Wet Weight
Seq Number: 3134544		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.13.2020 21:39	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.13.2020 21:39	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.13.2020 21:39	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	08.13.2020 21:39	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.13.2020 21:39	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.13.2020 21:39	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.13.2020 21:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	08.13.2020 21:39	
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.13.2020 21:39	



LT Environmental, Inc.
Nash 53 SWD

Analytical Method: Chloride by EPA 300

Seq Number: 3134553
MB Sample Id: 7709364-1-BLK

Matrix: Solid
LCS Sample Id: 7709364-1-BKS

Prep Method: E300P
Date Prep: 08.13.2020
LCSD Sample Id: 7709364-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	265	106	265	106	90-110	0	20	mg/kg	08.13.2020 11:47	

Analytical Method: Chloride by EPA 300

Seq Number: 3134553
Parent Sample Id: 669902-001

Matrix: Soil
MS Sample Id: 669902-001 S

Prep Method: E300P
Date Prep: 08.13.2020
MSD Sample Id: 669902-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2080	201	2300	109	2290	106	90-110	0	20	mg/kg	08.13.2020 12:04	

Analytical Method: Chloride by EPA 300

Seq Number: 3134553
Parent Sample Id: 669902-011

Matrix: Soil
MS Sample Id: 669902-011 S

Prep Method: E300P
Date Prep: 08.13.2020
MSD Sample Id: 669902-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1110	201	1290	90	1290	90	90-110	0	20	mg/kg	08.13.2020 13:22	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134547
MB Sample Id: 7709452-1-BLK

Matrix: Solid
LCS Sample Id: 7709452-1-BKS

Prep Method: SW8015P
Date Prep: 08.13.2020
LCSD Sample Id: 7709452-1-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	876	88	906	91	70-135	3	35	mg/kg	08.13.2020 19:12	
Diesel Range Organics (DRO)	<50.0	1000	919	92	936	94	70-135	2	35	mg/kg	08.13.2020 19:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		113		115		70-135	%	08.13.2020 19:12
o-Terphenyl	107		105		105		70-135	%	08.13.2020 19:12

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134576
MB Sample Id: 7709462-1-BLK

Matrix: Solid
LCS Sample Id: 7709462-1-BKS

Prep Method: SW8015P
Date Prep: 08.13.2020
LCSD Sample Id: 7709462-1-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	1020	102	1040	104	70-135	2	35	mg/kg	08.13.2020 19:12	
Diesel Range Organics (DRO)	<50.0	1000	1060	106	1070	107	70-135	1	35	mg/kg	08.13.2020 19:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		132		132		70-135	%	08.13.2020 19:12
o-Terphenyl	115		119		116		70-135	%	08.13.2020 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.
Nash 53 SWD

Analytical Method: TPH by SW8015 Mod
Seq Number: 3134547

Matrix: Solid
MB Sample Id: 7709452-1-BLK

Prep Method: SW8015P
Date Prep: 08.13.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.13.2020 18:52	

Analytical Method: TPH by SW8015 Mod
Seq Number: 3134576

Matrix: Solid
MB Sample Id: 7709462-1-BLK

Prep Method: SW8015P
Date Prep: 08.13.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.13.2020 18:52	

Analytical Method: TPH by SW8015 Mod
Seq Number: 3134547

Matrix: Soil
MS Sample Id: 669943-001 S

Prep Method: SW8015P
Date Prep: 08.13.2020
MSD Sample Id: 669943-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	995	883	89	914	90	70-135	3	35	mg/kg	08.13.2020 20:12	
Diesel Range Organics (DRO)	<49.8	995	921	93	947	94	70-135	3	35	mg/kg	08.13.2020 20:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		107		70-135	%	08.13.2020 20:12
o-Terphenyl	94		97		70-135	%	08.13.2020 20:12

Analytical Method: TPH by SW8015 Mod
Seq Number: 3134576

Matrix: Soil
MS Sample Id: 669663-004 S

Prep Method: SW8015P
Date Prep: 08.13.2020
MSD Sample Id: 669663-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	995	972	98	1010	101	70-135	4	35	mg/kg	08.13.2020 20:12	
Diesel Range Organics (DRO)	<49.8	995	987	99	1020	102	70-135	3	35	mg/kg	08.13.2020 20:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	134		131		70-135	%	08.13.2020 20:12
o-Terphenyl	119		119		70-135	%	08.13.2020 20:12

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.
Nash 53 SWD

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134544

MB Sample Id: 7709363-1-BLK

Matrix: Solid

LCS Sample Id: 7709363-1-BKS

Prep Method: SW5035A

Date Prep: 08.13.2020

LCSD Sample Id: 7709363-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0959	96	0.0956	96	70-130	0	35	mg/kg	08.13.2020 12:59	
Toluene	<0.00200	0.100	0.0902	90	0.0919	92	70-130	2	35	mg/kg	08.13.2020 12:59	
Ethylbenzene	<0.00200	0.100	0.0946	95	0.0957	96	71-129	1	35	mg/kg	08.13.2020 12:59	
m,p-Xylenes	<0.00400	0.200	0.191	96	0.193	97	70-135	1	35	mg/kg	08.13.2020 12:59	
o-Xylene	<0.00200	0.100	0.0937	94	0.0969	97	71-133	3	35	mg/kg	08.13.2020 12:59	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		93		102		70-130	%	08.13.2020 12:59
4-Bromofluorobenzene	104		90		99		70-130	%	08.13.2020 12:59

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134544

Parent Sample Id: 669902-001

Matrix: Soil

MS Sample Id: 669902-001 S

Prep Method: SW5035A

Date Prep: 08.13.2020

MSD Sample Id: 669902-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.107	106	0.0967	97	70-130	10	35	mg/kg	08.13.2020 13:40	
Toluene	<0.00202	0.101	0.0949	94	0.0911	91	70-130	4	35	mg/kg	08.13.2020 13:40	
Ethylbenzene	<0.00202	0.101	0.0826	82	0.0922	92	71-129	11	35	mg/kg	08.13.2020 13:40	
m,p-Xylenes	<0.00403	0.202	0.161	80	0.185	93	70-135	14	35	mg/kg	08.13.2020 13:40	
o-Xylene	<0.00202	0.101	0.0821	81	0.0953	95	71-133	15	35	mg/kg	08.13.2020 13:40	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		102		70-130	%	08.13.2020 13:40
4-Bromofluorobenzene	97		98		70-130	%	08.13.2020 13:40

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

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) 585-3449 Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000

Work Order No: 1619902

www.xenco.com Page 1 of 2

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:	522 West Mermond
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	bnakata@ltenv.com, dnmol@ltenv.com

Program: UST/PST	<input type="checkbox"/> RP	<input type="checkbox"/> Brownfields	<input type="checkbox"/> RC	<input type="checkbox"/> Superfund
State of Project:				
Reporting Level II	<input type="checkbox"/> Level III	<input type="checkbox"/> ST/UST	<input type="checkbox"/> RP	<input type="checkbox"/> Level IV
Deliverables: EDD	<input type="checkbox"/>	ADAPT	<input type="checkbox"/>	Other: <input type="checkbox"/>

Project Name:	<u>Nesh 53 SWD</u>	Turn Around	<u>2 days</u>
Project Number:	<u>012919139</u>	Routine	<input checked="" type="checkbox"/>
P.O. Number:		Rush:	<u>2 day</u>
Sampler's Name:	<u>Elizabeth Naka</u>	Due Date:	

Temp Blank:	<u>Yes</u>	Wet Ice:	<u>Yes</u>
Temperature (°C):	<u>1.0/1.4</u>	Thermometer ID	
Received Inact:	<u>Yes</u>	Correction Factor:	<u>1.0000-0.00</u>
Cooler Custody Seals:	<u>Yes</u>	Total Containers:	<u>18</u>
Sample Custody Seals:	<u>Yes</u>		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST																Work Order Notes
FS01	S	08/12/20	08:22	4'	1	X	X	X																	
FS02	S	08/12/20	08:15	4'	1	X	X	X																	
FS03	S	08/12/20	08:25	4'	1	X	X	X																	
FS04	S	08/12/20	08:30	4'	1	X	X	X																	
FS05	S	08/12/20	08:35	4'	1	X	X	X																	
FS06	S	08/12/20	08:40	4'	1	X	X	X																	
FS07	S	08/12/20	08:40	4'	1	X	X	X																	
FS08	S	08/12/20	08:45	4'	1	X	X	X																	
FS09	S	08/12/20	08:50	4'	1	X	X	X																	
FS10	S	08/12/20	08:55	4'	1	X	X	X																	

Total 200.7 / 6010 200.8 / 6020 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb 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

Office: 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 to 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
<i>Elizabeth Naka</i>	<i>[Signature]</i>	08/12/20 10:12			



Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7560 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 820-2000

Work Order No: 1609902

www.xenco.com Page 2 of 2

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Litrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 West Mermond
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	genaka@ltenv.com, dmoir@ltenv.com

Program: UST/PST RP Brownfields RC Superfund

State of Project: Level I Level II Level III FT/UST RP Level IV

Reporting Level: EDD ADAPT Other: _____

Project Name: Musk 53 SWD Turn Around _____

Project Number: 012919139 Routine

P.O. Number: _____ Rush: Zdy

Sampler's Name: Elizabeth Naka Due Date: _____

SAMPLE RECEIPT

Temperature (°C): _____ Temp Blank: Yes No Wet Ice: Yes No

Received Intact: Yes No Thermometer ID: _____

Cooler Custody Seals: Yes No Correction Factor: _____

Sample Custody Seals: Yes No Total Containers: _____

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	Work Order Notes
FS11	S	08/12/20	12:50	7.5'	1	X	X	X	
FS12	S	08/12/20	13:05	5'	1	X	X	X	
FS13	S	08/12/20	13:10	5'	1	X	X	X	
FS14	S	08/12/20	13:15	4'	1	X	X	X	
FS15	S	08/12/20	13:20	4'	1	X	X	X	
FS16	S	08/12/20	13:25	4'	1	X	X	X	
FS17	S	08/12/20	14:05	10'	1	X	X	X	
FS18	S	08/12/20	14:10	10'	1	X	X	X	

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

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
<i>[Signature]</i>	<i>[Signature]</i>	8/12/20 10:47L			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08.12.2020 04.42.00 PM

Work Order #: 669902

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)?	1.4	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	Yes	
#6*Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	Samples received in bulk containers.
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	No	
#18 Water VOC samples have zero headspace?	N/A	

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 08.12.2020

Checklist reviewed by:



Jessica Kramer

Date: 08.13.2020

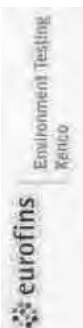
Certificate of Analysis Summary 670038

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Date Received in Lab: Thu 08.13.2020 16:01
Report Date: 08.17.2020 11:22
Project Manager: Jessica Kramer

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County



Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	670038-001	670038-002	670038-003	670038-004	670038-005
Analysis Requested									
BTEX by EPA 8021B									
Extracted:	08.14.2020 08:47	08.14.2020 08:47	08.14.2020 08:47	08.14.2020 08:47	08.14.2020 08:47	08.14.2020 08:47	08.14.2020 08:47	08.14.2020 08:47	08.14.2020 08:47
Analyzed:	08.14.2020 19:17	08.14.2020 19:40	08.14.2020 20:35	08.14.2020 21:53	08.14.2020 20:35	08.14.2020 20:35	08.14.2020 21:53	08.14.2020 22:49	08.14.2020 22:49
Units/RL:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	<0.00198	0.00198	0.00198	0.00198	<0.00198	0.00248	<0.00240	0.00240	<0.00250
Toluene	<0.00198	0.00198	0.00198	0.00198	<0.00198	0.00248	<0.00240	0.00240	<0.00250
Ethylbenzene	<0.00198	0.00198	0.00198	0.00198	<0.00198	0.00990	<0.00962	0.00962	<0.01000
m,p-Xylenes	<0.00395	0.00395	0.00397	0.00397	<0.00397	0.0198	<0.0192	0.0192	<0.02000
o-Xylene	<0.00198	0.00198	0.00198	0.00198	<0.00198	0.00990	<0.00962	0.00962	<0.01000
Total Xylenes	<0.00198	0.00198	0.00198	0.00198	<0.00198	0.00990	<0.00962	0.00962	<0.01000
Total BTEX	<0.00198	0.00198	0.00198	0.00198	<0.00198	0.00248	<0.00240	0.00240	<0.00250
Chloride by EPA 300									
Extracted:	08.14.2020 11:00	08.14.2020 11:00	08.14.2020 11:00	08.14.2020 11:00	08.14.2020 11:00	08.14.2020 11:00	08.14.2020 11:00	08.14.2020 11:00	08.14.2020 11:00
Analyzed:	08.14.2020 15:31	08.14.2020 15:37	08.14.2020 15:53	08.14.2020 15:59	08.14.2020 15:31	08.14.2020 15:53	08.14.2020 15:59	08.14.2020 16:16	08.14.2020 16:16
Units/RL:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloride	4680	200	202	202	3970	202	10900	200	931
Chloride by EPA 300									
Extracted:	08.14.2020 11:00	08.14.2020 11:00	08.14.2020 11:00	08.14.2020 11:00	08.14.2020 11:00	08.14.2020 11:00	08.14.2020 11:00	08.14.2020 11:00	08.14.2020 11:00
Analyzed:	08.14.2020 15:42	08.14.2020 15:48	08.14.2020 15:48	08.14.2020 15:48	08.14.2020 15:48	08.14.2020 15:48	08.14.2020 15:48	08.14.2020 15:48	08.14.2020 15:48
Units/RL:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloride	4690	200	202	202	3960	202	10900	200	931
TPH by SW8015 Mod									
Extracted:	08.13.2020 17:10	08.13.2020 17:10	08.13.2020 17:10	08.13.2020 17:10	08.13.2020 17:10	08.13.2020 17:10	08.13.2020 17:10	08.13.2020 17:10	08.13.2020 17:10
Analyzed:	08.14.2020 02:57	08.14.2020 01:56	08.14.2020 03:18	08.14.2020 02:17	08.14.2020 03:18	08.14.2020 03:18	08.14.2020 02:17	08.14.2020 02:37	08.14.2020 02:37
Units/RL:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Gasoline Range Hydrocarbons (GRO)	<50.0	50.0	50.3	50.1	<50.1	50.1	<50.2	50.2	<50.3
Diesel Range Organics (DRO)	1060	50.0	1730	50.1	1730	50.1	1020	50.2	<50.3
Motor Oil Range Hydrocarbons (MRO)	146	50.0	219	50.1	219	50.1	132	50.2	<50.3
Total GRO-DRO	1060	50.0	1730	50.1	1730	50.1	1020	50.2	<50.3
Total TPH	1210	50.0	1900	50.1	1950	50.1	1150	50.2	<50.3

Jessica Kramer

BRL - Below Reporting Limit
 Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Analytical Report 670038

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash 53 SWD

012919139

08.17.2020

Collected By: Client

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

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

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

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



08.17.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **670038**
Nash 53 SWD
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 Eurofins Xenco, LLC Report Number(s) 670038. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 670038 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer
Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 670038

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW01	S	08.13.2020 08:40	0 - 4 ft	670038-001
SW02	S	08.13.2020 08:45	0 - 4 ft	670038-002
SW03	S	08.13.2020 08:50	0 - 7 ft	670038-003
SW04	S	08.13.2020 08:55	0 - 4 ft	670038-004
PH11D	S	08.13.2020 10:05	13.5 ft	670038-005

CASE NARRATIVE



Client Name: LT Environmental, Inc.

Project Name: Nash 53 SWD

Project ID: 012919139
Work Order Number(s): 670038

Report Date: 08.17.2020
Date Received: 08.13.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 670038

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **SW01** Matrix: Soil Date Received: 08.13.2020 16:01
 Lab Sample Id: 670038-001 Date Collected: 08.13.2020 08:40 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.14.2020 11:00 Basis: Wet Weight
 Seq Number: 3134602

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4680	200	mg/kg	08.14.2020 15:31		20
Chloride	16887-00-6	4690	200	mg/kg	08.14.2020 15:42		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134547

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.14.2020 02:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	1060	50.0	mg/kg	08.14.2020 02:57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	146	50.0	mg/kg	08.14.2020 02:57		1
Total GRO-DRO	PHC628	1060	50.0	mg/kg	08.14.2020 02:57		1
Total TPH	PHC635	1210	50.0	mg/kg	08.14.2020 02:57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	08.14.2020 02:57	
o-Terphenyl	84-15-1	92	%	70-135	08.14.2020 02:57	



Certificate of Analytical Results 670038

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW01	Matrix: Soil	Date Received: 08.13.2020 16:01
Lab Sample Id: 670038-001	Date Collected: 08.13.2020 08:40	Sample Depth: 0 - 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.14.2020 08:47	Basis: Wet Weight
Seq Number: 3134693		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.14.2020 19:17	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.14.2020 19:17	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.14.2020 19:17	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	08.14.2020 19:17	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.14.2020 19:17	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.14.2020 19:17	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.14.2020 19:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	08.14.2020 19:17	
4-Bromofluorobenzene	460-00-4	128	%	70-130	08.14.2020 19:17	



Certificate of Analytical Results 670038

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **SW02** Matrix: Soil Date Received: 08.13.2020 16:01
 Lab Sample Id: 670038-002 Date Collected: 08.13.2020 08:45 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.14.2020 11:00 Basis: Wet Weight
 Seq Number: 3134602

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3970	202	mg/kg	08.14.2020 15:37		20
Chloride	16887-00-6	3960	202	mg/kg	08.14.2020 15:48		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134547

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	08.14.2020 01:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	1730	50.3	mg/kg	08.14.2020 01:56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	173	50.3	mg/kg	08.14.2020 01:56		1
Total GRO-DRO	PHC628	1730	50.3	mg/kg	08.14.2020 01:56		1
Total TPH	PHC635	1900	50.3	mg/kg	08.14.2020 01:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.14.2020 01:56	
o-Terphenyl	84-15-1	96	%	70-135	08.14.2020 01:56	



Certificate of Analytical Results 670038

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW02	Matrix: Soil	Date Received: 08.13.2020 16:01
Lab Sample Id: 670038-002	Date Collected: 08.13.2020 08:45	Sample Depth: 0 - 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.14.2020 08:47	Basis: Wet Weight
Seq Number: 3134693		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.14.2020 19:40	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.14.2020 19:40	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.14.2020 19:40	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.14.2020 19:40	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.14.2020 19:40	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.14.2020 19:40	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.14.2020 19:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.14.2020 19:40	
1,4-Difluorobenzene	540-36-3	99	%	70-130	08.14.2020 19:40	



Certificate of Analytical Results 670038

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **SW03** Matrix: Soil Date Received: 08.13.2020 16:01
 Lab Sample Id: 670038-003 Date Collected: 08.13.2020 08:50 Sample Depth: 0 - 7 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.14.2020 11:00 Basis: Wet Weight
 Seq Number: 3134602

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3180	202	mg/kg	08.14.2020 15:53		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134547

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	08.14.2020 03:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	1730	50.1	mg/kg	08.14.2020 03:18		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	219	50.1	mg/kg	08.14.2020 03:18		1
Total GRO-DRO	PHC628	1730	50.1	mg/kg	08.14.2020 03:18		1
Total TPH	PHC635	1950	50.1	mg/kg	08.14.2020 03:18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	08.14.2020 03:18	
o-Terphenyl	84-15-1	96	%	70-135	08.14.2020 03:18	



Certificate of Analytical Results 670038

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW03	Matrix: Soil	Date Received: 08.13.2020 16:01
Lab Sample Id: 670038-003	Date Collected: 08.13.2020 08:50	Sample Depth: 0 - 7 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.14.2020 08:47	Basis: Wet Weight
Seq Number: 3134693		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00248	0.00248	mg/kg	08.14.2020 20:35	U	1
Toluene	108-88-3	<0.00248	0.00248	mg/kg	08.14.2020 20:35	U	1
Ethylbenzene	100-41-4	<0.00990	0.00990	mg/kg	08.14.2020 20:35	U	1
m,p-Xylenes	179601-23-1	<0.0198	0.0198	mg/kg	08.14.2020 20:35	U	1
o-Xylene	95-47-6	<0.00990	0.00990	mg/kg	08.14.2020 20:35	U	1
Total Xylenes	1330-20-7	<0.00990	0.00990	mg/kg	08.14.2020 20:35	U	1
Total BTEX		<0.00248	0.00248	mg/kg	08.14.2020 20:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	08.14.2020 20:35	
4-Bromofluorobenzene	460-00-4	90	%	70-130	08.14.2020 20:35	



Certificate of Analytical Results 670038

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **SW04** Matrix: Soil Date Received: 08.13.2020 16:01
 Lab Sample Id: 670038-004 Date Collected: 08.13.2020 08:55 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.14.2020 11:00 Basis: Wet Weight
 Seq Number: 3134602

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10900	200	mg/kg	08.14.2020 15:59		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134547

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	08.14.2020 02:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	1020	50.2	mg/kg	08.14.2020 02:17		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	132	50.2	mg/kg	08.14.2020 02:17		1
Total GRO-DRO	PHC628	1020	50.2	mg/kg	08.14.2020 02:17		1
Total TPH	PHC635	1150	50.2	mg/kg	08.14.2020 02:17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	08.14.2020 02:17	
o-Terphenyl	84-15-1	90	%	70-135	08.14.2020 02:17	



Certificate of Analytical Results 670038

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW04	Matrix: Soil	Date Received: 08.13.2020 16:01
Lab Sample Id: 670038-004	Date Collected: 08.13.2020 08:55	Sample Depth: 0 - 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.14.2020 08:47	Basis: Wet Weight
Seq Number: 3134693		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00240	0.00240	mg/kg	08.14.2020 21:53	U	1
Toluene	108-88-3	<0.00240	0.00240	mg/kg	08.14.2020 21:53	U	1
Ethylbenzene	100-41-4	<0.00962	0.00962	mg/kg	08.14.2020 21:53	U	1
m,p-Xylenes	179601-23-1	<0.0192	0.0192	mg/kg	08.14.2020 21:53	U	1
o-Xylene	95-47-6	<0.00962	0.00962	mg/kg	08.14.2020 21:53	U	1
Total Xylenes	1330-20-7	<0.00962	0.00962	mg/kg	08.14.2020 21:53	U	1
Total BTEX		<0.00240	0.00240	mg/kg	08.14.2020 21:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	08.14.2020 21:53	
4-Bromofluorobenzene	460-00-4	92	%	70-130	08.14.2020 21:53	



Certificate of Analytical Results 670038

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **PH11D** Matrix: Soil Date Received: 08.13.2020 16:01
 Lab Sample Id: 670038-005 Date Collected: 08.13.2020 10:05 Sample Depth: 13.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.14.2020 11:00 Basis: Wet Weight
 Seq Number: 3134602

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	931	100	mg/kg	08.14.2020 16:16		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.13.2020 17:10 Basis: Wet Weight
 Seq Number: 3134547

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	08.14.2020 02:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	08.14.2020 02:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	08.14.2020 02:37	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	08.14.2020 02:37	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	08.14.2020 02:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	08.14.2020 02:37	
o-Terphenyl	84-15-1	83	%	70-135	08.14.2020 02:37	



Certificate of Analytical Results 670038

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH11D	Matrix: Soil	Date Received: 08.13.2020 16:01
Lab Sample Id: 670038-005	Date Collected: 08.13.2020 10:05	Sample Depth: 13.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.14.2020 08:47	Basis: Wet Weight
Seq Number: 3134693		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00250	0.00250	mg/kg	08.14.2020 22:49	U	1
Toluene	108-88-3	<0.00250	0.00250	mg/kg	08.14.2020 22:49	U	1
Ethylbenzene	100-41-4	<0.0100	0.0100	mg/kg	08.14.2020 22:49	U	1
m,p-Xylenes	179601-23-1	<0.0200	0.0200	mg/kg	08.14.2020 22:49	U	1
o-Xylene	95-47-6	<0.0100	0.0100	mg/kg	08.14.2020 22:49	U	1
Total Xylenes	1330-20-7	<0.0100	0.0100	mg/kg	08.14.2020 22:49	U	1
Total BTEX		<0.00250	0.00250	mg/kg	08.14.2020 22:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.14.2020 22:49	
4-Bromofluorobenzene	460-00-4	95	%	70-130	08.14.2020 22:49	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.
Nash 53 SWD

Analytical Method: Chloride by EPA 300

Seq Number: 3134602
MB Sample Id: 7709464-1-BLK

Matrix: Solid
LCS Sample Id: 7709464-1-BKS

Prep Method: E300P
Date Prep: 08.14.2020
LCSD Sample Id: 7709464-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	260	104	263	105	90-110	1	20	mg/kg	08.14.2020 12:29	

Analytical Method: Chloride by EPA 300

Seq Number: 3134602
Parent Sample Id: 670038-004

Matrix: Soil
MS Sample Id: 670038-004 S

Prep Method: E300P
Date Prep: 08.14.2020
MSD Sample Id: 670038-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10900	198	11100	101	11100	101	90-110	0	20	mg/kg	08.14.2020 16:04	

Analytical Method: Chloride by EPA 300

Seq Number: 3134602
Parent Sample Id: 670079-003

Matrix: Soil
MS Sample Id: 670079-003 S

Prep Method: E300P
Date Prep: 08.14.2020
MSD Sample Id: 670079-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	13.7	200	208	97	211	99	90-110	1	20	mg/kg	08.14.2020 14:18	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134547
MB Sample Id: 7709452-1-BLK

Matrix: Solid
LCS Sample Id: 7709452-1-BKS

Prep Method: SW8015P
Date Prep: 08.13.2020
LCSD Sample Id: 7709452-1-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	876	88	906	91	70-135	3	35	mg/kg	08.13.2020 19:12	
Diesel Range Organics (DRO)	<50.0	1000	919	92	936	94	70-135	2	35	mg/kg	08.13.2020 19:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		113		115		70-135	%	08.13.2020 19:12
o-Terphenyl	107		105		105		70-135	%	08.13.2020 19:12

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134547
MB Sample Id: 7709452-1-BLK

Matrix: Solid

Prep Method: SW8015P
Date Prep: 08.13.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.13.2020 18:52	

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.
Nash 53 SWD

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134547
Parent Sample Id: 669943-001

Matrix: Soil
MS Sample Id: 669943-001 S

Prep Method: SW8015P
Date Prep: 08.13.2020
MSD Sample Id: 669943-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	995	883	89	914	90	70-135	3	35	mg/kg	08.13.2020 20:12	
Diesel Range Organics (DRO)	<49.8	995	921	93	947	94	70-135	3	35	mg/kg	08.13.2020 20:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		107		70-135	%	08.13.2020 20:12
o-Terphenyl	94		97		70-135	%	08.13.2020 20:12

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134693
MB Sample Id: 7709453-1-BLK

Matrix: Solid
LCS Sample Id: 7709453-1-BKS

Prep Method: SW5035A
Date Prep: 08.14.2020
LCSD Sample Id: 7709453-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.110	110	0.101	101	70-130	9	35	mg/kg	08.14.2020 14:03	
Toluene	<0.00200	0.100	0.105	105	0.0961	96	70-130	9	35	mg/kg	08.14.2020 14:03	
Ethylbenzene	<0.00200	0.100	0.0978	98	0.0893	89	71-129	9	35	mg/kg	08.14.2020 14:03	
m,p-Xylenes	<0.00400	0.200	0.198	99	0.181	91	70-135	9	35	mg/kg	08.14.2020 14:03	
o-Xylene	<0.00200	0.100	0.0981	98	0.0896	90	71-133	9	35	mg/kg	08.14.2020 14:03	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		98		98		70-130	%	08.14.2020 14:03
4-Bromofluorobenzene	93		98		98		70-130	%	08.14.2020 14:03

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134693
Parent Sample Id: 669976-001

Matrix: Soil
MS Sample Id: 669976-001 S

Prep Method: SW5035A
Date Prep: 08.14.2020
MSD Sample Id: 669976-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.105	105	0.105	105	70-130	0	35	mg/kg	08.15.2020 01:59	
Toluene	<0.00199	0.0996	0.100	100	0.0999	100	70-130	0	35	mg/kg	08.15.2020 01:59	
Ethylbenzene	<0.00199	0.0996	0.0958	96	0.0926	93	71-129	3	35	mg/kg	08.15.2020 01:59	
m,p-Xylenes	<0.00398	0.199	0.188	94	0.188	94	70-135	0	35	mg/kg	08.15.2020 01:59	
o-Xylene	<0.00199	0.0996	0.0936	94	0.0933	94	71-133	0	35	mg/kg	08.15.2020 01:59	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		100		70-130	%	08.15.2020 01:59
4-Bromofluorobenzene	101		99		70-130	%	08.15.2020 01:59

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



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8900 Tampa, FL (813) 620-2000

Chain of Custody

Work Order No: U70038

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Litrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 West Memrod
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	emakka@lertv.com, dlmoir@lertv.com

Program: UST/PST RP Brownfields RC Superfund
 State of Project: Level I Level II Level III FT/UST RP Level IV
 Reporting Level: EDD ADAPT Other: _____

Project Name: Nash 535WD Turn Around: _____
 Project Number: 01211139 Routine:
 P.O. Number: _____ Rush: 7 Day
 Sampler's Name: Elizabeth Nakka Due Date: _____

SAMPLE RECEIPT Temp Blank: Yes No Wet Ice: Yes No
 Temperature (°C): 26/24 Thermometer ID: _____
 Received Intact: Yes No Correction Factor: -0.2
 Cooler Custody Seals: Yes No Total Containers: 5
 Sample Custody Seals: Yes No

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers			Sample Comments
					TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	
SW01	S	08/15/20	0845	0'-4'	X	X	X	Comp. pers. H ₂
SW02	S	0815/20	0845	0'-4'	X	X	X	
SW03	S	0815/20	0855	0'-7'	X	X	X	
SW04	S	0815/20	0855	0'-4'	X	X	X	d'south
PH110	S	0815/20	0855	13.5'	X	X	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr 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>Elizabeth Nakka</u>	<u>Chae Opa</u>	<u>8/13/20 4:08</u>			
		<u>1601</u>			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08.13.2020 04.01.00 PM

Work Order #: 670038

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

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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 08.13.2020

Checklist reviewed by:



Jessica Kramer

Date: 08.14.2020

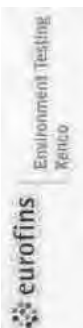
Certificate of Analysis Summary 670227

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Mon 08.17.2020 15:47
Report Date: 08.19.2020 10:50
Project Manager: Jessica Kramer



<i>Lab Id:</i>		670227-001		670227-002		670227-003		670227-004		670227-005		670227-006	
<i>Field Id:</i>		FS01A		FS02A		FS03A		FS04A		FS05A		FS06A	
<i>Depth:</i>		5- ft		5- ft		5- ft		5- ft		5- ft		5- ft	
<i>Matrix:</i>		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
<i>Sampled:</i>		08.17.2020 09:40		08.17.2020 09:45		08.17.2020 10:35		08.17.2020 10:40		08.17.2020 10:45		08.17.2020 10:50	
BTEX by EPA 8021B													
<i>Extracted:</i>		08.17.2020 17:24		08.17.2020 17:24		08.17.2020 17:24		08.17.2020 17:24		08.17.2020 17:24		08.17.2020 17:24	
<i>Analyzed:</i>		08.17.2020 20:39		08.17.2020 20:59		08.17.2020 21:19		08.17.2020 21:40		08.17.2020 22:00		08.17.2020 22:20	
<i>Units/RL:</i>		mg/kg RL		mg/kg RL		mg/kg RL		mg/kg RL		mg/kg RL		mg/kg RL	
Benzene		<0.00200 0.00200		<0.00201 0.00201		<0.00200 0.00200		<0.00198 0.00198		<0.00202 0.00202		<0.00200 0.00200	
Toluene		<0.00200 0.00200		<0.00201 0.00201		<0.00200 0.00200		<0.00198 0.00198		<0.00202 0.00202		<0.00200 0.00200	
Ethylbenzene		<0.00200 0.00200		<0.00201 0.00201		<0.00200 0.00200		<0.00198 0.00198		<0.00202 0.00202		<0.00200 0.00200	
m,p-Xylenes		<0.00399 0.00399		<0.00402 0.00402		<0.00399 0.00399		<0.00396 0.00396		<0.00403 0.00403		<0.00401 0.00401	
o-Xylene		<0.00200 0.00200		<0.00201 0.00201		<0.00200 0.00200		<0.00198 0.00198		<0.00202 0.00202		<0.00200 0.00200	
Total Xylenes		<0.00200 0.00200		<0.00201 0.00201		<0.00200 0.00200		<0.00198 0.00198		<0.00202 0.00202		<0.00200 0.00200	
Total BTEX		<0.00200 0.00200		<0.00201 0.00201		<0.00200 0.00200		<0.00198 0.00198		<0.00202 0.00202		<0.00200 0.00200	
Select Anions By EPA 300													
<i>Extracted:</i>		08.18.2020 12:39		08.18.2020 12:39		08.18.2020 12:39		08.18.2020 12:39		08.18.2020 12:39		08.18.2020 12:39	
<i>Analyzed:</i>		*** ** ** **		08.18.2020 12:40		08.18.2020 12:46		08.18.2020 12:51		08.18.2020 12:57		08.18.2020 13:13	
<i>Units/RL:</i>		mg/kg RL		mg/kg RL		mg/kg RL		mg/kg RL		mg/kg RL		mg/kg RL	
Chloride		2680 49.6		1010 49.6		863 49.7		474 50.1		441 50.2		392 50.1	
TPH by SW8015 Mod													
<i>Extracted:</i>		08.17.2020 16:30		08.17.2020 16:30		08.17.2020 16:30		08.17.2020 16:30		08.17.2020 16:30		08.17.2020 16:30	
<i>Analyzed:</i>		08.17.2020 17:22		08.17.2020 18:22		08.17.2020 18:43		08.17.2020 19:03		08.17.2020 19:23		08.17.2020 19:44	
<i>Units/RL:</i>		mg/kg RL		mg/kg RL		mg/kg RL		mg/kg RL		mg/kg RL		mg/kg RL	
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8		<49.9 49.9		<50.3 50.3		<49.9 49.9		<49.8 49.8		<49.9 49.9	
Diesel Range Organics (DRO)		<49.8 49.8		60.1 49.9		59.6 50.3		<49.9 49.9		<49.8 49.8		<49.9 49.9	
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8		<49.9 49.9		<50.3 50.3		<49.9 49.9		<49.8 49.8		<49.9 49.9	
Total GRO-DRO		<49.8 49.8		60.1 49.9		59.6 50.3		<49.9 49.9		<49.8 49.8		<49.9 49.9	
Total TPH		<49.8 49.8		60.1 49.9		59.6 50.3		<49.9 49.9		<49.8 49.8		<49.9 49.9	

Jessica Kramer

BRL - Below Reporting Limit

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Certificate of Analysis Summary 670227

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Mon 08.17.2020 15:47
Report Date: 08.19.2020 10:50
Project Manager: Jessica Kramer

<i>Analysis Requested</i>		Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	670227-007	670227-008	670227-009	670227-010	670227-011	670227-012
BTEX by EPA 8021B		<i>Extracted:</i>	FS07A	5- ft	SOIL	08.17.2020 11:25	08.17.2020 17:24	08.17.2020 17:24	08.17.2020 17:24	08.17.2020 17:24	08.17.2020 17:24	08.17.2020 17:24
		<i>Analyzed:</i>	FS08A	5- ft	SOIL	08.17.2020 22:41	08.17.2020 23:01	08.17.2020 23:22	08.17.2020 23:42	08.18.2020 00:58	08.18.2020 01:18	08.18.2020 01:18
		<i>Units/RL:</i>	mg/kg	RL		<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00199
Benzene			<0.00198	0.00198				<0.00200	0.00200	<0.00200	0.00200	<0.00199
Toluene			<0.00198	0.00198				<0.00200	0.00200	<0.00200	0.00200	<0.00199
Ethylbenzene			<0.00198	0.00198				<0.00200	0.00200	<0.00200	0.00200	<0.00199
m,p-Xylenes			<0.00397	0.00397				<0.00401	0.00401	<0.00400	0.00400	<0.00398
o-Xylene			<0.00198	0.00198				<0.00200	0.00200	<0.00200	0.00200	<0.00199
Total Xylenes			<0.00198	0.00198				<0.00200	0.00200	<0.00200	0.00200	<0.00199
Total BTEX			<0.00198	0.00198				<0.00200	0.00200	<0.00200	0.00200	<0.00199
Select Anions By EPA 300		<i>Extracted:</i>	2080	49.6		08.18.2020 12:39	08.18.2020 12:39	08.18.2020 12:39	08.18.2020 12:39	08.18.2020 12:39	08.18.2020 12:39	08.18.2020 12:39
		<i>Analyzed:</i>	mg/kg	RL		08.18.2020 13:19	08.18.2020 13:25	08.18.2020 13:30	08.18.2020 17:41	08.18.2020 13:41	08.18.2020 13:58	08.18.2020 13:58
		<i>Units/RL:</i>	mg/kg	RL		2080	49.6	1800	49.9	1800	49.7	1800
Chloride			2080	49.6				1800	49.9	1800	49.7	1800
TPH by SW8015 Mod		<i>Extracted:</i>	08.17.2020 16:30	08.17.2020 16:30		08.17.2020 16:30	08.17.2020 16:30	08.17.2020 16:30	08.17.2020 16:30	08.17.2020 16:30	08.17.2020 16:30	08.17.2020 16:30
		<i>Analyzed:</i>	08.17.2020 20:03	08.17.2020 20:24		08.17.2020 20:03	08.17.2020 20:24	08.17.2020 20:44	08.17.2020 21:04	08.17.2020 21:45	08.17.2020 22:05	08.17.2020 22:05
		<i>Units/RL:</i>	mg/kg	RL		<50.2	50.2	<50.1	50.1	<50.1	50.1	<50.0
Gasoline Range Hydrocarbons (GRO)			<50.2	50.2		<49.9	49.9	<50.1	50.1	<50.2	50.2	<50.0
Diesel Range Organics (DRO)			<50.2	50.2		<49.9	49.9	<50.1	50.1	52.7	50.2	<50.0
Motor Oil Range Hydrocarbons (MRO)			<50.2	50.2		<49.9	49.9	<50.1	50.1	<50.2	50.2	<50.0
Total GRO-DRO			<50.2	50.2		<49.9	49.9	<50.1	50.1	52.7	50.2	<50.0
Total TPH			<50.2	50.2		<49.9	49.9	<50.1	50.1	52.7	50.2	<50.0

Jessica Kramer

BRL - Below Reporting Limit

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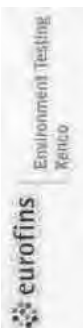
Certificate of Analysis Summary 670227

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Mon 08.17.2020 15:47
Report Date: 08.19.2020 10:50
Project Manager: Jessica Kramer



<i>Analysis Requested</i>		670227-013	670227-014	670227-015	670227-016
<i>Lab Id:</i>	<i>Field Id:</i>	FS016A	FS019	FS020	FS021
<i>Depth:</i>	<i>Matrix:</i>	5- ft	6- ft	6- ft	6- ft
<i>Sampled:</i>	<i>Sampled:</i>	08.17.2020 13:35	08.17.2020 12:15	08.17.2020 12:20	08.17.2020 12:25
BTEX by EPA 8021B					
<i>Extracted:</i>		08.17.2020 17:24	08.17.2020 17:24	08.17.2020 17:24	08.17.2020 17:24
<i>Analyzed:</i>		08.18.2020 01:38	08.18.2020 01:59	08.18.2020 02:19	08.18.2020 02:40
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00401 0.00401	<0.00402 0.00402	<0.00399 0.00399	<0.00398 0.00398
o-Xylene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Select Anions By EPA 300					
<i>Extracted:</i>		08.18.2020 12:39	08.18.2020 12:39	08.18.2020 12:39	08.18.2020 12:39
<i>Analyzed:</i>		08.18.2020 14:04	08.18.2020 14:20	08.18.2020 14:26	08.18.2020 14:32
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		222 49.4	646 49.9	729 49.8	1450 49.8
TPH by SW8015 Mod					
<i>Extracted:</i>		08.17.2020 16:30	08.17.2020 16:30	08.17.2020 16:30	08.17.2020 16:30
<i>Analyzed:</i>		08.17.2020 22:26	08.17.2020 22:46	08.17.2020 23:06	08.17.2020 23:27
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.1 50.1	<50.0 50.0	<50.1 50.1
Diesel Range Organics (DRO)		<50.2 50.2	<50.1 50.1	89.6 50.0	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<50.0 50.0	<50.1 50.1
Total GRO-DRO		<50.2 50.2	<50.1 50.1	89.6 50.0	<50.1 50.1
Total TPH		<50.2 50.2	<50.1 50.1	89.6 50.0	<50.1 50.1

Jessica Kramer

BRL - Below Reporting Limit

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Analytical Report 670227

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash 53 SWD

012919139

08.19.2020

Collected By: Client

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

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

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

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



08.19.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **670227**
Nash 53 SWD
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 Eurofins Xenco, LLC Report Number(s) 670227. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 670227 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer
Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 670227

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01A	S	08.17.2020 09:40	5 ft	670227-001
FS02A	S	08.17.2020 09:45	5 ft	670227-002
FS03A	S	08.17.2020 10:35	5 ft	670227-003
FS04A	S	08.17.2020 10:40	5 ft	670227-004
FS05A	S	08.17.2020 10:45	5 ft	670227-005
FS06A	S	08.17.2020 10:50	5 ft	670227-006
FS07A	S	08.17.2020 11:25	5 ft	670227-007
FS08A	S	08.17.2020 11:30	5 ft	670227-008
FS012A	S	08.17.2020 09:50	5 ft	670227-009
FS013A	S	08.17.2020 09:55	5 ft	670227-010
FS014A	S	08.17.2020 11:35	5 ft	670227-011
FS015A	S	08.17.2020 11:40	5 ft	670227-012
FS016A	S	08.17.2020 13:35	5 ft	670227-013
FS019	S	08.17.2020 12:15	6 ft	670227-014
FS020	S	08.17.2020 12:20	6 ft	670227-015
FS021	S	08.17.2020 12:25	6 ft	670227-016

CASE NARRATIVE



Client Name: LT Environmental, Inc.

Project Name: Nash 53 SWD

Project ID: 012919139
Work Order Number(s): 670227

Report Date: 08.19.2020
Date Received: 08.17.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 670227

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS01A** Matrix: Soil Date Received: 08.17.2020 15:47
 Lab Sample Id: 670227-001 Date Collected: 08.17.2020 09:40 Sample Depth: 5 ft
 Analytical Method: Select Anions By EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.18.2020 12:39 Basis: Wet Weight
 Seq Number: 3134917

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2680	49.6	mg/kg	08.18.2020 12:23		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.17.2020 16:30 Basis: Wet Weight
 Seq Number: 3134804

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.17.2020 17:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.17.2020 17:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.17.2020 17:22	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	08.17.2020 17:22	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.17.2020 17:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	08.17.2020 17:22	
o-Terphenyl	84-15-1	79	%	70-135	08.17.2020 17:22	



Certificate of Analytical Results 670227

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS01A	Matrix: Soil	Date Received: 08.17.2020 15:47
Lab Sample Id: 670227-001	Date Collected: 08.17.2020 09:40	Sample Depth: 5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.17.2020 17:24	Basis: Wet Weight
Seq Number: 3134831		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.17.2020 20:39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.17.2020 20:39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.17.2020 20:39	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.17.2020 20:39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.17.2020 20:39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.17.2020 20:39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.17.2020 20:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	08.17.2020 20:39	
1,4-Difluorobenzene	540-36-3	100	%	70-130	08.17.2020 20:39	



Certificate of Analytical Results 670227

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS02A** Matrix: Soil Date Received: 08.17.2020 15:47
 Lab Sample Id: 670227-002 Date Collected: 08.17.2020 09:45 Sample Depth: 5 ft
 Analytical Method: Select Anions By EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.18.2020 12:39 Basis: Wet Weight
 Seq Number: 3134917

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1010	49.6	mg/kg	08.18.2020 12:40		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.17.2020 16:30 Basis: Wet Weight
 Seq Number: 3134804

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.17.2020 18:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	60.1	49.9	mg/kg	08.17.2020 18:22		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.17.2020 18:22	U	1
Total GRO-DRO	PHC628	60.1	49.9	mg/kg	08.17.2020 18:22		1
Total TPH	PHC635	60.1	49.9	mg/kg	08.17.2020 18:22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	08.17.2020 18:22	
o-Terphenyl	84-15-1	87	%	70-135	08.17.2020 18:22	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS02A	Matrix: Soil	Date Received: 08.17.2020 15:47
Lab Sample Id: 670227-002	Date Collected: 08.17.2020 09:45	Sample Depth: 5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.17.2020 17:24	Basis: Wet Weight
Seq Number: 3134831		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.17.2020 20:59	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.17.2020 20:59	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.17.2020 20:59	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.17.2020 20:59	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.17.2020 20:59	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.17.2020 20:59	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.17.2020 20:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	08.17.2020 20:59	
1,4-Difluorobenzene	540-36-3	100	%	70-130	08.17.2020 20:59	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS03A	Matrix: Soil	Date Received: 08.17.2020 15:47
Lab Sample Id: 670227-003	Date Collected: 08.17.2020 10:35	Sample Depth: 5 ft
Analytical Method: Select Anions By EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.18.2020 12:39	Basis: Wet Weight
Seq Number: 3134917		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	863	49.7	mg/kg	08.18.2020 12:46		5

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.17.2020 16:30	Basis: Wet Weight
Seq Number: 3134804		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	08.17.2020 18:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	59.6	50.3	mg/kg	08.17.2020 18:43		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	08.17.2020 18:43	U	1
Total GRO-DRO	PHC628	59.6	50.3	mg/kg	08.17.2020 18:43		1
Total TPH	PHC635	59.6	50.3	mg/kg	08.17.2020 18:43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	08.17.2020 18:43	
o-Terphenyl	84-15-1	79	%	70-135	08.17.2020 18:43	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS03A	Matrix: Soil	Date Received: 08.17.2020 15:47
Lab Sample Id: 670227-003	Date Collected: 08.17.2020 10:35	Sample Depth: 5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.17.2020 17:24	Basis: Wet Weight
Seq Number: 3134831		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.17.2020 21:19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.17.2020 21:19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.17.2020 21:19	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.17.2020 21:19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.17.2020 21:19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.17.2020 21:19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.17.2020 21:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	08.17.2020 21:19	
4-Bromofluorobenzene	460-00-4	98	%	70-130	08.17.2020 21:19	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS04A** Matrix: Soil Date Received: 08.17.2020 15:47
 Lab Sample Id: 670227-004 Date Collected: 08.17.2020 10:40 Sample Depth: 5 ft
 Analytical Method: Select Anions By EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.18.2020 12:39 Basis: Wet Weight
 Seq Number: 3134917

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	474	50.1	mg/kg	08.18.2020 12:51		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.17.2020 16:30 Basis: Wet Weight
 Seq Number: 3134804

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.17.2020 19:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.17.2020 19:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.17.2020 19:03	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	08.17.2020 19:03	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.17.2020 19:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	08.17.2020 19:03	
o-Terphenyl	84-15-1	86	%	70-135	08.17.2020 19:03	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS04A	Matrix: Soil	Date Received: 08.17.2020 15:47
Lab Sample Id: 670227-004	Date Collected: 08.17.2020 10:40	Sample Depth: 5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.17.2020 17:24	Basis: Wet Weight
Seq Number: 3134831		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.17.2020 21:40	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.17.2020 21:40	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.17.2020 21:40	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	08.17.2020 21:40	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.17.2020 21:40	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.17.2020 21:40	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.17.2020 21:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	08.17.2020 21:40	
1,4-Difluorobenzene	540-36-3	98	%	70-130	08.17.2020 21:40	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS05A** Matrix: Soil Date Received: 08.17.2020 15:47
 Lab Sample Id: 670227-005 Date Collected: 08.17.2020 10:45 Sample Depth: 5 ft
 Analytical Method: Select Anions By EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.18.2020 12:39 Basis: Wet Weight
 Seq Number: 3134917

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	441	50.2	mg/kg	08.18.2020 12:57		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.17.2020 16:30 Basis: Wet Weight
 Seq Number: 3134804

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.17.2020 19:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.17.2020 19:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.17.2020 19:23	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	08.17.2020 19:23	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.17.2020 19:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	08.17.2020 19:23	
o-Terphenyl	84-15-1	93	%	70-135	08.17.2020 19:23	



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LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **FS05A** Matrix: Soil Date Received: 08.17.2020 15:47
 Lab Sample Id: 670227-005 Date Collected: 08.17.2020 10:45 Sample Depth: 5 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.17.2020 17:24 Basis: Wet Weight
 Seq Number: 3134831

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.17.2020 22:00	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.17.2020 22:00	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.17.2020 22:00	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	08.17.2020 22:00	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.17.2020 22:00	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.17.2020 22:00	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.17.2020 22:00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.17.2020 22:00		
1,4-Difluorobenzene	540-36-3	99	%	70-130	08.17.2020 22:00		



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS06A** Matrix: Soil Date Received: 08.17.2020 15:47
 Lab Sample Id: 670227-006 Date Collected: 08.17.2020 10:50 Sample Depth: 5 ft
 Analytical Method: Select Anions By EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.18.2020 12:39 Basis: Wet Weight
 Seq Number: 3134917

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	392	50.1	mg/kg	08.18.2020 13:13		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.17.2020 16:30 Basis: Wet Weight
 Seq Number: 3134804

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.17.2020 19:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.17.2020 19:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.17.2020 19:44	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	08.17.2020 19:44	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.17.2020 19:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	08.17.2020 19:44	
o-Terphenyl	84-15-1	85	%	70-135	08.17.2020 19:44	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS06A	Matrix: Soil	Date Received: 08.17.2020 15:47
Lab Sample Id: 670227-006	Date Collected: 08.17.2020 10:50	Sample Depth: 5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.17.2020 17:24	Basis: Wet Weight
Seq Number: 3134831		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.17.2020 22:20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.17.2020 22:20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.17.2020 22:20	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.17.2020 22:20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.17.2020 22:20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.17.2020 22:20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.17.2020 22:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	08.17.2020 22:20	
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.17.2020 22:20	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS07A	Matrix: Soil	Date Received: 08.17.2020 15:47
Lab Sample Id: 670227-007	Date Collected: 08.17.2020 11:25	Sample Depth: 5 ft
Analytical Method: Select Anions By EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.18.2020 12:39	Basis: Wet Weight
Seq Number: 3134917		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2080	49.6	mg/kg	08.18.2020 13:19		5

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.17.2020 16:30	Basis: Wet Weight
Seq Number: 3134804		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	08.17.2020 20:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	08.17.2020 20:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	08.17.2020 20:03	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	08.17.2020 20:03	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	08.17.2020 20:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	08.17.2020 20:03	
o-Terphenyl	84-15-1	88	%	70-135	08.17.2020 20:03	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS07A	Matrix: Soil	Date Received: 08.17.2020 15:47
Lab Sample Id: 670227-007	Date Collected: 08.17.2020 11:25	Sample Depth: 5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.17.2020 17:24	Basis: Wet Weight
Seq Number: 3134831		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.17.2020 22:41	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.17.2020 22:41	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.17.2020 22:41	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.17.2020 22:41	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.17.2020 22:41	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.17.2020 22:41	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.17.2020 22:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	08.17.2020 22:41	
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.17.2020 22:41	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS08A** Matrix: Soil Date Received: 08.17.2020 15:47
 Lab Sample Id: 670227-008 Date Collected: 08.17.2020 11:30 Sample Depth: 5 ft
 Analytical Method: Select Anions By EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.18.2020 12:39 Basis: Wet Weight
 Seq Number: 3134917

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1800	49.9	mg/kg	08.18.2020 13:25		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.17.2020 16:30 Basis: Wet Weight
 Seq Number: 3134804

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.17.2020 20:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.17.2020 20:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.17.2020 20:24	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	08.17.2020 20:24	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.17.2020 20:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	08.17.2020 20:24	
o-Terphenyl	84-15-1	85	%	70-135	08.17.2020 20:24	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS08A	Matrix: Soil	Date Received: 08.17.2020 15:47
Lab Sample Id: 670227-008	Date Collected: 08.17.2020 11:30	Sample Depth: 5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.17.2020 17:24	Basis: Wet Weight
Seq Number: 3134831		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.17.2020 23:01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.17.2020 23:01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.17.2020 23:01	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.17.2020 23:01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.17.2020 23:01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.17.2020 23:01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.17.2020 23:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.17.2020 23:01	
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.17.2020 23:01	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS012A	Matrix: Soil	Date Received: 08.17.2020 15:47
Lab Sample Id: 670227-009	Date Collected: 08.17.2020 09:50	Sample Depth: 5 ft
Analytical Method: Select Anions By EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.18.2020 12:39	Basis: Wet Weight
Seq Number: 3134917		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1910	49.8	mg/kg	08.18.2020 13:30		5

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.17.2020 16:30	Basis: Wet Weight
Seq Number: 3134804		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	08.17.2020 20:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	08.17.2020 20:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	08.17.2020 20:44	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	08.17.2020 20:44	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	08.17.2020 20:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	08.17.2020 20:44	
o-Terphenyl	84-15-1	82	%	70-135	08.17.2020 20:44	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS012A	Matrix: Soil	Date Received: 08.17.2020 15:47
Lab Sample Id: 670227-009	Date Collected: 08.17.2020 09:50	Sample Depth: 5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.17.2020 17:24	Basis: Wet Weight
Seq Number: 3134831		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.17.2020 23:22	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.17.2020 23:22	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.17.2020 23:22	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.17.2020 23:22	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.17.2020 23:22	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.17.2020 23:22	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.17.2020 23:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.17.2020 23:22	
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.17.2020 23:22	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS013A** Matrix: Soil Date Received: 08.17.2020 15:47
 Lab Sample Id: 670227-010 Date Collected: 08.17.2020 09:55 Sample Depth: 5 ft
 Analytical Method: Select Anions By EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.18.2020 12:39 Basis: Wet Weight
 Seq Number: 3134917

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	672	9.94	mg/kg	08.18.2020 17:41		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.17.2020 16:30 Basis: Wet Weight
 Seq Number: 3134804

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	08.17.2020 21:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	52.7	50.2	mg/kg	08.17.2020 21:04		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	08.17.2020 21:04	U	1
Total GRO-DRO	PHC628	52.7	50.2	mg/kg	08.17.2020 21:04		1
Total TPH	PHC635	52.7	50.2	mg/kg	08.17.2020 21:04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	08.17.2020 21:04	
o-Terphenyl	84-15-1	87	%	70-135	08.17.2020 21:04	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS013A	Matrix: Soil	Date Received: 08.17.2020 15:47
Lab Sample Id: 670227-010	Date Collected: 08.17.2020 09:55	Sample Depth: 5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.17.2020 17:24	Basis: Wet Weight
Seq Number: 3134831		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.17.2020 23:42	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.17.2020 23:42	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.17.2020 23:42	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.17.2020 23:42	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.17.2020 23:42	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.17.2020 23:42	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.17.2020 23:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	08.17.2020 23:42	
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.17.2020 23:42	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS014A** Matrix: Soil Date Received: 08.17.2020 15:47
 Lab Sample Id: 670227-011 Date Collected: 08.17.2020 11:35 Sample Depth: 5 ft
 Analytical Method: Select Anions By EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.18.2020 12:39 Basis: Wet Weight
 Seq Number: 3134917

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1370	49.7	mg/kg	08.18.2020 13:41		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.17.2020 16:30 Basis: Wet Weight
 Seq Number: 3134804

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	08.17.2020 21:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	08.17.2020 21:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	08.17.2020 21:45	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	08.17.2020 21:45	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	08.17.2020 21:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	08.17.2020 21:45	
o-Terphenyl	84-15-1	86	%	70-135	08.17.2020 21:45	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS014A** Matrix: Soil Date Received: 08.17.2020 15:47
 Lab Sample Id: 670227-011 Date Collected: 08.17.2020 11:35 Sample Depth: 5 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.17.2020 17:24 Basis: Wet Weight
 Seq Number: 3134831

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.18.2020 00:58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.18.2020 00:58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.18.2020 00:58	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.18.2020 00:58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.18.2020 00:58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.18.2020 00:58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.18.2020 00:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	08.18.2020 00:58	
4-Bromofluorobenzene	460-00-4	109	%	70-130	08.18.2020 00:58	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS015A	Matrix: Soil	Date Received: 08.17.2020 15:47
Lab Sample Id: 670227-012	Date Collected: 08.17.2020 11:40	Sample Depth: 5 ft
Analytical Method: Select Anions By EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.18.2020 12:39	Basis: Wet Weight
Seq Number: 3134917		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1800	50.1	mg/kg	08.18.2020 13:58		5

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.17.2020 16:30	Basis: Wet Weight
Seq Number: 3134804		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.17.2020 22:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.17.2020 22:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.17.2020 22:05	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	08.17.2020 22:05	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.17.2020 22:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	08.17.2020 22:05	
o-Terphenyl	84-15-1	87	%	70-135	08.17.2020 22:05	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS015A	Matrix: Soil	Date Received: 08.17.2020 15:47
Lab Sample Id: 670227-012	Date Collected: 08.17.2020 11:40	Sample Depth: 5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.17.2020 17:24	Basis: Wet Weight
Seq Number: 3134831		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.18.2020 01:18	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.18.2020 01:18	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.18.2020 01:18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.18.2020 01:18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.18.2020 01:18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.18.2020 01:18	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.18.2020 01:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	08.18.2020 01:18	
1,4-Difluorobenzene	540-36-3	98	%	70-130	08.18.2020 01:18	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS016A** Matrix: Soil Date Received: 08.17.2020 15:47
 Lab Sample Id: 670227-013 Date Collected: 08.17.2020 13:35 Sample Depth: 5 ft
 Analytical Method: Select Anions By EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.18.2020 12:39 Basis: Wet Weight
 Seq Number: 3134917

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	222	49.4	mg/kg	08.18.2020 14:04		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.17.2020 16:30 Basis: Wet Weight
 Seq Number: 3134804

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	08.17.2020 22:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	08.17.2020 22:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	08.17.2020 22:26	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	08.17.2020 22:26	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	08.17.2020 22:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	08.17.2020 22:26	
o-Terphenyl	84-15-1	82	%	70-135	08.17.2020 22:26	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS016A	Matrix: Soil	Date Received: 08.17.2020 15:47
Lab Sample Id: 670227-013	Date Collected: 08.17.2020 13:35	Sample Depth: 5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.17.2020 17:24	Basis: Wet Weight
Seq Number: 3134831		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.18.2020 01:38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.18.2020 01:38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.18.2020 01:38	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.18.2020 01:38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.18.2020 01:38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.18.2020 01:38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.18.2020 01:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.18.2020 01:38	
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.18.2020 01:38	



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LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **FS019** Matrix: Soil Date Received: 08.17.2020 15:47
 Lab Sample Id: 670227-014 Date Collected: 08.17.2020 12:15 Sample Depth: 6 ft
 Analytical Method: Select Anions By EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.18.2020 12:39 Basis: Wet Weight
 Seq Number: 3134917

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	646	49.9	mg/kg	08.18.2020 14:20		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.17.2020 16:30 Basis: Wet Weight
 Seq Number: 3134804

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	08.17.2020 22:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	08.17.2020 22:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	08.17.2020 22:46	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	08.17.2020 22:46	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	08.17.2020 22:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	08.17.2020 22:46	
o-Terphenyl	84-15-1	89	%	70-135	08.17.2020 22:46	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS019	Matrix: Soil	Date Received: 08.17.2020 15:47
Lab Sample Id: 670227-014	Date Collected: 08.17.2020 12:15	Sample Depth: 6 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.17.2020 17:24	Basis: Wet Weight
Seq Number: 3134831		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.18.2020 01:59	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.18.2020 01:59	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.18.2020 01:59	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.18.2020 01:59	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.18.2020 01:59	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.18.2020 01:59	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.18.2020 01:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.18.2020 01:59	
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.18.2020 01:59	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS020	Matrix: Soil	Date Received: 08.17.2020 15:47
Lab Sample Id: 670227-015	Date Collected: 08.17.2020 12:20	Sample Depth: 6 ft
Analytical Method: Select Anions By EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.18.2020 12:39	Basis: Wet Weight
Seq Number: 3134917		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	729	49.8	mg/kg	08.18.2020 14:26		5

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.17.2020 16:30	Basis: Wet Weight
Seq Number: 3134804		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.17.2020 23:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	89.6	50.0	mg/kg	08.17.2020 23:06		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.17.2020 23:06	U	1
Total GRO-DRO	PHC628	89.6	50.0	mg/kg	08.17.2020 23:06		1
Total TPH	PHC635	89.6	50.0	mg/kg	08.17.2020 23:06		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	08.17.2020 23:06	
o-Terphenyl	84-15-1	84	%	70-135	08.17.2020 23:06	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS020	Matrix: Soil	Date Received: 08.17.2020 15:47
Lab Sample Id: 670227-015	Date Collected: 08.17.2020 12:20	Sample Depth: 6 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.17.2020 17:24	Basis: Wet Weight
Seq Number: 3134831		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.18.2020 02:19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.18.2020 02:19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.18.2020 02:19	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.18.2020 02:19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.18.2020 02:19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.18.2020 02:19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.18.2020 02:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	08.18.2020 02:19	
4-Bromofluorobenzene	460-00-4	105	%	70-130	08.18.2020 02:19	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS021** Matrix: Soil Date Received: 08.17.2020 15:47
 Lab Sample Id: 670227-016 Date Collected: 08.17.2020 12:25 Sample Depth: 6 ft
 Analytical Method: Select Anions By EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.18.2020 12:39 Basis: Wet Weight
 Seq Number: 3134917

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1450	49.8	mg/kg	08.18.2020 14:32		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.17.2020 16:30 Basis: Wet Weight
 Seq Number: 3134804

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	08.17.2020 23:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	08.17.2020 23:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	08.17.2020 23:27	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	08.17.2020 23:27	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	08.17.2020 23:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	08.17.2020 23:27	
o-Terphenyl	84-15-1	83	%	70-135	08.17.2020 23:27	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS021	Matrix: Soil	Date Received: 08.17.2020 15:47
Lab Sample Id: 670227-016	Date Collected: 08.17.2020 12:25	Sample Depth: 6 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.17.2020 17:24	Basis: Wet Weight
Seq Number: 3134831		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.18.2020 02:40	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.18.2020 02:40	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.18.2020 02:40	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.18.2020 02:40	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.18.2020 02:40	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.18.2020 02:40	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.18.2020 02:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	08.18.2020 02:40	
1,4-Difluorobenzene	540-36-3	102	%	70-130	08.18.2020 02:40	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.
Nash 53 SWD

Analytical Method: Select Anions By EPA 300

Seq Number: 3134917
MB Sample Id: 7709666-1-BLK

Matrix: Solid
LCS Sample Id: 7709666-1-BKS

Prep Method: E300P
Date Prep: 08.18.2020
LCSD Sample Id: 7709666-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	259	104	261	104	90-110	1	20	mg/kg	08.18.2020 12:12	

Analytical Method: Select Anions By EPA 300

Seq Number: 3134917
Parent Sample Id: 670227-001

Matrix: Soil
MS Sample Id: 670227-001 S

Prep Method: E300P
Date Prep: 08.18.2020
MSD Sample Id: 670227-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2680	199	2870	95	2870	95	90-110	0	20	mg/kg	08.18.2020 12:29	

Analytical Method: Select Anions By EPA 300

Seq Number: 3134917
Parent Sample Id: 670227-011

Matrix: Soil
MS Sample Id: 670227-011 S

Prep Method: E300P
Date Prep: 08.18.2020
MSD Sample Id: 670227-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1370	200	1560	95	1560	95	90-110	0	20	mg/kg	08.18.2020 13:47	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134804
MB Sample Id: 7709609-1-BLK

Matrix: Solid
LCS Sample Id: 7709609-1-BKS

Prep Method: SW8015P
Date Prep: 08.17.2020
LCSD Sample Id: 7709609-1-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	910	91	906	91	70-135	0	35	mg/kg	08.17.2020 10:39	
Diesel Range Organics (DRO)	<50.0	1000	942	94	929	93	70-135	1	35	mg/kg	08.17.2020 10:39	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	83		109		106		70-135	%	08.17.2020 10:39
o-Terphenyl	83		96		94		70-135	%	08.17.2020 10:39

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134804

Matrix: Solid
MB Sample Id: 7709609-1-BLK

Prep Method: SW8015P
Date Prep: 08.17.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.17.2020 10:19	

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

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

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

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



LT Environmental, Inc.
Nash 53 SWD

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134804
Parent Sample Id: 670227-001

Matrix: Soil
MS Sample Id: 670227-001 S

Prep Method: SW8015P
Date Prep: 08.17.2020
MSD Sample Id: 670227-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	995	818	82	842	83	70-135	3	35	mg/kg	08.17.2020 17:42	
Diesel Range Organics (DRO)	<49.8	995	866	87	883	87	70-135	2	35	mg/kg	08.17.2020 17:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		99		70-135	%	08.17.2020 17:42
o-Terphenyl	90		90		70-135	%	08.17.2020 17:42

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134831
MB Sample Id: 7709644-1-BLK

Matrix: Solid
LCS Sample Id: 7709644-1-BKS

Prep Method: SW5035A
Date Prep: 08.17.2020
LCSD Sample Id: 7709644-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0994	99	0.0970	97	70-130	2	35	mg/kg	08.17.2020 18:42	
Toluene	<0.00200	0.100	0.0941	94	0.0905	91	70-130	4	35	mg/kg	08.17.2020 18:42	
Ethylbenzene	<0.00200	0.100	0.0954	95	0.0917	92	71-129	4	35	mg/kg	08.17.2020 18:42	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.183	92	70-135	6	35	mg/kg	08.17.2020 18:42	
o-Xylene	<0.00200	0.100	0.0976	98	0.0947	95	71-133	3	35	mg/kg	08.17.2020 18:42	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		97		97		70-130	%	08.17.2020 18:42
4-Bromofluorobenzene	106		98		97		70-130	%	08.17.2020 18:42

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134831
Parent Sample Id: 670227-001

Matrix: Soil
MS Sample Id: 670227-001 S

Prep Method: SW5035A
Date Prep: 08.17.2020
MSD Sample Id: 670227-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.120	120	0.118	118	70-130	2	35	mg/kg	08.17.2020 19:23	
Toluene	<0.00200	0.100	0.119	119	0.110	110	70-130	8	35	mg/kg	08.17.2020 19:23	
Ethylbenzene	<0.00200	0.100	0.116	116	0.110	110	71-129	5	35	mg/kg	08.17.2020 19:23	
m,p-Xylenes	<0.00400	0.200	0.234	117	0.224	112	70-135	4	35	mg/kg	08.17.2020 19:23	
o-Xylene	<0.00200	0.100	0.114	114	0.109	109	71-133	4	35	mg/kg	08.17.2020 19:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		100		70-130	%	08.17.2020 19:23
4-Bromofluorobenzene	100		103		70-130	%	08.17.2020 19:23

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

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
 Hobbs, NM (575) 392-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8900 Tampa, FL (813) 620-2000

Work Order No: 670227

Project Manager: Dan Moir
Company Name: LT Environmental, Inc., Permian office
Address: 3300 North A Street
City, State Zip: Midland, TX 79705
Phone: (432) 236-3849
Bill to: (if different) Kyle Littrell
Company Name: XTO Energy
Address: 522 West Mermond
City, State Zip: Carlsbad, NM 88220
Email: emake@lenny.com, dmair@lenny.com

Program: UST/PST RP Crowfields RC Refund
State of Project: Level II Level III P/U/SF RP Level IV
Reporting Level: EDD ADAPT Other

Project Name: Wash 535WD
Project Number: 012919139
P.O. Number: Eddy County
Sampler's Name: Elizabeth Naka
Turn Around: Routine
Due Date: Rush: *Zaky*

SAMPLE RECEIPT
Temperature (°C): 14/1.4
Received Intact: Yes No
Cooler Custody Seals: Yes No
Sample Custody Seals: Yes No
Thermometer ID: T-NM-007
Correction Factor: -0.2
Total Containers: 16

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST										Work Order Notes
FS14 A	S	08/17/20	1135	5'	1	X	X	X											
FS15 A			1140																
FS16 A			1335																
FS19			1215	6'															
FS20			1120																
FS21			1225																
FS20																			

Total 200.7 / 6010 200.8 / 6020:
Circle Method(s) and Metal(s) to be analyzed: 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
 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

Relinquished by: (Signature) *[Signature]* **Date/Time** 8/17/20/15:47

Received by: (Signature) *[Signature]* **Date/Time**

Relinquished by: (Signature) *[Signature]* **Date/Time**

Received by: (Signature) *[Signature]* **Date/Time**



Chain of Custody

Work Order No: 670227

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432-704-5440) El Paso, TX (915)585-3443 Lubbock, TX (806)794-1296
 Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8900) Tampa, FL (813-620-2000)

Project Manager: Dan Moir
 Company Name: LT Environmental Inc, Permian office
 Address: 3300 North A Street
 City, State ZIP: Midland, TX 79705
 Phone: (432) 236-3849
 Email: emora@lternv.com dmoir@lternv.com

Bill to: (if different)
 Company Name: Kyle Litrell
 Address: 522 West Mermond
 City, State ZIP: Carlsbad, NM 88220

Program: UST/PST RP Brownfields RC Superfund
 State of Project: Level I Level II Level III ST/UST RP Level IV
 Reporting Level: EDD ADAPT Other:

Work Order Comments

Work Order Notes

Project Name: Wash 53 SWD
 Project Number: 012919139
 P.O. Number: Eddy County
 Sampler's Name: Elizabeth Naka
 Turn Around: Routine
 Rush: 2 day
 Due Date:

Temperature (°C): 16/1.4
 Received In tact: Yes No
 Cooler Custody Seals: Yes No N/A
 Sample Custody Seals: Yes No N/A
 Thermometer ID: T-NM-067
 Correction Factor: -0.2
 Total Containers: 16

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST	Work Order Notes
FS01A	S	06/17/02	0940	5'	1	X	X	X		
FS02A			0945		1	X	X	X		
FS03A			1035		1	X	X	X		
FS04A			1040		1	X	X	X		
FS05A			1045		1	X	X	X		
FS06A			1050		1	X	X	X		
FS07A			1125		1	X	X	X		
FS08A			1130		1	X	X	X		
FS10A			0950		1	X	X	X		
FS13A			0955		1	X	X	X		

Total 200.7 / 6010 200.8 / 6020:
 BRCRA 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
 TCLP/SPLP 6010: BRCRA 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 \$8 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature) *Ullas Pan* Received by: (Signature) *Ullas Pan* Date/Time: 8-17-00 / 15:47z

Relinquished by: (Signature) Received by: (Signature) Date/Time:

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08.17.2020 03.47.00 PM

Work Order #: 670227

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : T_NM_007

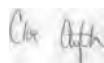
Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.4	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	Yes	
#6*Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	Samples received in bulk containers.
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	No	
#18 Water VOC samples have zero headspace?	N/A	

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 08.17.2020

Checklist reviewed by:



Jessica Kramer

Date: 08.18.2020

Certificate of Analysis Summary 670314

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Date Received in Lab: Tue 08.18.2020 13:48
Report Date: 08.20.2020 13:24
Project Manager: Jessica Kramer

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County



Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	670314-001	670314-002	670314-003	670314-004	670314-005	670314-006
Analysis Requested										
BTEX by EPA 8021B										
Extracted:	08.18.2020 15:00	08.18.2020 15:00	08.18.2020 15:00	08.18.2020 15:00	08.18.2020 15:00	08.18.2020 15:00	08.18.2020 15:00	08.18.2020 15:00	08.18.2020 15:00	08.18.2020 15:00
Analyzed:	08.18.2020 21:35	08.18.2020 21:58	08.18.2020 22:20	08.18.2020 22:43	08.18.2020 23:05	08.18.2020 23:27	08.18.2020 23:49	08.18.2020 24:11	08.18.2020 24:33	08.18.2020 24:55
Units/RL:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00199
Toluene	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00199
Ethylbenzene	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00199
m,p-Xylenes	<0.00399	0.00399	<0.00401	0.00401	<0.00402	0.00402	<0.00397	0.00397	<0.00399	0.00398
o-Xylene	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00199
Total Xylenes	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00199
Total BTEX	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00199
Chloride by EPA 300										
Extracted:	08.18.2020 16:29	08.18.2020 16:34	08.18.2020 16:40	08.18.2020 16:45	08.18.2020 17:02	08.18.2020 17:08	08.18.2020 17:13	08.18.2020 17:18	08.18.2020 17:23	08.18.2020 17:28
Analyzed:	1030	3740	4700	2140	2290	1010	401	402	401	402
Units/RL:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloride	49.8	399	400	402	401	402	401	402	401	402
TPH by SW8015 Mod										
Extracted:	08.18.2020 16:15	08.18.2020 16:15	08.18.2020 16:15	08.18.2020 16:15	08.18.2020 16:15	08.18.2020 16:15	08.18.2020 16:15	08.18.2020 16:15	08.18.2020 16:15	08.18.2020 16:15
Analyzed:	08.18.2020 16:19	08.18.2020 16:40	08.18.2020 17:00	08.18.2020 17:20	08.18.2020 17:40	08.18.2020 18:00	08.18.2020 18:20	08.18.2020 18:40	08.18.2020 19:00	08.18.2020 19:20
Units/RL:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Gasoline Range Hydrocarbons (GRO)	<50.2	50.2	<50.3	50.3	<49.9	49.9	<49.9	49.9	<49.9	50.2
Diesel Range Organics (DRO)	<50.2	50.2	<50.3	50.3	<49.9	49.9	<49.9	49.9	646	853
Motor Oil Range Hydrocarbons (MRO)	<50.2	50.2	<50.3	50.3	<49.9	49.9	<49.9	49.9	79.7	98.8
Total GRO-DRO	<50.2	50.2	<50.3	50.3	<49.9	49.9	<49.9	49.9	646	853
Total TPH	<50.2	50.2	<50.3	50.3	<49.9	49.9	<49.9	49.9	726	952

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 670314

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue 08.18.2020 13:48
Report Date: 08.20.2020 13:24
Project Manager: Jessica Kramer



<i>Analysis Requested</i>		670314-007	670314-008	670314-009
<i>Lab Id:</i>	FS28	FS29	FS30	
<i>Field Id:</i>	7- ft	6- ft	6- ft	
<i>Depth:</i>	SOIL	SOIL	SOIL	
<i>Matrix:</i>				
<i>Sampled:</i>	08.18.2020 11:20	08.18.2020 12:05	08.18.2020 12:10	
BTEX by EPA 8021B				
<i>Extracted:</i>	08.18.2020 15:00	08.18.2020 15:00	08.18.2020 15:00	
<i>Analyzed:</i>	08.18.2020 23:50	08.19.2020 00:12	08.19.2020 00:35	
<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	
Toluene	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	
Ethylbenzene	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	
m,p-Xylenes	<0.00395 0.00395	<0.00399 0.00399	<0.00397 0.00397	
o-Xylene	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	
Total Xylenes	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	
Total BTEX	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	
Chloride by EPA 300				
<i>Extracted:</i>	08.18.2020 17:25	08.18.2020 17:30	08.18.2020 17:36	
<i>Analyzed:</i>	mg/kg RL	mg/kg RL	mg/kg RL	
<i>Units/RL:</i>	2870 397	309 9.98	1040 398	
Chloride				
TPH by SW8015 Mod				
<i>Extracted:</i>	08.18.2020 16:15	08.18.2020 16:15	08.18.2020 16:15	
<i>Analyzed:</i>	08.18.2020 18:21	08.18.2020 18:41	08.18.2020 19:01	
<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)	<50.2 50.2	<49.8 49.8	<50.2 50.2	
Diesel Range Organics (DRO)	493 50.2	227 49.8	847 50.2	
Motor Oil Range Hydrocarbons (MRO)	68.6 50.2	<49.8 49.8	85.9 50.2	
Total GRO-DRO	493 50.2	227 49.8	847 50.2	
Total TPH	562 50.2	227 49.8	933 50.2	

Jessica Kramer

BRL - Below Reporting Limit

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



Analytical Report 670314

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash 53 SWD

012919139

08.20.2020

Collected By: Client

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

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

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

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



08.20.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **670314**
Nash 53 SWD
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 Eurofins Xenco, LLC Report Number(s) 670314. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 670314 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer
Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 670314

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS22	S	08.18.2020 09:25	6 ft	670314-001
FS23	S	08.18.2020 10:50	6 ft	670314-002
FS24	S	08.18.2020 11:25	6 ft	670314-003
FS25	S	08.18.2020 11:00	6 ft	670314-004
FS26	S	08.18.2020 11:30	6 ft	670314-005
FS27	S	08.18.2020 11:15	7 ft	670314-006
FS28	S	08.18.2020 11:20	7 ft	670314-007
FS29	S	08.18.2020 12:05	6 ft	670314-008
FS30	S	08.18.2020 12:10	6 ft	670314-009

CASE NARRATIVE



Client Name: LT Environmental, Inc.

Project Name: Nash 53 SWD

Project ID: 012919139
Work Order Number(s): 670314

Report Date: 08.20.2020
Date Received: 08.18.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 670314

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS22	Matrix: Soil	Date Received: 08.18.2020 13:48
Lab Sample Id: 670314-001	Date Collected: 08.18.2020 09:25	Sample Depth: 6 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.18.2020 12:48	Basis: Wet Weight
Seq Number: 3134919		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1030	49.8	mg/kg	08.18.2020 16:29		5

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.18.2020 16:15	Basis: Wet Weight
Seq Number: 3134923		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	08.18.2020 16:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	08.18.2020 16:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	08.18.2020 16:19	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	08.18.2020 16:19	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	08.18.2020 16:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	08.18.2020 16:19	
o-Terphenyl	84-15-1	94	%	70-135	08.18.2020 16:19	



Certificate of Analytical Results 670314

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS22	Matrix: Soil	Date Received: 08.18.2020 13:48
Lab Sample Id: 670314-001	Date Collected: 08.18.2020 09:25	Sample Depth: 6 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.18.2020 15:00	Basis: Wet Weight
Seq Number: 3134914		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.18.2020 21:35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.18.2020 21:35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.18.2020 21:35	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.18.2020 21:35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.18.2020 21:35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.18.2020 21:35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.18.2020 21:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	08.18.2020 21:35	
4-Bromofluorobenzene	460-00-4	91	%	70-130	08.18.2020 21:35	



Certificate of Analytical Results 670314

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS23	Matrix: Soil	Date Received: 08.18.2020 13:48
Lab Sample Id: 670314-002	Date Collected: 08.18.2020 10:50	Sample Depth: 6 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.18.2020 12:48	Basis: Wet Weight
Seq Number: 3134919		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3740	399	mg/kg	08.18.2020 16:34		40

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.18.2020 16:15	Basis: Wet Weight
Seq Number: 3134923		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	08.18.2020 16:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	08.18.2020 16:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	08.18.2020 16:40	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	08.18.2020 16:40	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	08.18.2020 16:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	08.18.2020 16:40	
o-Terphenyl	84-15-1	90	%	70-135	08.18.2020 16:40	



Certificate of Analytical Results 670314

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS23	Matrix: Soil	Date Received: 08.18.2020 13:48
Lab Sample Id: 670314-002	Date Collected: 08.18.2020 10:50	Sample Depth: 6 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.18.2020 15:00	Basis: Wet Weight
Seq Number: 3134914		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.18.2020 21:58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.18.2020 21:58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.18.2020 21:58	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.18.2020 21:58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.18.2020 21:58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.18.2020 21:58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.18.2020 21:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	08.18.2020 21:58	
4-Bromofluorobenzene	460-00-4	92	%	70-130	08.18.2020 21:58	



Certificate of Analytical Results 670314

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS24** Matrix: Soil Date Received: 08.18.2020 13:48
 Lab Sample Id: 670314-003 Date Collected: 08.18.2020 11:25 Sample Depth: 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.18.2020 12:48 Basis: Wet Weight
 Seq Number: 3134919

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4700	400	mg/kg	08.18.2020 16:40		40

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.18.2020 16:15 Basis: Wet Weight
 Seq Number: 3134923

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	08.18.2020 17:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	08.18.2020 17:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	08.18.2020 17:00	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	08.18.2020 17:00	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	08.18.2020 17:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.18.2020 17:00	
o-Terphenyl	84-15-1	86	%	70-135	08.18.2020 17:00	



Certificate of Analytical Results 670314

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS24	Matrix: Soil	Date Received: 08.18.2020 13:48
Lab Sample Id: 670314-003	Date Collected: 08.18.2020 11:25	Sample Depth: 6 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.18.2020 15:00	Basis: Wet Weight
Seq Number: 3134914		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.18.2020 22:20	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.18.2020 22:20	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.18.2020 22:20	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.18.2020 22:20	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.18.2020 22:20	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.18.2020 22:20	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.18.2020 22:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	08.18.2020 22:20	
4-Bromofluorobenzene	460-00-4	93	%	70-130	08.18.2020 22:20	



Certificate of Analytical Results 670314

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS25** Matrix: Soil Date Received: 08.18.2020 13:48
 Lab Sample Id: 670314-004 Date Collected: 08.18.2020 11:00 Sample Depth: 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.18.2020 12:48 Basis: Wet Weight
 Seq Number: 3134919

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2140	402	mg/kg	08.18.2020 16:45		40

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.18.2020 16:15 Basis: Wet Weight
 Seq Number: 3134923

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.18.2020 17:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.18.2020 17:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.18.2020 17:20	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	08.18.2020 17:20	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.18.2020 17:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.18.2020 17:20	
o-Terphenyl	84-15-1	87	%	70-135	08.18.2020 17:20	



Certificate of Analytical Results 670314

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS25	Matrix: Soil	Date Received: 08.18.2020 13:48
Lab Sample Id: 670314-004	Date Collected: 08.18.2020 11:00	Sample Depth: 6 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.18.2020 15:00	Basis: Wet Weight
Seq Number: 3134914		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.18.2020 22:43	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.18.2020 22:43	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.18.2020 22:43	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.18.2020 22:43	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.18.2020 22:43	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.18.2020 22:43	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.18.2020 22:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	08.18.2020 22:43	
4-Bromofluorobenzene	460-00-4	93	%	70-130	08.18.2020 22:43	



Certificate of Analytical Results 670314

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS26** Matrix: Soil Date Received: 08.18.2020 13:48
 Lab Sample Id: 670314-005 Date Collected: 08.18.2020 11:30 Sample Depth: 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.18.2020 12:48 Basis: Wet Weight
 Seq Number: 3134919

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2290	401	mg/kg	08.18.2020 17:02		40

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.18.2020 16:15 Basis: Wet Weight
 Seq Number: 3134923

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.18.2020 17:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	646	49.9	mg/kg	08.18.2020 17:40		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	79.7	49.9	mg/kg	08.18.2020 17:40		1
Total GRO-DRO	PHC628	646	49.9	mg/kg	08.18.2020 17:40		1
Total TPH	PHC635	726	49.9	mg/kg	08.18.2020 17:40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	08.18.2020 17:40	
o-Terphenyl	84-15-1	89	%	70-135	08.18.2020 17:40	



Certificate of Analytical Results 670314

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS26	Matrix: Soil	Date Received: 08.18.2020 13:48
Lab Sample Id: 670314-005	Date Collected: 08.18.2020 11:30	Sample Depth: 6 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.18.2020 15:00	Basis: Wet Weight
Seq Number: 3134914		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.18.2020 23:05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.18.2020 23:05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.18.2020 23:05	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.18.2020 23:05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.18.2020 23:05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.18.2020 23:05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.18.2020 23:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	08.18.2020 23:05	
1,4-Difluorobenzene	540-36-3	97	%	70-130	08.18.2020 23:05	



Certificate of Analytical Results 670314

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **FS27** Matrix: Soil Date Received: 08.18.2020 13:48
 Lab Sample Id: 670314-006 Date Collected: 08.18.2020 11:15 Sample Depth: 7 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.18.2020 12:48 Basis: Wet Weight
 Seq Number: 3134919

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1010	402	mg/kg	08.18.2020 17:08		40

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.18.2020 16:15 Basis: Wet Weight
 Seq Number: 3134923

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	08.18.2020 18:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	853	50.2	mg/kg	08.18.2020 18:00		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	98.8	50.2	mg/kg	08.18.2020 18:00		1
Total GRO-DRO	PHC628	853	50.2	mg/kg	08.18.2020 18:00		1
Total TPH	PHC635	952	50.2	mg/kg	08.18.2020 18:00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	08.18.2020 18:00	
o-Terphenyl	84-15-1	85	%	70-135	08.18.2020 18:00	



Certificate of Analytical Results 670314

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS27	Matrix: Soil	Date Received: 08.18.2020 13:48
Lab Sample Id: 670314-006	Date Collected: 08.18.2020 11:15	Sample Depth: 7 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.18.2020 15:00	Basis: Wet Weight
Seq Number: 3134914		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.18.2020 23:27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.18.2020 23:27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.18.2020 23:27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.18.2020 23:27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.18.2020 23:27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.18.2020 23:27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.18.2020 23:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	08.18.2020 23:27	
4-Bromofluorobenzene	460-00-4	112	%	70-130	08.18.2020 23:27	



Certificate of Analytical Results 670314

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **FS28** Matrix: Soil Date Received: 08.18.2020 13:48
 Lab Sample Id: 670314-007 Date Collected: 08.18.2020 11:20 Sample Depth: 7 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.18.2020 12:48 Basis: Wet Weight
 Seq Number: 3134919

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2870	397	mg/kg	08.18.2020 17:25		40

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.18.2020 16:15 Basis: Wet Weight
 Seq Number: 3134923

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	08.18.2020 18:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	493	50.2	mg/kg	08.18.2020 18:21		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	68.6	50.2	mg/kg	08.18.2020 18:21		1
Total GRO-DRO	PHC628	493	50.2	mg/kg	08.18.2020 18:21		1
Total TPH	PHC635	562	50.2	mg/kg	08.18.2020 18:21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.18.2020 18:21	
o-Terphenyl	84-15-1	96	%	70-135	08.18.2020 18:21	



Certificate of Analytical Results 670314

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS28	Matrix: Soil	Date Received: 08.18.2020 13:48
Lab Sample Id: 670314-007	Date Collected: 08.18.2020 11:20	Sample Depth: 7 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.18.2020 15:00	Basis: Wet Weight
Seq Number: 3134914		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.18.2020 23:50	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.18.2020 23:50	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.18.2020 23:50	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	08.18.2020 23:50	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.18.2020 23:50	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.18.2020 23:50	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.18.2020 23:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	08.18.2020 23:50	
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.18.2020 23:50	



Certificate of Analytical Results 670314

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **FS29** Matrix: Soil Date Received: 08.18.2020 13:48
 Lab Sample Id: 670314-008 Date Collected: 08.18.2020 12:05 Sample Depth: 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.18.2020 12:48 Basis: Wet Weight
 Seq Number: 3134919

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	309	9.98	mg/kg	08.18.2020 17:30		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.18.2020 16:15 Basis: Wet Weight
 Seq Number: 3134923

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.18.2020 18:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	227	49.8	mg/kg	08.18.2020 18:41		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.18.2020 18:41	U	1
Total GRO-DRO	PHC628	227	49.8	mg/kg	08.18.2020 18:41		1
Total TPH	PHC635	227	49.8	mg/kg	08.18.2020 18:41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.18.2020 18:41	
o-Terphenyl	84-15-1	86	%	70-135	08.18.2020 18:41	



Certificate of Analytical Results 670314

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS29	Matrix: Soil	Date Received: 08.18.2020 13:48
Lab Sample Id: 670314-008	Date Collected: 08.18.2020 12:05	Sample Depth: 6 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.18.2020 15:00	Basis: Wet Weight
Seq Number: 3134914		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.19.2020 00:12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.19.2020 00:12	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.19.2020 00:12	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.19.2020 00:12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.19.2020 00:12	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.19.2020 00:12	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.19.2020 00:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	08.19.2020 00:12	
4-Bromofluorobenzene	460-00-4	98	%	70-130	08.19.2020 00:12	



Certificate of Analytical Results 670314

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **FS30** Matrix: Soil Date Received: 08.18.2020 13:48
 Lab Sample Id: 670314-009 Date Collected: 08.18.2020 12:10 Sample Depth: 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.18.2020 12:48 Basis: Wet Weight
 Seq Number: 3134919

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1040	398	mg/kg	08.18.2020 17:36		40

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.18.2020 16:15 Basis: Wet Weight
 Seq Number: 3134923

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	08.18.2020 19:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	847	50.2	mg/kg	08.18.2020 19:01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	85.9	50.2	mg/kg	08.18.2020 19:01		1
Total GRO-DRO	PHC628	847	50.2	mg/kg	08.18.2020 19:01		1
Total TPH	PHC635	933	50.2	mg/kg	08.18.2020 19:01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.18.2020 19:01	
o-Terphenyl	84-15-1	89	%	70-135	08.18.2020 19:01	



Certificate of Analytical Results 670314

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS30	Matrix: Soil	Date Received: 08.18.2020 13:48
Lab Sample Id: 670314-009	Date Collected: 08.18.2020 12:10	Sample Depth: 6 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.18.2020 15:00	Basis: Wet Weight
Seq Number: 3134914		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.19.2020 00:35	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.19.2020 00:35	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.19.2020 00:35	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.19.2020 00:35	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.19.2020 00:35	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.19.2020 00:35	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.19.2020 00:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	08.19.2020 00:35	
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.19.2020 00:35	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.
Nash 53 SWD

Analytical Method: Chloride by EPA 300

Seq Number: 3134919
MB Sample Id: 7709667-1-BLK

Matrix: Solid
LCS Sample Id: 7709667-1-BKS

Prep Method: E300P
Date Prep: 08.18.2020
LCSD Sample Id: 7709667-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	261	104	263	105	90-110	1	20	mg/kg	08.18.2020 15:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3134919
Parent Sample Id: 670249-005

Matrix: Soil
MS Sample Id: 670249-005 S

Prep Method: E300P
Date Prep: 08.18.2020
MSD Sample Id: 670249-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1420	198	1630	106	1600	90	90-110	2	20	mg/kg	08.18.2020 15:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3134919
Parent Sample Id: 670314-004

Matrix: Soil
MS Sample Id: 670314-004 S

Prep Method: E300P
Date Prep: 08.18.2020
MSD Sample Id: 670314-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2140	247	2370	93	2380	97	90-110	0	20	mg/kg	08.18.2020 16:51	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134923
MB Sample Id: 7709645-1-BLK

Matrix: Solid
LCS Sample Id: 7709645-1-BKS

Prep Method: SW8015P
Date Prep: 08.18.2020
LCSD Sample Id: 7709645-1-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	979	98	956	96	70-135	2	35	mg/kg	08.18.2020 10:35	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	971	97	70-135	4	35	mg/kg	08.18.2020 10:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		116		112		70-135	%	08.18.2020 10:35
o-Terphenyl	83		101		98		70-135	%	08.18.2020 10:35

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134923

Matrix: Solid
MB Sample Id: 7709645-1-BLK

Prep Method: SW8015P
Date Prep: 08.18.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.18.2020 10:15	

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.
Nash 53 SWD

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134923
Parent Sample Id: 670249-001

Matrix: Soil
MS Sample Id: 670249-001 S

Prep Method: SW8015P
Date Prep: 08.18.2020
MSD Sample Id: 670249-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	859	86	879	88	70-135	2	35	mg/kg	08.18.2020 11:36	
Diesel Range Organics (DRO)	<49.9	998	882	88	889	89	70-135	1	35	mg/kg	08.18.2020 11:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		106		70-135	%	08.18.2020 11:36
o-Terphenyl	92		93		70-135	%	08.18.2020 11:36

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134914
MB Sample Id: 7709668-1-BLK

Matrix: Solid
LCS Sample Id: 7709668-1-BKS

Prep Method: SW5035A
Date Prep: 08.18.2020
LCSD Sample Id: 7709668-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.100	100	0.108	108	70-130	8	35	mg/kg	08.18.2020 13:38	
Toluene	<0.00200	0.100	0.0965	97	0.104	104	70-130	7	35	mg/kg	08.18.2020 13:38	
Ethylbenzene	<0.00200	0.100	0.0901	90	0.0969	97	71-129	7	35	mg/kg	08.18.2020 13:38	
m,p-Xylenes	<0.00400	0.200	0.182	91	0.197	99	70-135	8	35	mg/kg	08.18.2020 13:38	
o-Xylene	<0.00200	0.100	0.0894	89	0.0956	96	71-133	7	35	mg/kg	08.18.2020 13:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		99		98		70-130	%	08.18.2020 13:38
4-Bromofluorobenzene	87		94		94		70-130	%	08.18.2020 13:38

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134914
Parent Sample Id: 670249-001

Matrix: Soil
MS Sample Id: 670249-001 S

Prep Method: SW5035A
Date Prep: 08.18.2020
MSD Sample Id: 670249-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.112	112	0.108	108	70-130	4	35	mg/kg	08.18.2020 19:55	
Toluene	<0.00200	0.0998	0.109	109	0.103	103	70-130	6	35	mg/kg	08.18.2020 19:55	
Ethylbenzene	<0.00200	0.0998	0.101	101	0.0957	96	71-129	5	35	mg/kg	08.18.2020 19:55	
m,p-Xylenes	<0.00399	0.200	0.206	103	0.194	97	70-135	6	35	mg/kg	08.18.2020 19:55	
o-Xylene	<0.00200	0.0998	0.102	102	0.0962	96	71-133	6	35	mg/kg	08.18.2020 19:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		70-130	%	08.18.2020 19:55
4-Bromofluorobenzene	93		88		70-130	%	08.18.2020 19:55

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: 1070814

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8900) Tampa, FL (813-620-2000)

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Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 West Mermond
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	bnaka@ltenv.com, dmair@ltenv.com

Program: UST/PST	<input type="checkbox"/> RP	<input type="checkbox"/> Crownfields	<input type="checkbox"/> RC	<input type="checkbox"/> 1perfund
State of Project:				
Reporting Level II	<input type="checkbox"/> Level III	<input type="checkbox"/> BT/UST	<input type="checkbox"/> RP	<input type="checkbox"/> Level IV
Deliverables: EDD	<input type="checkbox"/>	ADAPT	<input type="checkbox"/>	Other: <input type="checkbox"/>

Project Name:	Nash 53 SWD	Turn Around	
Project Number:	012919139	Routine	<input type="checkbox"/>
P.O. Number:	Eddy County	Rush	<input checked="" type="checkbox"/>
Sampler's Name:	Elizabeth Naka	Due Date:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	1.6/1.4			Thermometer ID		
Received Intact:	Yes	No			Correction Factor:	0.09
Cooler Custody Seals:	Yes	No			Total Containers:	008
Sample Custody Seals:	Yes	No				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	Work Order Notes
FS22	S	08/18/20	0925	6'	1	X	X	X	Composite
FS23	S	1030			1	X	X		
FS24	S	1125			1	X	X		
FS25	S	1100			1	X	X		
FS26	S	1130			1	X	X		
FS27	S	1115		7'	1	X	X		
FS28	S	1120		7'	1	X	X		
FS29	S	1205		6'	1	X	X		
FS30	S	1210		6'	1	X	X		

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr 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
<i>[Signature]</i>	<i>[Signature]</i>	8-18-20 13:45			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08.18.2020 01.48.00 PM

Work Order #: 670314

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : T_NM_007

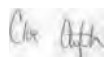
Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.4	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	Yes	
#6*Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	Samples received in bulk containers.
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	No	
#18 Water VOC samples have zero headspace?	N/A	

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 08.18.2020

Checklist reviewed by:



Jessica Kramer

Date: 08.19.2020

Certificate of Analysis Summary 670903

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue 08.25.2020 13:00
Report Date: 08.26.2020 13:18
Project Manager: Jessica Kramer

<i>Lab Id:</i>		670903-001	670903-002	670903-003	670903-004	670903-005	670903-006
<i>Field Id:</i>		SW05	FS26A	FS27A	FS28A	FS29A	FS30A
<i>Depth:</i>		6- ft	0-6.25 ft	0-7.25 ft	0-7.25 ft	0-6.25 ft	0-6.25 ft
<i>Matrix:</i>		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
<i>Sampled:</i>		08.25.2020 08:25	08.25.2020 08:30	08.25.2020 08:35	08.25.2020 08:40	08.25.2020 09:15	08.25.2020 09:20
BTEX by EPA 8021B							
<i>Extracted:</i>		08.25.2020 14:44	08.25.2020 14:44	08.25.2020 14:44	08.25.2020 14:44	08.25.2020 14:44	08.25.2020 14:44
<i>Analyzed:</i>		08.25.2020 23:43	08.26.2020 00:05	08.26.2020 00:28	08.26.2020 00:50	08.26.2020 01:13	08.26.2020 01:35
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198
Toluene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198
Ethylbenzene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198
m,p-Xylenes		<0.00397 0.00397	<0.00399 0.00399	<0.00398 0.00398	<0.00401 0.00401	<0.00402 0.00402	<0.00397 0.00397
o-Xylene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198
Total Xylenes		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198
Total BTEX		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198
Chloride by EPA 300							
<i>Extracted:</i>		08.25.2020 17:22	08.25.2020 17:22	08.25.2020 17:22	08.25.2020 17:22	08.25.2020 17:22	08.25.2020 17:22
<i>Analyzed:</i>		08.25.2020 22:02	08.25.2020 22:27	08.25.2020 22:35	08.25.2020 22:43	08.25.2020 22:52	08.25.2020 23:16
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1270 50.1	713 49.6	1600 49.5	4760 50.4	1650 49.7	4070 49.7
TPH by SW8015 Mod							
<i>Extracted:</i>		08.25.2020 15:10	08.25.2020 15:10	08.25.2020 15:10	08.25.2020 15:10	08.25.2020 15:10	08.25.2020 15:10
<i>Analyzed:</i>		08.25.2020 16:50	08.25.2020 20:31	08.25.2020 17:10	08.25.2020 17:50	08.25.2020 18:10	08.25.2020 18:30
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0
Diesel Range Organics (DRO)		122 49.9	1200 49.8	197 49.9	120 50.0	133 49.9	115 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	205 49.8	<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0
Total GRO-DRO		122 49.9	1200 49.8	197 49.9	120 50.0	133 49.9	115 50.0
Total TPH		122 49.9	1410 49.8	197 49.9	120 50.0	133 49.9	115 50.0



BRL - Below Reporting Limit

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Certificate of Analysis Summary 670903

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue 08.25.2020 13:00
Report Date: 08.26.2020 13:18
Project Manager: Jessica Kramer

<i>Lab Id:</i>		670903-007	670903-008	670903-009	670903-010	670903-011	670903-012
<i>Field Id:</i>		SW06	SW07	SW08	SW09	SW10	SW11
<i>Depth:</i>		0-6.25 ft	0-7.25 ft	6- ft	0-10 ft	0-7.25 ft	5- ft
<i>Matrix:</i>		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
<i>Sampled:</i>		08.25.2020 09:25	08.25.2020 09:30	08.25.2020 10:10	08.25.2020 10:15	08.25.2020 10:20	08.25.2020 10:55
BTEX by EPA 8021B							
<i>Extracted:</i>		08.25.2020 14:44	08.25.2020 14:44	08.25.2020 15:07	08.25.2020 15:07	08.25.2020 15:07	08.25.2020 15:07
<i>Analyzed:</i>		08.26.2020 01:57	08.26.2020 02:20	08.25.2020 17:24	08.25.2020 17:44	08.25.2020 18:05	08.25.2020 18:25
<i>Units/RL:</i>		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene		<0.00199	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
Toluene		0.00199	0.00200	0.00200	0.00200	0.00200	0.00200
Ethylbenzene		<0.00199	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
m,p-Xylenes		<0.00398	0.00399	0.00400	<0.00400	0.00400	<0.00400
o-Xylene		<0.00199	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
Total Xylenes		<0.00199	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
Total BTEX		<0.00199	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
Chloride by EPA 300							
<i>Extracted:</i>		08.25.2020 17:22	08.25.2020 17:22	08.25.2020 17:22	08.25.2020 17:22	08.25.2020 17:22	08.25.2020 17:22
<i>Analyzed:</i>		08.25.2020 23:24	08.25.2020 23:32	08.25.2020 23:41	08.25.2020 23:49	08.25.2020 23:57	08.26.2020 00:22
<i>Units/RL:</i>		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloride		5260	5010	2550	1900	4780	15200
TPH by SW8015 Mod							
<i>Extracted:</i>		08.25.2020 15:10	08.25.2020 15:10	08.25.2020 15:10	08.25.2020 15:10	08.25.2020 15:10	08.25.2020 15:10
<i>Analyzed:</i>		08.25.2020 20:51	08.25.2020 18:51	08.25.2020 19:10	08.25.2020 19:31	08.25.2020 19:51	08.25.2020 20:11
<i>Units/RL:</i>		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Gasoline Range Hydrocarbons (GRO)		<50.0	<50.0	<50.0	<50.0	<49.8	<49.9
Diesel Range Organics (DRO)		2520	658	367	1340	919	1830
Motor Oil Range Hydrocarbons (MRO)		343	104	<50.0	170	167	250
Total GRO-DRO		2520	658	367	1340	919	1830
Total TPH		2860	762	367	1510	1090	2080

Jessica Kramer

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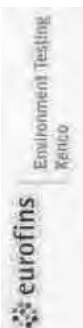
Certificate of Analysis Summary 670903

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue 08.25.2020 13:00
Report Date: 08.26.2020 13:18
Project Manager: Jessica Kramer



		670903-013	670903-014	670903-015	670903-016
<i>Lab Id:</i>		FS31	FS32	SW12	SW13
<i>Field Id:</i>		6- ft	6- ft	0-6 ft	0-6
<i>Depth:</i>		SOIL	SOIL	SOIL	SOIL
<i>Matrix:</i>					
<i>Sampled:</i>		08.25.2020 11:15	08.25.2020 11:20	08.25.2020 11:25	08.25.2020 11:30
BTEX by EPA 8021B					
<i>Extracted:</i>		08.25.2020 15:07	08.25.2020 15:07	08.25.2020 15:07	08.25.2020 15:07
<i>Analyzed:</i>		08.25.2020 18:46	08.25.2020 19:06	08.25.2020 19:26	08.25.2020 19:47
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00400 0.00400	<0.00400 0.00400	<0.00400 0.00400	<0.00400 0.00400
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300					
<i>Extracted:</i>		08.25.2020 17:22	08.25.2020 17:22	08.25.2020 17:22	08.25.2020 17:22
<i>Analyzed:</i>		08.26.2020 00:30	08.26.2020 00:54	08.26.2020 01:02	08.26.2020 01:11
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		2890 200	2460 49.6	1440 50.3	2230 199
TPH by SW8015 Mod					
<i>Extracted:</i>		08.25.2020 15:10	08.25.2020 15:10	08.25.2020 15:10	08.25.2020 15:10
<i>Analyzed:</i>		08.25.2020 15:29	08.25.2020 15:49	08.25.2020 16:10	08.25.2020 16:30
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9
Diesel Range Organics (DRO)		139 49.9	69.9 50.0	<49.9 49.9	93.1 49.9
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9
Total GRO-DRO		139 49.9	69.9 50.0	<49.9 49.9	93.1 49.9
Total TPH		139 49.9	69.9 50.0	<49.9 49.9	93.1 49.9

Jessica Kramer

BRL - Below Reporting Limit

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Analytical Report 670903

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash 53 SWD

012919139

08.26.2020

Collected By: Client

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

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

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

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



08.26.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **670903**
Nash 53 SWD
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 Eurofins Xenco, LLC Report Number(s) 670903. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 670903 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer
Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 670903

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW05	S	08.25.2020 08:25	6 ft	670903-001
FS26A	S	08.25.2020 08:30	0 - 6.25 ft	670903-002
FS27A	S	08.25.2020 08:35	0 - 7.25 ft	670903-003
FS28A	S	08.25.2020 08:40	0 - 7.25 ft	670903-004
FS29A	S	08.25.2020 09:15	0 - 6.25 ft	670903-005
FS30A	S	08.25.2020 09:20	0 - 6.25 ft	670903-006
SW06	S	08.25.2020 09:25	0 - 6.25 ft	670903-007
SW07	S	08.25.2020 09:30	0 - 7.25 ft	670903-008
SW08	S	08.25.2020 10:10	6 ft	670903-009
SW09	S	08.25.2020 10:15	0 - 10 ft	670903-010
SW10	S	08.25.2020 10:20	0 - 7.25 ft	670903-011
SW11	S	08.25.2020 10:55	5 ft	670903-012
FS31	S	08.25.2020 11:15	6 ft	670903-013
FS32	S	08.25.2020 11:20	6 ft	670903-014
SW12	S	08.25.2020 11:25	0 - 6 ft	670903-015
SW13	S	08.25.2020 11:30	0 - 6	670903-016

CASE NARRATIVE



Client Name: LT Environmental, Inc.

Project Name: Nash 53 SWD

Project ID: 012919139
Work Order Number(s): 670903

Report Date: 08.26.2020
Date Received: 08.25.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 670903

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **SW05** Matrix: Soil Date Received: 08.25.2020 13:00
 Lab Sample Id: 670903-001 Date Collected: 08.25.2020 08:25 Sample Depth: 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.25.2020 17:22 Basis: Wet Weight
 Seq Number: 3135564

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1270	50.1	mg/kg	08.25.2020 22:02		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.25.2020 15:10 Basis: Wet Weight
 Seq Number: 3135540

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.25.2020 16:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	122	49.9	mg/kg	08.25.2020 16:50		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.25.2020 16:50	U	1
Total GRO-DRO	PHC628	122	49.9	mg/kg	08.25.2020 16:50		1
Total TPH	PHC635	122	49.9	mg/kg	08.25.2020 16:50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	08.25.2020 16:50	
o-Terphenyl	84-15-1	109	%	70-135	08.25.2020 16:50	



Certificate of Analytical Results 670903

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW05	Matrix: Soil	Date Received: 08.25.2020 13:00
Lab Sample Id: 670903-001	Date Collected: 08.25.2020 08:25	Sample Depth: 6 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.25.2020 14:44	Basis: Wet Weight
Seq Number: 3135559		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.25.2020 23:43	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.25.2020 23:43	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.25.2020 23:43	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.25.2020 23:43	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.25.2020 23:43	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.25.2020 23:43	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.25.2020 23:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	08.25.2020 23:43	
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.25.2020 23:43	



Certificate of Analytical Results 670903

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS26A** Matrix: Soil Date Received: 08.25.2020 13:00
 Lab Sample Id: 670903-002 Date Collected: 08.25.2020 08:30 Sample Depth: 0 - 6.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.25.2020 17:22 Basis: Wet Weight
 Seq Number: 3135564

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	713	49.6	mg/kg	08.25.2020 22:27		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.25.2020 15:10 Basis: Wet Weight
 Seq Number: 3135540

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.25.2020 20:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	1200	49.8	mg/kg	08.25.2020 20:31		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	205	49.8	mg/kg	08.25.2020 20:31		1
Total GRO-DRO	PHC628	1200	49.8	mg/kg	08.25.2020 20:31		1
Total TPH	PHC635	1410	49.8	mg/kg	08.25.2020 20:31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	08.25.2020 20:31	
o-Terphenyl	84-15-1	116	%	70-135	08.25.2020 20:31	



Certificate of Analytical Results 670903

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS26A	Matrix: Soil	Date Received: 08.25.2020 13:00
Lab Sample Id: 670903-002	Date Collected: 08.25.2020 08:30	Sample Depth: 0 - 6.25 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.25.2020 14:44	Basis: Wet Weight
Seq Number: 3135559		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.26.2020 00:05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.26.2020 00:05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.26.2020 00:05	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.26.2020 00:05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.26.2020 00:05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.26.2020 00:05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.26.2020 00:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.26.2020 00:05	
4-Bromofluorobenzene	460-00-4	90	%	70-130	08.26.2020 00:05	



Certificate of Analytical Results 670903

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **FS27A** Matrix: Soil Date Received: 08.25.2020 13:00
 Lab Sample Id: 670903-003 Date Collected: 08.25.2020 08:35 Sample Depth: 0 - 7.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.25.2020 17:22 Basis: Wet Weight
 Seq Number: 3135564

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1600	49.5	mg/kg	08.25.2020 22:35		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.25.2020 15:10 Basis: Wet Weight
 Seq Number: 3135540

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.25.2020 17:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	197	49.9	mg/kg	08.25.2020 17:10		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.25.2020 17:10	U	1
Total GRO-DRO	PHC628	197	49.9	mg/kg	08.25.2020 17:10		1
Total TPH	PHC635	197	49.9	mg/kg	08.25.2020 17:10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	08.25.2020 17:10	
o-Terphenyl	84-15-1	109	%	70-135	08.25.2020 17:10	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS27A	Matrix: Soil	Date Received: 08.25.2020 13:00
Lab Sample Id: 670903-003	Date Collected: 08.25.2020 08:35	Sample Depth: 0 - 7.25 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.25.2020 14:44	Basis: Wet Weight
Seq Number: 3135559		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.26.2020 00:28	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.26.2020 00:28	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.26.2020 00:28	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.26.2020 00:28	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.26.2020 00:28	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.26.2020 00:28	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.26.2020 00:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.26.2020 00:28	
4-Bromofluorobenzene	460-00-4	87	%	70-130	08.26.2020 00:28	



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LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **FS28A** Matrix: Soil Date Received: 08.25.2020 13:00
 Lab Sample Id: 670903-004 Date Collected: 08.25.2020 08:40 Sample Depth: 0 - 7.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.25.2020 17:22 Basis: Wet Weight
 Seq Number: 3135564

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4760	50.4	mg/kg	08.25.2020 22:43		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.25.2020 15:10 Basis: Wet Weight
 Seq Number: 3135540

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.25.2020 17:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	120	50.0	mg/kg	08.25.2020 17:50		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.25.2020 17:50	U	1
Total GRO-DRO	PHC628	120	50.0	mg/kg	08.25.2020 17:50		1
Total TPH	PHC635	120	50.0	mg/kg	08.25.2020 17:50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	08.25.2020 17:50	
o-Terphenyl	84-15-1	105	%	70-135	08.25.2020 17:50	



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LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **FS28A** Matrix: Soil Date Received: 08.25.2020 13:00
 Lab Sample Id: 670903-004 Date Collected: 08.25.2020 08:40 Sample Depth: 0 - 7.25 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.25.2020 14:44 Basis: Wet Weight
 Seq Number: 3135559

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.26.2020 00:50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.26.2020 00:50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.26.2020 00:50	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.26.2020 00:50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.26.2020 00:50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.26.2020 00:50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.26.2020 00:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	08.26.2020 00:50	
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.26.2020 00:50	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS29A** Matrix: Soil Date Received: 08.25.2020 13:00
 Lab Sample Id: 670903-005 Date Collected: 08.25.2020 09:15 Sample Depth: 0 - 6.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.25.2020 17:22 Basis: Wet Weight
 Seq Number: 3135564

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1650	49.7	mg/kg	08.25.2020 22:52		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.25.2020 15:10 Basis: Wet Weight
 Seq Number: 3135540

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.25.2020 18:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	133	49.9	mg/kg	08.25.2020 18:10		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.25.2020 18:10	U	1
Total GRO-DRO	PHC628	133	49.9	mg/kg	08.25.2020 18:10		1
Total TPH	PHC635	133	49.9	mg/kg	08.25.2020 18:10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	08.25.2020 18:10	
o-Terphenyl	84-15-1	109	%	70-135	08.25.2020 18:10	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS29A	Matrix: Soil	Date Received: 08.25.2020 13:00
Lab Sample Id: 670903-005	Date Collected: 08.25.2020 09:15	Sample Depth: 0 - 6.25 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.25.2020 14:44	Basis: Wet Weight
Seq Number: 3135559		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.26.2020 01:13	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.26.2020 01:13	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.26.2020 01:13	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.26.2020 01:13	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.26.2020 01:13	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.26.2020 01:13	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.26.2020 01:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	89	%	70-130	08.26.2020 01:13	
1,4-Difluorobenzene	540-36-3	102	%	70-130	08.26.2020 01:13	



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Nash 53 SWD

Sample Id: **FS30A** Matrix: Soil Date Received: 08.25.2020 13:00
 Lab Sample Id: 670903-006 Date Collected: 08.25.2020 09:20 Sample Depth: 0 - 6.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.25.2020 17:22 Basis: Wet Weight
 Seq Number: 3135564

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4070	49.7	mg/kg	08.25.2020 23:16		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.25.2020 15:10 Basis: Wet Weight
 Seq Number: 3135540

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.25.2020 18:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	115	50.0	mg/kg	08.25.2020 18:30		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.25.2020 18:30	U	1
Total GRO-DRO	PHC628	115	50.0	mg/kg	08.25.2020 18:30		1
Total TPH	PHC635	115	50.0	mg/kg	08.25.2020 18:30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	08.25.2020 18:30	
o-Terphenyl	84-15-1	110	%	70-135	08.25.2020 18:30	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS30A	Matrix: Soil	Date Received: 08.25.2020 13:00
Lab Sample Id: 670903-006	Date Collected: 08.25.2020 09:20	Sample Depth: 0 - 6.25 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.25.2020 14:44	Basis: Wet Weight
Seq Number: 3135559		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.26.2020 01:35	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.26.2020 01:35	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.26.2020 01:35	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.26.2020 01:35	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.26.2020 01:35	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.26.2020 01:35	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.26.2020 01:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	08.26.2020 01:35	
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.26.2020 01:35	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **SW06** Matrix: Soil Date Received: 08.25.2020 13:00
 Lab Sample Id: 670903-007 Date Collected: 08.25.2020 09:25 Sample Depth: 0 - 6.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.25.2020 17:22 Basis: Wet Weight
 Seq Number: 3135564

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5260	200	mg/kg	08.25.2020 23:24		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.25.2020 15:10 Basis: Wet Weight
 Seq Number: 3135540

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.25.2020 20:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	2520	50.0	mg/kg	08.25.2020 20:51		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	343	50.0	mg/kg	08.25.2020 20:51		1
Total GRO-DRO	PHC628	2520	50.0	mg/kg	08.25.2020 20:51		1
Total TPH	PHC635	2860	50.0	mg/kg	08.25.2020 20:51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	08.25.2020 20:51	
o-Terphenyl	84-15-1	107	%	70-135	08.25.2020 20:51	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW06	Matrix: Soil	Date Received: 08.25.2020 13:00
Lab Sample Id: 670903-007	Date Collected: 08.25.2020 09:25	Sample Depth: 0 - 6.25 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.25.2020 14:44	Basis: Wet Weight
Seq Number: 3135559		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.26.2020 01:57	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.26.2020 01:57	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.26.2020 01:57	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.26.2020 01:57	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.26.2020 01:57	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.26.2020 01:57	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.26.2020 01:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	88	%	70-130	08.26.2020 01:57	
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.26.2020 01:57	



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LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **SW07** Matrix: Soil Date Received: 08.25.2020 13:00
 Lab Sample Id: 670903-008 Date Collected: 08.25.2020 09:30 Sample Depth: 0 - 7.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.25.2020 17:22 Basis: Wet Weight
 Seq Number: 3135564

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5010	201	mg/kg	08.25.2020 23:32		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.25.2020 15:10 Basis: Wet Weight
 Seq Number: 3135540

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.25.2020 18:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	658	50.0	mg/kg	08.25.2020 18:51		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	104	50.0	mg/kg	08.25.2020 18:51		1
Total GRO-DRO	PHC628	658	50.0	mg/kg	08.25.2020 18:51		1
Total TPH	PHC635	762	50.0	mg/kg	08.25.2020 18:51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	08.25.2020 18:51	
o-Terphenyl	84-15-1	106	%	70-135	08.25.2020 18:51	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW07	Matrix: Soil	Date Received: 08.25.2020 13:00
Lab Sample Id: 670903-008	Date Collected: 08.25.2020 09:30	Sample Depth: 0 - 7.25 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.25.2020 14:44	Basis: Wet Weight
Seq Number: 3135559		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.26.2020 02:20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.26.2020 02:20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.26.2020 02:20	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.26.2020 02:20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.26.2020 02:20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.26.2020 02:20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.26.2020 02:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	08.26.2020 02:20	
4-Bromofluorobenzene	460-00-4	74	%	70-130	08.26.2020 02:20	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **SW08** Matrix: Soil Date Received: 08.25.2020 13:00
 Lab Sample Id: 670903-009 Date Collected: 08.25.2020 10:10 Sample Depth: 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.25.2020 17:22 Basis: Wet Weight
 Seq Number: 3135564

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2550	49.6	mg/kg	08.25.2020 23:41		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.25.2020 15:10 Basis: Wet Weight
 Seq Number: 3135540

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.25.2020 19:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	367	50.0	mg/kg	08.25.2020 19:10		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.25.2020 19:10	U	1
Total GRO-DRO	PHC628	367	50.0	mg/kg	08.25.2020 19:10		1
Total TPH	PHC635	367	50.0	mg/kg	08.25.2020 19:10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	08.25.2020 19:10	
o-Terphenyl	84-15-1	105	%	70-135	08.25.2020 19:10	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW08	Matrix: Soil	Date Received: 08.25.2020 13:00
Lab Sample Id: 670903-009	Date Collected: 08.25.2020 10:10	Sample Depth: 6 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.25.2020 15:07	Basis: Wet Weight
Seq Number: 3135561		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.25.2020 17:24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.25.2020 17:24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.25.2020 17:24	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.25.2020 17:24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.25.2020 17:24	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.25.2020 17:24	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.25.2020 17:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	08.25.2020 17:24	
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.25.2020 17:24	



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LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **SW09** Matrix: Soil Date Received: 08.25.2020 13:00
 Lab Sample Id: 670903-010 Date Collected: 08.25.2020 10:15 Sample Depth: 0 - 10 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.25.2020 17:22 Basis: Wet Weight
 Seq Number: 3135564

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1900	49.6	mg/kg	08.25.2020 23:49		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.25.2020 15:10 Basis: Wet Weight
 Seq Number: 3135540

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.25.2020 19:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	1340	50.0	mg/kg	08.25.2020 19:31		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	170	50.0	mg/kg	08.25.2020 19:31		1
Total GRO-DRO	PHC628	1340	50.0	mg/kg	08.25.2020 19:31		1
Total TPH	PHC635	1510	50.0	mg/kg	08.25.2020 19:31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	08.25.2020 19:31	
o-Terphenyl	84-15-1	98	%	70-135	08.25.2020 19:31	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW09	Matrix: Soil	Date Received: 08.25.2020 13:00
Lab Sample Id: 670903-010	Date Collected: 08.25.2020 10:15	Sample Depth: 0 - 10 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.25.2020 15:07	Basis: Wet Weight
Seq Number: 3135561		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.25.2020 17:44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.25.2020 17:44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.25.2020 17:44	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.25.2020 17:44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.25.2020 17:44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.25.2020 17:44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.25.2020 17:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	08.25.2020 17:44	
4-Bromofluorobenzene	460-00-4	101	%	70-130	08.25.2020 17:44	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **SW10** Matrix: Soil Date Received: 08.25.2020 13:00
 Lab Sample Id: 670903-011 Date Collected: 08.25.2020 10:20 Sample Depth: 0 - 7.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.25.2020 17:22 Basis: Wet Weight
 Seq Number: 3135564

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4780	198	mg/kg	08.25.2020 23:57		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.25.2020 15:10 Basis: Wet Weight
 Seq Number: 3135540

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.25.2020 19:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	919	49.8	mg/kg	08.25.2020 19:51		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	167	49.8	mg/kg	08.25.2020 19:51		1
Total GRO-DRO	PHC628	919	49.8	mg/kg	08.25.2020 19:51		1
Total TPH	PHC635	1090	49.8	mg/kg	08.25.2020 19:51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	08.25.2020 19:51	
o-Terphenyl	84-15-1	109	%	70-135	08.25.2020 19:51	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW10	Matrix: Soil	Date Received: 08.25.2020 13:00
Lab Sample Id: 670903-011	Date Collected: 08.25.2020 10:20	Sample Depth: 0 - 7.25 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.25.2020 15:07	Basis: Wet Weight
Seq Number: 3135561		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.25.2020 18:05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.25.2020 18:05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.25.2020 18:05	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.25.2020 18:05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.25.2020 18:05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.25.2020 18:05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.25.2020 18:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	08.25.2020 18:05	
4-Bromofluorobenzene	460-00-4	107	%	70-130	08.25.2020 18:05	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **SW11** Matrix: Soil Date Received: 08.25.2020 13:00
 Lab Sample Id: 670903-012 Date Collected: 08.25.2020 10:55 Sample Depth: 5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.25.2020 17:22 Basis: Wet Weight
 Seq Number: 3135564

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15200	200	mg/kg	08.26.2020 00:22		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.25.2020 15:10 Basis: Wet Weight
 Seq Number: 3135540

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.25.2020 20:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	1830	49.9	mg/kg	08.25.2020 20:11		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	250	49.9	mg/kg	08.25.2020 20:11		1
Total GRO-DRO	PHC628	1830	49.9	mg/kg	08.25.2020 20:11		1
Total TPH	PHC635	2080	49.9	mg/kg	08.25.2020 20:11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	08.25.2020 20:11	
o-Terphenyl	84-15-1	106	%	70-135	08.25.2020 20:11	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW11	Matrix: Soil	Date Received: 08.25.2020 13:00
Lab Sample Id: 670903-012	Date Collected: 08.25.2020 10:55	Sample Depth: 5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.25.2020 15:07	Basis: Wet Weight
Seq Number: 3135561		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.25.2020 18:25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.25.2020 18:25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.25.2020 18:25	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.25.2020 18:25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.25.2020 18:25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.25.2020 18:25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.25.2020 18:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	08.25.2020 18:25	
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.25.2020 18:25	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS31	Matrix: Soil	Date Received: 08.25.2020 13:00
Lab Sample Id: 670903-013	Date Collected: 08.25.2020 11:15	Sample Depth: 6 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.25.2020 17:22	Basis: Wet Weight
Seq Number: 3135564		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2890	200	mg/kg	08.26.2020 00:30		20

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.25.2020 15:10	Basis: Wet Weight
Seq Number: 3135540		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.25.2020 15:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	139	49.9	mg/kg	08.25.2020 15:29		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.25.2020 15:29	U	1
Total GRO-DRO	PHC628	139	49.9	mg/kg	08.25.2020 15:29		1
Total TPH	PHC635	139	49.9	mg/kg	08.25.2020 15:29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	08.25.2020 15:29	
o-Terphenyl	84-15-1	112	%	70-135	08.25.2020 15:29	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS31	Matrix: Soil	Date Received: 08.25.2020 13:00
Lab Sample Id: 670903-013	Date Collected: 08.25.2020 11:15	Sample Depth: 6 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.25.2020 15:07	Basis: Wet Weight
Seq Number: 3135561		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.25.2020 18:46	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.25.2020 18:46	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.25.2020 18:46	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.25.2020 18:46	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.25.2020 18:46	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.25.2020 18:46	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.25.2020 18:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.25.2020 18:46	
1,4-Difluorobenzene	540-36-3	99	%	70-130	08.25.2020 18:46	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS32	Matrix: Soil	Date Received: 08.25.2020 13:00
Lab Sample Id: 670903-014	Date Collected: 08.25.2020 11:20	Sample Depth: 6 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.25.2020 17:22	Basis: Wet Weight
Seq Number: 3135564		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2460	49.6	mg/kg	08.26.2020 00:54		5

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.25.2020 15:10	Basis: Wet Weight
Seq Number: 3135540		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.25.2020 15:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	69.9	50.0	mg/kg	08.25.2020 15:49		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.25.2020 15:49	U	1
Total GRO-DRO	PHC628	69.9	50.0	mg/kg	08.25.2020 15:49		1
Total TPH	PHC635	69.9	50.0	mg/kg	08.25.2020 15:49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	08.25.2020 15:49	
o-Terphenyl	84-15-1	104	%	70-135	08.25.2020 15:49	



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LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **FS32** Matrix: Soil Date Received: 08.25.2020 13:00
 Lab Sample Id: 670903-014 Date Collected: 08.25.2020 11:20 Sample Depth: 6 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.25.2020 15:07 Basis: Wet Weight
 Seq Number: 3135561

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.25.2020 19:06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.25.2020 19:06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.25.2020 19:06	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.25.2020 19:06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.25.2020 19:06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.25.2020 19:06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.25.2020 19:06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.25.2020 19:06		
1,4-Difluorobenzene	540-36-3	100	%	70-130	08.25.2020 19:06		



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW12	Matrix: Soil	Date Received: 08.25.2020 13:00
Lab Sample Id: 670903-015	Date Collected: 08.25.2020 11:25	Sample Depth: 0 - 6 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.25.2020 17:22	Basis: Wet Weight
Seq Number: 3135564		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1440	50.3	mg/kg	08.26.2020 01:02		5

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.25.2020 15:10	Basis: Wet Weight
Seq Number: 3135540		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.25.2020 16:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.25.2020 16:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.25.2020 16:10	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	08.25.2020 16:10	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.25.2020 16:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	08.25.2020 16:10	
o-Terphenyl	84-15-1	101	%	70-135	08.25.2020 16:10	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **SW12** Matrix: Soil Date Received: 08.25.2020 13:00
 Lab Sample Id: 670903-015 Date Collected: 08.25.2020 11:25 Sample Depth: 0 - 6 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.25.2020 15:07 Basis: Wet Weight
 Seq Number: 3135561

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.25.2020 19:26	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.25.2020 19:26	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.25.2020 19:26	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.25.2020 19:26	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.25.2020 19:26	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.25.2020 19:26	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.25.2020 19:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.25.2020 19:26	
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.25.2020 19:26	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW13	Matrix: Soil	Date Received: 08.25.2020 13:00
Lab Sample Id: 670903-016	Date Collected: 08.25.2020 11:30	Sample Depth: 0 - 6
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.25.2020 17:22	Basis: Wet Weight
Seq Number: 3135564		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2230	199	mg/kg	08.26.2020 01:11		20

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 08.25.2020 15:10	Basis: Wet Weight
Seq Number: 3135540		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.25.2020 16:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	93.1	49.9	mg/kg	08.25.2020 16:30		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.25.2020 16:30	U	1
Total GRO-DRO	PHC628	93.1	49.9	mg/kg	08.25.2020 16:30		1
Total TPH	PHC635	93.1	49.9	mg/kg	08.25.2020 16:30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	08.25.2020 16:30	
o-Terphenyl	84-15-1	101	%	70-135	08.25.2020 16:30	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW13	Matrix: Soil	Date Received: 08.25.2020 13:00
Lab Sample Id: 670903-016	Date Collected: 08.25.2020 11:30	Sample Depth: 0 - 6
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.25.2020 15:07	Basis: Wet Weight
Seq Number: 3135561		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.25.2020 19:47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.25.2020 19:47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.25.2020 19:47	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.25.2020 19:47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.25.2020 19:47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.25.2020 19:47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.25.2020 19:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.25.2020 19:47	
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.25.2020 19:47	



LT Environmental, Inc.
Nash 53 SWD

Analytical Method: Chloride by EPA 300

Seq Number: 3135564
MB Sample Id: 7710150-1-BLK

Matrix: Solid
LCS Sample Id: 7710150-1-BKS

Prep Method: E300P
Date Prep: 08.25.2020
LCSD Sample Id: 7710150-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	258	103	255	102	90-110	1	20	mg/kg	08.25.2020 21:46	

Analytical Method: Chloride by EPA 300

Seq Number: 3135564
Parent Sample Id: 670903-001

Matrix: Soil
MS Sample Id: 670903-001 S

Prep Method: E300P
Date Prep: 08.25.2020
MSD Sample Id: 670903-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1270	201	1490	109	1490	110	90-110	0	20	mg/kg	08.25.2020 22:11	

Analytical Method: Chloride by EPA 300

Seq Number: 3135564
Parent Sample Id: 670903-011

Matrix: Soil
MS Sample Id: 670903-011 S

Prep Method: E300P
Date Prep: 08.25.2020
MSD Sample Id: 670903-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	4780	202	4970	94	4970	95	90-110	0	20	mg/kg	08.26.2020 00:05	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3135540
MB Sample Id: 7710152-1-BLK

Matrix: Solid
LCS Sample Id: 7710152-1-BKS

Prep Method: SW8015P
Date Prep: 08.25.2020
LCSD Sample Id: 7710152-1-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	981	98	1010	101	70-135	3	35	mg/kg	08.25.2020 12:47	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	1050	105	70-135	4	35	mg/kg	08.25.2020 12:47	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	91		117		120		70-135	%	08.25.2020 12:47
o-Terphenyl	88		102		105		70-135	%	08.25.2020 12:47

Analytical Method: TPH by SW8015 Mod

Seq Number: 3135540
MB Sample Id: 7710152-1-BLK

Matrix: Solid

Prep Method: SW8015P
Date Prep: 08.25.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.25.2020 12:27	

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.
Nash 53 SWD

Analytical Method: TPH by SW8015 Mod

Seq Number: 3135540
Parent Sample Id: 670849-001

Matrix: Soil
MS Sample Id: 670849-001 S

Prep Method: SW8015P
Date Prep: 08.25.2020
MSD Sample Id: 670849-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	849	85	852	85	70-135	0	35	mg/kg	08.25.2020 13:48	
Diesel Range Organics (DRO)	<50.0	1000	908	91	911	91	70-135	0	35	mg/kg	08.25.2020 13:48	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		116		70-135	%	08.25.2020 13:48
o-Terphenyl	105		104		70-135	%	08.25.2020 13:48

Analytical Method: BTEX by EPA 8021B

Seq Number: 3135559
MB Sample Id: 7710126-1-BLK

Matrix: Solid
LCS Sample Id: 7710126-1-BKS

Prep Method: SW5035A
Date Prep: 08.25.2020
LCSD Sample Id: 7710126-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.109	109	0.103	103	70-130	6	35	mg/kg	08.25.2020 15:09	
Toluene	<0.00200	0.100	0.104	104	0.0973	97	70-130	7	35	mg/kg	08.25.2020 15:09	
Ethylbenzene	<0.00200	0.100	0.0952	95	0.0873	87	71-129	9	35	mg/kg	08.25.2020 15:09	
m,p-Xylenes	<0.00400	0.200	0.190	95	0.173	87	70-135	9	35	mg/kg	08.25.2020 15:09	
o-Xylene	<0.00200	0.100	0.0947	95	0.0886	89	71-133	7	35	mg/kg	08.25.2020 15:09	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		100		70-130	%	08.25.2020 15:09
4-Bromofluorobenzene	86		84		90		70-130	%	08.25.2020 15:09

Analytical Method: BTEX by EPA 8021B

Seq Number: 3135561
MB Sample Id: 7710128-1-BLK

Matrix: Solid
LCS Sample Id: 7710128-1-BKS

Prep Method: SW5035A
Date Prep: 08.25.2020
LCSD Sample Id: 7710128-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.104	104	0.103	103	70-130	1	35	mg/kg	08.25.2020 15:27	
Toluene	<0.00200	0.100	0.0990	99	0.0987	99	70-130	0	35	mg/kg	08.25.2020 15:27	
Ethylbenzene	<0.00200	0.100	0.105	105	0.101	101	71-129	4	35	mg/kg	08.25.2020 15:27	
m,p-Xylenes	<0.00400	0.200	0.210	105	0.205	103	70-135	2	35	mg/kg	08.25.2020 15:27	
o-Xylene	<0.00200	0.100	0.105	105	0.103	103	71-133	2	35	mg/kg	08.25.2020 15:27	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		95		70-130	%	08.25.2020 15:27
4-Bromofluorobenzene	108		97		97		70-130	%	08.25.2020 15:27

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.
Nash 53 SWD

Analytical Method: BTEX by EPA 8021B

Seq Number: 3135559

Parent Sample Id: 670827-001

Matrix: Soil

MS Sample Id: 670827-001 S

Prep Method: SW5035A

Date Prep: 08.25.2020

MSD Sample Id: 670827-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.127	126	0.117	117	70-130	8	35	mg/kg	08.25.2020 15:54	
Toluene	<0.00201	0.101	0.119	118	0.109	109	70-130	9	35	mg/kg	08.25.2020 15:54	
Ethylbenzene	<0.00201	0.101	0.108	107	0.0989	99	71-129	9	35	mg/kg	08.25.2020 15:54	
m,p-Xylenes	<0.00402	0.201	0.217	108	0.198	99	70-135	9	35	mg/kg	08.25.2020 15:54	
o-Xylene	<0.00201	0.101	0.107	106	0.0977	98	71-133	9	35	mg/kg	08.25.2020 15:54	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		100		70-130	%	08.25.2020 15:54
4-Bromofluorobenzene	87		91		70-130	%	08.25.2020 15:54

Analytical Method: BTEX by EPA 8021B

Seq Number: 3135561

Parent Sample Id: 670903-009

Matrix: Soil

MS Sample Id: 670903-009 S

Prep Method: SW5035A

Date Prep: 08.25.2020

MSD Sample Id: 670903-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.116	116	0.0918	92	70-130	23	35	mg/kg	08.25.2020 16:08	
Toluene	<0.00200	0.100	0.109	109	0.0823	82	70-130	28	35	mg/kg	08.25.2020 16:08	
Ethylbenzene	<0.00200	0.100	0.108	108	0.0770	77	71-129	34	35	mg/kg	08.25.2020 16:08	
m,p-Xylenes	<0.00400	0.200	0.216	108	0.151	76	70-135	35	35	mg/kg	08.25.2020 16:08	
o-Xylene	<0.00200	0.100	0.106	106	0.0784	78	71-133	30	35	mg/kg	08.25.2020 16:08	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		95		70-130	%	08.25.2020 16:08
4-Bromofluorobenzene	94		104		70-130	%	08.25.2020 16:08

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: 670903

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) 985-3443 Lubbock, TX (806) 794-1296

Project Manager: Dan Moir
Company Name: LT Environmental, Inc., Permian office
Address: 3300 North A Street
City, State ZIP: Midland, TX 79705
Phone: (432) 236-3849
Turn Around: Routine
P.O. Number: 012919139
Sampler's Name: Eddy County Elizabeth Naka
Due Date:

Bill to: (if different) Kyle Littrell
Company Name: XTO Energy
Address: 522 West Mermond
City, State ZIP: Carlsbad, NM 88220
Program: RP Brownfields RC \$perfund
State of Project: Level II Level III P1/UST RP Level IV
Reporting Level: EDD ADAPT Other:

Project Name: N956 53 SMD
Temperature (°C): -1.4 / 1.2
Received Inlet: Yes No
Cooler Custody Seals: Yes No
Sample Custody Seals: Yes No
Thermometer ID: T-MU-001
Correction Factor: -0.2
Total Containers: 1

ANALYSIS REQUEST

Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
1	X	X	X

Work Order Notes
TAT starts the day received by the lab, if received by 4:30pm
Sample Comments: CAMPUS: H

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Other
SMD5	S	09/25/14	0825	0'-6'	1	X	X	X	
ES2664			0856	6.25'					
ES2774			0835	7.25'					
ES2884			0840	7.25'					
ES2994			0915	6.25'					
ES3004			0920	6.25'					
SMD06			0925	0'-6.25'					
SMD7			0930	0'-7.25'					
SMD8			1010	0'-6'					
SMD9			1015	0'-10'					

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
Signature: [Signature] Received by: [Signature] Date/Time: 8:25:20 13:00
Signature: [Signature] Received by: [Signature] Date/Time: []



Chain of Custody

Work Order No: 1070903

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432-704-5440) EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-443-8800) Tampa, FL (813-620-2000)

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:	522 West Merriond
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	enaka@lennv.com, dmair@lennv.com

Program: UST/PST RP Groundfalls RC Perfund

State of Project: Level II Level III ST/UST RP Level IV

Reporting Level: EDD ADAPT Other:

Deliverables:

Work Order Comments

Work Order Notes

Project Name: NACH 53 SWD
 Project Number: 0129191311
 P.O. Number:
 Sampler's Name: Elizabeth Naka

Turn Around: Routine
 Rush: 24hr
 Due Date:
 Temp Blank: Yes No
 Wet Ice: Yes No
 Thermometer ID: T-UM-007
 Cooler Custody Seals: Yes No N/A
 Sample Custody Seals: Yes No N/A
 Correction Factor: -0.5
 Total Containers:

Sample Identification	Methx	Date Sampled	Time Sampled	Depth	Number of Containers			Sample Comments
					TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	
SW10	S	08/25/20	10:20	0-7.5'	X	X	X	
SW11				10:55				
FS31				11:15				
FS32				11:20				
SW12				11:25				
SW13				11:30				

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed: BRCRA 139PM 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
 TCLP / SPL P 6010: BRCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

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 use. 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) Date/Time: 8:25:20 13:00

Received by: (Signature) Date/Time:

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08.25.2020 01.00.00 PM

Work Order #: 670903

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : T_NM_007

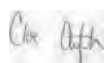
Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.2	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	Yes	
#6*Custody Seals Signed and dated?	Yes	
#7 *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	Samples received in bulk containers.
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	No	
#18 Water VOC samples have zero headspace?	N/A	

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 08.25.2020

Checklist reviewed by:



Jessica Kramer

Date: 08.26.2020

Certificate of Analysis Summary 671436

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Mon 08.31.2020 16:54
Report Date: 09.02.2020 10:57
Project Manager: Jessica Kramer

<i>Lab Id:</i>		671436-001	671436-002	671436-003	671436-004	671436-005	671436-006
<i>Field Id:</i>		SW14	SW15	SW16	SW17	SW18	SW19
<i>Depth:</i>		0-6 ft	0-7.5 ft	0-10 ft	0-6 ft	0-7.5 ft	0-7.5 ft
<i>Matrix:</i>		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
<i>Sampled:</i>		08.31.2020 08:20	08.31.2020 10:30	08.31.2020 10:45	08.31.2020 10:40	08.31.2020 10:50	08.31.2020 13:05
BTEX by EPA 8021B							
<i>Extracted:</i>		08.31.2020 17:32	08.31.2020 17:32	08.31.2020 17:32	08.31.2020 17:32	08.31.2020 17:32	08.31.2020 17:32
<i>Analyzed:</i>		08.31.2020 21:52	08.31.2020 22:12	08.31.2020 22:33	08.31.2020 22:53	08.31.2020 23:13	09.01.2020 00:29
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00399 0.00399	<0.00398 0.00398	<0.00399 0.00399	<0.00401 0.00401	<0.00399 0.00399	<0.00399 0.00399
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300							
<i>Extracted:</i>		08.31.2020 17:05	08.31.2020 17:05	08.31.2020 17:05	08.31.2020 17:05	08.31.2020 17:05	08.31.2020 17:05
<i>Analyzed:</i>		08.31.2020 19:24	08.31.2020 19:30	08.31.2020 19:35	08.31.2020 19:41	08.31.2020 19:46	08.31.2020 19:52
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1410 49.8	1930 49.5	1140 49.6	2690 49.9	2800 50.1	2420 49.7
TPH by SW8015 Mod							
<i>Extracted:</i>		08.31.2020 17:15	08.31.2020 17:15	08.31.2020 17:15	08.31.2020 17:15	08.31.2020 17:15	08.31.2020 17:15
<i>Analyzed:</i>		08.31.2020 18:21	08.31.2020 18:42	08.31.2020 19:02	08.31.2020 19:22	08.31.2020 19:42	08.31.2020 20:03
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<49.9 49.9	<49.9 49.9	<49.8 49.8	<49.8 49.8	<50.0 50.0
Diesel Range Organics (DRO)		85.8 50.2	314 49.9	279 49.9	230 49.8	<49.8 49.8	603 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<49.9 49.9	<49.9 49.9	<49.8 49.8	<49.8 49.8	95.5 50.0
Total GRO-DRO		85.8 50.2	314 49.9	279 49.9	230 49.8	<49.8 49.8	603 50.0
Total TPH		85.8 50.2	314 49.9	279 49.9	230 49.8	<49.8 49.8	699 50.0

Jessica Kramer

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 671436

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Mon 08.31.2020 16:54
Report Date: 09.02.2020 10:57
Project Manager: Jessica Kramer

<i>Analysis Requested</i>		671436-007	671436-008	671436-009	671436-010	671436-011	671436-012
<i>Lab Id:</i>	FS26B	FS27B	FS28B	FS29B	FS30B	FS31B	
<i>Field Id:</i>	8- ft	8- ft	8- ft	8- ft	8- ft	6.5- ft	
<i>Depth:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
<i>Matrix:</i>	08.31.2020 15:20	08.31.2020 15:15	08.31.2020 15:10	08.31.2020 14:45	08.31.2020 14:40	08.31.2020 15:30	
<i>Sampled:</i>							
<i>Extracted:</i>	08.31.2020 17:15	08.31.2020 17:15	08.31.2020 17:15	08.31.2020 17:15	08.31.2020 17:15	08.31.2020 17:15	
<i>Analyzed:</i>	08.31.2020 20:23	08.31.2020 20:43	08.31.2020 21:04	08.31.2020 21:24	08.31.2020 21:44	08.31.2020 22:05	
<i>Units/RL:</i>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Gasoline Range Hydrocarbons (GRO)	<50.2	50.2	49.9	50.0	49.8	49.8	<50.2
Diesel Range Organics (DRO)	72.3	50.2	870	49.8	49.8	49.8	73.3
Motor Oil Range Hydrocarbons (MRO)	<50.2	50.2	121	49.8	49.8	49.8	<50.2
Total GRO-DRO	72.3	50.2	870	49.8	49.8	49.8	73.3
Total TPH	72.3	50.2	991	49.8	49.8	49.8	73.3

Jessica Kramer

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 671436

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Mon 08.31.2020 16:54
Report Date: 09.02.2020 10:57
Project Manager: Jessica Kramer

<i>Analysis Requested</i>		<i>Lab Id:</i>	<i>Field Id:</i>	<i>Depth:</i>	<i>Matrix:</i>	<i>Sampled:</i>	<i>671436-007</i>	<i>671436-008</i>	<i>671436-009</i>	<i>671436-010</i>	<i>671436-011</i>	<i>671436-012</i>
BTEX by EPA 8021B		<i>Extracted:</i>	08.31.2020 17:32	08.31.2020 17:32	08.31.2020 15:10	08.31.2020 15:15	08.31.2020 17:32	08.31.2020 17:32	08.31.2020 17:32	08.31.2020 17:32	08.31.2020 17:32	08.31.2020 17:32
		<i>Analyzed:</i>	09.01.2020 00:49	09.01.2020 01:10	09.01.2020 01:30	09.01.2020 01:10	09.01.2020 01:30	09.01.2020 01:30	09.01.2020 01:51	09.01.2020 02:11	09.01.2020 02:31	09.01.2020 02:31
		<i>Units/RL:</i>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			RL	RL	RL	RL	RL	RL	RL	RL	RL	RL
Benzene			<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Toluene			<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Ethylbenzene			<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
m,p-Xylenes			<0.00402	0.00402	<0.00397	0.00397	<0.00399	0.00399	<0.00399	0.00399	<0.00401	0.00401
o-Xylene			<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Total Xylenes			<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Total BTEX			<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Chloride by EPA 300		<i>Extracted:</i>	08.31.2020 17:05	08.31.2020 17:05	08.31.2020 17:05	08.31.2020 17:05	08.31.2020 17:05	08.31.2020 17:05	08.31.2020 17:05	08.31.2020 17:05	08.31.2020 17:05	08.31.2020 17:05
		<i>Analyzed:</i>	08.31.2020 20:09	08.31.2020 20:14	08.31.2020 20:31	08.31.2020 20:14	08.31.2020 20:31	08.31.2020 20:31	08.31.2020 20:37	08.31.2020 20:42	08.31.2020 20:48	08.31.2020 20:48
		<i>Units/RL:</i>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			RL	RL	RL	RL	RL	RL	RL	RL	RL	RL
Chloride			1440	200	1790	50.4	2220	49.7	1160	49.9	912	49.8
												1560
												200

Jessica Kramer

BRL - Below Reporting Limit

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



Analytical Report 671436

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash 53 SWD

012919139

09.02.2020

Collected By: Client

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

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

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

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



09.02.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **671436**
Nash 53 SWD
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 Eurofins Xenco, LLC Report Number(s) 671436. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 671436 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer
Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 671436

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW14	S	08.31.2020 08:20	0 - 6 ft	671436-001
SW15	S	08.31.2020 10:30	0 - 7.5 ft	671436-002
SW16	S	08.31.2020 10:45	0 - 10 ft	671436-003
SW17	S	08.31.2020 10:40	0 - 6 ft	671436-004
SW18	S	08.31.2020 10:50	0 - 7.5 ft	671436-005
SW19	S	08.31.2020 13:05	0 - 7.5 ft	671436-006
FS26B	S	08.31.2020 15:20	8 ft	671436-007
FS27B	S	08.31.2020 15:15	8 ft	671436-008
FS28B	S	08.31.2020 15:10	8 ft	671436-009
FS29B	S	08.31.2020 14:45	8 ft	671436-010
FS30B	S	08.31.2020 14:40	8 ft	671436-011
FS31B	S	08.31.2020 15:30	6.5 ft	671436-012

CASE NARRATIVE



Client Name: LT Environmental, Inc.

Project Name: Nash 53 SWD

Project ID: 012919139
Work Order Number(s): 671436

Report Date: 09.02.2020
Date Received: 08.31.2020

Sample receipt non conformances and comments:

V1.001 Revision (client email) Corrected sample name and depths.

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 671436

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **SW14** Matrix: Soil Date Received: 08.31.2020 16:54
 Lab Sample Id: 671436-001 Date Collected: 08.31.2020 08:20 Sample Depth: 0 - 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.31.2020 17:05 Basis: Wet Weight
 Seq Number: 3136036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1410	49.8	mg/kg	08.31.2020 19:24		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.31.2020 17:15 Basis: Wet Weight
 Seq Number: 3136042

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	08.31.2020 18:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	85.8	50.2	mg/kg	09.01.2020 14:31		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	08.31.2020 18:21	U	1
Total GRO-DRO	PHC628	85.8	50.2	mg/kg	09.01.2020 14:31		1
Total TPH	PHC635	85.8	50.2	mg/kg	09.01.2020 14:31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.31.2020 18:21	
o-Terphenyl	84-15-1	88	%	70-135	08.31.2020 18:21	



Certificate of Analytical Results 671436

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW14	Matrix: Soil	Date Received: 08.31.2020 16:54
Lab Sample Id: 671436-001	Date Collected: 08.31.2020 08:20	Sample Depth: 0 - 6 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.31.2020 17:32	Basis: Wet Weight
Seq Number: 3136040		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.31.2020 21:52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.31.2020 21:52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.31.2020 21:52	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.31.2020 21:52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.31.2020 21:52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.31.2020 21:52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.31.2020 21:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	08.31.2020 21:52	
4-Bromofluorobenzene	460-00-4	102	%	70-130	08.31.2020 21:52	



Certificate of Analytical Results 671436

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **SW15** Matrix: Soil Date Received: 08.31.2020 16:54
 Lab Sample Id: 671436-002 Date Collected: 08.31.2020 10:30 Sample Depth: 0 - 7.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.31.2020 17:05 Basis: Wet Weight
 Seq Number: 3136036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1930	49.5	mg/kg	08.31.2020 19:30		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.31.2020 17:15 Basis: Wet Weight
 Seq Number: 3136042

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.31.2020 18:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	314	49.9	mg/kg	08.31.2020 18:42		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.31.2020 18:42	U	1
Total GRO-DRO	PHC628	314	49.9	mg/kg	08.31.2020 18:42		1
Total TPH	PHC635	314	49.9	mg/kg	08.31.2020 18:42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	08.31.2020 18:42	
o-Terphenyl	84-15-1	94	%	70-135	08.31.2020 18:42	



Certificate of Analytical Results 671436

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW15	Matrix: Soil	Date Received: 08.31.2020 16:54
Lab Sample Id: 671436-002	Date Collected: 08.31.2020 10:30	Sample Depth: 0 - 7.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.31.2020 17:32	Basis: Wet Weight
Seq Number: 3136040		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.31.2020 22:12	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.31.2020 22:12	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.31.2020 22:12	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.31.2020 22:12	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.31.2020 22:12	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.31.2020 22:12	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.31.2020 22:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.31.2020 22:12	
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.31.2020 22:12	



Certificate of Analytical Results 671436

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **SW16** Matrix: Soil Date Received: 08.31.2020 16:54
 Lab Sample Id: 671436-003 Date Collected: 08.31.2020 10:45 Sample Depth: 0 - 10 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.31.2020 17:05 Basis: Wet Weight
 Seq Number: 3136036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1140	49.6	mg/kg	08.31.2020 19:35		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.31.2020 17:15 Basis: Wet Weight
 Seq Number: 3136042

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.31.2020 19:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	279	49.9	mg/kg	08.31.2020 19:02		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.31.2020 19:02	U	1
Total GRO-DRO	PHC628	279	49.9	mg/kg	08.31.2020 19:02		1
Total TPH	PHC635	279	49.9	mg/kg	08.31.2020 19:02		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.31.2020 19:02	
o-Terphenyl	84-15-1	93	%	70-135	08.31.2020 19:02	



Certificate of Analytical Results 671436

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW16	Matrix: Soil	Date Received: 08.31.2020 16:54
Lab Sample Id: 671436-003	Date Collected: 08.31.2020 10:45	Sample Depth: 0 - 10 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.31.2020 17:32	Basis: Wet Weight
Seq Number: 3136040		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.31.2020 22:33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.31.2020 22:33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.31.2020 22:33	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.31.2020 22:33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.31.2020 22:33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.31.2020 22:33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.31.2020 22:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	08.31.2020 22:33	
1,4-Difluorobenzene	540-36-3	100	%	70-130	08.31.2020 22:33	



Certificate of Analytical Results 671436

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **SW17** Matrix: Soil Date Received: 08.31.2020 16:54
 Lab Sample Id: 671436-004 Date Collected: 08.31.2020 10:40 Sample Depth: 0 - 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.31.2020 17:05 Basis: Wet Weight
 Seq Number: 3136036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2690	49.9	mg/kg	08.31.2020 19:41		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.31.2020 17:15 Basis: Wet Weight
 Seq Number: 3136042

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.31.2020 19:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	230	49.8	mg/kg	08.31.2020 19:22		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.31.2020 19:22	U	1
Total GRO-DRO	PHC628	230	49.8	mg/kg	08.31.2020 19:22		1
Total TPH	PHC635	230	49.8	mg/kg	08.31.2020 19:22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	08.31.2020 19:22	
o-Terphenyl	84-15-1	98	%	70-135	08.31.2020 19:22	



Certificate of Analytical Results 671436

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW17	Matrix: Soil	Date Received: 08.31.2020 16:54
Lab Sample Id: 671436-004	Date Collected: 08.31.2020 10:40	Sample Depth: 0 - 6 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.31.2020 17:32	Basis: Wet Weight
Seq Number: 3136040		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.31.2020 22:53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.31.2020 22:53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.31.2020 22:53	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.31.2020 22:53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.31.2020 22:53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.31.2020 22:53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.31.2020 22:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	08.31.2020 22:53	
1,4-Difluorobenzene	540-36-3	95	%	70-130	08.31.2020 22:53	



Certificate of Analytical Results 671436

LT Environmental, Inc., Arvada, CO Nash 53 SWD

Sample Id: **SW18** Matrix: Soil Date Received: 08.31.2020 16:54
 Lab Sample Id: 671436-005 Date Collected: 08.31.2020 10:50 Sample Depth: 0 - 7.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.31.2020 17:05 Basis: Wet Weight
 Seq Number: 3136036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2800	50.1	mg/kg	08.31.2020 19:46		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.31.2020 17:15 Basis: Wet Weight
 Seq Number: 3136042

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.31.2020 19:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.31.2020 19:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.31.2020 19:42	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	08.31.2020 19:42	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.31.2020 19:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	08.31.2020 19:42	
o-Terphenyl	84-15-1	105	%	70-135	08.31.2020 19:42	



Certificate of Analytical Results 671436

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW18	Matrix: Soil	Date Received: 08.31.2020 16:54
Lab Sample Id: 671436-005	Date Collected: 08.31.2020 10:50	Sample Depth: 0 - 7.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.31.2020 17:32	Basis: Wet Weight
Seq Number: 3136040		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.31.2020 23:13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.31.2020 23:13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.31.2020 23:13	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.31.2020 23:13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.31.2020 23:13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.31.2020 23:13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.31.2020 23:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.31.2020 23:13	
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.31.2020 23:13	



Certificate of Analytical Results 671436

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **SW19** Matrix: Soil Date Received: 08.31.2020 16:54
 Lab Sample Id: 671436-006 Date Collected: 08.31.2020 13:05 Sample Depth: 0 - 7.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.31.2020 17:05 Basis: Wet Weight
 Seq Number: 3136036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2420	49.7	mg/kg	08.31.2020 19:52		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.31.2020 17:15 Basis: Wet Weight
 Seq Number: 3136042

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.31.2020 20:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	603	50.0	mg/kg	08.31.2020 20:03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	95.5	50.0	mg/kg	08.31.2020 20:03		1
Total GRO-DRO	PHC628	603	50.0	mg/kg	08.31.2020 20:03		1
Total TPH	PHC635	699	50.0	mg/kg	08.31.2020 20:03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	08.31.2020 20:03	
o-Terphenyl	84-15-1	97	%	70-135	08.31.2020 20:03	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: SW19	Matrix: Soil	Date Received: 08.31.2020 16:54
Lab Sample Id: 671436-006	Date Collected: 08.31.2020 13:05	Sample Depth: 0 - 7.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.31.2020 17:32	Basis: Wet Weight
Seq Number: 3136040		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.01.2020 00:29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.01.2020 00:29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.01.2020 00:29	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.01.2020 00:29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.01.2020 00:29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.01.2020 00:29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.01.2020 00:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	09.01.2020 00:29	
4-Bromofluorobenzene	460-00-4	101	%	70-130	09.01.2020 00:29	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS26B** Matrix: Soil Date Received: 08.31.2020 16:54
 Lab Sample Id: 671436-007 Date Collected: 08.31.2020 15:20 Sample Depth: 8 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.31.2020 17:05 Basis: Wet Weight
 Seq Number: 3136036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1440	200	mg/kg	08.31.2020 20:09		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.31.2020 17:15 Basis: Wet Weight
 Seq Number: 3136042

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	08.31.2020 20:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	72.3	50.2	mg/kg	08.31.2020 20:23		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	08.31.2020 20:23	U	1
Total GRO-DRO	PHC628	72.3	50.2	mg/kg	08.31.2020 20:23		1
Total TPH	PHC635	72.3	50.2	mg/kg	08.31.2020 20:23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	08.31.2020 20:23	
o-Terphenyl	84-15-1	95	%	70-135	08.31.2020 20:23	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS26B	Matrix: Soil	Date Received: 08.31.2020 16:54
Lab Sample Id: 671436-007	Date Collected: 08.31.2020 15:20	Sample Depth: 8 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.31.2020 17:32	Basis: Wet Weight
Seq Number: 3136040		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.01.2020 00:49	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.01.2020 00:49	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.01.2020 00:49	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.01.2020 00:49	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.01.2020 00:49	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.01.2020 00:49	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.01.2020 00:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	09.01.2020 00:49	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.01.2020 00:49	



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LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **FS27B** Matrix: Soil Date Received: 08.31.2020 16:54
 Lab Sample Id: 671436-008 Date Collected: 08.31.2020 15:15 Sample Depth: 8 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.31.2020 17:05 Basis: Wet Weight
 Seq Number: 3136036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1790	50.4	mg/kg	08.31.2020 20:14		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.31.2020 17:15 Basis: Wet Weight
 Seq Number: 3136042

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.31.2020 20:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	942	50.0	mg/kg	08.31.2020 20:43		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	125	50.0	mg/kg	08.31.2020 20:43		1
Total GRO-DRO	PHC628	942	50.0	mg/kg	08.31.2020 20:43		1
Total TPH	PHC635	1070	50.0	mg/kg	08.31.2020 20:43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	08.31.2020 20:43	
o-Terphenyl	84-15-1	105	%	70-135	08.31.2020 20:43	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS27B	Matrix: Soil	Date Received: 08.31.2020 16:54
Lab Sample Id: 671436-008	Date Collected: 08.31.2020 15:15	Sample Depth: 8 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.31.2020 17:32	Basis: Wet Weight
Seq Number: 3136040		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.01.2020 01:10	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.01.2020 01:10	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.01.2020 01:10	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.01.2020 01:10	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.01.2020 01:10	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.01.2020 01:10	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.01.2020 01:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	09.01.2020 01:10	
1,4-Difluorobenzene	540-36-3	110	%	70-130	09.01.2020 01:10	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS28B** Matrix: Soil Date Received: 08.31.2020 16:54
 Lab Sample Id: 671436-009 Date Collected: 08.31.2020 15:10 Sample Depth: 8 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.31.2020 17:05 Basis: Wet Weight
 Seq Number: 3136036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2220	49.7	mg/kg	08.31.2020 20:31		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.31.2020 17:15 Basis: Wet Weight
 Seq Number: 3136042

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.31.2020 21:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	870	49.9	mg/kg	08.31.2020 21:04		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	121	49.9	mg/kg	08.31.2020 21:04		1
Total GRO-DRO	PHC628	870	49.9	mg/kg	08.31.2020 21:04		1
Total TPH	PHC635	991	49.9	mg/kg	08.31.2020 21:04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	08.31.2020 21:04	
o-Terphenyl	84-15-1	105	%	70-135	08.31.2020 21:04	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS28B	Matrix: Soil	Date Received: 08.31.2020 16:54
Lab Sample Id: 671436-009	Date Collected: 08.31.2020 15:10	Sample Depth: 8 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.31.2020 17:32	Basis: Wet Weight
Seq Number: 3136040		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.01.2020 01:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.01.2020 01:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.01.2020 01:30	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.01.2020 01:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.01.2020 01:30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.01.2020 01:30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.01.2020 01:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	09.01.2020 01:30	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.01.2020 01:30	



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LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **FS29B** Matrix: Soil Date Received: 08.31.2020 16:54
 Lab Sample Id: 671436-010 Date Collected: 08.31.2020 14:45 Sample Depth: 8 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.31.2020 17:05 Basis: Wet Weight
 Seq Number: 3136036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1160	49.9	mg/kg	08.31.2020 20:37		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.31.2020 17:15 Basis: Wet Weight
 Seq Number: 3136042

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.31.2020 21:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.01.2020 13:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.01.2020 13:31	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	09.01.2020 13:31	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	09.01.2020 13:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	08.31.2020 21:24	
o-Terphenyl	84-15-1	99	%	70-135	08.31.2020 21:24	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS29B	Matrix: Soil	Date Received: 08.31.2020 16:54
Lab Sample Id: 671436-010	Date Collected: 08.31.2020 14:45	Sample Depth: 8 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.31.2020 17:32	Basis: Wet Weight
Seq Number: 3136040		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.01.2020 01:51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.01.2020 01:51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.01.2020 01:51	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.01.2020 01:51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.01.2020 01:51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.01.2020 01:51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.01.2020 01:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.01.2020 01:51	
4-Bromofluorobenzene	460-00-4	108	%	70-130	09.01.2020 01:51	



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LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **FS30B** Matrix: Soil Date Received: 08.31.2020 16:54
 Lab Sample Id: 671436-011 Date Collected: 08.31.2020 14:40 Sample Depth: 8 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.31.2020 17:05 Basis: Wet Weight
 Seq Number: 3136036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	912	49.8	mg/kg	08.31.2020 20:42		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.31.2020 17:15 Basis: Wet Weight
 Seq Number: 3136042

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.31.2020 21:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.31.2020 21:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.31.2020 21:44	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	08.31.2020 21:44	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.31.2020 21:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	08.31.2020 21:44	
o-Terphenyl	84-15-1	103	%	70-135	08.31.2020 21:44	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS30B	Matrix: Soil	Date Received: 08.31.2020 16:54
Lab Sample Id: 671436-011	Date Collected: 08.31.2020 14:40	Sample Depth: 8 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.31.2020 17:32	Basis: Wet Weight
Seq Number: 3136040		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.01.2020 02:11	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.01.2020 02:11	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.01.2020 02:11	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.01.2020 02:11	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.01.2020 02:11	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.01.2020 02:11	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.01.2020 02:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	09.01.2020 02:11	
1,4-Difluorobenzene	540-36-3	111	%	70-130	09.01.2020 02:11	



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LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **FS31B** Matrix: Soil Date Received: 08.31.2020 16:54
 Lab Sample Id: 671436-012 Date Collected: 08.31.2020 15:30 Sample Depth: 6.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.31.2020 17:05 Basis: Wet Weight
 Seq Number: 3136036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1560	200	mg/kg	08.31.2020 20:48		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.31.2020 17:15 Basis: Wet Weight
 Seq Number: 3136042

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	08.31.2020 22:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	73.3	49.9	mg/kg	09.01.2020 13:51		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	08.31.2020 22:05	U	1
Total GRO-DRO	PHC628	73.3	49.9	mg/kg	09.01.2020 13:51		1
Total TPH	PHC635	73.3	49.9	mg/kg	09.01.2020 13:51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.31.2020 22:05	
o-Terphenyl	84-15-1	95	%	70-135	08.31.2020 22:05	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: FS31B	Matrix: Soil	Date Received: 08.31.2020 16:54
Lab Sample Id: 671436-012	Date Collected: 08.31.2020 15:30	Sample Depth: 6.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 08.31.2020 17:32	Basis: Wet Weight
Seq Number: 3136040		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.01.2020 02:31	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.01.2020 02:31	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.01.2020 02:31	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.01.2020 02:31	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.01.2020 02:31	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.01.2020 02:31	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.01.2020 02:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.01.2020 02:31	
4-Bromofluorobenzene	460-00-4	102	%	70-130	09.01.2020 02:31	



LT Environmental, Inc.
Nash 53 SWD

Analytical Method: Chloride by EPA 300

Seq Number: 3136036
MB Sample Id: 7710556-1-BLK

Matrix: Solid

LCS Sample Id: 7710556-1-BKS

Prep Method: E300P

Date Prep: 08.31.2020

LCSD Sample Id: 7710556-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	266	106	269	108	90-110	1	20	mg/kg	08.31.2020 18:23	

Analytical Method: Chloride by EPA 300

Seq Number: 3136036
Parent Sample Id: 671432-001

Matrix: Soil

MS Sample Id: 671432-001 S

Prep Method: E300P

Date Prep: 08.31.2020

MSD Sample Id: 671432-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3.70	200	204	100	204	100	90-110	0	20	mg/kg	08.31.2020 18:39	

Analytical Method: Chloride by EPA 300

Seq Number: 3136036
Parent Sample Id: 671436-006

Matrix: Soil

MS Sample Id: 671436-006 S

Prep Method: E300P

Date Prep: 08.31.2020

MSD Sample Id: 671436-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2420	200	2610	95	2600	90	90-110	0	20	mg/kg	08.31.2020 19:58	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3136042
MB Sample Id: 7710558-1-BLK

Matrix: Solid

LCS Sample Id: 7710558-1-BKS

Prep Method: SW8015P

Date Prep: 08.31.2020

LCSD Sample Id: 7710558-1-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	902	90	889	89	70-135	1	35	mg/kg	08.31.2020 13:35	
Diesel Range Organics (DRO)	<50.0	1000	1020	102	1020	102	70-135	0	35	mg/kg	08.31.2020 13:35	

Surrogate

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	72		122		118		70-135	%	08.31.2020 13:35
o-Terphenyl	74		117		116		70-135	%	08.31.2020 13:35

Analytical Method: TPH by SW8015 Mod

Seq Number: 3136042

Matrix: Solid

MB Sample Id: 7710558-1-BLK

Prep Method: SW8015P

Date Prep: 08.31.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.31.2020 13:15	

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.
Nash 53 SWD

Analytical Method: TPH by SW8015 Mod

Seq Number: 3136042
Parent Sample Id: 671408-001

Matrix: Soil
MS Sample Id: 671408-001 S

Prep Method: SW8015P
Date Prep: 08.31.2020
MSD Sample Id: 671408-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	937	94	886	89	70-135	6	35	mg/kg	08.31.2020 16:16	
Diesel Range Organics (DRO)	<50.0	999	1050	105	1010	101	70-135	4	35	mg/kg	08.31.2020 16:16	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		118		70-135	%	08.31.2020 16:16
o-Terphenyl	126		115		70-135	%	08.31.2020 16:16

Analytical Method: BTEX by EPA 8021B

Seq Number: 3136040
MB Sample Id: 7710552-1-BLK

Matrix: Solid
LCS Sample Id: 7710552-1-BKS

Prep Method: SW5035A
Date Prep: 08.31.2020
LCSD Sample Id: 7710552-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0976	98	0.100	100	70-130	2	35	mg/kg	08.31.2020 18:13	
Toluene	<0.00200	0.100	0.0931	93	0.0981	98	70-130	5	35	mg/kg	08.31.2020 18:13	
Ethylbenzene	<0.00200	0.100	0.0979	98	0.0978	98	71-129	0	35	mg/kg	08.31.2020 18:13	
m,p-Xylenes	<0.00400	0.200	0.197	99	0.200	100	70-135	2	35	mg/kg	08.31.2020 18:13	
o-Xylene	<0.00200	0.100	0.0972	97	0.103	103	71-133	6	35	mg/kg	08.31.2020 18:13	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		96		94		70-130	%	08.31.2020 18:13
4-Bromofluorobenzene	110		91		101		70-130	%	08.31.2020 18:13

Analytical Method: BTEX by EPA 8021B

Seq Number: 3136040
Parent Sample Id: 671432-001

Matrix: Soil
MS Sample Id: 671432-001 S

Prep Method: SW5035A
Date Prep: 08.31.2020
MSD Sample Id: 671432-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.106	106	0.115	115	70-130	8	35	mg/kg	08.31.2020 18:54	
Toluene	<0.00200	0.100	0.0999	100	0.107	107	70-130	7	35	mg/kg	08.31.2020 18:54	
Ethylbenzene	<0.00200	0.100	0.100	100	0.111	111	71-129	10	35	mg/kg	08.31.2020 18:54	
m,p-Xylenes	<0.00401	0.200	0.207	104	0.224	112	70-135	8	35	mg/kg	08.31.2020 18:54	
o-Xylene	<0.00200	0.100	0.102	102	0.114	114	71-133	11	35	mg/kg	08.31.2020 18:54	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		94		70-130	%	08.31.2020 18:54
4-Bromofluorobenzene	98		98		70-130	%	08.31.2020 18:54

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: 621436

Houston, TX (281) 240-4200 Dallas, TX (214) 802-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Corsicana, TX (432) 704-5440
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 820-2000 West Palm Beach, FL (561) 899-6701

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Page 1 of 2

Project Manager: Don Miller
Company Name: LT Environmental
Address: 3300 N. A Street
City, State ZIP: Midland TX 79705
Phone: (432) 236-3849
Project Name: NASH 53 SUD
Project Number: 012910139
Project Location: Eddy County
Sampler's Name: Elizabeth Nika
PO #:
Quote #:
Company Name: KYE LITTLE
Address: 572 W Norwinds
City, State ZIP: Corsland NM 88220
Email: eun.kye@kyle.com dmar@kyle.com

Bill to: (if different)
Company Name: XTO Energy
Address: 572 W Norwinds
City, State ZIP: Corsland NM 88220
Program: UST/PST PRP Brownfields RCRC Superfund
State of Project:
Reporting Level II: Level III PST/UST TRRP Level IV
Deliverables: EDD ADAPT Other:

Project Name: NASH 53 SUD
Project Number: 012910139
Project Location: Eddy County
Sampler's Name: Elizabeth Nika
PO #:
Quote #:
Company Name: KYE LITTLE
Address: 572 W Norwinds
City, State ZIP: Corsland NM 88220
Email: eun.kye@kyle.com dmar@kyle.com

SAMPLE RECEIPT
Temperature (°C): 1.4 / 1.2
Received Intact: YES NO
Cooler Custody Seals: YES NO
Sample Custody Seals: YES NO
Temp Blank: YES NO
Thermometer ID: T-NM-003
Correction Factor: -0.2
Total Containers: 12
Wet Ice: YES NO
Turn Around:
Routine:
Rush: 24 hr
Due Date:
Preservative Codes:
 MeOH: Me
 None: NO
 HNO3: HN
 H2SO4: H2
 HCL: HL
 NaOH: NA
 Zn Acetate: NAOH, Zn
 TAT starts the day received by the lab, if received by 4:00pm

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes	Sample Comments
SW14		S	08/31/20	0820	0'-6'	1	X TPH (EPA 8015)		Composite
SW15		S	0830	1030	0'-7.5'	1	X BTEX (EPA 0-8021)		
SW16		S	1045	1045	0'-10'	1	X Chloride (EPA 300.0)		
SW17		S	1040	1040	0'-6'	1			
SW18		S	1050	1050	0'-7.5'	1			
SW19		S	1520	1520	0'-7.5'	1			
FS26A		S	1515	1515	8'	1			
FS22A		S	1515	1515	8'	1			
FS28A		S	1510	1510	8'	1			
FS29A		S	1445	1445	8'	1			

Total 200.7 / 6010 200.8 / 6020:
 CRCLP Method(s) and Metal(s) to be analyzed: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Ni K Se Ag SiO2 Na SF TI Sn U V Zn
 TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U 1631 / 245-17470 / 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 \$750 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 irrevocably negotiated.

Relinquished by: (Signature) *Elizabeth Nika* **Received by: (Signature)** *Don Miller* **Date/Time** 8:31 10:54

Certificate of Analysis Summary 671544

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue 09.01.2020 17:04
Report Date: 09.02.2020 12:52
Project Manager: Jessica Kramer

<i>Analysis Requested</i>		<i>Lab Id:</i>	<i>Field Id:</i>	<i>Depth:</i>	<i>Matrix:</i>	<i>Sampled:</i>	<i>671544-001</i>	<i>671544-002</i>	<i>671544-003</i>	<i>671544-004</i>	<i>671544-005</i>	<i>671544-006</i>
BTEX by EPA 8021B		<i>PHI3</i>	<i>PHI3A</i>	<i>PHI4</i>	<i>PHI4A</i>	<i>PHI4B</i>	<i>PHI5</i>	<i>PHI5</i>	<i>PHI5</i>	<i>PHI5</i>	<i>PHI5</i>	<i>PHI5</i>
		12- ft	19- ft	1- ft	4- ft	12- ft	1- ft	4- ft	12- ft	1- ft	1- ft	1- ft
		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		09.01.2020 10:20	09.01.2020 12:20	09.01.2020 12:40	09.01.2020 13:00	09.01.2020 13:50	09.01.2020 14:15	09.01.2020 17:38	09.01.2020 17:38	09.01.2020 17:38	09.01.2020 17:38	09.01.2020 17:38
		09.01.2020 17:38	09.01.2020 17:38	09.01.2020 17:38	09.01.2020 17:38	09.01.2020 17:38	09.01.2020 17:38	09.01.2020 17:38	09.01.2020 17:38	09.01.2020 17:38	09.01.2020 17:38	09.01.2020 17:38
		09.01.2020 18:12	09.01.2020 19:07	09.01.2020 19:30	09.01.2020 20:25	09.01.2020 20:47	09.01.2020 21:10	09.01.2020 21:10	09.01.2020 21:10	09.01.2020 21:10	09.01.2020 21:10	09.01.2020 21:10
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL
		<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
		0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200
		0.00549	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200
		0.00435	0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	0.00400
		<0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200
		0.00435	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200
		0.00984	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200
Chloride by EPA 300		<i>Extracted:</i>	09.01.2020 17:35	09.01.2020 17:35	09.01.2020 17:35	09.01.2020 17:35	09.01.2020 17:35	09.01.2020 17:35	09.01.2020 17:35	09.01.2020 17:35	09.01.2020 17:35	09.01.2020 17:35
		<i>Analyzed:</i>	09.01.2020 18:31	09.01.2020 18:48	09.01.2020 18:54	09.01.2020 18:59	09.01.2020 19:05	09.01.2020 19:05	09.01.2020 19:05	09.01.2020 19:05	09.01.2020 19:05	09.01.2020 19:05
		<i>Units/RL:</i>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			1160	468	463	1430	1720	1430	1720	1430	1720	8580
			49.9	9.94	50.1	49.8	49.9	49.8	49.9	49.8	49.9	200
TPH by SW8015 Mod		<i>Extracted:</i>	09.01.2020 17:30	09.01.2020 17:30	09.01.2020 17:30	09.01.2020 17:30	09.01.2020 17:30	09.01.2020 17:30	09.01.2020 17:30	09.01.2020 17:30	09.01.2020 17:30	09.01.2020 17:30
		<i>Analyzed:</i>	09.01.2020 22:18	09.01.2020 18:35	09.01.2020 18:56	09.01.2020 19:16	09.01.2020 19:36	09.01.2020 19:36	09.01.2020 19:36	09.01.2020 19:36	09.01.2020 19:36	09.01.2020 19:36
		<i>Units/RL:</i>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			<49.9	<49.9	<50.3	<50.2	<49.9	<50.2	<49.9	<50.2	<49.9	<50.2
			49.9	49.9	50.3	50.3	49.9	50.3	49.9	50.2	49.9	50.2
			2550	165	165	165	165	165	165	165	165	165
			49.9	49.9	50.3	50.3	49.9	50.3	49.9	50.2	49.9	50.2
			297	<49.9	<50.3	<50.2	<49.9	<50.2	<49.9	<50.2	<49.9	<50.2
			2550	<49.9	165	165	165	165	165	165	165	165
			49.9	<49.9	50.3	50.3	49.9	50.3	49.9	50.2	49.9	50.2
			2850	<49.9	165	165	165	165	165	165	165	165
			49.9	<49.9	50.3	50.3	49.9	50.3	49.9	50.2	49.9	50.2

Jessica Kramer

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 671544

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue 09.01.2020 17:04
Report Date: 09.02.2020 12:52
Project Manager: Jessica Kramer

Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	671544-007	671544-008	671544-009	671544-010	671544-011
Analysis Requested									
BTEX by EPA 8021B									
Benzene					09.01.2020 17:38 mg/kg RL <0.00200 0.00200	09.01.2020 17:38 mg/kg RL <0.00200 0.00200	09.01.2020 17:38 mg/kg RL <0.00200 0.00200	09.01.2020 17:38 mg/kg RL <0.00200 0.00200	09.01.2020 17:38 mg/kg RL <0.00200 0.00200
Toluene					09.01.2020 21:32 mg/kg RL <0.00200 0.00200	09.01.2020 21:55 mg/kg RL <0.00200 0.00200	09.01.2020 22:17 mg/kg RL <0.00200 0.00200	09.01.2020 22:40 mg/kg RL <0.00200 0.00200	09.01.2020 23:58 mg/kg RL <0.00200 0.00200
Ethylbenzene									
m,p-Xylenes									
o-Xylene									
Total Xylenes									
Total BTEX									
Chloride by EPA 300									
Chloride					09.01.2020 17:35 mg/kg RL 4050 50.1	09.01.2020 17:35 mg/kg RL 3060 50.4	09.01.2020 17:35 mg/kg RL 3310 50.3	09.01.2020 17:35 mg/kg RL 3000 49.6	09.01.2020 17:35 mg/kg RL 920 49.4
TPH by SW8015 Mod									
Gasoline Range Hydrocarbons (GRO)					09.01.2020 17:30 mg/kg RL <49.9 49.9	09.01.2020 17:30 mg/kg RL <50.1 50.1	09.01.2020 17:30 mg/kg RL <50.2 50.2	09.01.2020 17:30 mg/kg RL <50.1 50.1	09.01.2020 17:30 mg/kg RL <50.2 50.2
Diesel Range Organics (DRO)					09.01.2020 20:16 mg/kg RL <49.9 49.9	09.01.2020 20:37 mg/kg RL <50.1 50.1	09.01.2020 20:57 mg/kg RL <50.2 50.2	09.01.2020 21:17 mg/kg RL <50.1 50.1	09.01.2020 21:58 mg/kg RL <50.2 50.2
Motor Oil Range Hydrocarbons (MRO)									
Total GRO-DRO									
Total TPH									



BRL - Below Reporting Limit

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



Analytical Report 671544

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash 53 SWD

012919139

09.02.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

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

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



09.02.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **671544**
Nash 53 SWD
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 Eurofins Xenco, LLC Report Number(s) 671544. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 671544 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer
Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 671544

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH13	S	09.01.2020 10:20	12 ft	671544-001
PH13A	S	09.01.2020 12:20	19 ft	671544-002
PH14	S	09.01.2020 12:40	1 ft	671544-003
PH14A	S	09.01.2020 13:00	4 ft	671544-004
PH14B	S	09.01.2020 13:50	12 ft	671544-005
PH15	S	09.01.2020 14:15	1 ft	671544-006
PH15A	S	09.01.2020 14:20	4 ft	671544-007
PH15B	S	09.01.2020 14:55	12 ft	671544-008
PH16	S	09.01.2020 15:20	1 ft	671544-009
PH16A	S	09.01.2020 15:25	4 ft	671544-010
PH16B	S	09.01.2020 15:35	8 ft	671544-011

CASE NARRATIVE



Client Name: LT Environmental, Inc.

Project Name: Nash 53 SWD

Project ID: 012919139
Work Order Number(s): 671544

Report Date: 09.02.2020
Date Received: 09.01.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 671544

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **PH13** Matrix: Soil Date Received: 09.01.2020 17:04
 Lab Sample Id: 671544-001 Date Collected: 09.01.2020 10:20 Sample Depth: 12 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.01.2020 17:35 Basis: Wet Weight
 Seq Number: 3136169

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1160	49.9	mg/kg	09.01.2020 18:31		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.01.2020 17:30 Basis: Wet Weight
 Seq Number: 3136075

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.01.2020 22:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	2550	49.9	mg/kg	09.01.2020 22:18		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	297	49.9	mg/kg	09.01.2020 22:18		1
Total GRO-DRO	PHC628	2550	49.9	mg/kg	09.01.2020 22:18		1
Total TPH	PHC635	2850	49.9	mg/kg	09.01.2020 22:18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	09.01.2020 22:18	
o-Terphenyl	84-15-1	103	%	70-135	09.01.2020 22:18	



Certificate of Analytical Results 671544

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH13	Matrix: Soil	Date Received: 09.01.2020 17:04
Lab Sample Id: 671544-001	Date Collected: 09.01.2020 10:20	Sample Depth: 12 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.01.2020 17:38	Basis: Wet Weight
Seq Number: 3136128		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.01.2020 18:12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.01.2020 18:12	U	1
Ethylbenzene	100-41-4	0.00549	0.00200	mg/kg	09.01.2020 18:12		1
m,p-Xylenes	179601-23-1	0.00435	0.00400	mg/kg	09.01.2020 18:12		1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.01.2020 18:12	U	1
Total Xylenes	1330-20-7	0.00435	0.00200	mg/kg	09.01.2020 18:12		1
Total BTEX		0.00984	0.00200	mg/kg	09.01.2020 18:12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	83	%	70-130	09.01.2020 18:12	
1,4-Difluorobenzene	540-36-3	96	%	70-130	09.01.2020 18:12	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH13A	Matrix: Soil	Date Received: 09.01.2020 17:04
Lab Sample Id: 671544-002	Date Collected: 09.01.2020 12:20	Sample Depth: 19 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.01.2020 17:35	Basis: Wet Weight
Seq Number: 3136169		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	468	9.94	mg/kg	09.01.2020 18:48		1

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 09.01.2020 17:30	Basis: Wet Weight
Seq Number: 3136075		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.01.2020 18:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.01.2020 18:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.01.2020 18:35	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	09.01.2020 18:35	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.01.2020 18:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	09.01.2020 18:35	
o-Terphenyl	84-15-1	107	%	70-135	09.01.2020 18:35	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH13A	Matrix: Soil	Date Received: 09.01.2020 17:04
Lab Sample Id: 671544-002	Date Collected: 09.01.2020 12:20	Sample Depth: 19 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.01.2020 17:38	Basis: Wet Weight
Seq Number: 3136128		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.01.2020 19:07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.01.2020 19:07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.01.2020 19:07	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.01.2020 19:07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.01.2020 19:07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.01.2020 19:07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.01.2020 19:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	09.01.2020 19:07	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.01.2020 19:07	



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Nash 53 SWD

Sample Id: **PH14** Matrix: Soil Date Received: 09.01.2020 17:04
 Lab Sample Id: 671544-003 Date Collected: 09.01.2020 12:40 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.01.2020 17:35 Basis: Wet Weight
 Seq Number: 3136169

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	463	50.1	mg/kg	09.01.2020 18:54		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.01.2020 17:30 Basis: Wet Weight
 Seq Number: 3136075

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	09.01.2020 18:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	165	50.3	mg/kg	09.01.2020 18:56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	09.01.2020 18:56	U	1
Total GRO-DRO	PHC628	165	50.3	mg/kg	09.01.2020 18:56		1
Total TPH	PHC635	165	50.3	mg/kg	09.01.2020 18:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	09.01.2020 18:56	
o-Terphenyl	84-15-1	106	%	70-135	09.01.2020 18:56	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH14	Matrix: Soil	Date Received: 09.01.2020 17:04
Lab Sample Id: 671544-003	Date Collected: 09.01.2020 12:40	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.01.2020 17:38	Basis: Wet Weight
Seq Number: 3136128		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.01.2020 19:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.01.2020 19:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.01.2020 19:30	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.01.2020 19:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.01.2020 19:30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.01.2020 19:30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.01.2020 19:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	09.01.2020 19:30	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.01.2020 19:30	



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LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **PH14A** Matrix: Soil Date Received: 09.01.2020 17:04
 Lab Sample Id: 671544-004 Date Collected: 09.01.2020 13:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.01.2020 17:35 Basis: Wet Weight
 Seq Number: 3136169

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1430	49.8	mg/kg	09.01.2020 18:59		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.01.2020 17:30 Basis: Wet Weight
 Seq Number: 3136075

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.01.2020 19:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.01.2020 19:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.01.2020 19:16	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	09.01.2020 19:16	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.01.2020 19:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	09.01.2020 19:16	
o-Terphenyl	84-15-1	106	%	70-135	09.01.2020 19:16	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH14A	Matrix: Soil	Date Received: 09.01.2020 17:04
Lab Sample Id: 671544-004	Date Collected: 09.01.2020 13:00	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.01.2020 17:38	Basis: Wet Weight
Seq Number: 3136128		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.01.2020 20:25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.01.2020 20:25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.01.2020 20:25	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.01.2020 20:25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.01.2020 20:25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.01.2020 20:25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.01.2020 20:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.01.2020 20:25	
4-Bromofluorobenzene	460-00-4	88	%	70-130	09.01.2020 20:25	



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Nash 53 SWD

Sample Id: **PH14B** Matrix: Soil Date Received: 09.01.2020 17:04
 Lab Sample Id: 671544-005 Date Collected: 09.01.2020 13:50 Sample Depth: 12 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.01.2020 17:35 Basis: Wet Weight
 Seq Number: 3136169

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1720	49.9	mg/kg	09.01.2020 19:05		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.01.2020 17:30 Basis: Wet Weight
 Seq Number: 3136075

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.01.2020 19:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.01.2020 19:36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.01.2020 19:36	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	09.01.2020 19:36	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.01.2020 19:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	09.01.2020 19:36	
o-Terphenyl	84-15-1	104	%	70-135	09.01.2020 19:36	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH14B	Matrix: Soil	Date Received: 09.01.2020 17:04
Lab Sample Id: 671544-005	Date Collected: 09.01.2020 13:50	Sample Depth: 12 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.01.2020 17:38	Basis: Wet Weight
Seq Number: 3136128		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.01.2020 20:47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.01.2020 20:47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.01.2020 20:47	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.01.2020 20:47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.01.2020 20:47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.01.2020 20:47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.01.2020 20:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.01.2020 20:47	
4-Bromofluorobenzene	460-00-4	91	%	70-130	09.01.2020 20:47	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH15	Matrix: Soil	Date Received: 09.01.2020 17:04
Lab Sample Id: 671544-006	Date Collected: 09.01.2020 14:15	Sample Depth: 1 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.01.2020 17:35	Basis: Wet Weight
Seq Number: 3136169		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8580	200	mg/kg	09.01.2020 19:22		20

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 09.01.2020 17:30	Basis: Wet Weight
Seq Number: 3136075		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.01.2020 19:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.01.2020 19:56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.01.2020 19:56	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	09.01.2020 19:56	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.01.2020 19:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	09.01.2020 19:56	
o-Terphenyl	84-15-1	103	%	70-135	09.01.2020 19:56	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH15	Matrix: Soil	Date Received: 09.01.2020 17:04
Lab Sample Id: 671544-006	Date Collected: 09.01.2020 14:15	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.01.2020 17:38	Basis: Wet Weight
Seq Number: 3136128		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.01.2020 21:10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.01.2020 21:10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.01.2020 21:10	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.01.2020 21:10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.01.2020 21:10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.01.2020 21:10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.01.2020 21:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	09.01.2020 21:10	
4-Bromofluorobenzene	460-00-4	92	%	70-130	09.01.2020 21:10	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH15A	Matrix: Soil	Date Received: 09.01.2020 17:04
Lab Sample Id: 671544-007	Date Collected: 09.01.2020 14:20	Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.01.2020 17:35	Basis: Wet Weight
Seq Number: 3136169		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4050	50.1	mg/kg	09.01.2020 19:27		5

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 09.01.2020 17:30	Basis: Wet Weight
Seq Number: 3136075		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.01.2020 20:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.01.2020 20:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.01.2020 20:16	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	09.01.2020 20:16	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.01.2020 20:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	09.01.2020 20:16	
o-Terphenyl	84-15-1	107	%	70-135	09.01.2020 20:16	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH15A	Matrix: Soil	Date Received: 09.01.2020 17:04
Lab Sample Id: 671544-007	Date Collected: 09.01.2020 14:20	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.01.2020 17:38	Basis: Wet Weight
Seq Number: 3136128		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.01.2020 21:32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.01.2020 21:32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.01.2020 21:32	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.01.2020 21:32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.01.2020 21:32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.01.2020 21:32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.01.2020 21:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.01.2020 21:32	
4-Bromofluorobenzene	460-00-4	89	%	70-130	09.01.2020 21:32	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **PH15B** Matrix: Soil Date Received: 09.01.2020 17:04
 Lab Sample Id: 671544-008 Date Collected: 09.01.2020 14:55 Sample Depth: 12 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.01.2020 17:35 Basis: Wet Weight
 Seq Number: 3136169

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3060	50.4	mg/kg	09.01.2020 19:33		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.01.2020 17:30 Basis: Wet Weight
 Seq Number: 3136075

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.01.2020 20:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.01.2020 20:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.01.2020 20:37	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.01.2020 20:37	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.01.2020 20:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	09.01.2020 20:37	
o-Terphenyl	84-15-1	101	%	70-135	09.01.2020 20:37	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH15B	Matrix: Soil	Date Received: 09.01.2020 17:04
Lab Sample Id: 671544-008	Date Collected: 09.01.2020 14:55	Sample Depth: 12 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.01.2020 17:38	Basis: Wet Weight
Seq Number: 3136128		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.01.2020 21:55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.01.2020 21:55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.01.2020 21:55	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.01.2020 21:55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.01.2020 21:55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.01.2020 21:55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.01.2020 21:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	09.01.2020 21:55	
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.01.2020 21:55	



Certificate of Analytical Results 671544

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **PH16** Matrix: Soil Date Received: 09.01.2020 17:04
 Lab Sample Id: 671544-009 Date Collected: 09.01.2020 15:20 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.01.2020 17:35 Basis: Wet Weight
 Seq Number: 3136169

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3310	50.3	mg/kg	09.01.2020 19:38		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.01.2020 17:30 Basis: Wet Weight
 Seq Number: 3136075

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.01.2020 20:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.01.2020 20:57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.01.2020 20:57	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	09.01.2020 20:57	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.01.2020 20:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	09.01.2020 20:57	
o-Terphenyl	84-15-1	103	%	70-135	09.01.2020 20:57	



Certificate of Analytical Results 671544

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH16	Matrix: Soil	Date Received: 09.01.2020 17:04
Lab Sample Id: 671544-009	Date Collected: 09.01.2020 15:20	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.01.2020 17:38	Basis: Wet Weight
Seq Number: 3136128		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.01.2020 22:17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.01.2020 22:17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.01.2020 22:17	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.01.2020 22:17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.01.2020 22:17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.01.2020 22:17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.01.2020 22:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	09.01.2020 22:17	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.01.2020 22:17	



Certificate of Analytical Results 671544

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH16A	Matrix: Soil	Date Received: 09.01.2020 17:04
Lab Sample Id: 671544-010	Date Collected: 09.01.2020 15:25	Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.01.2020 17:35	Basis: Wet Weight
Seq Number: 3136169		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3000	49.6	mg/kg	09.01.2020 19:44		5

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 09.01.2020 17:30	Basis: Wet Weight
Seq Number: 3136075		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.01.2020 21:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.01.2020 21:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.01.2020 21:17	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.01.2020 21:17	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.01.2020 21:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	09.01.2020 21:17	
o-Terphenyl	84-15-1	106	%	70-135	09.01.2020 21:17	



Certificate of Analytical Results 671544

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH16A	Matrix: Soil	Date Received: 09.01.2020 17:04
Lab Sample Id: 671544-010	Date Collected: 09.01.2020 15:25	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.01.2020 17:38	Basis: Wet Weight
Seq Number: 3136128		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.01.2020 22:40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.01.2020 22:40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.01.2020 22:40	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.01.2020 22:40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.01.2020 22:40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.01.2020 22:40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.01.2020 22:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	09.01.2020 22:40	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.01.2020 22:40	



Certificate of Analytical Results 671544

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **PH16B** Matrix: Soil Date Received: 09.01.2020 17:04
 Lab Sample Id: 671544-011 Date Collected: 09.01.2020 15:35 Sample Depth: 8 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.01.2020 17:35 Basis: Wet Weight
 Seq Number: 3136169

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	920	49.4	mg/kg	09.01.2020 19:50		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.01.2020 17:30 Basis: Wet Weight
 Seq Number: 3136075

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.01.2020 21:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.01.2020 21:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.01.2020 21:58	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	09.01.2020 21:58	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.01.2020 21:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	09.01.2020 21:58	
o-Terphenyl	84-15-1	109	%	70-135	09.01.2020 21:58	



Certificate of Analytical Results 671544

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **PH16B** Matrix: Soil Date Received: 09.01.2020 17:04
 Lab Sample Id: 671544-011 Date Collected: 09.01.2020 15:35 Sample Depth: 8 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.01.2020 17:38 Basis: Wet Weight
 Seq Number: 3136128

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.01.2020 23:58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.01.2020 23:58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.01.2020 23:58	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.01.2020 23:58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.01.2020 23:58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.01.2020 23:58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.01.2020 23:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	87	%	70-130	09.01.2020 23:58	
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.01.2020 23:58	



LT Environmental, Inc.
Nash 53 SWD

Analytical Method: Chloride by EPA 300

Seq Number: 3136169
MB Sample Id: 7710632-1-BLK

Matrix: Solid
LCS Sample Id: 7710632-1-BKS

Prep Method: E300P
Date Prep: 09.01.2020
LCSD Sample Id: 7710632-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	263	105	266	106	90-110	1	20	mg/kg	09.01.2020 18:20	

Analytical Method: Chloride by EPA 300

Seq Number: 3136169
Parent Sample Id: 671544-001

Matrix: Soil
MS Sample Id: 671544-001 S

Prep Method: E300P
Date Prep: 09.01.2020
MSD Sample Id: 671544-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1160	200	1380	110	1340	90	90-110	3	20	mg/kg	09.01.2020 18:37	

Analytical Method: Chloride by EPA 300

Seq Number: 3136169
Parent Sample Id: 671544-011

Matrix: Soil
MS Sample Id: 671544-011 S

Prep Method: E300P
Date Prep: 09.01.2020
MSD Sample Id: 671544-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	920	198	1120	101	1110	96	90-110	1	20	mg/kg	09.01.2020 19:55	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3136075
MB Sample Id: 7710578-1-BLK

Matrix: Solid
LCS Sample Id: 7710578-1-BKS

Prep Method: SW8015P
Date Prep: 09.01.2020
LCSD Sample Id: 7710578-1-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	883	88	880	88	70-135	0	35	mg/kg	09.01.2020 10:09	
Diesel Range Organics (DRO)	<50.0	1000	991	99	986	99	70-135	1	35	mg/kg	09.01.2020 10:09	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		118		117		70-135	%	09.01.2020 10:09
o-Terphenyl	101		112		111		70-135	%	09.01.2020 10:09

Analytical Method: TPH by SW8015 Mod

Seq Number: 3136075

Matrix: Solid
MB Sample Id: 7710578-1-BLK

Prep Method: SW8015P
Date Prep: 09.01.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.01.2020 09:49	

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.
Nash 53 SWD

Analytical Method: TPH by SW8015 Mod

Seq Number: 3136075
Parent Sample Id: 670969-036

Matrix: Soil
MS Sample Id: 670969-036 S

Prep Method: SW8015P
Date Prep: 09.01.2020
MSD Sample Id: 670969-036 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)	<55.6	1110	939	85	917	82	70-135	2	35	mg/kg	09.01.2020 11:10	
Diesel Range Organics (DRO)	<55.6	1110	1050	95	1030	92	70-135	2	35	mg/kg	09.01.2020 11:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		112		70-135	%	09.01.2020 11:10
o-Terphenyl	110		106		70-135	%	09.01.2020 11:10

Analytical Method: BTEX by EPA 8021B

Seq Number: 3136128
MB Sample Id: 7710554-1-BLK

Matrix: Solid
LCS Sample Id: 7710554-1-BKS

Prep Method: SW5035A
Date Prep: 09.01.2020
LCSD Sample Id: 7710554-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0973	97	0.108	108	70-130	10	35	mg/kg	09.01.2020 15:44	
Toluene	<0.00200	0.100	0.0931	93	0.103	103	70-130	10	35	mg/kg	09.01.2020 15:44	
Ethylbenzene	<0.00200	0.100	0.0868	87	0.0957	96	71-129	10	35	mg/kg	09.01.2020 15:44	
m,p-Xylenes	<0.00400	0.200	0.176	88	0.193	97	70-135	9	35	mg/kg	09.01.2020 15:44	
o-Xylene	<0.00200	0.100	0.0870	87	0.0960	96	71-133	10	35	mg/kg	09.01.2020 15:44	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		100		100		70-130	%	09.01.2020 15:44
4-Bromofluorobenzene	85		90		87		70-130	%	09.01.2020 15:44

Analytical Method: BTEX by EPA 8021B

Seq Number: 3136128
Parent Sample Id: 670969-036

Matrix: Soil
MS Sample Id: 670969-036 S

Prep Method: SW5035A
Date Prep: 09.01.2020
MSD Sample Id: 670969-036 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00223	0.112	0.104	93	0.114	102	70-130	9	35	mg/kg	09.01.2020 14:14	
Toluene	<0.00223	0.112	0.100	89	0.110	98	70-130	10	35	mg/kg	09.01.2020 14:14	
Ethylbenzene	<0.00223	0.112	0.0941	84	0.102	91	71-129	8	35	mg/kg	09.01.2020 14:14	
m,p-Xylenes	<0.00447	0.223	0.189	85	0.206	92	70-135	9	35	mg/kg	09.01.2020 14:14	
o-Xylene	<0.00223	0.112	0.0915	82	0.103	92	71-133	12	35	mg/kg	09.01.2020 14:14	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		100		70-130	%	09.01.2020 14:14
4-Bromofluorobenzene	87		92		70-130	%	09.01.2020 14:14

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: 1671544

Houston TX (281) 240-4200 Dallas TX (214) 902-0300 San Antonio TX (210) 503-3334
 Midland TX (432) 704-5440 EL Paso TX (915) 885-3443 Lubbock TX (806) 794-1296 Caswell NM (432) 704-5240
 Phoenix AZ (480) 335-0900 Atlanta GA (770) 449-8800 Tampa FL (813) 620-2000 West Palm Beach FL (561) 689-6701
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Project Manager: Dan Moore / Jackson Marissy
 Company Name: LT Envision with fall
 Address: 3300 N A Street
 City, State Zip: Midland TX 79705
 Phone: (432) 236-3049
 Email: emicka@ltaenv.com

Bill to: (if different) Kyle LPR11
 Company Name: YTO Energy
 Address: 522 W Myerwood
 City, State Zip: Carlisle NM 88220

Turn Around: Routine Rush: 24 hr
 Due Date: _____

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

Project Name: Wash 53 SWD
 Project Number: 072419139
 Project Location: Eddy County
 Sampler's Name: Elizabeth Jordan
 PO #: _____

Temperature (°C): 1.2/1.0
 Received Inact: Yes No
 Cooler Custody Seals: Yes No N/A
 Sample Custody Seals: Yes No N/A

Temp Blank: Yes No
 Wet Lab: Yes No
 Thermometer ID: TMM-007
 Correction Factor: -0.2
 Total Containers: 11

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Analysis Request	Preservative Codes	Sample Comments
PH13	S	09/01/20	1020	12'	1	X	TPH (EPA 8015)	MeOH: Ma Name: NO HNO3: HN H2SO4: H2 HCL: HL NaOH: Na Zn Acetate+ NaOH: Zn	discrete
PH13A						X	BTEX (EPA 0=8021)		
PH14						X	Chloride (EPA 300.0)		
PH14A									
PH14B									
PH15									
PH15A									
PH15B									
PH16									
PH16A									

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

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

Relinquished by: (Signature) _____ Received by: (Signature) _____ Date/Time: 7/1/20 17:04



Chain of Custody

Work Order No: 1671544

Houston, TX (281) 240-4200 Dallas, TX (214) 992-0360 San Antonio, TX (210) 508-3334
 Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Castlehead, NM (432) 704-5440
 Phoenix, AZ (480) 365-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 589-6701

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Project Manager:	Dan Mair	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental	Company Name:	XTO Energy
Address:	3300 N A Street	Address:	522 W Mermond
City, State ZIP:	Midland TX 79705	City, State ZIP:	Corlsband NM 88220
Phone:	(432) 236-3849	Email:	Baker@Xencu.com, danm@Xencu.com
Project Name:	Kash 53 SWD	Turn Around	
Project Number:	012919139	Routine	<input type="checkbox"/>
Project Location:	Eddy County	Rush:	24 hr
Sampler's Name:	Elizabeth Niska	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT		Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Temperature (°C):	1.2 / 1.0	Thermometer ID:	T-NM-003		
Received Inset:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.0		
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Total Containers:	11		
Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A				

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes	Sample Comments
PH168		S	09/01/20	1535	8'	1	<input checked="" type="checkbox"/> TPH (EPA 8015) <input checked="" type="checkbox"/> BTEX (EPA 8210) <input checked="" type="checkbox"/> Chloride (EPA 300.0)	MnO ₂ , Me Non: NO HNO ₃ : HN H ₂ SO ₄ : H2 HCL: HL NaOH: NA Zn Acetate: NAOH, Zn	discrpt H

Total 200.7 / 6010 200.8 / 6020: BRORA 13PPM Texas 11 Al Sb As Ba Be B Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U

Circle Method(s) and Metal(s) to be analyzed: TCLP / SPLP 6010: BRORA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U

1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Elizabeth Niska</i>	<i>Joe Carran</i>	9-1-20 17:04			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09.01.2020 05.04.00 PM

Work Order #: 671544

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Cloe Clifton

Date: 09.01.2020

Checklist reviewed by:

Jessica Kramer

Date: 09.02.2020

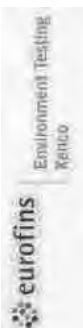
Certificate of Analysis Summary 671725

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWP

Date Received in Lab: Thu 09.03.2020 09:32
Report Date: 09.08.2020 14:05
Project Manager: Jessica Kramer

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County



Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	671725-001	671725-002	671725-003	671725-004	671725-005	671725-006
Analysis Requested										
BTEX by EPA 8021B										
Extracted:	09.03.2020 15:45	09.03.2020 15:45	09.03.2020 15:45	09.03.2020 07:50	09.03.2020 07:50	09.03.2020 07:55	09.03.2020 08:00	09.03.2020 08:05	09.03.2020 08:35	09.03.2020 08:35
Analyzed:	09.03.2020 19:09	09.03.2020 19:29	09.03.2020 19:50	09.03.2020 19:50	09.03.2020 20:10	09.03.2020 20:10	09.03.2020 20:10	09.03.2020 20:30	09.03.2020 20:51	09.03.2020 20:51
Units/RL:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	<0.00200	0.00200	0.00199	0.00199	0.00199	0.00199	0.00200	0.00199	0.00199	<0.00200
Toluene	<0.00200	0.00200	0.00199	0.00199	0.00199	0.00199	0.00200	0.00199	0.00199	<0.00200
Ethylbenzene	<0.00200	0.00200	0.00199	0.00199	0.00199	0.00199	0.00200	0.00199	0.00199	<0.00200
m,p-Xylenes	<0.00400	0.00400	0.00398	0.00398	0.00398	0.00398	0.00399	0.00398	0.00398	<0.00399
o-Xylene	<0.00200	0.00200	0.00199	0.00199	0.00199	0.00199	0.00200	0.00199	0.00199	<0.00200
Total Xylenes	<0.00200	0.00200	0.00199	0.00199	0.00199	0.00199	0.00200	0.00199	0.00199	<0.00200
Total BTEX	<0.00200	0.00200	0.00199	0.00199	0.00199	0.00199	0.00200	0.00199	0.00199	<0.00200
Chloride by EPA 300										
Extracted:	09.03.2020 14:41	09.03.2020 14:41	09.03.2020 14:41	09.03.2020 14:41	09.03.2020 14:41	09.03.2020 14:41	09.03.2020 14:41	09.03.2020 14:41	09.03.2020 14:41	09.03.2020 16:43
Analyzed:	09.03.2020 23:07	09.03.2020 23:13	09.03.2020 23:18	09.03.2020 23:18	09.03.2020 23:24	09.03.2020 23:24	09.03.2020 23:24	09.03.2020 23:30	09.03.2020 23:30	09.04.2020 00:03
Units/RL:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloride	386	49.9	370	49.9	370	49.9	2380	200	18000	2050
TPH by SW8015 Mod										
Extracted:	09.03.2020 11:14	09.03.2020 11:14	09.03.2020 11:14	09.03.2020 11:14	09.03.2020 11:14	09.03.2020 11:14	09.03.2020 11:14	09.03.2020 11:14	09.03.2020 11:14	09.03.2020 11:14
Analyzed:	09.03.2020 16:07	09.03.2020 16:27	09.03.2020 16:47	09.03.2020 16:47	09.03.2020 17:28	09.03.2020 17:28	09.03.2020 17:28	09.03.2020 17:49	09.03.2020 18:09	09.03.2020 18:09
Units/RL:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Gasoline Range Hydrocarbons (GRO)	<50.0	50.0	<49.8	49.8	<49.9	49.9	<50.1	50.1	<49.9	<49.9
Diesel Range Organics (DRO)	60.2	50.0	67.8	49.8	67.1	49.9	<50.1	50.1	<49.9	<49.9
Motor Oil Range Hydrocarbons (MRO)	<50.0	50.0	<49.8	49.8	<49.9	49.9	<50.1	50.1	<49.9	<49.9
Total GRO-DRO	60.2	50.0	67.8	49.8	67.1	49.9	<50.1	50.1	<49.9	<49.9
Total TPH	60.2	50.0	67.8	49.8	67.1	49.9	<50.1	50.1	<49.9	<49.9

Jessica Kramer

BRL - Below Reporting Limit

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



Analytical Report 671725

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash 53 SWP

012919139

09.08.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

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

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



09.08.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **671725**
Nash 53 SWP
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 Eurofins Xenco, LLC Report Number(s) 671725. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 671725 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer
Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 671725

LT Environmental, Inc., Arvada, CO

Nash 53 SWP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW21	S	09.03.2020 07:45	0 - 8 ft	671725-001
SW22	S	09.03.2020 07:50	0 - 10 ft	671725-002
SW23	S	09.03.2020 07:55	0 - 8 ft	671725-003
SW27C	S	09.03.2020 08:00	10 ft	671725-004
SW28C	S	09.03.2020 08:05	10 ft	671725-005
SW34	S	09.03.2020 08:35	8 ft	671725-006

CASE NARRATIVE



Client Name: LT Environmental, Inc.

Project Name: Nash 53 SWP

Project ID: 012919139
Work Order Number(s): 671725

Report Date: 09.08.2020
Date Received: 09.03.2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 671725

LT Environmental, Inc., Arvada, CO
Nash 53 SWP

Sample Id: **SW21** Matrix: Soil Date Received: 09.03.2020 09:32
 Lab Sample Id: 671725-001 Date Collected: 09.03.2020 07:45 Sample Depth: 0 - 8 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.03.2020 14:41 Basis: Wet Weight
 Seq Number: 3136411

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	386	49.9	mg/kg	09.03.2020 23:07		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.03.2020 11:14 Basis: Wet Weight
 Seq Number: 3136390

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.03.2020 16:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	60.2	50.0	mg/kg	09.03.2020 16:07		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.03.2020 16:07	U	1
Total GRO-DRO	PHC628	60.2	50.0	mg/kg	09.03.2020 16:07		1
Total TPH	PHC635	60.2	50.0	mg/kg	09.03.2020 16:07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	09.03.2020 16:07	
o-Terphenyl	84-15-1	113	%	70-135	09.03.2020 16:07	



Certificate of Analytical Results 671725

LT Environmental, Inc., Arvada, CO
Nash 53 SWP

Sample Id: SW21	Matrix: Soil	Date Received: 09.03.2020 09:32
Lab Sample Id: 671725-001	Date Collected: 09.03.2020 07:45	Sample Depth: 0 - 8 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.03.2020 15:45	Basis: Wet Weight
Seq Number: 3136391		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.03.2020 19:09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.03.2020 19:09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.03.2020 19:09	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.03.2020 19:09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.03.2020 19:09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.03.2020 19:09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.03.2020 19:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	09.03.2020 19:09	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.03.2020 19:09	



Certificate of Analytical Results 671725

LT Environmental, Inc., Arvada, CO
Nash 53 SWP

Sample Id: **SW22** Matrix: Soil Date Received: 09.03.2020 09:32
 Lab Sample Id: 671725-002 Date Collected: 09.03.2020 07:50 Sample Depth: 0 - 10 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.03.2020 14:41 Basis: Wet Weight
 Seq Number: 3136411

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	370	49.9	mg/kg	09.03.2020 23:13		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.03.2020 11:14 Basis: Wet Weight
 Seq Number: 3136390

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.03.2020 16:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	67.8	49.8	mg/kg	09.03.2020 16:27		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.03.2020 16:27	U	1
Total GRO-DRO	PHC628	67.8	49.8	mg/kg	09.03.2020 16:27		1
Total TPH	PHC635	67.8	49.8	mg/kg	09.03.2020 16:27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	09.03.2020 16:27	
o-Terphenyl	84-15-1	109	%	70-135	09.03.2020 16:27	



Certificate of Analytical Results 671725

LT Environmental, Inc., Arvada, CO
Nash 53 SWP

Sample Id: SW22	Matrix: Soil	Date Received: 09.03.2020 09:32
Lab Sample Id: 671725-002	Date Collected: 09.03.2020 07:50	Sample Depth: 0 - 10 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.03.2020 15:45	Basis: Wet Weight
Seq Number: 3136391		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.03.2020 19:29	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.03.2020 19:29	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.03.2020 19:29	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.03.2020 19:29	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.03.2020 19:29	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.03.2020 19:29	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.03.2020 19:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.03.2020 19:29	
4-Bromofluorobenzene	460-00-4	94	%	70-130	09.03.2020 19:29	



Certificate of Analytical Results 671725

LT Environmental, Inc., Arvada, CO
Nash 53 SWP

Sample Id: **SW23** Matrix: Soil Date Received: 09.03.2020 09:32
 Lab Sample Id: 671725-003 Date Collected: 09.03.2020 07:55 Sample Depth: 0 - 8 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.03.2020 14:41 Basis: Wet Weight
 Seq Number: 3136411

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1280	50.1	mg/kg	09.03.2020 23:18		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.03.2020 11:14 Basis: Wet Weight
 Seq Number: 3136390

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.03.2020 16:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	67.1	49.9	mg/kg	09.03.2020 16:47		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.03.2020 16:47	U	1
Total GRO-DRO	PHC628	67.1	49.9	mg/kg	09.03.2020 16:47		1
Total TPH	PHC635	67.1	49.9	mg/kg	09.03.2020 16:47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	09.03.2020 16:47	
o-Terphenyl	84-15-1	107	%	70-135	09.03.2020 16:47	



Certificate of Analytical Results 671725

LT Environmental, Inc., Arvada, CO
Nash 53 SWP

Sample Id: SW23	Matrix: Soil	Date Received: 09.03.2020 09:32
Lab Sample Id: 671725-003	Date Collected: 09.03.2020 07:55	Sample Depth: 0 - 8 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.03.2020 15:45	Basis: Wet Weight
Seq Number: 3136391		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.03.2020 19:50	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.03.2020 19:50	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.03.2020 19:50	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.03.2020 19:50	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.03.2020 19:50	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.03.2020 19:50	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.03.2020 19:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	09.03.2020 19:50	
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.03.2020 19:50	



Certificate of Analytical Results 671725

LT Environmental, Inc., Arvada, CO
Nash 53 SWP

Sample Id: **SW27C** Matrix: Soil Date Received: 09.03.2020 09:32
 Lab Sample Id: 671725-004 Date Collected: 09.03.2020 08:00 Sample Depth: 10 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.03.2020 14:41 Basis: Wet Weight
 Seq Number: 3136411

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2380	200	mg/kg	09.03.2020 23:24		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.03.2020 11:14 Basis: Wet Weight
 Seq Number: 3136390

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.03.2020 17:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.03.2020 17:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.03.2020 17:28	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.03.2020 17:28	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.03.2020 17:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	09.03.2020 17:28	
o-Terphenyl	84-15-1	104	%	70-135	09.03.2020 17:28	



Certificate of Analytical Results 671725

LT Environmental, Inc., Arvada, CO
Nash 53 SWP

Sample Id: SW27C	Matrix: Soil	Date Received: 09.03.2020 09:32
Lab Sample Id: 671725-004	Date Collected: 09.03.2020 08:00	Sample Depth: 10 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.03.2020 15:45	Basis: Wet Weight
Seq Number: 3136391		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.03.2020 20:10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.03.2020 20:10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.03.2020 20:10	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.03.2020 20:10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.03.2020 20:10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.03.2020 20:10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.03.2020 20:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	09.03.2020 20:10	
1,4-Difluorobenzene	540-36-3	105	%	70-130	09.03.2020 20:10	



Certificate of Analytical Results 671725

LT Environmental, Inc., Arvada, CO

Nash 53 SWP

Sample Id: **SW28C** Matrix: Soil Date Received: 09.03.2020 09:32
 Lab Sample Id: 671725-005 Date Collected: 09.03.2020 08:05 Sample Depth: 10 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.03.2020 14:41 Basis: Wet Weight
 Seq Number: 3136411

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18000	199	mg/kg	09.03.2020 23:30		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.03.2020 11:14 Basis: Wet Weight
 Seq Number: 3136390

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.03.2020 17:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.03.2020 17:49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.03.2020 17:49	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	09.03.2020 17:49	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.03.2020 17:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	09.03.2020 17:49	
o-Terphenyl	84-15-1	107	%	70-135	09.03.2020 17:49	



Certificate of Analytical Results 671725

LT Environmental, Inc., Arvada, CO
Nash 53 SWP

Sample Id: SW28C	Matrix: Soil	Date Received: 09.03.2020 09:32
Lab Sample Id: 671725-005	Date Collected: 09.03.2020 08:05	Sample Depth: 10 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.03.2020 15:45	Basis: Wet Weight
Seq Number: 3136391		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.03.2020 20:30	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.03.2020 20:30	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.03.2020 20:30	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.03.2020 20:30	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.03.2020 20:30	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.03.2020 20:30	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.03.2020 20:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	09.03.2020 20:30	
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.03.2020 20:30	



Certificate of Analytical Results 671725

LT Environmental, Inc., Arvada, CO
Nash 53 SWP

Sample Id: **SW34** Matrix: Soil Date Received: 09.03.2020 09:32
 Lab Sample Id: 671725-006 Date Collected: 09.03.2020 08:35 Sample Depth: 8 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.03.2020 16:43 Basis: Wet Weight
 Seq Number: 3136412

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2050	199	mg/kg	09.04.2020 00:03		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.03.2020 11:14 Basis: Wet Weight
 Seq Number: 3136390

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.03.2020 18:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.03.2020 18:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.03.2020 18:09	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	09.03.2020 18:09	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.03.2020 18:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	09.03.2020 18:09	
o-Terphenyl	84-15-1	110	%	70-135	09.03.2020 18:09	



Certificate of Analytical Results 671725

LT Environmental, Inc., Arvada, CO
Nash 53 SWP

Sample Id: SW34	Matrix: Soil	Date Received: 09.03.2020 09:32
Lab Sample Id: 671725-006	Date Collected: 09.03.2020 08:35	Sample Depth: 8 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.03.2020 15:45	Basis: Wet Weight
Seq Number: 3136391		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.03.2020 20:51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.03.2020 20:51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.03.2020 20:51	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.03.2020 20:51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.03.2020 20:51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.03.2020 20:51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.03.2020 20:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	09.03.2020 20:51	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.03.2020 20:51	



LT Environmental, Inc.
Nash 53 SWP

Analytical Method: Chloride by EPA 300

Seq Number: 3136411
MB Sample Id: 7710781-1-BLK

Matrix: Solid
LCS Sample Id: 7710781-1-BKS

Prep Method: E300P
Date Prep: 09.03.2020
LCSD Sample Id: 7710781-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	266	106	269	108	90-110	1	20	mg/kg	09.03.2020 20:48	

Analytical Method: Chloride by EPA 300

Seq Number: 3136412
MB Sample Id: 7710783-1-BLK

Matrix: Solid
LCS Sample Id: 7710783-1-BKS

Prep Method: E300P
Date Prep: 09.03.2020
LCSD Sample Id: 7710783-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	266	106	268	107	90-110	1	20	mg/kg	09.03.2020 23:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3136411
Parent Sample Id: 671718-041

Matrix: Soil
MS Sample Id: 671718-041 S

Prep Method: E300P
Date Prep: 09.03.2020
MSD Sample Id: 671718-041 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5120	198	5320	101	5320	100	90-110	0	20	mg/kg	09.03.2020 21:05	

Analytical Method: Chloride by EPA 300

Seq Number: 3136411
Parent Sample Id: 671718-051

Matrix: Soil
MS Sample Id: 671718-051 S

Prep Method: E300P
Date Prep: 09.03.2020
MSD Sample Id: 671718-051 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	225	200	429	102	429	102	90-110	0	20	mg/kg	09.03.2020 22:23	

Analytical Method: Chloride by EPA 300

Seq Number: 3136412
Parent Sample Id: 671725-006

Matrix: Soil
MS Sample Id: 671725-006 S

Prep Method: E300P
Date Prep: 09.03.2020
MSD Sample Id: 671725-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2050	200	2260	105	2240	94	90-110	1	20	mg/kg	09.04.2020 00:09	

Analytical Method: Chloride by EPA 300

Seq Number: 3136412
Parent Sample Id: 671826-010

Matrix: Soil
MS Sample Id: 671826-010 S

Prep Method: E300P
Date Prep: 09.03.2020
MSD Sample Id: 671826-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	914	199	1120	104	1110	98	90-110	1	20	mg/kg	09.04.2020 01:27	

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.
Nash 53 SWP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3136390

MB Sample Id: 7710737-1-BLK

Matrix: Solid

LCS Sample Id: 7710737-1-BKS

Prep Method: SW8015P

Date Prep: 09.03.2020

LCSD Sample Id: 7710737-1-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	875	88	851	85	70-135	3	35	mg/kg	09.03.2020 12:24	
Diesel Range Organics (DRO)	<50.0	1000	992	99	954	95	70-135	4	35	mg/kg	09.03.2020 12:24	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		118		112		70-135	%	09.03.2020 12:24
o-Terphenyl	100		117		111		70-135	%	09.03.2020 12:24

Analytical Method: TPH by SW8015 Mod

Seq Number: 3136390

MB Sample Id: 7710737-1-BLK

Matrix: Solid

Prep Method: SW8015P

Date Prep: 09.03.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.03.2020 11:44	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3136390

Parent Sample Id: 671718-001

Matrix: Soil

MS Sample Id: 671718-001 S

Prep Method: SW8015P

Date Prep: 09.03.2020

MSD Sample Id: 671718-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	892	89	863	86	70-135	3	35	mg/kg	09.03.2020 13:25	
Diesel Range Organics (DRO)	<50.0	1000	1000	100	972	97	70-135	3	35	mg/kg	09.03.2020 13:25	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		120		70-135	%	09.03.2020 13:25
o-Terphenyl	124		119		70-135	%	09.03.2020 13:25

Analytical Method: BTEX by EPA 8021B

Seq Number: 3136391

MB Sample Id: 7710784-1-BLK

Matrix: Solid

LCS Sample Id: 7710784-1-BKS

Prep Method: SW5035A

Date Prep: 09.03.2020

LCSD Sample Id: 7710784-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0990	99	0.0992	99	70-130	0	35	mg/kg	09.03.2020 17:12	
Toluene	<0.00200	0.100	0.0949	95	0.0929	93	70-130	2	35	mg/kg	09.03.2020 17:12	
Ethylbenzene	<0.00200	0.100	0.0991	99	0.0966	97	71-129	3	35	mg/kg	09.03.2020 17:12	
m,p-Xylenes	<0.00400	0.200	0.199	100	0.198	99	70-135	1	35	mg/kg	09.03.2020 17:12	
o-Xylene	<0.00200	0.100	0.0986	99	0.0969	97	71-133	2	35	mg/kg	09.03.2020 17:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		104		99		70-130	%	09.03.2020 17:12
4-Bromofluorobenzene	100		94		92		70-130	%	09.03.2020 17:12

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.

Nash 53 SWP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3136391

Parent Sample Id: 671725-001

Matrix: Soil

MS Sample Id: 671725-001 S

Prep Method: SW5035A

Date Prep: 09.03.2020

MSD Sample Id: 671725-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.102	102	0.0885	89	70-130	14	35	mg/kg	09.03.2020 17:53	
Toluene	<0.00199	0.0996	0.0954	96	0.0836	84	70-130	13	35	mg/kg	09.03.2020 17:53	
Ethylbenzene	<0.00199	0.0996	0.0962	97	0.0873	87	71-129	10	35	mg/kg	09.03.2020 17:53	
m,p-Xylenes	<0.00398	0.199	0.193	97	0.176	88	70-135	9	35	mg/kg	09.03.2020 17:53	
o-Xylene	<0.00199	0.0996	0.0970	97	0.0873	87	71-133	11	35	mg/kg	09.03.2020 17:53	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		96		70-130	%	09.03.2020 17:53
4-Bromofluorobenzene	97		91		70-130	%	09.03.2020 17:53

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

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

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

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



Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 EL Paso, TX (915) 565-3443 Lubbock, TX (806) 794-1296

Work Order No: 671725

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littlell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street Midland, TX 79705	Address:	522 West Mermond Carlsbad, NM 88220
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	janakal@tenv.com, dmair@tenv.com

Program: UST/PST RP Brownfields RC Superfund

State of Project: Level II Level III PT/UST RP Level IV

Reporting Level: EDD ADAPT Other: _____

Deliverables: EDD ADAPT Other: _____

Project Name: N45L53 SWP Turn Around: _____
 Project Number: 012919139 Routine:
 P.O. Number: _____ Eddy County Rush: _____
 Sampler's Name: Elizabeth Naka Due Date: _____

Temperature (°C): 26/0.4 Thermometer ID: _____
 Received Intact: Yes No _____
 Cooler Custody Seals: Yes No _____
 Sample Custody Seals: Yes No _____
 Correction Factor: 1.001
 Total Containers: 10

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers			Work Order Notes
					TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	
<u>SW21</u>	<u>S</u>	<u>09/03/20</u>	<u>0745</u>	<u>0'-8'</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Composite</u>
<u>SW22</u>	<u>S</u>	<u>0750</u>	<u>0'-10'</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
<u>SW23</u>	<u>S</u>	<u>0755</u>	<u>0'-8'</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
<u>FS27C</u>	<u>S</u>	<u>0800</u>	<u>10'</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
<u>FS28C</u>	<u>S</u>	<u>0805</u>	<u>10'</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Composite</u>	
<u>FS34</u>	<u>S</u>	<u>0935</u>	<u>8'</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 A/ 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

Relinquished by: (Signature) Elizabeth Naka Received by: (Signature) Che Carpenter Date/Time: 9-3-2020 07:35

Relinquished by: (Signature) _____ Received by: (Signature) _____ Date/Time: _____

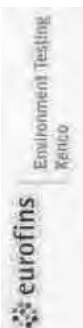
Certificate of Analysis Summary 672127

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Wed 09.09.2020 13:00
Report Date: 09.10.2020 11:13
Project Manager: Jessica Kramer



<i>Lab Id:</i>		672127-001	672127-002	672127-003	672127-004
<i>Field Id:</i>		PH17	PH17 A	PH18	PH18 A
<i>Depth:</i>		1- ft	3- ft	3- ft	8.5- ft
<i>Matrix:</i>		SOIL	SOIL	SOIL	SOIL
<i>Sampled:</i>		09.09.2020 10:05	09.09.2020 10:15	09.09.2020 10:55	09.09.2020 11:45
BTEX by EPA 8021B					
<i>Extracted:</i>		09.09.2020 14:16	09.09.2020 14:16	09.09.2020 14:16	09.09.2020 14:16
<i>Analyzed:</i>		09.09.2020 17:21	09.09.2020 17:44	09.09.2020 18:06	09.09.2020 18:29
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
Toluene		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
Ethylbenzene		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
m,p-Xylenes		<0.00403 0.00403	<0.00402 0.00402	<0.00401 0.00401	<0.00397 0.00397
o-Xylene		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
Total Xylenes		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
Total BTEX		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
Chloride by EPA 300					
<i>Extracted:</i>		09.09.2020 14:16	09.09.2020 14:16	09.09.2020 14:16	09.09.2020 14:16
<i>Analyzed:</i>		09.09.2020 15:01	09.09.2020 15:07	09.09.2020 15:12	09.09.2020 15:20
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1090 50.1	393 9.94	5860 50.0	4950 49.7
TPH by SW8015 Mod					
<i>Extracted:</i>		09.09.2020 14:10	09.09.2020 14:10	09.09.2020 14:10	09.09.2020 14:10
<i>Analyzed:</i>		09.09.2020 16:55	09.09.2020 17:38	09.09.2020 17:58	09.09.2020 18:18
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<49.9 49.9	<49.9 49.9	<50.1 50.1
Diesel Range Organics (DRO)		<50.1 50.1	<49.9 49.9	<49.9 49.9	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<49.9 49.9	<49.9 49.9	<50.1 50.1
Total GRO-DRO		<50.1 50.1	<49.9 49.9	<49.9 49.9	<50.1 50.1
Total TPH		<50.1 50.1	<49.9 49.9	<49.9 49.9	<50.1 50.1

Jessica Kramer

BRL - Below Reporting Limit

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



Analytical Report 672127

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash 53 SWD

012919139

09.10.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

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

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



09.10.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **672127**
Nash 53 SWD
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 Eurofins Xenco, LLC Report Number(s) 672127. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 672127 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer
Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 672127

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH17	S	09.09.2020 10:05	1 ft	672127-001
PH17 A	S	09.09.2020 10:15	3 ft	672127-002
PH18	S	09.09.2020 10:55	3 ft	672127-003
PH18 A	S	09.09.2020 11:45	8.5 ft	672127-004

CASE NARRATIVE



Client Name: LT Environmental, Inc.

Project Name: Nash 53 SWD

Project ID: 012919139
Work Order Number(s): 672127

Report Date: 09.10.2020
Date Received: 09.09.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 672127

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **PH17** Matrix: Soil Date Received: 09.09.2020 13:00
 Lab Sample Id: 672127-001 Date Collected: 09.09.2020 10:05 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.09.2020 14:16 Basis: Wet Weight
 Seq Number: 3136730

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1090	50.1	mg/kg	09.09.2020 15:01		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.09.2020 14:10 Basis: Wet Weight
 Seq Number: 3136684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.09.2020 16:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.09.2020 16:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.09.2020 16:55	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.09.2020 16:55	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.09.2020 16:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	09.09.2020 16:55	
o-Terphenyl	84-15-1	108	%	70-135	09.09.2020 16:55	



Certificate of Analytical Results 672127

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **PH17** Matrix: Soil Date Received: 09.09.2020 13:00
 Lab Sample Id: 672127-001 Date Collected: 09.09.2020 10:05 Sample Depth: 1 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.09.2020 14:16 Basis: Wet Weight
 Seq Number: 3136727

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.09.2020 17:21	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.09.2020 17:21	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.09.2020 17:21	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.09.2020 17:21	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.09.2020 17:21	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.09.2020 17:21	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.09.2020 17:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.09.2020 17:21	
4-Bromofluorobenzene	460-00-4	87	%	70-130	09.09.2020 17:21	



Certificate of Analytical Results 672127

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **PH17 A** Matrix: Soil Date Received: 09.09.2020 13:00
 Lab Sample Id: 672127-002 Date Collected: 09.09.2020 10:15 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.09.2020 14:16 Basis: Wet Weight
 Seq Number: 3136730

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	393	9.94	mg/kg	09.09.2020 15:07		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.09.2020 14:10 Basis: Wet Weight
 Seq Number: 3136684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.09.2020 17:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.09.2020 17:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.09.2020 17:38	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	09.09.2020 17:38	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.09.2020 17:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	09.09.2020 17:38	
o-Terphenyl	84-15-1	113	%	70-135	09.09.2020 17:38	



Certificate of Analytical Results 672127

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH17 A	Matrix: Soil	Date Received: 09.09.2020 13:00
Lab Sample Id: 672127-002	Date Collected: 09.09.2020 10:15	Sample Depth: 3 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.09.2020 14:16	Basis: Wet Weight
Seq Number: 3136727		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.09.2020 17:44	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.09.2020 17:44	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.09.2020 17:44	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.09.2020 17:44	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.09.2020 17:44	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.09.2020 17:44	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.09.2020 17:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	88	%	70-130	09.09.2020 17:44	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.09.2020 17:44	



Certificate of Analytical Results 672127

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **PH18** Matrix: Soil Date Received: 09.09.2020 13:00
 Lab Sample Id: 672127-003 Date Collected: 09.09.2020 10:55 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.09.2020 14:16 Basis: Wet Weight
 Seq Number: 3136730

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5860	50.0	mg/kg	09.09.2020 15:12		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.09.2020 14:10 Basis: Wet Weight
 Seq Number: 3136684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.09.2020 17:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.09.2020 17:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.09.2020 17:58	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	09.09.2020 17:58	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.09.2020 17:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	09.09.2020 17:58	
o-Terphenyl	84-15-1	113	%	70-135	09.09.2020 17:58	



Certificate of Analytical Results 672127

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **PH18** Matrix: Soil Date Received: 09.09.2020 13:00
 Lab Sample Id: 672127-003 Date Collected: 09.09.2020 10:55 Sample Depth: 3 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.09.2020 14:16 Basis: Wet Weight
 Seq Number: 3136727

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.09.2020 18:06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.09.2020 18:06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.09.2020 18:06	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.09.2020 18:06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.09.2020 18:06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.09.2020 18:06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.09.2020 18:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	09.09.2020 18:06	
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.09.2020 18:06	



Certificate of Analytical Results 672127

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **PH18 A** Matrix: Soil Date Received: 09.09.2020 13:00
 Lab Sample Id: 672127-004 Date Collected: 09.09.2020 11:45 Sample Depth: 8.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.09.2020 14:16 Basis: Wet Weight
 Seq Number: 3136730

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4950	49.7	mg/kg	09.09.2020 15:20		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.09.2020 14:10 Basis: Wet Weight
 Seq Number: 3136684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.09.2020 18:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.09.2020 18:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.09.2020 18:18	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.09.2020 18:18	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.09.2020 18:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	09.09.2020 18:18	
o-Terphenyl	84-15-1	112	%	70-135	09.09.2020 18:18	



Certificate of Analytical Results 672127

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH18 A	Matrix: Soil	Date Received: 09.09.2020 13:00
Lab Sample Id: 672127-004	Date Collected: 09.09.2020 11:45	Sample Depth: 8.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.09.2020 14:16	Basis: Wet Weight
Seq Number: 3136727		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.09.2020 18:29	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.09.2020 18:29	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.09.2020 18:29	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.09.2020 18:29	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.09.2020 18:29	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.09.2020 18:29	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.09.2020 18:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.09.2020 18:29	
4-Bromofluorobenzene	460-00-4	89	%	70-130	09.09.2020 18:29	



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. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.
Nash 53 SWD

Analytical Method: Chloride by EPA 300

Seq Number: 3136730
MB Sample Id: 7711008-1-BLK

Matrix: Solid
LCS Sample Id: 7711008-1-BKS

Prep Method: E300P
Date Prep: 09.09.2020
LCSD Sample Id: 7711008-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	251	100	252	101	90-110	0	20	mg/kg	09.09.2020 14:28	

Analytical Method: Chloride by EPA 300

Seq Number: 3136730
Parent Sample Id: 672074-001

Matrix: Soil
MS Sample Id: 672074-001 S

Prep Method: E300P
Date Prep: 09.09.2020
MSD Sample Id: 672074-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	72.0	200	275	102	276	101	90-110	0	20	mg/kg	09.09.2020 14:44	

Analytical Method: Chloride by EPA 300

Seq Number: 3136730
Parent Sample Id: 672167-003

Matrix: Soil
MS Sample Id: 672167-003 S

Prep Method: E300P
Date Prep: 09.09.2020
MSD Sample Id: 672167-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	158	200	362	102	362	102	90-110	0	20	mg/kg	09.09.2020 17:46	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3136684
MB Sample Id: 7711004-1-BLK

Matrix: Solid
LCS Sample Id: 7711004-1-BKS

Prep Method: SW8015P
Date Prep: 09.09.2020
LCSD Sample Id: 7711004-1-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	898	90	860	86	70-135	4	35	mg/kg	09.09.2020 10:12	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	973	97	70-135	4	35	mg/kg	09.09.2020 10:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		122		115		70-135	%	09.09.2020 10:12
o-Terphenyl	101		117		112		70-135	%	09.09.2020 10:12

Analytical Method: TPH by SW8015 Mod

Seq Number: 3136684

Matrix: Solid
MB Sample Id: 7711004-1-BLK

Prep Method: SW8015P
Date Prep: 09.09.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.09.2020 09:51	

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.
Nash 53 SWD

Analytical Method: TPH by SW8015 Mod

Seq Number: 3136684
Parent Sample Id: 672074-001

Matrix: Soil
MS Sample Id: 672074-001 S

Prep Method: SW8015P
Date Prep: 09.09.2020
MSD Sample Id: 672074-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	899	90	897	90	70-135	0	35	mg/kg	09.09.2020 12:11	
Diesel Range Organics (DRO)	<50.1	1000	1030	103	997	100	70-135	3	35	mg/kg	09.09.2020 12:11	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		127		70-135	%	09.09.2020 12:11
o-Terphenyl	127		133		70-135	%	09.09.2020 12:11

Analytical Method: BTEX by EPA 8021B

Seq Number: 3136727
MB Sample Id: 7711007-1-BLK

Matrix: Solid
LCS Sample Id: 7711007-1-BKS

Prep Method: SW5035A
Date Prep: 09.09.2020
LCSD Sample Id: 7711007-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0965	97	0.0997	100	70-130	3	35	mg/kg	09.09.2020 14:34	
Toluene	<0.00200	0.100	0.0953	95	0.0983	98	70-130	3	35	mg/kg	09.09.2020 14:34	
Ethylbenzene	<0.00200	0.100	0.0900	90	0.0926	93	71-129	3	35	mg/kg	09.09.2020 14:34	
m,p-Xylenes	<0.00400	0.200	0.181	91	0.186	93	70-135	3	35	mg/kg	09.09.2020 14:34	
o-Xylene	<0.00200	0.100	0.0901	90	0.0924	92	71-133	3	35	mg/kg	09.09.2020 14:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		99		70-130	%	09.09.2020 14:34
4-Bromofluorobenzene	88		89		87		70-130	%	09.09.2020 14:34

Analytical Method: BTEX by EPA 8021B

Seq Number: 3136727
Parent Sample Id: 672074-001

Matrix: Soil
MS Sample Id: 672074-001 S

Prep Method: SW5035A
Date Prep: 09.09.2020
MSD Sample Id: 672074-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.123	123	0.114	115	70-130	8	35	mg/kg	09.09.2020 15:19	
Toluene	<0.00200	0.0998	0.121	121	0.112	113	70-130	8	35	mg/kg	09.09.2020 15:19	
Ethylbenzene	<0.00200	0.0998	0.114	114	0.105	106	71-129	8	35	mg/kg	09.09.2020 15:19	
m,p-Xylenes	<0.00399	0.200	0.229	115	0.211	106	70-135	8	35	mg/kg	09.09.2020 15:19	
o-Xylene	<0.00200	0.0998	0.112	112	0.103	104	71-133	8	35	mg/kg	09.09.2020 15:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		70-130	%	09.09.2020 15:19
4-Bromofluorobenzene	89		90		70-130	%	09.09.2020 15:19

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

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

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

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



Chain of Custody

Work Order No: 672123

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

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Page 1 of 1

Project Manager: Dan Moir
 Company Name: LT Environmental, Inc., Permian office
 Address: 3300 North A Street
 City, State ZIP: Midland, TX 79705
 Phone: (432) 236-3849
 Email: emaka@ltenv.com, dimof@ltenv.com

Bill to: (if different)
 Company Name: XTO Energy
 Address: 522 West Mermond
 City, State ZIP: Carlsbad, NM 88220

Work Order Comments
 Program: UST/PST RP Rowfields RC perfund
 State of Project:
 Reporting Level: Level II Level III 3T/UST RP Level IV
 Deliverables: EDD ADAPT Other:

Project Name: N5453 SOD
 Project Number: 012819139
 P.O. Number:
 Sampler's Name: Elizabeth Naka
 Turn Around: Routine Rush:
 Due Date:

Temp Blank: Yes No
 Temperature (°C): 4.2/4.0
 Received In tact: Yes No
 Cooler Custody Seals: Yes No
 Sample Custody Seals: Yes No
 Correction Factor: -0.2
 Total Containers: 4

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers			Sample Comments
					TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	
PH17	S	09/09/20	1005	1'	X	X	X	
PH17A	S		1015	3'	X	X	X	
PH18	S		1055	3'	X	X	X	
PH18A	S		1145	8.5'	X	X	X	

Total 200.7 / 6010 200.8 / 6020:
 Circle Method(s) and Metal(s) to be analyzed: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SIO2 Na Sr Tl Sn U V Zn
 TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U
 1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature) *Glenn Miller* Received by: (Signature) *Care Batters*
 Date/Time: 7-9-20 13:00

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09.09.2020 01.00.00 PM

Work Order #: 672127

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : T_NM_007

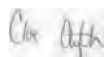
Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	Yes	
#6*Custody Seals Signed and dated?	Yes	
#7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

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 09.09.2020

Checklist reviewed by:



Jessica Kramer

Date: 09.10.2020

Certificate of Analysis Summary 672480

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Mon 09.14.2020 15:40
Report Date: 09.16.2020 10:41
Project Manager: Jessica Kramer

Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	672480-001	672480-002	672480-003	672480-004	672480-005	672480-006
Analysis Requested										
BTEX by EPA 8021B										
Benzene	PH 19	1- ft	SOIL	09.14.2020 08:45	09.14.2020 17:00	09.14.2020 09:00	09.14.2020 09:25	09.14.2020 10:00	09.14.2020 10:10	09.14.2020 10:25
	mg/kg	RL		<0.00200	0.00200	<0.00199	0.00201	<0.00199	0.00199	<0.00200
				<0.00200	0.00200	<0.00199	0.00201	<0.00199	0.00199	<0.00200
Toluene	PH 19 A	4- ft	SOIL	09.14.2020 17:00	09.14.2020 17:00	09.14.2020 09:00	09.14.2020 09:25	09.14.2020 10:00	09.14.2020 10:10	09.14.2020 10:25
	mg/kg	RL		<0.00200	0.00200	<0.00199	0.00201	<0.00199	0.00199	<0.00200
				<0.00200	0.00200	<0.00199	0.00201	<0.00199	0.00199	<0.00200
Ethylbenzene	PH 19 A	4- ft	SOIL	09.14.2020 17:00	09.14.2020 17:00	09.14.2020 09:00	09.14.2020 09:25	09.14.2020 10:00	09.14.2020 10:10	09.14.2020 10:25
	mg/kg	RL		<0.00200	0.00200	<0.00199	0.00201	<0.00199	0.00199	<0.00200
				<0.00200	0.00200	<0.00199	0.00201	<0.00199	0.00199	<0.00200
m,p-Xylenes	PH 19 A	4- ft	SOIL	09.14.2020 17:00	09.14.2020 17:00	09.14.2020 09:00	09.14.2020 09:25	09.14.2020 10:00	09.14.2020 10:10	09.14.2020 10:25
	mg/kg	RL		<0.00399	0.00399	<0.00398	0.00398	<0.00398	0.00398	<0.00400
				<0.00399	0.00399	<0.00398	0.00398	<0.00398	0.00398	<0.00400
o-Xylene	PH 19 A	4- ft	SOIL	09.14.2020 17:00	09.14.2020 17:00	09.14.2020 09:00	09.14.2020 09:25	09.14.2020 10:00	09.14.2020 10:10	09.14.2020 10:25
	mg/kg	RL		<0.00200	0.00200	<0.00199	0.00201	<0.00199	0.00199	<0.00200
				<0.00200	0.00200	<0.00199	0.00201	<0.00199	0.00199	<0.00200
Total Xylenes	PH 19 A	4- ft	SOIL	09.14.2020 17:00	09.14.2020 17:00	09.14.2020 09:00	09.14.2020 09:25	09.14.2020 10:00	09.14.2020 10:10	09.14.2020 10:25
	mg/kg	RL		<0.00200	0.00200	<0.00199	0.00201	<0.00199	0.00199	<0.00200
				<0.00200	0.00200	<0.00199	0.00201	<0.00199	0.00199	<0.00200
Total BTEX	PH 19 A	4- ft	SOIL	09.14.2020 17:00	09.14.2020 17:00	09.14.2020 09:00	09.14.2020 09:25	09.14.2020 10:00	09.14.2020 10:10	09.14.2020 10:25
	mg/kg	RL		<0.00200	0.00200	<0.00199	0.00201	<0.00199	0.00199	<0.00200
				<0.00200	0.00200	<0.00199	0.00201	<0.00199	0.00199	<0.00200
Chloride by EPA 300										
Chloride	PH 19 A	4- ft	SOIL	09.14.2020 17:00	09.14.2020 17:00	09.14.2020 09:00	09.14.2020 09:25	09.14.2020 10:00	09.14.2020 10:10	09.14.2020 10:25
	mg/kg	RL		646	9.94	503	9.92	4230	1020	416
				9.94	9.92	9.92	9.92	99.6	10.0	10.0
				9.94	9.92	9.92	9.92	99.6	10.0	10.0
TPH by SW8015 Mod										
Gasoline Range Hydrocarbons (GRO)	PH 19 A	4- ft	SOIL	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00
	mg/kg	RL		<50.2	50.2	<50.2	50.0	<50.1	<50.2	<49.9
				<50.2	50.2	<50.2	50.0	<50.1	<50.2	<49.9
Diesel Range Organics (DRO)	PH 19 A	4- ft	SOIL	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00
	mg/kg	RL		<50.2	50.2	<50.2	50.0	<50.1	<50.2	<49.9
				<50.2	50.2	<50.2	50.0	<50.1	<50.2	<49.9
Motor Oil Range Hydrocarbons (MRO)	PH 19 A	4- ft	SOIL	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00
	mg/kg	RL		<50.2	50.2	<50.2	50.0	<50.1	<50.2	<49.9
				<50.2	50.2	<50.2	50.0	<50.1	<50.2	<49.9
Total GRO-DRO	PH 19 A	4- ft	SOIL	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00
	mg/kg	RL		<50.2	50.2	<50.2	50.0	<50.1	<50.2	<49.9
				<50.2	50.2	<50.2	50.0	<50.1	<50.2	<49.9
Total TPH	PH 19 A	4- ft	SOIL	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00	09.14.2020 16:00
	mg/kg	RL		<50.2	50.2	<50.2	50.0	<50.1	<50.2	<49.9
				<50.2	50.2	<50.2	50.0	<50.1	<50.2	<49.9

Jessica Kramer

BRL - Below Reporting Limit

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

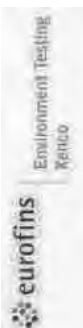
Certificate of Analysis Summary 672480

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Mon 09.14.2020 15:40
Report Date: 09.16.2020 10:41
Project Manager: Jessica Kramer



<i>Analysis Requested</i>		672480-007	672480-008	672480-009	672480-010
<i>Lab Id:</i>		PH 22	PH 22 A	PH 23	PH 23 A
<i>Field Id:</i>		1- ft	8- ft	6- ft	15.5- ft
<i>Depth:</i>		SOIL	SOIL	SOIL	SOIL
<i>Matrix:</i>					
<i>Sampled:</i>		09.14.2020 10:50	09.14.2020 12:10	09.14.2020 13:10	09.14.2020 14:00
BTEX by EPA 8021B					
<i>Extracted:</i>		09.14.2020 17:00	09.14.2020 17:00	09.14.2020 17:00	09.14.2020 17:00
<i>Analyzed:</i>		09.15.2020 03:44	09.15.2020 04:04	09.15.2020 05:20	09.15.2020 05:40
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00401 0.00401	<0.00397 0.00397	<0.00399 0.00399	<0.00399 0.00399
o-Xylene		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300					
<i>Extracted:</i>		09.14.2020 17:00	09.14.2020 17:00	09.14.2020 17:00	09.14.2020 17:00
<i>Analyzed:</i>		09.14.2020 18:28	09.14.2020 18:33	09.14.2020 18:38	09.14.2020 18:44
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		2360 50.4	246 50.4	1650 50.3	875 50.1
TPH by SW8015 Mod					
<i>Extracted:</i>		09.14.2020 16:00	09.14.2020 17:10	09.14.2020 17:10	09.14.2020 17:10
<i>Analyzed:</i>		09.14.2020 19:05	09.14.2020 20:45	09.14.2020 21:46	09.14.2020 22:07
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.1 50.1	<49.9 49.9	<49.8 49.8
Diesel Range Organics (DRO)		<50.2 50.2	<50.1 50.1	<49.9 49.9	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<49.9 49.9	<49.8 49.8
Total GRO-DRO		<50.2 50.2	<50.1 50.1	<49.9 49.9	<49.8 49.8
Total TPH		<50.2 50.2	<50.1 50.1	<49.9 49.9	<49.8 49.8

Jessica Kramer

BRL - Below Reporting Limit

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



Analytical Report 672480

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash 53 SWD

012919139

09.16.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

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

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



09.16.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **672480**
Nash 53 SWD
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 Eurofins Xenco, LLC Report Number(s) 672480. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 672480 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer
Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 672480

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH 19	S	09.14.2020 08:45	1 ft	672480-001
PH 19 A	S	09.14.2020 09:00	4 ft	672480-002
PH 20	S	09.14.2020 09:25	3 ft	672480-003
PH 20 A	S	09.14.2020 10:00	8.5 ft	672480-004
PH 21	S	09.14.2020 10:10	1 ft	672480-005
PH 21 A	S	09.14.2020 10:25	4 ft	672480-006
PH 22	S	09.14.2020 10:50	1 ft	672480-007
PH 22 A	S	09.14.2020 12:10	8 ft	672480-008
PH 23	S	09.14.2020 13:10	6 ft	672480-009
PH 23 A	S	09.14.2020 14:00	15.5 ft	672480-010

CASE NARRATIVE



Client Name: LT Environmental, Inc.

Project Name: Nash 53 SWD

Project ID: 012919139
Work Order Number(s): 672480

Report Date: 09.16.2020
Date Received: 09.14.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 672480

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **PH 19** Matrix: Soil Date Received: 09.14.2020 15:40
 Lab Sample Id: 672480-001 Date Collected: 09.14.2020 08:45 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.14.2020 17:00 Basis: Wet Weight
 Seq Number: 3137105

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	646	9.94	mg/kg	09.14.2020 17:33		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.14.2020 16:00 Basis: Wet Weight
 Seq Number: 3137103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.14.2020 17:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.14.2020 17:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.14.2020 17:05	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	09.14.2020 17:05	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.14.2020 17:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	09.14.2020 17:05	
o-Terphenyl	84-15-1	119	%	70-135	09.14.2020 17:05	



Certificate of Analytical Results 672480

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH 19	Matrix: Soil	Date Received: 09.14.2020 15:40
Lab Sample Id: 672480-001	Date Collected: 09.14.2020 08:45	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.14.2020 17:00	Basis: Wet Weight
Seq Number: 3137119		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.15.2020 01:00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.15.2020 01:00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.15.2020 01:00	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.15.2020 01:00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.15.2020 01:00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.15.2020 01:00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.15.2020 01:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	09.15.2020 01:00	
4-Bromofluorobenzene	460-00-4	106	%	70-130	09.15.2020 01:00	



Certificate of Analytical Results 672480

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH 19 A	Matrix: Soil	Date Received: 09.14.2020 15:40
Lab Sample Id: 672480-002	Date Collected: 09.14.2020 09:00	Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.14.2020 17:00	Basis: Wet Weight
Seq Number: 3137105		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	503	9.92	mg/kg	09.14.2020 17:49		1

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 09.14.2020 16:00	Basis: Wet Weight
Seq Number: 3137103		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.14.2020 17:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.14.2020 17:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.14.2020 17:24	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	09.14.2020 17:24	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.14.2020 17:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	09.14.2020 17:24	
o-Terphenyl	84-15-1	116	%	70-135	09.14.2020 17:24	



Certificate of Analytical Results 672480

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH 19 A	Matrix: Soil	Date Received: 09.14.2020 15:40
Lab Sample Id: 672480-002	Date Collected: 09.14.2020 09:00	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.14.2020 17:00	Basis: Wet Weight
Seq Number: 3137119		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.15.2020 02:02	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.15.2020 02:02	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.15.2020 02:02	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.15.2020 02:02	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.15.2020 02:02	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.15.2020 02:02	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.15.2020 02:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	09.15.2020 02:02	
1,4-Difluorobenzene	540-36-3	106	%	70-130	09.15.2020 02:02	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **PH 20** Matrix: Soil Date Received: 09.14.2020 15:40
 Lab Sample Id: 672480-003 Date Collected: 09.14.2020 09:25 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.14.2020 17:00 Basis: Wet Weight
 Seq Number: 3137105

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6450	49.9	mg/kg	09.14.2020 17:55		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.14.2020 16:00 Basis: Wet Weight
 Seq Number: 3137103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.14.2020 17:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	09.14.2020 17:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.14.2020 17:44	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	09.14.2020 17:44	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	09.14.2020 17:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	09.14.2020 17:44	
o-Terphenyl	84-15-1	115	%	70-135	09.14.2020 17:44	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH 20	Matrix: Soil	Date Received: 09.14.2020 15:40
Lab Sample Id: 672480-003	Date Collected: 09.14.2020 09:25	Sample Depth: 3 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.14.2020 17:00	Basis: Wet Weight
Seq Number: 3137119		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.15.2020 02:22	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.15.2020 02:22	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.15.2020 02:22	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.15.2020 02:22	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.15.2020 02:22	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.15.2020 02:22	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.15.2020 02:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.15.2020 02:22	
4-Bromofluorobenzene	460-00-4	98	%	70-130	09.15.2020 02:22	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **PH 20 A** Matrix: Soil Date Received: 09.14.2020 15:40
 Lab Sample Id: 672480-004 Date Collected: 09.14.2020 10:00 Sample Depth: 8.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.14.2020 17:00 Basis: Wet Weight
 Seq Number: 3137105

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4230	99.6	mg/kg	09.14.2020 18:00		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.14.2020 16:00 Basis: Wet Weight
 Seq Number: 3137103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.14.2020 18:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.14.2020 18:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.14.2020 18:04	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.14.2020 18:04	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.14.2020 18:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	09.14.2020 18:04	
o-Terphenyl	84-15-1	120	%	70-135	09.14.2020 18:04	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH 20 A	Matrix: Soil	Date Received: 09.14.2020 15:40
Lab Sample Id: 672480-004	Date Collected: 09.14.2020 10:00	Sample Depth: 8.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.14.2020 17:00	Basis: Wet Weight
Seq Number: 3137119		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.15.2020 02:42	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.15.2020 02:42	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.15.2020 02:42	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.15.2020 02:42	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.15.2020 02:42	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.15.2020 02:42	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.15.2020 02:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	09.15.2020 02:42	
1,4-Difluorobenzene	540-36-3	97	%	70-130	09.15.2020 02:42	



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LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **PH 21** Matrix: Soil Date Received: 09.14.2020 15:40
 Lab Sample Id: 672480-005 Date Collected: 09.14.2020 10:10 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.14.2020 17:00 Basis: Wet Weight
 Seq Number: 3137105

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1020	10.0	mg/kg	09.14.2020 18:06		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.14.2020 16:00 Basis: Wet Weight
 Seq Number: 3137103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.14.2020 18:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.14.2020 18:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.14.2020 18:24	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	09.14.2020 18:24	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.14.2020 18:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	09.14.2020 18:24	
o-Terphenyl	84-15-1	116	%	70-135	09.14.2020 18:24	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH 21	Matrix: Soil	Date Received: 09.14.2020 15:40
Lab Sample Id: 672480-005	Date Collected: 09.14.2020 10:10	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.14.2020 17:00	Basis: Wet Weight
Seq Number: 3137119		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.15.2020 03:03	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.15.2020 03:03	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.15.2020 03:03	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.15.2020 03:03	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.15.2020 03:03	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.15.2020 03:03	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.15.2020 03:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	09.15.2020 03:03	
1,4-Difluorobenzene	540-36-3	98	%	70-130	09.15.2020 03:03	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **PH 21 A** Matrix: Soil Date Received: 09.14.2020 15:40
 Lab Sample Id: 672480-006 Date Collected: 09.14.2020 10:25 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.14.2020 17:00 Basis: Wet Weight
 Seq Number: 3137105

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	416	10.0	mg/kg	09.14.2020 18:22		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.14.2020 16:00 Basis: Wet Weight
 Seq Number: 3137103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.14.2020 18:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.14.2020 18:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.14.2020 18:45	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	09.14.2020 18:45	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.14.2020 18:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	09.14.2020 18:45	
o-Terphenyl	84-15-1	115	%	70-135	09.14.2020 18:45	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH 21 A	Matrix: Soil	Date Received: 09.14.2020 15:40
Lab Sample Id: 672480-006	Date Collected: 09.14.2020 10:25	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.14.2020 17:00	Basis: Wet Weight
Seq Number: 3137119		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.15.2020 03:23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.15.2020 03:23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.15.2020 03:23	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.15.2020 03:23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.15.2020 03:23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.15.2020 03:23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.15.2020 03:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	09.15.2020 03:23	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.15.2020 03:23	



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LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **PH 22** Matrix: Soil Date Received: 09.14.2020 15:40
 Lab Sample Id: 672480-007 Date Collected: 09.14.2020 10:50 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.14.2020 17:00 Basis: Wet Weight
 Seq Number: 3137105

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2360	50.4	mg/kg	09.14.2020 18:28		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.14.2020 16:00 Basis: Wet Weight
 Seq Number: 3137103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.14.2020 19:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.14.2020 19:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.14.2020 19:05	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	09.14.2020 19:05	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.14.2020 19:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	09.14.2020 19:05	
o-Terphenyl	84-15-1	114	%	70-135	09.14.2020 19:05	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **PH 22** Matrix: Soil Date Received: 09.14.2020 15:40
 Lab Sample Id: 672480-007 Date Collected: 09.14.2020 10:50 Sample Depth: 1 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.14.2020 17:00 Basis: Wet Weight
 Seq Number: 3137119

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.15.2020 03:44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.15.2020 03:44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.15.2020 03:44	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.15.2020 03:44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.15.2020 03:44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.15.2020 03:44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.15.2020 03:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	09.15.2020 03:44	
4-Bromofluorobenzene	460-00-4	104	%	70-130	09.15.2020 03:44	



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LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **PH 22 A** Matrix: Soil Date Received: 09.14.2020 15:40
 Lab Sample Id: 672480-008 Date Collected: 09.14.2020 12:10 Sample Depth: 8 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.14.2020 17:00 Basis: Wet Weight
 Seq Number: 3137105

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	246	50.4	mg/kg	09.14.2020 18:33		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.14.2020 17:10 Basis: Wet Weight
 Seq Number: 3137112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.14.2020 20:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.14.2020 20:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.14.2020 20:45	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.14.2020 20:45	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.14.2020 20:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	09.14.2020 20:45	
o-Terphenyl	84-15-1	116	%	70-135	09.14.2020 20:45	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH 22 A	Matrix: Soil	Date Received: 09.14.2020 15:40
Lab Sample Id: 672480-008	Date Collected: 09.14.2020 12:10	Sample Depth: 8 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.14.2020 17:00	Basis: Wet Weight
Seq Number: 3137119		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.15.2020 04:04	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.15.2020 04:04	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.15.2020 04:04	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.15.2020 04:04	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.15.2020 04:04	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.15.2020 04:04	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.15.2020 04:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	09.15.2020 04:04	
1,4-Difluorobenzene	540-36-3	108	%	70-130	09.15.2020 04:04	



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LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id: **PH 23** Matrix: Soil Date Received: 09.14.2020 15:40
 Lab Sample Id: 672480-009 Date Collected: 09.14.2020 13:10 Sample Depth: 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.14.2020 17:00 Basis: Wet Weight
 Seq Number: 3137105

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1650	50.3	mg/kg	09.14.2020 18:38		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.14.2020 17:10 Basis: Wet Weight
 Seq Number: 3137112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.14.2020 21:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.14.2020 21:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.14.2020 21:46	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	09.14.2020 21:46	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.14.2020 21:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	09.14.2020 21:46	
o-Terphenyl	84-15-1	117	%	70-135	09.14.2020 21:46	



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LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH 23	Matrix: Soil	Date Received: 09.14.2020 15:40
Lab Sample Id: 672480-009	Date Collected: 09.14.2020 13:10	Sample Depth: 6 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.14.2020 17:00	Basis: Wet Weight
Seq Number: 3137119		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.15.2020 05:20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.15.2020 05:20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.15.2020 05:20	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.15.2020 05:20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.15.2020 05:20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.15.2020 05:20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.15.2020 05:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	09.15.2020 05:20	
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.15.2020 05:20	



Certificate of Analytical Results 672480

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **PH 23 A** Matrix: Soil Date Received: 09.14.2020 15:40
 Lab Sample Id: 672480-010 Date Collected: 09.14.2020 14:00 Sample Depth: 15.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.14.2020 17:00 Basis: Wet Weight
 Seq Number: 3137105

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	875	50.1	mg/kg	09.14.2020 18:44		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.14.2020 17:10 Basis: Wet Weight
 Seq Number: 3137112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.14.2020 22:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.14.2020 22:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.14.2020 22:07	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	09.14.2020 22:07	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	09.14.2020 22:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	09.14.2020 22:07	
o-Terphenyl	84-15-1	112	%	70-135	09.14.2020 22:07	



Certificate of Analytical Results 672480

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: PH 23 A	Matrix: Soil	Date Received: 09.14.2020 15:40
Lab Sample Id: 672480-010	Date Collected: 09.14.2020 14:00	Sample Depth: 15.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5035A
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 09.14.2020 17:00	Basis: Wet Weight
Seq Number: 3137119		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.15.2020 05:40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.15.2020 05:40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.15.2020 05:40	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.15.2020 05:40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.15.2020 05:40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.15.2020 05:40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.15.2020 05:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	09.15.2020 05:40	
1,4-Difluorobenzene	540-36-3	104	%	70-130	09.15.2020 05:40	



LT Environmental, Inc.
Nash 53 SWD

Analytical Method: Chloride by EPA 300

Seq Number: 3137105 Matrix: Solid Prep Method: E300P
 MB Sample Id: 7711295-1-BLK LCS Sample Id: 7711295-1-BKS Date Prep: 09.14.2020
 LCSD Sample Id: 7711295-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	257	103	257	103	90-110	0	20	mg/kg	09.14.2020 17:22	

Analytical Method: Chloride by EPA 300

Seq Number: 3137105 Matrix: Soil Prep Method: E300P
 Parent Sample Id: 672480-001 MS Sample Id: 672480-001 S Date Prep: 09.14.2020
 MSD Sample Id: 672480-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	646	200	846	100	846	100	90-110	0	20	mg/kg	09.14.2020 17:38	

Analytical Method: Chloride by EPA 300

Seq Number: 3137105 Matrix: Soil Prep Method: E300P
 Parent Sample Id: 672483-001 MS Sample Id: 672483-001 S Date Prep: 09.14.2020
 MSD Sample Id: 672483-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	27.2	200	236	104	236	104	90-110	0	20	mg/kg	09.14.2020 18:55	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3137103 Matrix: Solid Prep Method: SW8015P
 MB Sample Id: 7711226-1-BLK LCS Sample Id: 7711226-1-BKS Date Prep: 09.11.2020
 LCSD Sample Id: 7711226-1-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	739	74	739	74	70-135	0	35	mg/kg	09.14.2020 10:12	
Diesel Range Organics (DRO)	<50.0	1000	816	82	824	82	70-135	1	35	mg/kg	09.14.2020 10:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		99		98		70-135	%	09.14.2020 10:12
o-Terphenyl	102		93		93		70-135	%	09.14.2020 10:12

Analytical Method: TPH by SW8015 Mod

Seq Number: 3137112 Matrix: Solid Prep Method: SW8015P
 MB Sample Id: 7711319-1-BLK LCS Sample Id: 7711319-1-BKS Date Prep: 09.14.2020
 LCSD Sample Id: 7711319-1-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	793	79	787	79	70-135	1	35	mg/kg	09.14.2020 20:05	
Diesel Range Organics (DRO)	<50.0	1000	887	89	883	88	70-135	0	35	mg/kg	09.14.2020 20:05	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		116		115		70-135	%	09.14.2020 20:05
o-Terphenyl	107		109		110		70-135	%	09.14.2020 20:05

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

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

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



LT Environmental, Inc.
Nash 53 SWD

Analytical Method: TPH by SW8015 Mod
Seq Number: 3137103

Matrix: Solid
MB Sample Id: 7711226-1-BLK

Prep Method: SW8015P
Date Prep: 09.11.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.14.2020 09:52	

Analytical Method: TPH by SW8015 Mod
Seq Number: 3137112

Matrix: Solid
MB Sample Id: 7711319-1-BLK

Prep Method: SW8015P
Date Prep: 09.14.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.14.2020 19:45	

Analytical Method: TPH by SW8015 Mod
Seq Number: 3137103

Matrix: Soil
MS Sample Id: 672315-001 S

Prep Method: SW8015P
Date Prep: 09.11.2020
MSD Sample Id: 672315-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	707	70	752	75	70-135	6	35	mg/kg	09.14.2020 11:13	
Diesel Range Organics (DRO)	<50.3	1010	783	78	841	84	70-135	7	35	mg/kg	09.14.2020 11:13	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		124		70-135	%	09.14.2020 11:13
o-Terphenyl	112		118		70-135	%	09.14.2020 11:13

Analytical Method: TPH by SW8015 Mod
Seq Number: 3137112

Matrix: Soil
MS Sample Id: 672480-008 S

Prep Method: SW8015P
Date Prep: 09.14.2020
MSD Sample Id: 672480-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	726	73	738	74	70-135	2	35	mg/kg	09.14.2020 21:06	
Diesel Range Organics (DRO)	<50.1	1000	786	79	849	85	70-135	8	35	mg/kg	09.14.2020 21:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		131		70-135	%	09.14.2020 21:06
o-Terphenyl	126		127		70-135	%	09.14.2020 21:06

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

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

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

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



LT Environmental, Inc.
Nash 53 SWD

Analytical Method: BTEX by EPA 8021B

Seq Number: 3137119

MB Sample Id: 7711294-1-BLK

Matrix: Solid

LCS Sample Id: 7711294-1-BKS

Prep Method: SW5035A

Date Prep: 09.14.2020

LCSD Sample Id: 7711294-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0864	86	0.0946	95	70-130	9	35	mg/kg	09.14.2020 23:04	
Toluene	<0.00200	0.100	0.0826	83	0.0882	88	70-130	7	35	mg/kg	09.14.2020 23:04	
Ethylbenzene	<0.00200	0.100	0.0846	85	0.0920	92	71-129	8	35	mg/kg	09.14.2020 23:04	
m,p-Xylenes	<0.00400	0.200	0.168	84	0.179	90	70-135	6	35	mg/kg	09.14.2020 23:04	
o-Xylene	<0.00200	0.100	0.0858	86	0.0908	91	71-133	6	35	mg/kg	09.14.2020 23:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		93		101		70-130	%	09.14.2020 23:04
4-Bromofluorobenzene	99		89		95		70-130	%	09.14.2020 23:04

Analytical Method: BTEX by EPA 8021B

Seq Number: 3137119

Parent Sample Id: 672480-001

Matrix: Soil

MS Sample Id: 672480-001 S

Prep Method: SW5035A

Date Prep: 09.14.2020

MSD Sample Id: 672480-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0942	94	0.105	105	70-130	11	35	mg/kg	09.14.2020 23:44	
Toluene	<0.00200	0.100	0.0929	93	0.100	100	70-130	7	35	mg/kg	09.14.2020 23:44	
Ethylbenzene	<0.00200	0.100	0.0913	91	0.104	104	71-129	13	35	mg/kg	09.14.2020 23:44	
m,p-Xylenes	<0.00400	0.200	0.181	91	0.212	106	70-135	16	35	mg/kg	09.14.2020 23:44	
o-Xylene	<0.00200	0.100	0.0921	92	0.104	104	71-133	12	35	mg/kg	09.14.2020 23:44	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		101		70-130	%	09.14.2020 23:44
4-Bromofluorobenzene	99		95		70-130	%	09.14.2020 23:44

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



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 820-2000

Chain of Custody

Work Order No: 672480

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littlell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 West Mermond
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	enaka@tenv.com, dmoir@tenv.com

Program: UST/PST RP Brownfields RC Superfund
 State of Project: Level I Level II Level III ST/UST RP Level IV
 Deliverables: EDD ADAPT Other:

Project Name:	NASH S3 SMD	Turn Around	
Project Number:	012919139	Routine	<input checked="" type="checkbox"/>
P.O. Number:	Eddy County	Rush:	
Sampler's Name:	Elizabeth Naka	Due Date:	

SAMPLE RECEIPT	Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Temperature (°C):	10/0.8	Thermometer ID:	T-NW-003	
Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.2	
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Total Containers:	10	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST										Work Order Notes
PH19	S	01/14/20	0845	1'	1	X	X	X											
PH19A			0900	4'															
PH20			0925	3'															
PH20A			1000	8.5'															
PH21			1010	1'															
PH21A			1025	4'															
PH22			1050	1'															
PH22A			1210	8'															
PH23			1310	6'															
PH23A			1400	15.5'															

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

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
<i>Walter Naka</i>	<i>Cue O'Hara</i>	9-14-20 15:40			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09.14.2020 03.40.00 PM

Work Order #: 672480

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : T_NM_007

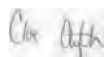
Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.8	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	Yes	
#6*Custody Seals Signed and dated?	Yes	
#7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

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 09.14.2020

Checklist reviewed by:



Jessica Kramer

Date: 09.15.2020

Certificate of Analysis Summary 677437

LT Environmental, Inc., Arvada, CO

Project Name: Nash 53 SWD

Date Received in Lab: Tue 11.10.2020 15:46
Report Date: 11.12.2020 15:52
Project Manager: Jessica Kramer

Project Id: 012919139
Contact: Dan Moir
Project Location: Eddy County, New Mexico



		677437-001	677437-002	677437-003
Analysis Requested	Lab Id:	FS 35	FS 25 A	FS 26 C
	Field Id:	2- ft	17- ft	17- ft
	Depth:	SOIL	SOIL	SOIL
	Matrix:			
	Sampled:	11.10.2020 14:10	11.10.2020 14:30	11.10.2020 14:35
	Extracted:	11.11.2020 09:00	11.11.2020 09:00	11.11.2020 09:00
	Analyzed:	11.11.2020 11:32	11.11.2020 14:14	11.11.2020 14:36
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL
	Benzene	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
	Toluene	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
Ethylbenzene	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	
m,p-Xylenes	<0.00402 0.00402	<0.00401 0.00401	<0.00397 0.00397	
o-Xylene	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	
Total Xylenes	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	
Total BTEX	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	
Chloride by EPA 300	Extracted:	11.10.2020 17:00	11.10.2020 17:00	11.10.2020 17:00
	Analyzed:	11.10.2020 20:52	11.10.2020 20:58	11.10.2020 21:03
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL
Chloride	776 50.0	2200 99.0	1630 49.6	
TPH by SW8015 Mod	Extracted:	11.10.2020 17:00	11.10.2020 17:00	11.10.2020 17:00
	Analyzed:	11.10.2020 21:30	11.10.2020 21:50	11.10.2020 22:11
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)	<50.0 50.0	<50.0 50.0	<50.0 50.0	
Diesel Range Organics (DRO)	<50.0 50.0	<50.0 50.0	<50.0 50.0	
Motor Oil Range Hydrocarbons (MRO)	<50.0 50.0	<50.0 50.0	<50.0 50.0	
Total GRO-DRO	<50.0 50.0	<50.0 50.0	<50.0 50.0	
Total TPH	<50.0 50.0	<50.0 50.0	<50.0 50.0	

Jessica Kramer

BRL - Below Reporting Limit

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



Analytical Report 677437

for

LT Environmental, Inc.

Project Manager: Dan Moir

Nash 53 SWD

012919139

11.12.2020

Collected By: Client

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

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

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

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



11.12.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **677437**
Nash 53 SWD
Project Address: Eddy County, New Mexico

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 677437. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 677437 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer
Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 677437

LT Environmental, Inc., Arvada, CO

Nash 53 SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS 35	S	11.10.2020 14:10	2 ft	677437-001
FS 25 A	S	11.10.2020 14:30	17 ft	677437-002
FS 26 C	S	11.10.2020 14:35	17 ft	677437-003

CASE NARRATIVE



Client Name: LT Environmental, Inc.

Project Name: Nash 53 SWD

Project ID: 012919139
Work Order Number(s): 677437

Report Date: 11.12.2020
Date Received: 11.10.2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 677437

LT Environmental, Inc., Arvada, CO Nash 53 SWD

Sample Id: **FS 35** Matrix: Soil Date Received: 11.10.2020 15:46
 Lab Sample Id: 677437-001 Date Collected: 11.10.2020 14:10 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 11.10.2020 17:00 % Moisture:
 Seq Number: 3141922 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	776	50.0	mg/kg	11.10.2020 20:52		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 11.10.2020 17:00 % Moisture:
 Seq Number: 3141919 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.10.2020 21:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.10.2020 21:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.10.2020 21:30	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.10.2020 21:30	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.10.2020 21:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	11.10.2020 21:30	
o-Terphenyl	84-15-1	94	%	70-135	11.10.2020 21:30	



Certificate of Analytical Results 677437

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS 35** Matrix: Soil Date Received: 11.10.2020 15:46
 Lab Sample Id: 677437-001 Date Collected: 11.10.2020 14:10 Sample Depth: 2 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB
 Analyst: MAB Date Prep: 11.11.2020 09:00 % Moisture:
 Seq Number: 3142036 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.11.2020 11:32	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.11.2020 11:32	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.11.2020 11:32	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.11.2020 11:32	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.11.2020 11:32	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.11.2020 11:32	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.11.2020 11:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.11.2020 11:32	
4-Bromofluorobenzene	460-00-4	92	%	70-130	11.11.2020 11:32	



Certificate of Analytical Results 677437

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS 25 A** Matrix: Soil Date Received: 11.10.2020 15:46
 Lab Sample Id: 677437-002 Date Collected: 11.10.2020 14:30 Sample Depth: 17 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 11.10.2020 17:00 % Moisture:
 Seq Number: 3141922 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2200	99.0	mg/kg	11.10.2020 20:58		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 11.10.2020 17:00 % Moisture:
 Seq Number: 3141919 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.10.2020 21:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.10.2020 21:50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.10.2020 21:50	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.10.2020 21:50	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.10.2020 21:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	11.10.2020 21:50	
o-Terphenyl	84-15-1	118	%	70-135	11.10.2020 21:50	



Certificate of Analytical Results 677437

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS 25 A** Matrix: Soil Date Received: 11.10.2020 15:46
 Lab Sample Id: 677437-002 Date Collected: 11.10.2020 14:30 Sample Depth: 17 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB
 Analyst: MAB Date Prep: 11.11.2020 09:00 % Moisture:
 Seq Number: 3142036 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.11.2020 14:14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.11.2020 14:14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.11.2020 14:14	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.11.2020 14:14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.11.2020 14:14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.11.2020 14:14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.11.2020 14:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.11.2020 14:14	
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.11.2020 14:14	



Certificate of Analytical Results 677437

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS 26 C** Matrix: Soil Date Received: 11.10.2020 15:46
 Lab Sample Id: 677437-003 Date Collected: 11.10.2020 14:35 Sample Depth: 17 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 11.10.2020 17:00 % Moisture:
 Seq Number: 3141922 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1630	49.6	mg/kg	11.10.2020 21:03		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 11.10.2020 17:00 % Moisture:
 Seq Number: 3141919 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.10.2020 22:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.10.2020 22:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.10.2020 22:11	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.10.2020 22:11	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.10.2020 22:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	11.10.2020 22:11	
o-Terphenyl	84-15-1	110	%	70-135	11.10.2020 22:11	



Certificate of Analytical Results 677437

LT Environmental, Inc., Arvada, CO
Nash 53 SWD

Sample Id: **FS 26 C** Matrix: Soil Date Received: 11.10.2020 15:46
 Lab Sample Id: 677437-003 Date Collected: 11.10.2020 14:35 Sample Depth: 17 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB
 Analyst: MAB Date Prep: 11.11.2020 09:00 % Moisture:
 Seq Number: 3142036 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.11.2020 14:36	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.11.2020 14:36	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.11.2020 14:36	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.11.2020 14:36	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.11.2020 14:36	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.11.2020 14:36	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.11.2020 14:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.11.2020 14:36	
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.11.2020 14:36	



LT Environmental, Inc.
Nash 53 SWD

Analytical Method: Chloride by EPA 300

Seq Number: 3141922 Matrix: Solid Prep Method: E300P
 MB Sample Id: 7714926-1-BLK LCS Sample Id: 7714926-1-BKS Date Prep: 11.10.2020
 LCSD Sample Id: 7714926-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	257	103	249	100	90-110	3	20	mg/kg	11.10.2020 19:14	

Analytical Method: Chloride by EPA 300

Seq Number: 3141922 Matrix: Soil Prep Method: E300P
 Parent Sample Id: 677264-014 MS Sample Id: 677264-014 S Date Prep: 11.10.2020
 MSD Sample Id: 677264-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	150	200	351	101	350	100	90-110	0	20	mg/kg	11.11.2020 10:15	

Analytical Method: Chloride by EPA 300

Seq Number: 3141922 Matrix: Soil Prep Method: E300P
 Parent Sample Id: 677374-007 MS Sample Id: 677374-007 S Date Prep: 11.10.2020
 MSD Sample Id: 677374-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	674	199	863	95	868	97	90-110	1	20	mg/kg	11.10.2020 19:30	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3141919 Matrix: Solid Prep Method: SW8015P
 MB Sample Id: 7714921-1-BLK LCS Sample Id: 7714921-1-BKS Date Prep: 11.10.2020
 LCSD Sample Id: 7714921-1-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	1160	116	70-135	4	35	mg/kg	11.10.2020 15:36	
Diesel Range Organics (DRO)	<50.0	1000	1230	123	1330	133	70-135	8	35	mg/kg	11.10.2020 15:36	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		130		129		70-135	%	11.10.2020 15:36
o-Terphenyl	120		119		130		70-135	%	11.10.2020 15:36

Analytical Method: TPH by SW8015 Mod

Seq Number: 3141919 Matrix: Solid Prep Method: SW8015P
 MB Sample Id: 7714921-1-BLK Date Prep: 11.10.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.10.2020 15:14	

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.
Nash 53 SWD

Analytical Method: TPH by SW8015 Mod

Seq Number: 3141919
Parent Sample Id: 677299-002

Matrix: Soil
MS Sample Id: 677299-002 S

Prep Method: SW8015P
Date Prep: 11.10.2020
MSD Sample Id: 677299-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	992	99	895	90	70-135	10	35	mg/kg	11.10.2020 16:39	
Diesel Range Organics (DRO)	<50.1	1000	1130	113	1040	105	70-135	8	35	mg/kg	11.10.2020 16:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		104		70-135	%	11.10.2020 16:39
o-Terphenyl	90		108		70-135	%	11.10.2020 16:39

Analytical Method: BTEX by EPA 8021B

Seq Number: 3142036
MB Sample Id: 7714968-1-BLK

Matrix: Solid
LCS Sample Id: 7714968-1-BKS

Prep Method: SW5035A
Date Prep: 11.11.2020
LCSD Sample Id: 7714968-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0977	98	0.0988	99	70-130	1	35	mg/kg	11.11.2020 09:57	
Toluene	<0.00200	0.100	0.0765	77	0.0780	78	70-130	2	35	mg/kg	11.11.2020 09:57	
Ethylbenzene	<0.00200	0.100	0.0963	96	0.0980	98	71-129	2	35	mg/kg	11.11.2020 09:57	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.197	99	70-135	2	35	mg/kg	11.11.2020 09:57	
o-Xylene	<0.00200	0.100	0.0961	96	0.0979	98	71-133	2	35	mg/kg	11.11.2020 09:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		98		70-130	%	11.11.2020 09:57
4-Bromofluorobenzene	103		100		100		70-130	%	11.11.2020 09:57

Analytical Method: BTEX by EPA 8021B

Seq Number: 3142036
Parent Sample Id: 677374-007

Matrix: Soil
MS Sample Id: 677374-007 S

Prep Method: SW5035A
Date Prep: 11.11.2020
MSD Sample Id: 677374-007 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	0.0956	96	0.100	100	70-130	4	35	mg/kg	11.11.2020 10:42	
Toluene	<0.00201	0.100	0.0751	75	0.0783	78	70-130	4	35	mg/kg	11.11.2020 10:42	
Ethylbenzene	<0.00201	0.100	0.0942	94	0.0982	98	71-129	4	35	mg/kg	11.11.2020 10:42	
m,p-Xylenes	<0.00402	0.201	0.189	94	0.198	99	70-135	5	35	mg/kg	11.11.2020 10:42	
o-Xylene	<0.00201	0.100	0.0935	94	0.0977	98	71-133	4	35	mg/kg	11.11.2020 10:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		99		70-130	%	11.11.2020 10:42
4-Bromofluorobenzene	106		101		70-130	%	11.11.2020 10:42

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

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5410 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8900 Tampa, FL (813) 520-2000

Work Order No: 677437

Project Manager: Dan Moir
 Company Name: LT Environmental, Inc., Permian office
 Address: 3300 North A Street
 City, State ZIP: Midland, TX 79705
 Phone: (432) 236-3849
 Bill to: (if different) Kyle Littrell
 Company Name: XTO Energy
 Address: 522 West Mermond
 City, State ZIP: Carlsbad, NM 88220
 Email: genaka@ltenv.com, dmoir@ltenv.com

Program: UST/PST RP Crownfields RC Fund
 State of Project: Level I Level II Level III Level IV
 Reporting Level: EDD ADAPT Other:

Project Name: Nash 53 SWD
 Project Number: 012919139
 P.O. Number: Eddy County
 Sampler's Name: Elizabeth Naka
 Turn Around: Routine
 Rush:
 Due Date:

Temp Blank: No Yes
 Temperature (°C): 0.8/0.16
 Received Intact: No Yes
 Cooler Custody Seals: Yes No N/A
 Sample Custody Seals: Yes No N/A
 Thermometer ID: T-NM-007
 Correction Factor: -0.2
 Total Containers: 3

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers			Work Order Notes
					TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	
FS 35	S	11/01/20	1410	2'	1	1	1	TAT starts the day received by the lab, if received by 4:30pm Sample Comments: can pass
FS25A			1430	17'	1	1	1	
FS26C			1435	17'	1	1	1	

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

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 to 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) Elizabeth Naka
 Received by: (Signature) Joe Seffner
 Date/Time: 11-10-20 1546
 Relinquished by: (Signature)
 Received by: (Signature)
 Date/Time

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS
 Action 39000

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 39000
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	Closure due 12/01/2021	8/31/2021