District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	nAPP2208051921
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Centennial Resource Production, Inc	OGRID: 372165
Contact Name: Nikki Mishler	Contact Telephone: 432-634-8722
Contact email: Nikki.Mishler@cdevinc.com	Incident #
Contact mailing address: 500 W. Illinois Ave, Suite 500, Midland Texas 79705	

Location of Release Source

Latitude 32.20953 Longitude -103.46472
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Romeo Fed 22 Battery 1	Site Type: Production Facility
Date Release Discovered: 03/21/2022	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
D	22	24S	34E	Lea

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 15	Volume Recovered (bbls) 10
☒ Produced Water	Volume Released (bbls) 160	Volume Recovered (bbls) 160
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:
The check valve failed on the SWD line which caused produced water to overfill the produced water tanks due to the disposal being down due to a power outage. 160 bbls of produced water was released and contained within the lined metal berm of the facility while 15 bbls of crude oil were released outside of the containment, including an overspray area which went north-northwest of the facility. The estimated volume of released produced water was calculated based on readouts from the meter and recovered fluids from the lined containment.
Based on the square footage of the impacted soils (2,180 sq. ft. and 21,885 sq. ft. of overspray) and an estimated depth of impact of approximately 1' and 0.25' for the overspray area, accounting for porosity and saturation % of the soils (sand), an estimated 15 bbls of crude oil was released. Approximately 10 bbls of crude oil were recovered during initial response activities.

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2208051921
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Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The amount released was greater than 25 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, a NOR was submitted by Nikki Mishler through the NMOCD Portal on 3/21/2022.	

Initial Response

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

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

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

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

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

Printed Name: Nikki Mishler Title: Sr. Environmental Representative

Signature: Nikki Mishler Date: 3/22/2022

email: Nikki.Mishler@cdevinc.com Telephone: 432-634-8722

OCD Only

Received by: _____ Date: _____

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2208051921
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2208051921
District RP	
Facility ID	
Application ID	

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

Printed Name: Nikki Mishler Title: Sr. Envionmental Representative

Signature: Nikki Mishler Date: 6/15/22

email: Nikki.Mishler@cdevinc.com Telephone: 432-634-8722

OCD Only

Received by: _____ Date: _____

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2208051921
District RP	
Facility ID	
Application ID	

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: Nikki Mishler
Title: Sr. Envionmental Representative

Signature: Nikki Mishler
Date: 6/15/22

email: Nikki.Mishler@cdevinc.com
Telephone: 432-634-8722

OCD Only

Received by: _____ Date: _____

☒ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Jennifer Nobui
Date: 06/22/2022

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2208051921
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☑ Description of remediation activities

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

Printed Name: Nikki Mishler Title: Sr. Environmental Representative

Signature: Nikki Mishler Date: 10/20/22

email: nikki.mishler@cdevinc.com Telephone: 432-634-8722

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: Jennifer Nobui Date: 01/10/2023

Printed Name: Jennifer Nobui Title: Environmental Specialist A

2135 S. Loop 250 W,
Midland, Texas 79703
United States
www.ghd.com

Our ref: 12580761

December 08, 2022

New Mexico Oil Conservation Division
District 1
1625 N. French Drive
Hobbs, New Mexico 88240

Re: Site Closure Report
Romeo Federal 22 Battery 1 Release Site
Centennial Resources Production, Inc.
Incident ID: nAPP2208051921
D-22-24S-34E, Lea County, New Mexico
Centennial Project #: CDEV ID 54383

To Whom It May Concern:

1. Introduction

GHD Services, Inc. (GHD), on behalf of Centennial Resources Production, Inc. (CRP), submits this Site Closure Report to the New Mexico Oil Conservation Division (NMOCD) District 1 Office. This Report provides documentation of remedial activities and analyses in the affected area at the Romeo Federal 22 Release Site (Site). The Site is located in Unit Letter D Section 22 of Township 24 South and Range 34 East in Lea County, New Mexico. The GPS coordinates for the release site are 32.20953 N latitude and 103.46472 W longitude. The private surface owner of the land where the release occurred is the Quail Ranch. Figure 1 depicts the Site location. The CRP production facility and other site details are depicted on Figure 2.

2. Background Information

A C-141 initial report for this release was submitted to the NMOCD on March 22, 2022. The C-141 stated that approximately fifteen (15) barrels of crude oil and one hundred-sixty (160) barrels of produced water were released. The release occurred as the result of failed check valve on the SWD line, which caused the produced water tanks to overfill. Approximately ten (10) barrels of crude oil and one hundred-sixty (160) barrels of produced water were recovered.

The release falls under the jurisdiction of the NMOCD District 1 Office in Hobbs, New Mexico. The NMOCD assigned the release with Incident Number nAPP2208051921. The Release Notification, Site Assessment/Characterization, Remediation, and Closure portions of Form C-141 are attached to the front of this report.

3. Groundwater and Site Characterization

GHD characterized the Site according to Table I, Closure Criteria for Soils Impacted by a Release, from New Mexico Administrative Code (NMAC) Title 19, Chapter 15, Part 29, Section 12 (NMAC 19.15.29.12).

The Site Characterization and Remediation Work Plan dated June 15, 2022, was approved by the NMOCD on June 22, 2022. Details of the Site Characterization documentation and previously completed Site assessment activities can be found in the aforementioned Site Characterization and Remediation Work Plan. The soil closure criteria are listed below:

General Site Characterization and Groundwater:

Site Characterization	Average Groundwater Depth (feet)
No Receptors Found	>100 feet

Table 3.1 Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29.12)

Regulatory Standard	Chloride	TPH (GRO+DRO+MRO)	TPH (GRO+MRO)	BTEX	Benzene
19.15.29.13 Restoration, Reclamation and Re-Vegetation (Impacted Area 0-4 Feet)	600 mg/kg	100 mg/kg	---	50 mg/kg	10 mg/kg
19.15.29.12 NMAC Table I Closure Criteria for Soils Impacted by a Release	20,000 mg/kg	2,500 mg/kg	1,000 mg/kg	50 mg/kg	10 mg/kg
Notes: --- = not defined					

4. Initial Soil Delineation Assessment Summary and Findings

On April 7, 2022, GHD on behalf of CRP, installed seven (7) hand auger soil borings (HA-1 through HA-7) within the suspected impacted area. Samples were collected at varying depths from one half foot (0.5) to four (4) feet bgs (SB-1 through SB-7). Samples were submitted to Eurofins Laboratory in Carlsbad, New Mexico, and analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 8021B, total petroleum hydrocarbons (TPH) by Method 8015B Modified, and chloride by EPA Method 300.

Analytical results indicated three (3) of the soil samples (SB-2, SB-3, and SB-4) exhibited TPH concentrations above 19.15.29.13 for soils within the top four (4) feet. One (1) of the soil samples (SB-5) exhibited TPH concentrations above the selected Table I Closure Criteria for the Site (>100 feet DTW).

On April 11 and 12, 2022, GHD returned to the Site to collect samples in the overspray area of the release via hand auger. Samples were collected from surface (0 feet bgs) to one half (0.5) foot bgs (P1-S/P1-0.5 through P6-S/P6-0.5). The samples were submitted to Eurofins Laboratory in Carlsbad, New Mexico, and analyzed for BTEX by EPA Method 8021B, TPH) by Method 8015B Modified, and chloride by EPA Method 300. None of the samples exhibited BTEX, TPH, or chloride concentrations above 19.15.29.13 for soils within the top four (4) feet. Sample locations and analytical results are provided in the Site Characterization and Remediation Work Plan, dated June 15, 2022.

5. Initial Excavation, Waste Management and Confirmation Sampling Activities

On April 19, 2022, GHD and Standard Safety & Supply (SS) mobilized to the Site to perform excavation activities on the impacted area of the Site, excavation activities continued through April 27, 2022. The area of the excavation ranged in depth from one half foot (0.5) to seven (7) feet bgs. As shown on Figure 3, a total of forty-seven (47) bottom hole composite (BH-1 through BH-47) and ten (10) sidewall composite (SW-1 through SW-10) confirmation samples were collected. The samples were submitted to Eurofins Laboratory in Carlsbad, New Mexico, and analyzed for BTEX by EPA Method 8021B, TPH by Method 8015B Modified, and chloride by EPA Method 300.

Analytical results indicated twenty-four (24) of the bottom hole composite samples (BH-3 through BH-7, BH-9 through BH-16, BH-19, BH-21 through BH-26, BH-28, BH-30, BH-31, and BH-34) exhibited TPH concentrations above 19.15.29.13 for soils within the top four (4) feet. Analytical results indicated five (5) of the sidewall composite samples (SW-1 through SW-4 and SW-10) exhibited TPH concentrations above 19.15.29.13 for soils within the top four (4) feet. Two (2) of the sidewall composite samples (SW-3 and SW-4) also exhibited chloride concentrations above 19.15.29.13 for soils within the top four (4) feet. Sample locations and analytical results are provided in the Site Characterization and Remediation Work Plan, dated June 15, 2022.

Waste Management activities were performed in coordination with CRP directives. GHD obtained regulatory approval via the successful processing of Form C-138 Request for Approval to Accept Solid Waste. The waste was approved for acceptance at the OCD-permitted (NMI-63), Northern Delaware Basin Landfill facility located at 2029 W NM HWY 128, Jal, NM 88252. Approximately 680 cubic yards of impacted soil were disposed at Northern Delaware Basin Landfill, the waste manifests from April 20, 2022, through April 26, 2022, are available upon request and aren't included in this report due to size of the file. A Daily Disposal Summary is provided as Table 2.

6. Final Excavation, Waste Management, and Confirmation Sampling Activities

Due to samples exceeding Table I Closure Criteria, GHD and SDR Enterprises (SDR) mobilized to the Site on July 7, 2022, to further excavate the affected areas. Excavation activities continued through September 14, 2022. The areas around BH-3 through BH-7, BH-9 through BH-16, BH-21 through BH-26, and BH-28, were further excavated from one-half (0.5) to one (1) foot bgs and resampled (BH-3A through BH-7A, BH-9A through BH-16A, BH-21A through BH-26A, and BH-28A). The area around BH-19 was further excavated from two and one-half (2.5) to three (3) feet bgs and resampled (BH-19A). The areas around BH-30 and BH-31 were further excavated from two (2) to three (3) feet bgs and resampled (BH-30A And BH-31A). The area around BH-34 was further excavated from three (3) to three and one-half (3.5) feet bgs and resampled (BH-34A). The sidewalls of sample locations SW-1 through SW-4 and SW-10 were further excavated and resampled (SW-1A through SW-4A and SW-10A). The samples were submitted to Eurofins Laboratory in Carlsbad, New Mexico, and analyzed for BTEX by EPA Method 8021B, TPH by Method 8015B Modified, and chloride by EPA Method 300.

Analytical results indicated four (4) of the bottom hole composite samples (BH-3A, BH-7A, BH-31A, and BH-34A) exhibited TPH concentrations above 19.15.29.13 for soils within the top four (4) feet. None of the other samples collected exhibited benzene, BTEX, TPH, or chloride concentrations above Table I Closure Criteria.

Due to the samples exhibiting TPH concentrations above 19.15.29.13 for soils within the top four (4) feet, GHD and SDR returned to the Site on August 22, 2022, to further excavate the affected areas. The areas around BH-3A and BH-7A were further excavated from one (1) to two (2) feet bgs and resampled (BH-3B and BH-7B). The area around BH-31A was further excavated from three (3) to three and one-half (3.5) feet bgs and resampled (BH-31B). The area around BH-34A was further excavated from three and one-half (3.5) to four (4) feet bgs and resampled (BH-34B). The samples were submitted to Eurofins Laboratory in Carlsbad, New Mexico, and analyzed for BTEX by EPA Method 8021B, TPH by Method 8015B Modified, and chloride by EPA Method 300. Analytical results indicated one (1) of the bottom hole composite samples (BH-31B) exhibited chloride concentrations above 19.15.29.13 for soils within the top four (4) feet. None of the other samples collected exhibited benzene, BTEX, TPH, or chloride concentrations above Table I Closure Criteria.

Due to the sample exhibiting chloride concentrations above 19.15.29.13 for soils within the top four (4) feet, GHD and SDR returned to the Site on September 14, 2022, to further excavate the affected area. The area around BH-31B was further excavated from three and one-half (3.5) to five (5) feet bgs and resampled (BH-31C). A sidewall sample was collected from the area around BH-31C (SW-11), on November 23, 2022. The samples were submitted to Eurofins Laboratory in Carlsbad, New Mexico, and analyzed for BTEX by EPA Method 8021B, TPH by Method 8015B Modified, and chloride by EPA Method 300. Analytical results indicated the samples did not exhibit benzene, BTEX, TPH, or chloride concentrations above Table I Closure Criteria. Sampling locations are depicted on Figure 2. Analytical results are included on Table 1 and in the Laboratory Analytical reports included as Attachment A.

Waste Management activities were performed in coordination with CRP directives. GHD obtained regulatory approval via the successful processing of Form C-138 Request for Approval to Accept Solid Waste. The waste was approved for acceptance at the OCD-permitted (NMI-63), Northern Delaware Basin Landfill facility located at 2029 W NM HWY 128, Jal, NM 88252. Approximately 208 additional cubic yards (total of 888 $yds^{3)}$ of impacted soil were disposed at Northern Delaware Basin Landfill, the waste manifests from August 3, 2022, are available upon request and aren't included in this report due to size of the file. A Daily Disposal Summary is provided as Table 2. A photographic log is included as Attachment B. Confirmation Sampling Notifications are provided at Attachment C.

7. nAPP2208051921 Closure Request

Soil assessment, delineation, and remediation activities for Remediation Permit nAPP2208051921 have been performed in accordance with applicable NMOCD guidance and regulations. Based upon supporting documentation provided in this report, GHD, on behalf of CRP, respectfully requests closure and no further regulatory actions for nAPP2208051921.

If you have any questions or comments concerning this Site Closure Report, please do not hesitate to contact our Midland office at (432) 686-0086.

Sincerely,

GHD

Nate Reece
Environmental Scientist

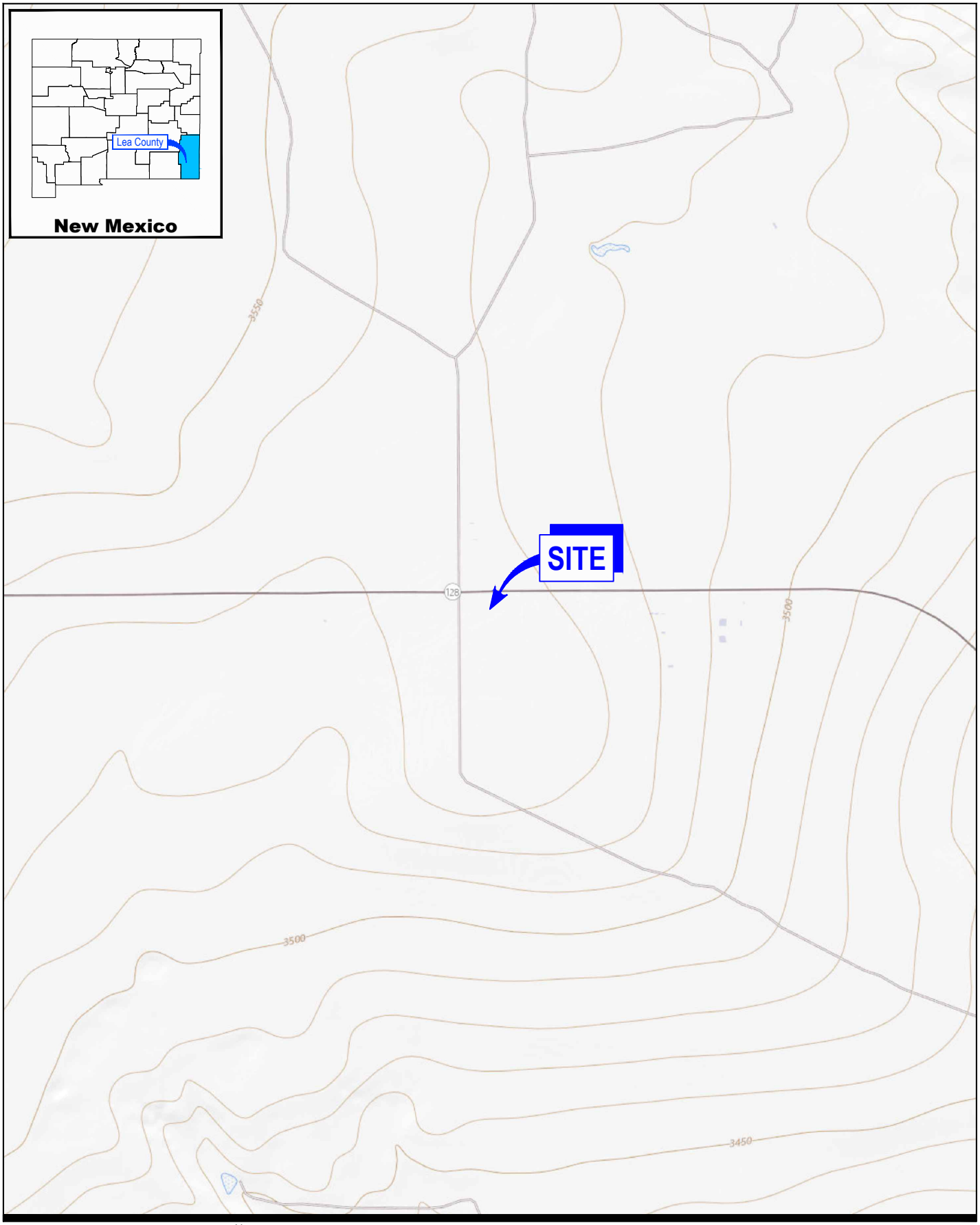
JT Murrey
Senior Project Manager

NR/jt/2

Encl. Figure 1 – Site Location Map
Figure 2 – Confirmation Sampling Location Map
Table 1 – Summary of Soil Analytical Data
Table 2 – Soil Disposal Summary
Attachment A – Laboratory Analytical Reports and Chain-of-Custody Documentation
Attachment B – Photographic Log
Attachment C – Sampling Notifications and Extensions

cc: Nikki Mishler

Figures



0 1000 2000 ft

Coordinate System:
NAD 1983, New Mexico State
Planes, East Zone (US Foot)

N

GHD

EOG RESOURCES
LEA COUNTY, NEW MEXICO
ROMEO FEDERAL 22 BATTERY 1

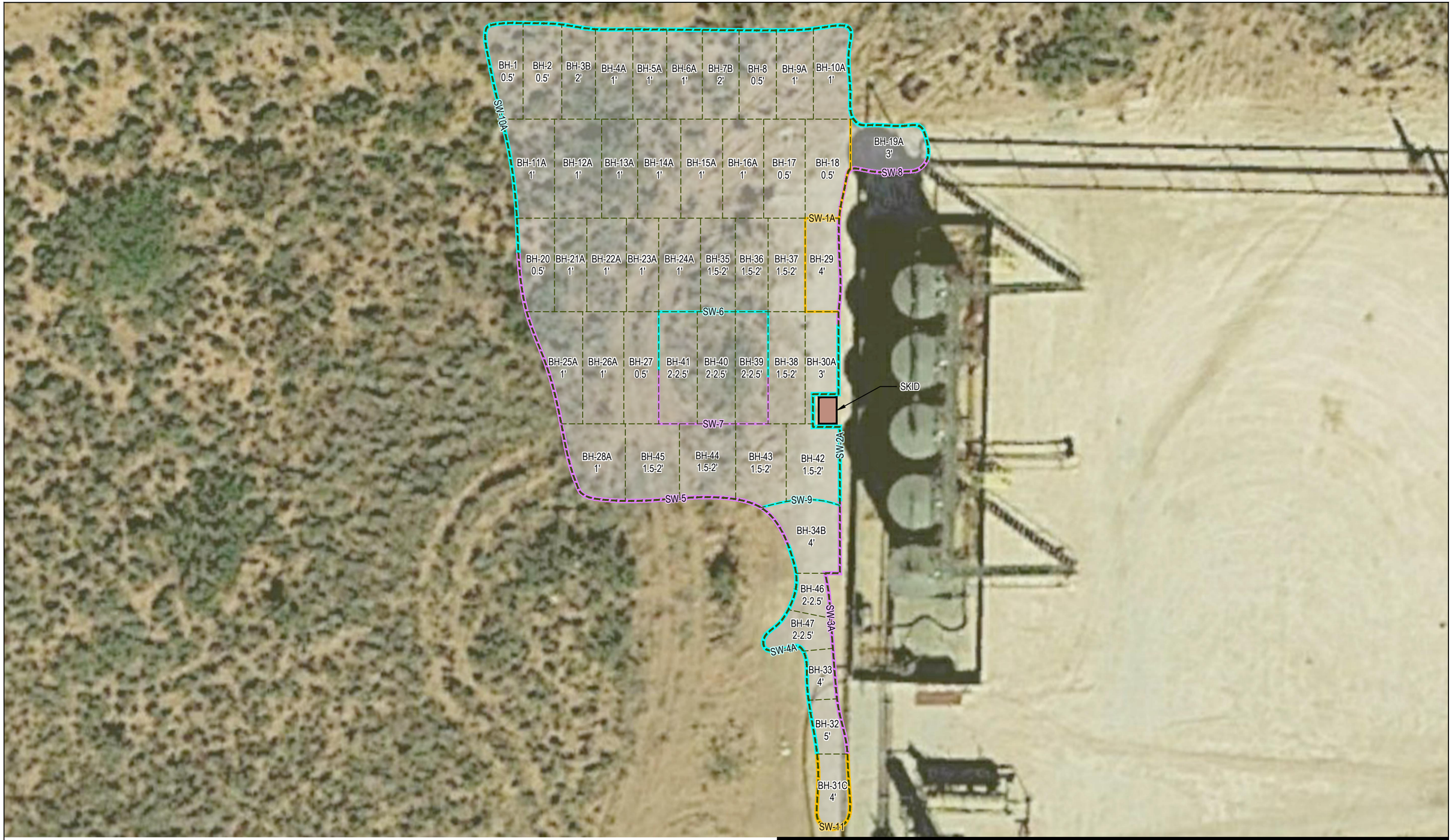
Project No. **12580761**
Date **December 2022**

SITE LOCATION MAP

FIGURE 1

Filename: \\ghdnet\ghd\US\Midland\Projects\562\12580761\Digital_Design\ACAD\Figures\RPT002\12580761-GHD-00-00-RPT-EN-D102_WA-002.dwg
Plotted: 09 Dec 2022 8:27:10

Data Source: USGS 7.5 Minute Quad "Bond Draw and Malaga, New Mexico"
Lat/Long: 32.209671° North, 103.464854° West



LEGEND

- EXCAVATED AREA
- INDICATES SIDE WALL COMPOSITE SAMPLE
- INDICATES SIDE WALL COMPOSITE SAMPLE
- INDICATES SIDE WALL COMPOSITE SAMPLE

NOTES:

1. SEE TABLE 1 FOR FULL ANALYTICAL RESULTS/DETAILS.

0 10 20 ft

Coordinate System:
NAD 1983, New Mexico State
Planes, East Zone (US Foot)

N

GHD

EOG RESOURCES
LEA COUNTY, NEW MEXICO
ROMEO FEDERAL 22 BATTERY 1

CONFIRMATION SAMPLING
LOCATION MAP

Project No. **12580761**
Date **December 2022**

FIGURE 2

Filename: \\ghdnafloh\US\Midland\Projects\562\12580761\Digital_Design\ACAD\Figures\RPT002\12580761-GHD-00-00-RPT-EN-D102_WA-002.dwg

Data Source: Image © 2022 Google - Imagery Date: November 2, 2017
Lat/Long: 32.209671° North, 103.464854° West

Tables

Table 1
Summary of Soil Analytical Data
Romeo Federal 22 Battery 1
Centennial Resources Production
Lea County, New Mexico

Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	Total Petroleum Hydrocarbons (TPH)					Chloride
								GRO(C6-C10)	DRO(C10-C28)	GRO + DRO	MRO (C28-C35)	Total GRO/DRO/MRO	
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Table I Closure Criteria for Soils >100 feet Depth to Groundwater 19.15.29 NMAC										
			10 mg/kg	---	---	---	50 mg/kg	---		1,000 mg/kg	---	2,500 mg/kg	20,000 mg/kg
Bottom Hole Confirmation Samples													
BH-1	4/19/22	0.5'	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	**47.3**	**47.3**	<49.9	**47.3**	**12.8**
BH-2	4/19/22	0.5'	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	**72.0**	**72.0**	<50.0	**72.0**	**15.4**
~~BH-3~~	~~4/19/22~~	~~0.5'~~	~~<0.00200~~	~~<0.00200~~	~~<0.00200~~	~~<0.00399~~	~~<0.00399~~	~~**25.1**~~	~~**272**~~	~~**297**~~	~~<50.0~~	~~**297**~~	~~**22.8**~~
~~BH-3A~~	~~7/11/22~~	~~1'~~	~~**0.00256**~~	~~**0.00205**~~	~~**0.00345**~~	~~**0.0294**~~	~~**0.0285**~~	~~**30.9**~~	~~**18.3**~~	~~**49.2**~~	~~**56.6**~~	~~**106**~~	~~**10.5**~~
BH-3B	8/22/22	2'	<0.000387	<0.000459	<0.000568	<0.00102	<0.00102	**41.0**	<15.0	**41.0**	**40.0**	**81.0**	**14.6**
~~BH-4~~	~~4/20/22~~	~~0.5'~~	~~<0.00199~~	~~<0.00199~~	~~<0.00199~~	~~<0.00398~~	~~<0.00398~~	~~<49.9~~	~~**564**~~	~~**564**~~	~~**142**~~	~~**706**~~	~~**21.2**~~
BH-4A	7/11/22	1'	<0.000384	**0.000768**	**0.000705**	**0.00170**	**0.00317**	**20.1**	**18.6**	**38.7**	**48.8**	**87.5**	**9.08**
~~BH-5~~	~~4/20/22~~	~~0.5'~~	~~<0.00199~~	~~<0.00199~~	~~<0.00199~~	~~<0.00398~~	~~<0.00398~~	~~**24.8**~~	~~**329**~~	~~**353.8**~~	~~**98.7**~~	~~**453**~~	~~**28.3**~~
BH-5A	7/11/22	1'	**0.000605**	**0.00132**	**0.000682**	**0.00115**	**0.00376**	**18.7**	**18.8**	**37.5**	**45.0**	**82.5**	**8.40**
~~BH-6~~	~~4/20/22~~	~~0.5'~~	~~<0.00201~~	~~<0.00201~~	~~<0.00201~~	~~<0.00402~~	~~<0.00402~~	~~<50.0~~	~~**105**~~	~~**105**~~	~~**54.6**~~	~~**160**~~	~~**11.9**~~
BH-6A	7/11/22	1'	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	**19.7**	**17.7**	**37.4**	**41.3**	**78.7**	**13.3**
~~BH-7~~	~~4/20/22~~	~~0.5'~~	~~<0.00200~~	~~<0.00200~~	~~<0.00200~~	~~<0.00399~~	~~<0.00399~~	~~<50.0~~	~~**91.0**~~	~~**91.0**~~	~~**53.4**~~	~~**144**~~	~~**14.1**~~
~~BH-7A~~	~~7/11/22~~	~~1'~~	~~<0.000383~~	~~<0.000454~~	~~<0.000563~~	~~<0.00101~~	~~<0.00101~~	~~**33.4**~~	~~**40.4**~~	~~**73.5**~~	~~**49.1**~~	~~**123**~~	~~**10.4**~~
BH-7B	8/22/22	2'	<0.000386	<0.000457	<0.000566	<0.00101	<0.00101	**40.8**	<14.9	**40.8**	**34.9**	**75.7**	**12.7**
BH-8	4/20/22	0.5'	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	**28.1**	**18.5**	**46.6**	<49.9	**46.6**	**7.79**
~~BH-9~~	~~4/20/22~~	~~0.5'~~	~~<0.00199~~	~~<0.00199~~	~~<0.00199~~	~~**0.00471**~~	~~**0.00471**~~	~~**22.3**~~	~~**99.2**~~	~~**121.5**~~	~~**44.8**~~	~~**166**~~	~~**30.5**~~
BH-9A	7/11/22	1'	<0.000383	<0.000453	<0.000562	<0.00100	<0.00100	**20.1**	<15.0	**20.1**	**42.6**	**62.7**	**6.25**
~~BH-10~~	~~4/20/22~~	~~0.5'~~	~~<0.00200~~	~~<0.00200~~	~~<0.00200~~	~~<0.00399~~	~~<0.00399~~	~~**15.4**~~	~~**214**~~	~~**229**~~	~~**67.3**~~	~~**297**~~	~~**12.8**~~
BH-10A	7/11/22	1'	<0.000386	**0.000563**	<0.000566	<0.00101	<0.00101	**21.4**	<15.0	**21.4**	**43.1**	**64.5**	**4.11**
~~BH-11~~	~~4/20/22~~	~~0.5'~~	~~<0.00199~~	~~<0.00199~~	~~<0.00199~~	~~<0.00398~~	~~<0.00398~~	~~**17.4**~~	~~**137**~~	~~**154.1**~~	~~**47.8**~~	~~**202**~~	~~**11.4**~~
BH-11A	7/11/22	1'	<0.000387	<0.000458	**0.000638**	<0.00101	<0.00101	**18.3**	**17.7**	**36.0**	**40.1**	**76.1**	**7.66**
~~BH-12~~	~~4/20/22~~	~~0.5'~~	~~<0.00200~~	~~<0.00200~~	~~<0.00200~~	~~<0.00401~~	~~<0.00401~~	~~**18.7**~~	~~**200**~~	~~**219**~~	~~**64.8**~~	~~**284**~~	~~**17.1**~~
BH-12A	7/11/22	1'	<0.000389	<0.000461	<0.000571	<0.00102	<0.00102	**24.0**	<15.0	**24.0**	**41.3**	**65.3**	**5.82**
~~BH-13~~	~~4/20/22~~	~~0.5'~~	~~<0.00199~~	~~<0.00199~~	~~<0.00199~~	~~**0.0179**~~	~~**0.0179**~~	~~**15.8**~~	~~**112**~~	~~**128**~~	~~**43.7**~~	~~**172**~~	~~**16.4**~~
BH-13A	7/11/22	1'	<0.000384	**0.00143**	<0.000564	<0.00101	**0.00143**	**20.5**	<15.0	**20.5**	**46.0**	**66.5**	**8.46**
~~BH-14~~	~~4/20/22~~	~~0.5'~~	~~<0.00200~~	~~<0.00200~~	~~<0.00200~~	~~**0.00245**~~	~~**0.00245**~~	~~<49.9~~	~~**182**~~	~~**182**~~	~~**47.9**~~	~~**230**~~	~~**14.8**~~
BH-14A	7/11/22	1'	**0.000459**	**0.000646**	**0.000642**	**0.00115**	**0.00290**	**21.5**	<15.0	**21.5**	**37.2**	**58.7**	**5.14**
~~BH-15~~	~~4/20/22~~	~~0.5'~~	~~<0.00199~~	~~<0.00199~~	~~<0.00199~~	~~**0.00291**~~	~~**0.00291**~~	~~<49.9~~	~~**459**~~	~~**459**~~	~~**62.2**~~	~~**521**~~	~~**34.7**~~
BH-15A	7/11/22	1'	<0.000384	**0.00267**	<0.000564	**0.00297**	**0.00564**	**23.9**	**15.0**	**38.9**	**35.9**	**74.8**	**11.0**
~~BH-16~~	~~4/21/22~~	~~0.5'~~	~~<0.00201~~	~~<0.00201~~	~~<0.00201~~	~~**0.00460**~~	~~**0.00460**~~	~~**16.9**~~	~~**278**~~	~~**295**~~	~~**49.2**~~	~~**344**~~	~~**51.0**~~
BH-16A	7/11/22	1'	<0.000388	<0.000460	<0.000570	<0.00102	<0.00102	<14.9	**33.3**	**33.3**	<14.9	**33.3**	**9.54**
BH-17	4/21/22	0.5'	<0.00200	**0.00148**	<0.00200	**0.00504**	**0.00652**	<50.0	<50.0	<50.0	<50.0	<50.0	**7.20**
BH-18	4/21/22	0.5'	<0.00201	**0.00209**	<0.00201	**0.00693**	**0.00902**	<50.0	<50.0	<50.0	<50.0	<50.0	**29.8**
~~BH-19~~	~~4/21/22~~	~~2-2.5~~	~~<0.00202~~	~~<0.00202~~	~~<0.00202~~	~~**0.0118**~~	~~**0.0118**~~	~~**38.2**~~	~~**1,670**~~	~~**1,708**~~	~~**285**~~	~~**1,990**~~	~~**522**~~
BH-19A	7/12/22	3	<0.0000768	<0.0000910	<0.000113	<0.000202	<0.000202	<15.0	<15.0	<15.0	<15.0	<15.0	**24.8**

Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	Total Petroleum Hydrocarbons (TPH)					Chloride
								GRO(C6-C10)	DRO(C10-C28)	GRO + DRO	MRO (C28-C35)	Total GRO/DRO/MRO	
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Table I Closure Criteria for Soils >100 feet Depth to Groundwater 19.15.29 NMAC										
			10 mg/kg	---	---	---	50 mg/kg	---		1,000 mg/kg	---	2,500 mg/kg	20,000 mg/kg
BH-20	4/20/22	0.5'	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**26.5**	<50.0	**26.5**	**33.7**	**60.2**	**4.92**
~~BH-21~~	~~4/20/22~~	~~0.5'~~	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	~~**20.1**~~	~~**139**~~	~~**159.1**~~	~~**35.4**~~	~~**195**~~	~~**8.70**~~
BH-21A	7/12/22	1	<0.0000775	<0.0000918	<0.000114	<0.000203	<0.000203	<15.0	**25.6**	**25.6**	<15.0	**25.6**	**3.67**
~~BH-22~~	~~4/20/22~~	~~0.5'~~	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	~~**25.6**~~	~~**110**~~	~~**136**~~	~~**34.4**~~	~~**170**~~	~~**34.4**~~
BH-22A	7/12/22	1	<0.0000765	**0.000245**	<0.000112	<0.000201	<0.000201	<15.0	**29.5**	**29.5**	<15.0	**29.5**	**9.93**
~~BH-23~~	~~4/20/22~~	~~0.5'~~	<0.00201	~~**0.00188**~~	~~**0.00136**~~	~~**0.0134**~~	~~**0.0167**~~	~~<50.0~~	~~**709**~~	~~**709**~~	~~**128**~~	~~**837**~~	~~**28.6**~~
BH-23A	7/12/22	1	<0.0000768	<0.0000910	<0.000113	<0.000202	<0.000202	<15.0	**26.0**	**26.0**	<15.0	**26.0**	**3.15**
~~BH-24~~	~~4/21/22~~	~~0.5'~~	<0.00198	~~**0.00663**~~	<0.00198	~~**0.00237**~~	~~**0.00303**~~	~~<49.9~~	~~**41.8**~~	~~**41.8**~~	~~**61.0**~~	~~**103**~~	~~**17.0**~~
BH-24A	7/12/22	1	<0.0000768	<0.0000910	<0.000113	<0.000202	<0.000202	<15.0	**25.0**	<15.0	<15.0	**25.0**	**15.9**
~~BH-25~~	~~4/20/22~~	~~0.5'~~	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	~~**20.1**~~	~~**37.1**~~	~~**57.2**~~	~~**45.3**~~	~~**103**~~	~~**11.4**~~
BH-25A	7/12/22	1	<0.000386	0.00103	0.000592	0.00121	0.00121	<15.0	**28.2**	**28.2**	<15.0	**28.2**	**5.30**
~~BH-26~~	~~4/20/22~~	~~0.5'~~	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	~~**19.1**~~	~~**135**~~	~~**154**~~	~~**43.7**~~	~~**198**~~	~~**14.2**~~
BH-26A	7/12/22	1	<0.000383	**0.000646**	<0.000563	<0.00101	<0.00101	<15.0	<15.0	<15.0	<15.0	<15.0	**5.70**
BH-27	4/21/22	0.5'	<0.00200	<0.00200	<0.00200	**0.00103**	**0.00103**	<50.0	**53.4**	**53.4**	<50.0	**53.4**	**3.78**
~~BH-28~~	~~4/20/22~~	~~0.5'~~	<0.00200	~~**0.00236**~~	<0.00200	~~**0.00391**~~	~~**0.00627**~~	~~**25.9**~~	~~**84.6**~~	~~**110.5**~~	~~**39.0**~~	~~**150**~~	~~**13.4**~~
BH-28A	7/12/22	1	<0.000384	**0.00343**	**0.00125**	**0.00188**	**0.00656**	<15.0	**27.5**	**27.5**	<15.0	**27.5**	**14.4**
BH-29	4/22/22	4	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	**54.7**	**54.7**	<50.0	**54.7**	**92.9**
~~BH-30~~	~~4/21/22~~	~~1.5-2~~	<0.00201	~~**0.00472**~~	<0.00201	<0.00402	~~**0.00472**~~	~~<50.0~~	~~**217**~~	~~**217**~~	~~**45.3**~~	~~**262**~~	~~**88.4**~~
BH-30A	7/12/22	3	**0.000566**	**0.00421**	**0.00248**	**0.00366**	**0.0109**	<15.0	**25.1**	**25.1**	<15.0	**25.1**	**58.0**
~~BH-31~~	~~4/21/22~~	~~1.5-2~~	<0.00202	~~**0.00461**~~	<0.00202	<0.00404	~~**0.00461**~~	~~<49.9~~	~~**780**~~	~~**780**~~	~~**120**~~	~~**900**~~	~~**369**~~
~~BH-31A~~	~~7/13/22~~	~~3~~	~~<0.000384~~	~~<0.000455~~	~~<0.000564~~	~~<0.00101~~	~~<0.00101~~	~~<15.0~~	~~**139**~~	~~**139**~~	~~<15.0~~	~~**139**~~	~~**35.4**~~
~~BH-31B~~	~~8/23/22~~	~~3.5~~	~~<0.000384~~	~~<0.000455~~	~~<0.000564~~	~~<0.00101~~	~~<0.00101~~	~~**44.9**~~	~~<15.0~~	~~**44.9**~~	~~**41.1**~~	~~**86.0**~~	~~**1,080**~~
BH-31C	9/12/22	5	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	**875**
BH-32-5'	4/25/2021	5	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	**24.8**	**24.8**	<49.9	**24.8**	**2,720**
BH-32-6'	4/25/2021	6	<0.00198	<0.00198	<0.00198	<0.00397	<0.00397	**16.4**	**22.5**	**38.9**	<50.0	**38.9**	**1,570**
BH-32-7'	4/25/2021	7	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	**17.6**	**26.0**	**43.6**	<49.9	**43.6**	**722**
BH-33-4'	4/25/2021	4	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	<50.0	**34.7**	**34.7**	<50.0	**34.7**	**2,290**
BH-33-5'	4/25/2021	5	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<49.9	**20.6**	**20.6**	<49.9	**20.6**	**1,640**
BH-33-6'	4/25/2021	6	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	**20.5**	**20.5**	<50.0	**20.5**	**536**
BH-33-7'	4/25/2021	7	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	<50.0	**22.3**	**22.3**	<50.0	**22.3**	**136**
~~BH-34~~	~~4/21/22~~	~~3~~	<0.00200	~~**0.000955**~~	<0.00200	<0.00401	~~**0.000955**~~	~~<49.9~~	~~**592**~~	~~**592**~~	~~**119**~~	~~**711**~~	~~**143**~~
~~BH-34A~~	~~7/13/22~~	~~3.5~~	~~<0.000383~~	~~<0.000453~~	~~<0.000562~~	~~<0.00100~~	~~<0.00100~~	~~<15.0~~	~~**733**~~	~~**733**~~	~~<15.0~~	~~**733**~~	~~**11,500**~~
BH-34B	8/23/22	4	<0.000386	0.000457	<0.000566	<0.00101	<0.00101	**40.3**	<15.0	**40.3**	**37.0**	**77.3**	**80.9**
BH-35	4/21/22	1.5-2	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	<50.0	<50.0	<50.0	**44.5**	**44.5**	**5.43**
BH-36	4/21/22	1.5-2	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	**4.35**
BH-37	4/25/22	1.5-2	<0.00199	**0.00188**	**0.00128**	**0.00725**	**0.01041**	<49.9	**19.4**	**19.4**	<49.9	**19.4**	**23.9**
BH-38	4/25/22	1.5-2	<0.00200	**0.00226**	**0.00201**	**0.0168**	**0.0211**	<50.0	**23.6**	**23.6**	<50.0	**23.6**	**18.4**
BH-39	4/25/22	2-2.5	<0.00200	**0.000480**	<0.00200	<0.00401	<0.00401	<50.0	**35.6**	**35.6**	<50.0	**35.6**	**21.1**
BH-40	4/25/22	2-2.5	<0.00198	<0.00198	<0.00198	<0.00397	<0.00397	**24.4**	**23.1**	**47.5**	<50.0	**47.5**	**5.10**
BH-41	4/25/22	2-2.5	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	**22.4**	**22.4**	<49.9	**22.4**	**4.74**

Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	Total Petroleum Hydrocarbons (TPH)					Chloride
								GRO(C6-C10)	DRO(C10-C28)	GRO + DRO	MRO (C28-C35)	Total GRO/DRO/MRO	
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			Table I Closure Criteria for Soils >100 feet Depth to Groundwater 19.15.29 NMAC										
			10 mg/kg	---	---	---	50 mg/kg	---		1,000 mg/kg	---	2,500 mg/kg	20,000 mg/kg
BH-42	4/26/22	1.5-2	<0.00200	**0.00181**	**0.00184**	**0.00786**	**0.0115**	**42.5**	**28.7**	**71.2**	<50.0	**71.2**	**8.58**
BH-43	4/27/22	1.5-2	<0.00199	**0.000500**	<0.00199	<0.00398	<0.00398	**37.9**	<50.0	**37.9**	<50.0	**37.9**	**220**
BH-44	4/27/22	1.5-2	<0.00200	**0.000564**	**0.000735**	<0.00399	**0.00130**	**18.2**	**24.8**	**43.0**	<50.0	**43.0**	**38.9**
BH-45	4/27/22	1.5-2	<0.00199	**0.000559**	**0.000587**	<0.00398	**0.00115**	**28.3**	**17.5**	**45.8**	<50.0	**45.8**	**17.3**
BH-46	4/27/22	2-2.5	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	**52.8**	**52.8**	<50.0	**52.8**	**294**
BH-47	4/27/22	2-2.5	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	**16.4**	<49.9	**16.4**	<49.9	**16.4**	**6.81**
Sidewall Confirmation Samples													
SW-1	~~4/21/22~~	~~Sidewall~~	~~<0.00199~~	~~**0.000494**~~	~~<0.00199~~	~~<0.00398~~	~~**0.00424**~~	~~<49.9~~	~~**309.0**~~	~~**309**~~	~~<49.9~~	~~**309**~~	~~**596**~~
SW-1A	7/13/22	Sidewall	<0.000386	**0.00117**	**0.00138**	**0.0033**	**0.00585**	<15.0	<15.0	<15.0	<15.0	<15.0	**65.3**
~~SW-2~~	~~4/21/22~~	~~Sidewall~~	~~**0.0144**~~	~~**0.0396**~~	~~**0.0101**~~	~~**0.0550**~~	~~**0.116**~~	~~<50.0~~	~~**318**~~	~~**318**~~	~~**42.6**~~	~~**361**~~	~~**93.5**~~
SW-2A	7/13/22	Sidewall	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	<15.0	**22.6**	**22.6**	<15.0	**22.6**	**9.92**
~~SW-3~~	~~4/21/22~~	~~Sidewall~~	~~<0.00199~~	~~**0.00559**~~	~~**0.0106**~~	~~**0.0667**~~	~~**0.0829**~~	~~**52.4**~~	~~**2,060**~~	~~**2,112**~~	~~**342**~~	~~**2,450**~~	~~**1,120**~~
SW-3A	7/13/22	Sidewall	<0.000383	**0.000539**	<0.000562	<0.00100	<0.00100	<15.0	**26.1**	**26.1**	<15.0	**26.1**	**245**
~~SW-4~~	~~4/27/22~~	~~Sidewall~~	~~<0.00201~~	~~<0.00201~~	~~<0.00201~~	~~<0.00402~~	~~<0.00402~~	~~<49.9~~	~~**39.6**~~	~~**39.6**~~	~~<49.9~~	~~**39.6**~~	~~**626**~~
SW-4A	7/13/22	Sidewall	<0.000381	<0.000451	<0.000559	<0.00100	<0.00100	<15.0	<15.0	<15.0	<15.0	<15.0	**4.68**
SW-5	4/27/22	Sidewall	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	**10.4**
SW-6	4/27/22	Sidewall	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	**2.38**
SW-7	4/27/22	Sidewall	<0.00200	**0.000683**	<0.00200	**0.00618**	**0.00686**	<49.9	<49.9	<49.9	<49.9	<49.9	**11.8**
SW-8	4/27/22	Sidewall	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	**591**
SW-9	4/27/22	Sidewall	<0.00199	**0.00349**	<0.00199	**0.00884**	**0.0123**	<50.0	<50.0	<50.0	<50.0	<50.0	**9.61**
~~SW-10~~	~~4/27/22~~	~~Sidewall~~	~~<0.00199~~	~~<0.00199~~	~~<0.00199~~	~~<0.00398~~	~~<0.00398~~	~~<49.9~~	~~**120**~~	~~**120**~~	~~<49.9~~	~~**120**~~	~~**11.4**~~
SW-10A	7/13/22	Sidewall	<0.000386	0.000457	<0.000566	<0.00101	<0.00101	<14.9	**23.2**	**23.2**	<14.9	**23.2**	**19.6**
SW-11	11/23/22	Sidewall	<0.000386	<0.000457	<0.000566	<0.00101	<0.00101	**29.9**	<15.0	**29.9**	<15.0	**29.9**	**69.1**

Notes:

1. Values reported in mg/kg
2. < = Value Less than Reporting Limit (RL)
3. Bold Indicates Analyte Detected
4. BTEX analyses by EPA Method SW 8021B.
5. TPH analyses by EPA Method SW 8015 Mod.
6. GRO/DRO/MRO = Gasoline/Diesel/Motor Oil
7. Yellow shaded cells indicate analytical samples that exceed the NMAC 19.15.29.12 Table 1 Closure Criteria for the site.
8. Peach shaded cells indicate analytical samples that exceed the NMAC 19.15.29.13 Table 1 Closure Criteria for the site (Surface to 4 Feet Below Grade).
9. J - the target analytes was positively identified below the quantitation limit and above the detection limit.
10. --- = not defined

~~B-BH-2~~ Sample Point Excavated

Table 2
Daily Disposal Summary
Romeo Federal 22 Battery 1
Centennial Resources
Eddy, County, New Mexico

Date of Disposal	Total Yards^3 Disposed
4/20/2022	320
4/26/2022	360
8/3/2022	208
Project Total	**888**

Attachment A
Laboratory Analytical Reports and Chain-of-Custody Documentation

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-16810-1
Laboratory Sample Delivery Group: Lea County NM
Client Project/Site: Romeo Federal 22 Battery 1
Revision: 1

For:
GHD Services Inc.
2135 South Loop 250 West
Midland, Texas 79703

Attn: Becky Haskell

Authorized for release by:
7/22/2022 5:43:27 PM

Debbie Simmons, Project Manager
(832)986-6768
Debbie.Simmons@et.eurofinsus.com

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.

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Laboratory Job ID: 880-16810-1
SDG: Lea County NM

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Definitions/Glossary

Client: GHD Services Inc. Job ID: 880-16810-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
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)

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16810-1
SDG: Lea County NM

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

Case Narrative

Client: GHD Services Inc. Job ID: 880-16810-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Job ID: 880-16810-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-16810-1

Comments
per phone conversation with Heath Boyd, all samples collected this week from Romeo Battery should include a A after the ID

Revision
The report being provided is a revision of the original report sent on 7/19/2022. The report (revision 1) is being revised due to: per Becky Haskell sample ID should be BH-9A instead of BH-8A for sample 880-16810-6.

Receipt
The samples were received on 7/12/2022 11:15 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 was 1.1° C.

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-29773 and analytical batch 880-29894 was outside control limits. Sample matrix interference is suspected.

Method 8021B: Surrogate recovery for the following sample was outside control limits: BH-11A (880-16810-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA
Method 8015B NM: The method blank for preparation batch 880-29622 and analytical batch 880-29609 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015B NM: CCV biased low for gasoline range hydrocarbons, however an acceptable CCV was analyzed within the 12 hour window, therefore data was qualified and reported.

(CCV 880-29609/46)

Method 8015B NM: The method blank for preparation batch 880-29672 and analytical batch 880-29692 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

General Chemistry
Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-29572 and analytical batch 880-29761 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-29660 and analytical batch 880-29862 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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

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

Case Narrative

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16810-1
SDG: Lea County NM

Job ID: 880-16810-1 (Continued)

Laboratory: Eurofins Midland (Continued)

Client Sample Results

Client: GHD Services Inc. Job ID: 880-16810-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Client Sample ID: BH-3A
Lab Sample ID: 880-16810-1
Date Collected: 07/11/22 10:30
Matrix: Solid
Date Received: 07/12/22 11:15
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00256		0.00201	0.000387	mg/Kg		07/14/22 16:44	07/18/22 12:48	1
Toluene	0.00205	F1	0.00201	0.000459	mg/Kg		07/14/22 16:44	07/18/22 12:48	1
Ethylbenzene	0.00345	F1	0.00201	0.000568	mg/Kg		07/14/22 16:44	07/18/22 12:48	1
m-Xylene & p-Xylene	0.0135	F1 F2	0.00402	0.00102	mg/Kg		07/14/22 16:44	07/18/22 12:48	1
o-Xylene	0.00687	F1 F2	0.00201	0.000346	mg/Kg		07/14/22 16:44	07/18/22 12:48	1
Xylenes, Total	0.0204	F1 F2	0.00402	0.00102	mg/Kg		07/14/22 16:44	07/18/22 12:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*07/14/22 16:44*	*07/18/22 12:48*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*07/14/22 16:44*	*07/18/22 12:48*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0284		0.00402	0.00102	mg/Kg			07/19/22 09:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	106		49.9	15.0	mg/Kg			07/14/22 09:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	30.9	J B	49.9	15.0	mg/Kg		07/13/22 09:24	07/13/22 15:38	1
Diesel Range Organics (Over C10-C28)	18.3	J B	49.9	15.0	mg/Kg		07/13/22 09:24	07/13/22 15:38	1
Oil Range Organics (Over C28-C36)	56.6		49.9	15.0	mg/Kg		07/13/22 09:24	07/13/22 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*07/13/22 09:24*	*07/13/22 15:38*	*1*
o-Terphenyl	*111*		*70 - 130*	*07/13/22 09:24*	*07/13/22 15:38*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.5		5.00	0.858	mg/Kg			07/15/22 14:51	1

Client Sample ID: BH-4A
Lab Sample ID: 880-16810-2
Date Collected: 07/11/22 10:40
Matrix: Solid
Date Received: 07/12/22 11:15
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		07/14/22 16:44	07/18/22 13:09	1
Toluene	0.000768	J	0.00200	0.000455	mg/Kg		07/14/22 16:44	07/18/22 13:09	1
Ethylbenzene	0.000705	J	0.00200	0.000564	mg/Kg		07/14/22 16:44	07/18/22 13:09	1
m-Xylene & p-Xylene	0.00170	J	0.00399	0.00101	mg/Kg		07/14/22 16:44	07/18/22 13:09	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		07/14/22 16:44	07/18/22 13:09	1
Xylenes, Total	0.00170	J	0.00399	0.00101	mg/Kg		07/14/22 16:44	07/18/22 13:09	1

Client Sample Results

Client: GHD Services Inc. Job ID: 880-16810-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Client Sample ID: BH-4A
Lab Sample ID: 880-16810-2
Date Collected: 07/11/22 10:40
Matrix: Solid
Date Received: 07/12/22 11:15
Sample Depth: 1'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	07/14/22 16:44	07/18/22 13:09	1
1,4-Difluorobenzene (Surr)	93		70 - 130	07/14/22 16:44	07/18/22 13:09	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00317	J	0.00399	0.00101	mg/Kg			07/19/22 09:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	87.5		50.0	15.0	mg/Kg			07/14/22 09:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	20.1	J B	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 15:59	1
Diesel Range Organics (Over C10-C28)	18.6	J B	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 15:59	1
Oil Range Organics (Over C28-C36)	48.8	J	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 15:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130	07/13/22 09:24	07/13/22 15:59	1
o-Terphenyl	98		70 - 130	07/13/22 09:24	07/13/22 15:59	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.08	F1	4.99	0.857	mg/Kg			07/15/22 15:00	1

Client Sample ID: BH-5A
Lab Sample ID: 880-16810-3
Date Collected: 07/11/22 10:50
Matrix: Solid
Date Received: 07/12/22 11:15
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000605	J	0.00199	0.000383	mg/Kg		07/14/22 16:44	07/18/22 13:29	1
Toluene	0.00132	J	0.00199	0.000453	mg/Kg		07/14/22 16:44	07/18/22 13:29	1
Ethylbenzene	0.000682	J	0.00199	0.000562	mg/Kg		07/14/22 16:44	07/18/22 13:29	1
m-Xylene & p-Xylene	0.00115	J	0.00398	0.00100	mg/Kg		07/14/22 16:44	07/18/22 13:29	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		07/14/22 16:44	07/18/22 13:29	1
Xylenes, Total	0.00115	J	0.00398	0.00100	mg/Kg		07/14/22 16:44	07/18/22 13:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	07/14/22 16:44	07/18/22 13:29	1
1,4-Difluorobenzene (Surr)	99		70 - 130	07/14/22 16:44	07/18/22 13:29	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00376	J	0.00398	0.00100	mg/Kg			07/19/22 09:21	1

Client Sample Results

Client: GHD Services Inc. Job ID: 880-16810-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Client Sample ID: BH-5A
Lab Sample ID: 880-16810-3
Date Collected: 07/11/22 10:50
Matrix: Solid
Date Received: 07/12/22 11:15
Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	82.5		49.9	15.0	mg/Kg			07/14/22 09:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	18.7	J B	49.9	15.0	mg/Kg		07/13/22 09:24	07/13/22 16:42	1
Diesel Range Organics (Over C10-C28)	18.8	J B	49.9	15.0	mg/Kg		07/13/22 09:24	07/13/22 16:42	1
Oil Range Organics (Over C28-C36)	45.0	J	49.9	15.0	mg/Kg		07/13/22 09:24	07/13/22 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*07/13/22 09:24*	*07/13/22 16:42*	*1*
o-Terphenyl	*92*		*70 - 130*	*07/13/22 09:24*	*07/13/22 16:42*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.40		5.00	0.858	mg/Kg			07/15/22 15:28	1

Client Sample ID: BH-6A
Lab Sample ID: 880-16810-4
Date Collected: 07/11/22 11:00
Matrix: Solid
Date Received: 07/12/22 11:15
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		07/14/22 16:44	07/18/22 13:49	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		07/14/22 16:44	07/18/22 13:49	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		07/14/22 16:44	07/18/22 13:49	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		07/14/22 16:44	07/18/22 13:49	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		07/14/22 16:44	07/18/22 13:49	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		07/14/22 16:44	07/18/22 13:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*07/14/22 16:44*	*07/18/22 13:49*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*07/14/22 16:44*	*07/18/22 13:49*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00399	0.00101	mg/Kg			07/19/22 09:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	78.7		50.0	15.0	mg/Kg			07/14/22 09:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	19.7	J B	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 17:03	1
Diesel Range Organics (Over C10-C28)	17.7	J B	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 17:03	1

Client Sample Results

Client: GHD Services Inc. Job ID: 880-16810-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Client Sample ID: BH-6A
Lab Sample ID: 880-16810-4
Date Collected: 07/11/22 11:00
Matrix: Solid
Date Received: 07/12/22 11:15
Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	41.3	J	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 17:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*07/13/22 09:24*	*07/13/22 17:03*	*1*
o-Terphenyl	*95*		*70 - 130*	*07/13/22 09:24*	*07/13/22 17:03*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.3		4.97	0.853	mg/Kg			07/15/22 15:37	1

Client Sample ID: BH-7A
Lab Sample ID: 880-16810-5
Date Collected: 07/11/22 11:10
Matrix: Solid
Date Received: 07/12/22 11:15
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		07/14/22 16:44	07/18/22 14:10	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		07/14/22 16:44	07/18/22 14:10	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		07/14/22 16:44	07/18/22 14:10	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		07/14/22 16:44	07/18/22 14:10	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		07/14/22 16:44	07/18/22 14:10	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		07/14/22 16:44	07/18/22 14:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*07/14/22 16:44*	*07/18/22 14:10*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*07/14/22 16:44*	*07/18/22 14:10*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			07/19/22 09:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	123		49.9	15.0	mg/Kg			07/14/22 09:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	33.1	J B	49.9	15.0	mg/Kg		07/13/22 09:24	07/13/22 17:24	1
Diesel Range Organics (Over C10-C28)	40.4	J B	49.9	15.0	mg/Kg		07/13/22 09:24	07/13/22 17:24	1
Oil Range Organics (Over C28-C36)	49.1	J	49.9	15.0	mg/Kg		07/13/22 09:24	07/13/22 17:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*07/13/22 09:24*	*07/13/22 17:24*	*1*
o-Terphenyl	*101*		*70 - 130*	*07/13/22 09:24*	*07/13/22 17:24*	*1*

Client Sample Results

Client: GHD Services Inc. Job ID: 880-16810-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Client Sample ID: BH-7A
Lab Sample ID: 880-16810-5
Date Collected: 07/11/22 11:10
Matrix: Solid
Date Received: 07/12/22 11:15
Sample Depth: 1'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.4**		4.95	0.850	mg/Kg			07/15/22 16:05	1

Client Sample ID: BH-9A
Lab Sample ID: 880-16810-6
Date Collected: 07/11/22 11:20
Matrix: Solid
Date Received: 07/12/22 11:15
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		07/14/22 16:44	07/18/22 14:30	1
Toluene	<0.000453	U	0.00199	0.000453	mg/Kg		07/14/22 16:44	07/18/22 14:30	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		07/14/22 16:44	07/18/22 14:30	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		07/14/22 16:44	07/18/22 14:30	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		07/14/22 16:44	07/18/22 14:30	1
Xylenes, Total	<0.00100	U	0.00398	0.00100	mg/Kg		07/14/22 16:44	07/18/22 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*07/14/22 16:44*	*07/18/22 14:30*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*07/14/22 16:44*	*07/18/22 14:30*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00398	0.00100	mg/Kg			07/19/22 09:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**62.7**		49.9	15.0	mg/Kg			07/14/22 09:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**20.1**	**J B**	49.9	15.0	mg/Kg		07/13/22 09:24	07/13/22 17:46	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		07/13/22 09:24	07/13/22 17:46	1
Oil Range Organics (Over C28-C36)	**42.6**	**J**	49.9	15.0	mg/Kg		07/13/22 09:24	07/13/22 17:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*07/13/22 09:24*	*07/13/22 17:46*	*1*
o-Terphenyl	*91*		*70 - 130*	*07/13/22 09:24*	*07/13/22 17:46*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.25**		5.01	0.860	mg/Kg			07/15/22 16:14	1

Client Sample Results

Client: GHD Services Inc. Job ID: 880-16810-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Client Sample ID: BH-10A
Lab Sample ID: 880-16810-7
Date Collected: 07/11/22 11:30
Matrix: Solid
Date Received: 07/12/22 11:15
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		07/14/22 16:44	07/18/22 14:51	1
Toluene	**0.000563**	**J**	0.00200	0.000457	mg/Kg		07/14/22 16:44	07/18/22 14:51	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		07/14/22 16:44	07/18/22 14:51	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		07/14/22 16:44	07/18/22 14:51	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		07/14/22 16:44	07/18/22 14:51	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		07/14/22 16:44	07/18/22 14:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*07/14/22 16:44*	*07/18/22 14:51*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*07/14/22 16:44*	*07/18/22 14:51*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00401	0.00101	mg/Kg			07/19/22 09:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**64.5**		50.0	15.0	mg/Kg			07/14/22 09:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**21.4**	**J B**	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 18:07	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 18:07	1
Oil Range Organics (Over C28-C36)	**43.1**	**J**	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 18:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*07/13/22 09:24*	*07/13/22 18:07*	*1*
o-Terphenyl	*98*		*70 - 130*	*07/13/22 09:24*	*07/13/22 18:07*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4.11**	**J F1**	5.00	0.858	mg/Kg			07/16/22 15:21	1

Client Sample ID: BH-11A
Lab Sample ID: 880-16810-8
Date Collected: 07/11/22 11:40
Matrix: Solid
Date Received: 07/12/22 11:15
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg		07/14/22 16:44	07/18/22 15:11	1
Toluene	<0.000458	U	0.00201	0.000458	mg/Kg		07/14/22 16:44	07/18/22 15:11	1
Ethylbenzene	**0.000638**	**J**	0.00201	0.000567	mg/Kg		07/14/22 16:44	07/18/22 15:11	1
m-Xylene & p-Xylene	<0.00101	U	0.00402	0.00101	mg/Kg		07/14/22 16:44	07/18/22 15:11	1
o-Xylene	<0.000345	U	0.00201	0.000345	mg/Kg		07/14/22 16:44	07/18/22 15:11	1
Xylenes, Total	<0.00101	U	0.00402	0.00101	mg/Kg		07/14/22 16:44	07/18/22 15:11	1

Client Sample Results

Client: GHD Services Inc. Job ID: 880-16810-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Client Sample ID: BH-11A
Lab Sample ID: 880-16810-8
Date Collected: 07/11/22 11:40
Matrix: Solid
Date Received: 07/12/22 11:15
Sample Depth: 1'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	50	S1-	70 - 130	07/14/22 16:44	07/18/22 15:11	1
1,4-Difluorobenzene (Surr)	95		70 - 130	07/14/22 16:44	07/18/22 15:11	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00402	0.00101	mg/Kg			07/19/22 09:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**76.1**		50.0	15.0	mg/Kg			07/14/22 09:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**18.3**	**J B**	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 18:28	1
Diesel Range Organics (Over C10-C28)	**17.7**	**J B**	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 18:28	1
OII Range Organics (Over C28-C36)	**40.1**	**J**	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 18:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130	07/13/22 09:24	07/13/22 18:28	1
o-Terphenyl	92		70 - 130	07/13/22 09:24	07/13/22 18:28	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.66**		4.99	0.857	mg/Kg			07/16/22 15:48	1

Client Sample ID: BH-12A
Lab Sample ID: 880-16810-9
Date Collected: 07/11/22 11:50
Matrix: Solid
Date Received: 07/12/22 11:15
Sample Depth: 1'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000389	U	0.00202	0.000389	mg/Kg		07/14/22 16:44	07/18/22 15:32	1
Toluene	<0.000461	U	0.00202	0.000461	mg/Kg		07/14/22 16:44	07/18/22 15:32	1
Ethylbenzene	<0.000571	U	0.00202	0.000571	mg/Kg		07/14/22 16:44	07/18/22 15:32	1
m-Xylene & p-Xylene	<0.00102	U	0.00404	0.00102	mg/Kg		07/14/22 16:44	07/18/22 15:32	1
o-Xylene	<0.000347	U	0.00202	0.000347	mg/Kg		07/14/22 16:44	07/18/22 15:32	1
Xylenes, Total	<0.00102	U	0.00404	0.00102	mg/Kg		07/14/22 16:44	07/18/22 15:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	07/14/22 16:44	07/18/22 15:32	1
1,4-Difluorobenzene (Surr)	95		70 - 130	07/14/22 16:44	07/18/22 15:32	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00404	0.00102	mg/Kg			07/19/22 09:21	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16810-1
SDG: Lea County NM

Client Sample ID: BH-12A
Date Collected: 07/11/22 11:50
Date Received: 07/12/22 11:15
Sample Depth: 1'

Lab Sample ID: 880-16810-9
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**65.3**		50.0	15.0	mg/Kg			07/14/22 09:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**24.0**	**J B**	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 18:49	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 18:49	1
Oil Range Organics (Over C28-C36)	**41.3**	**J**	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 18:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*07/13/22 09:24*	*07/13/22 18:49*	*1*
o-Terphenyl	*96*		*70 - 130*	*07/13/22 09:24*	*07/13/22 18:49*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.82**		4.97	0.853	mg/Kg			07/16/22 15:57	1

Client Sample ID: BH-13A
Date Collected: 07/11/22 12:00
Date Received: 07/12/22 11:15
Sample Depth: 1'

Lab Sample ID: 880-16810-10
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		07/14/22 16:44	07/18/22 15:52	1
Toluene	**0.00143**	**J**	0.00200	0.000455	mg/Kg		07/14/22 16:44	07/18/22 15:52	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		07/14/22 16:44	07/18/22 15:52	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		07/14/22 16:44	07/18/22 15:52	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		07/14/22 16:44	07/18/22 15:52	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		07/14/22 16:44	07/18/22 15:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*07/14/22 16:44*	*07/18/22 15:52*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*07/14/22 16:44*	*07/18/22 15:52*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00143**	**J**	0.00399	0.00101	mg/Kg			07/19/22 09:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**66.5**		49.9	15.0	mg/Kg			07/14/22 09:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**20.5**	**J B**	49.9	15.0	mg/Kg		07/13/22 09:24	07/13/22 19:10	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		07/13/22 09:24	07/13/22 19:10	1

Client Sample Results

Client: GHD Services Inc. Job ID: 880-16810-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Client Sample ID: BH-13A
Lab Sample ID: 880-16810-10
Date Collected: 07/11/22 12:00
Matrix: Solid
Date Received: 07/12/22 11:15
Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	46.0	J	49.9	15.0	mg/Kg		07/13/22 09:24	07/13/22 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*07/13/22 09:24*	*07/13/22 19:10*	*1*
o-Terphenyl	*97*		*70 - 130*	*07/13/22 09:24*	*07/13/22 19:10*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.46		4.99	0.857	mg/Kg			07/16/22 16:07	1

Client Sample ID: BH-14A
Lab Sample ID: 880-16810-11
Date Collected: 07/11/22 00:00
Matrix: Solid
Date Received: 07/12/22 11:15

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000459	J	0.00199	0.000383	mg/Kg		07/14/22 16:44	07/18/22 17:45	1
Toluene	0.000646	J	0.00199	0.000453	mg/Kg		07/14/22 16:44	07/18/22 17:45	1
Ethylbenzene	0.000642	J	0.00199	0.000562	mg/Kg		07/14/22 16:44	07/18/22 17:45	1
m-Xylene & p-Xylene	0.00115	J	0.00398	0.00100	mg/Kg		07/14/22 16:44	07/18/22 17:45	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		07/14/22 16:44	07/18/22 17:45	1
Xylenes, Total	0.00115	J	0.00398	0.00100	mg/Kg		07/14/22 16:44	07/18/22 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*07/14/22 16:44*	*07/18/22 17:45*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*07/14/22 16:44*	*07/18/22 17:45*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00290	J	0.00398	0.00100	mg/Kg			07/19/22 09:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	58.7		50.0	15.0	mg/Kg			07/14/22 09:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	21.5	J B	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 19:31	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 19:31	1
Oil Range Organics (Over C28-C36)	37.2	J	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 19:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*07/13/22 09:24*	*07/13/22 19:31*	*1*
o-Terphenyl	*94*		*70 - 130*	*07/13/22 09:24*	*07/13/22 19:31*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.14		5.00	0.858	mg/Kg			07/16/22 16:47	1

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Client Sample Results

Client: GHD Services Inc. Job ID: 880-16810-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Client Sample ID: BH-15A
Lab Sample ID: 880-16810-12
Date Collected: 07/11/22 00:00 **Matrix: Solid**
Date Received: 07/12/22 11:15

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		07/14/22 16:44	07/18/22 18:05	1
Toluene	**0.00267**		0.00200	0.000455	mg/Kg		07/14/22 16:44	07/18/22 18:05	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		07/14/22 16:44	07/18/22 18:05	1
m-Xylene & p-Xylene	**0.00297**	**J**	0.00399	0.00101	mg/Kg		07/14/22 16:44	07/18/22 18:05	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		07/14/22 16:44	07/18/22 18:05	1
Xylenes, Total	**0.00297**	**J**	0.00399	0.00101	mg/Kg		07/14/22 16:44	07/18/22 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*07/14/22 16:44*	*07/18/22 18:05*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*07/14/22 16:44*	*07/18/22 18:05*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00564**		0.00399	0.00101	mg/Kg			07/19/22 09:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**74.8**		50.0	15.0	mg/Kg			07/14/22 09:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**23.9**	**J B**	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 19:52	1
Diesel Range Organics (Over C10-C28)	**15.0**	**J B**	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 19:52	1
Oil Range Organics (Over C28-C36)	**35.9**	**J**	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*07/13/22 09:24*	*07/13/22 19:52*	*1*
o-Terphenyl	*93*		*70 - 130*	*07/13/22 09:24*	*07/13/22 19:52*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.0**		4.99	0.857	mg/Kg			07/16/22 17:15	1

Client Sample ID: BH-16A
Lab Sample ID: 880-16810-13
Date Collected: 07/11/22 00:00 **Matrix: Solid**
Date Received: 07/12/22 11:15

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000388	U	0.00202	0.000388	mg/Kg		07/14/22 16:44	07/18/22 18:26	1
Toluene	<0.000460	U	0.00202	0.000460	mg/Kg		07/14/22 16:44	07/18/22 18:26	1
Ethylbenzene	<0.000570	U	0.00202	0.000570	mg/Kg		07/14/22 16:44	07/18/22 18:26	1
m-Xylene & p-Xylene	<0.00102	U	0.00403	0.00102	mg/Kg		07/14/22 16:44	07/18/22 18:26	1
o-Xylene	<0.000347	U	0.00202	0.000347	mg/Kg		07/14/22 16:44	07/18/22 18:26	1
Xylenes, Total	<0.00102	U	0.00403	0.00102	mg/Kg		07/14/22 16:44	07/18/22 18:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*07/14/22 16:44*	*07/18/22 18:26*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*07/14/22 16:44*	*07/18/22 18:26*	*1*

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16810-1
SDG: Lea County NM

Client Sample ID: BH-16A

Date Collected: 07/11/22 00:00
Date Received: 07/12/22 11:15

Lab Sample ID: 880-16810-13

Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00403	0.00102	mg/Kg			07/19/22 09:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**33.3**	**J**	49.8	14.9	mg/Kg			07/14/22 09:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.9	U	49.8	14.9	mg/Kg		07/13/22 15:06	07/14/22 18:05	1
Diesel Range Organics (Over C10-C28)	**33.3**	**J**	49.8	14.9	mg/Kg		07/13/22 15:06	07/14/22 18:05	1
Oil Range Organics (Over C28-C36)	<14.9	U	49.8	14.9	mg/Kg		07/13/22 15:06	07/14/22 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*67*	*S1-*	*70 - 130*	*07/13/22 15:06*	*07/14/22 18:05*	*1*
o-Terphenyl	*80*		*70 - 130*	*07/13/22 15:06*	*07/14/22 18:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9.54**		5.04	0.865	mg/Kg			07/16/22 17:24	1

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16810-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-16810-1	BH-3A	115	107
880-16810-1 MS	BH-3A	113	92
880-16810-1 MSD	BH-3A	87	96
880-16810-2	BH-4A	104	93
880-16810-3	BH-5A	97	99
880-16810-4	BH-6A	115	103
880-16810-5	BH-7A	112	95
880-16810-6	BH-9A	110	95
880-16810-7	BH-10A	94	94
880-16810-8	BH-11A	50 S1-	95
880-16810-9	BH-12A	114	95
880-16810-10	BH-13A	98	98
880-16810-11	BH-14A	107	96
880-16810-12	BH-15A	92	104
880-16810-13	BH-16A	108	92
LCS 880-29773/1-A	Lab Control Sample	106	100
LCSD 880-29773/2-A	Lab Control Sample Dup	106	96
MB 880-29773/5-A	Method Blank	97	96

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**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-16810-1	BH-3A	98	111
880-16810-2	BH-4A	85	98
880-16810-3	BH-5A	83	92
880-16810-4	BH-6A	84	95
880-16810-5	BH-7A	94	101
880-16810-6	BH-9A	82	91
880-16810-7	BH-10A	86	98
880-16810-8	BH-11A	81	92
880-16810-9	BH-12A	87	96
880-16810-10	BH-13A	86	97
880-16810-11	BH-14A	85	94
880-16810-12	BH-15A	83	93
880-16810-13	BH-16A	67 S1-	80
LCS 880-29622/2-A	Lab Control Sample	100	117
LCS 880-29672/2-A	Lab Control Sample	97	110
LCSD 880-29622/3-A	Lab Control Sample Dup	108	125
LCSD 880-29672/3-A	Lab Control Sample Dup	113	126
MB 880-29622/1-A	Method Blank	87	113
MB 880-29672/1-A	Method Blank	88	102

Surrogate Legend

1CO = 1-Chlorooctane

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16810-1
SDG: Lea County NM

OTPH = o-Terphenyl

QC Sample Results

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16810-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-29773/5-A
Matrix: Solid
Analysis Batch: 29894

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29773

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		07/14/22 16:44	07/18/22 12:19	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		07/14/22 16:44	07/18/22 12:19	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		07/14/22 16:44	07/18/22 12:19	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		07/14/22 16:44	07/18/22 12:19	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		07/14/22 16:44	07/18/22 12:19	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		07/14/22 16:44	07/18/22 12:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*07/14/22 16:44*	*07/18/22 12:19*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*07/14/22 16:44*	*07/18/22 12:19*	*1*

Lab Sample ID: LCS 880-29773/1-A
Matrix: Solid
Analysis Batch: 29894

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29773

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09535		mg/Kg		95	70 - 130
Toluene	0.100	0.09420		mg/Kg		94	70 - 130
Ethylbenzene	0.100	0.09196		mg/Kg		92	70 - 130
m-Xylene & p-Xylene	0.200	0.1938		mg/Kg		97	70 - 130
o-Xylene	0.100	0.1030		mg/Kg		103	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-29773/2-A
Matrix: Solid
Analysis Batch: 29894

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29773

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.08621		mg/Kg		86	70 - 130	10	35
Toluene	0.100	0.09273		mg/Kg		93	70 - 130	2	35
Ethylbenzene	0.100	0.09255		mg/Kg		93	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.1968		mg/Kg		98	70 - 130	2	35
o-Xylene	0.100	0.1055		mg/Kg		105	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 880-16810-1 MS
Matrix: Solid
Analysis Batch: 29894

Client Sample ID: BH-3A
Prep Type: Total/NA
Prep Batch: 29773

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.00256		0.100	0.07776		mg/Kg		75	70 - 130
Toluene	0.00205	F1	0.100	0.08486		mg/Kg		82	70 - 130

QC Sample Results

Client: GHD Services Inc. Job ID: 880-16810-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

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

Lab Sample ID: 880-16810-1 MS **Client Sample ID: BH-3A**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 29894 **Prep Batch: 29773**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	0.00345	F1	0.100	0.08141		mg/Kg		78	70 - 130
m-Xylene & p-Xylene	0.0135	F1 F2	0.201	0.1739		mg/Kg		80	70 - 130
o-Xylene	0.00687	F1 F2	0.100	0.09279		mg/Kg		86	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: 880-16810-1 MSD **Client Sample ID: BH-3A**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 29894 **Prep Batch: 29773**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.00256		0.0994	0.07907		mg/Kg		77	70 - 130	2	35
Toluene	0.00205	F1	0.0994	0.06554	F1	mg/Kg		64	70 - 130	26	35
Ethylbenzene	0.00345	F1	0.0994	0.05957	F1	mg/Kg		56	70 - 130	31	35
m-Xylene & p-Xylene	0.0135	F1 F2	0.199	0.1176	F1 F2	mg/Kg		52	70 - 130	39	35
o-Xylene	0.00687	F1 F2	0.0994	0.06403	F1 F2	mg/Kg		58	70 - 130	37	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

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

Lab Sample ID: MB 880-29622/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 29609 **Prep Batch: 29622**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	17.22	J	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 11:02	1
Diesel Range Organics (Over C10-C28)	20.90	J	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 11:02	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		07/13/22 09:24	07/13/22 11:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*07/13/22 09:24*	*07/13/22 11:02*	*1*
o-Terphenyl	*113*		*70 - 130*	*07/13/22 09:24*	*07/13/22 11:02*	*1*

Lab Sample ID: LCS 880-29622/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 29609 **Prep Batch: 29622**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	846.2		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1044		mg/Kg		104	70 - 130

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16810-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-29622/2-A
Matrix: Solid
Analysis Batch: 29609

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29622

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	117		70 - 130

Lab Sample ID: LCSD 880-29622/3-A
Matrix: Solid
Analysis Batch: 29609

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29622

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	776.1		mg/Kg		78	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	1129		mg/Kg		113	70 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	125		70 - 130

Lab Sample ID: MB 880-29672/1-A
Matrix: Solid
Analysis Batch: 29692

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29672

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	19.99	J	50.0	15.0	mg/Kg		07/13/22 15:06	07/14/22 09:52	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		07/13/22 15:06	07/14/22 09:52	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		07/13/22 15:06	07/14/22 09:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130	07/13/22 15:06	07/14/22 09:52	1
o-Terphenyl	102		70 - 130	07/13/22 15:06	07/14/22 09:52	1

Lab Sample ID: LCS 880-29672/2-A
Matrix: Solid
Analysis Batch: 29692

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29672

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	989.6		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)			1000	865.7		mg/Kg		87	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	110		70 - 130

QC Sample Results

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16810-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-29672/3-A
Matrix: Solid
Analysis Batch: 29692

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29672

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1004		mg/Kg		100	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	1051		mg/Kg		105	70 - 130	19	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*113*		*70 - 130*
o-Terphenyl	*126*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-29572/1-A
Matrix: Solid
Analysis Batch: 29761

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.858	U	5.00	0.858	mg/Kg			07/15/22 12:24	1

Lab Sample ID: LCS 880-29572/2-A
Matrix: Solid
Analysis Batch: 29761

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	266.6		mg/Kg		107	90 - 110		

Lab Sample ID: LCSD 880-29572/3-A
Matrix: Solid
Analysis Batch: 29761

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	267.0		mg/Kg		107	90 - 110	0	20

Lab Sample ID: 880-16810-2 MS
Matrix: Solid
Analysis Batch: 29761

Client Sample ID: BH-4A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	9.08	F1	250	287.0	F1	mg/Kg		111	90 - 110		

Lab Sample ID: 880-16810-2 MSD
Matrix: Solid
Analysis Batch: 29761

Client Sample ID: BH-4A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	9.08	F1	250	287.6	F1	mg/Kg		112	90 - 110	0	20

QC Sample Results

Client: GHD Services Inc. Job ID: 880-16810-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-29660/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 29862

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.858	U	5.00	0.858	mg/Kg			07/16/22 14:53	1

Lab Sample ID: LCS 880-29660/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 29862

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	264.9		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-29660/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 29862

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	264.8		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 880-16810-7 MS **Client Sample ID: BH-10A**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 29862

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	4.11	J F1	250	287.0	F1	mg/Kg		113	90 - 110		

Lab Sample ID: 880-16810-7 MSD **Client Sample ID: BH-10A**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 29862

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	4.11	J F1	250	289.5	F1	mg/Kg		114	90 - 110	1	20

QC Association Summary

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16810-1
SDG: Lea County NM

GC VOA

Prep Batch: 29773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16810-1	BH-3A	Total/NA	Solid	5035	
880-16810-2	BH-4A	Total/NA	Solid	5035	
880-16810-3	BH-5A	Total/NA	Solid	5035	
880-16810-4	BH-6A	Total/NA	Solid	5035	
880-16810-5	BH-7A	Total/NA	Solid	5035	
880-16810-6	BH-9A	Total/NA	Solid	5035	
880-16810-7	BH-10A	Total/NA	Solid	5035	
880-16810-8	BH-11A	Total/NA	Solid	5035	
880-16810-9	BH-12A	Total/NA	Solid	5035	
880-16810-10	BH-13A	Total/NA	Solid	5035	
880-16810-11	BH-14A	Total/NA	Solid	5035	
880-16810-12	BH-15A	Total/NA	Solid	5035	
880-16810-13	BH-16A	Total/NA	Solid	5035	
MB 880-29773/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-29773/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-29773/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-16810-1 MS	BH-3A	Total/NA	Solid	5035	
880-16810-1 MSD	BH-3A	Total/NA	Solid	5035	

Analysis Batch: 29894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16810-1	BH-3A	Total/NA	Solid	8021B	29773
880-16810-2	BH-4A	Total/NA	Solid	8021B	29773
880-16810-3	BH-5A	Total/NA	Solid	8021B	29773
880-16810-4	BH-6A	Total/NA	Solid	8021B	29773
880-16810-5	BH-7A	Total/NA	Solid	8021B	29773
880-16810-6	BH-9A	Total/NA	Solid	8021B	29773
880-16810-7	BH-10A	Total/NA	Solid	8021B	29773
880-16810-8	BH-11A	Total/NA	Solid	8021B	29773
880-16810-9	BH-12A	Total/NA	Solid	8021B	29773
880-16810-10	BH-13A	Total/NA	Solid	8021B	29773
880-16810-11	BH-14A	Total/NA	Solid	8021B	29773
880-16810-12	BH-15A	Total/NA	Solid	8021B	29773
880-16810-13	BH-16A	Total/NA	Solid	8021B	29773
MB 880-29773/5-A	Method Blank	Total/NA	Solid	8021B	29773
LCS 880-29773/1-A	Lab Control Sample	Total/NA	Solid	8021B	29773
LCSD 880-29773/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	29773
880-16810-1 MS	BH-3A	Total/NA	Solid	8021B	29773
880-16810-1 MSD	BH-3A	Total/NA	Solid	8021B	29773

Analysis Batch: 30031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16810-1	BH-3A	Total/NA	Solid	Total BTEX	
880-16810-2	BH-4A	Total/NA	Solid	Total BTEX	
880-16810-3	BH-5A	Total/NA	Solid	Total BTEX	
880-16810-4	BH-6A	Total/NA	Solid	Total BTEX	
880-16810-5	BH-7A	Total/NA	Solid	Total BTEX	
880-16810-6	BH-9A	Total/NA	Solid	Total BTEX	
880-16810-7	BH-10A	Total/NA	Solid	Total BTEX	
880-16810-8	BH-11A	Total/NA	Solid	Total BTEX	
880-16810-9	BH-12A	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: GHD Services Inc. Job ID: 880-16810-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

GC VOA (Continued)

Analysis Batch: 30031 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16810-10	BH-13A	Total/NA	Solid	Total BTEX	
880-16810-11	BH-14A	Total/NA	Solid	Total BTEX	
880-16810-12	BH-15A	Total/NA	Solid	Total BTEX	
880-16810-13	BH-16A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 29609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16810-1	BH-3A	Total/NA	Solid	8015B NM	29622
880-16810-2	BH-4A	Total/NA	Solid	8015B NM	29622
880-16810-3	BH-5A	Total/NA	Solid	8015B NM	29622
880-16810-4	BH-6A	Total/NA	Solid	8015B NM	29622
880-16810-5	BH-7A	Total/NA	Solid	8015B NM	29622
880-16810-6	BH-9A	Total/NA	Solid	8015B NM	29622
880-16810-7	BH-10A	Total/NA	Solid	8015B NM	29622
880-16810-8	BH-11A	Total/NA	Solid	8015B NM	29622
880-16810-9	BH-12A	Total/NA	Solid	8015B NM	29622
880-16810-10	BH-13A	Total/NA	Solid	8015B NM	29622
880-16810-11	BH-14A	Total/NA	Solid	8015B NM	29622
880-16810-12	BH-15A	Total/NA	Solid	8015B NM	29622
MB 880-29622/1-A	Method Blank	Total/NA	Solid	8015B NM	29622
LCS 880-29622/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29622
LCSD 880-29622/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29622

Prep Batch: 29622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16810-1	BH-3A	Total/NA	Solid	8015NM Prep	
880-16810-2	BH-4A	Total/NA	Solid	8015NM Prep	
880-16810-3	BH-5A	Total/NA	Solid	8015NM Prep	
880-16810-4	BH-6A	Total/NA	Solid	8015NM Prep	
880-16810-5	BH-7A	Total/NA	Solid	8015NM Prep	
880-16810-6	BH-9A	Total/NA	Solid	8015NM Prep	
880-16810-7	BH-10A	Total/NA	Solid	8015NM Prep	
880-16810-8	BH-11A	Total/NA	Solid	8015NM Prep	
880-16810-9	BH-12A	Total/NA	Solid	8015NM Prep	
880-16810-10	BH-13A	Total/NA	Solid	8015NM Prep	
880-16810-11	BH-14A	Total/NA	Solid	8015NM Prep	
880-16810-12	BH-15A	Total/NA	Solid	8015NM Prep	
MB 880-29622/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29622/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-29622/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Prep Batch: 29672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16810-13	BH-16A	Total/NA	Solid	8015NM Prep	
MB 880-29672/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29672/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-29672/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16810-1
SDG: Lea County NM

GC Semi VOA

Analysis Batch: 29692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16810-13	BH-16A	Total/NA	Solid	8015B NM	29672
MB 880-29672/1-A	Method Blank	Total/NA	Solid	8015B NM	29672
LCS 880-29672/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29672
LCSD 880-29672/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29672

Analysis Batch: 29712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16810-1	BH-3A	Total/NA	Solid	8015 NM	
880-16810-2	BH-4A	Total/NA	Solid	8015 NM	
880-16810-3	BH-5A	Total/NA	Solid	8015 NM	
880-16810-4	BH-6A	Total/NA	Solid	8015 NM	
880-16810-5	BH-7A	Total/NA	Solid	8015 NM	
880-16810-6	BH-9A	Total/NA	Solid	8015 NM	
880-16810-7	BH-10A	Total/NA	Solid	8015 NM	
880-16810-8	BH-11A	Total/NA	Solid	8015 NM	
880-16810-9	BH-12A	Total/NA	Solid	8015 NM	
880-16810-10	BH-13A	Total/NA	Solid	8015 NM	
880-16810-11	BH-14A	Total/NA	Solid	8015 NM	
880-16810-12	BH-15A	Total/NA	Solid	8015 NM	
880-16810-13	BH-16A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 29572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16810-1	BH-3A	Soluble	Solid	DI Leach	
880-16810-2	BH-4A	Soluble	Solid	DI Leach	
880-16810-3	BH-5A	Soluble	Solid	DI Leach	
880-16810-4	BH-6A	Soluble	Solid	DI Leach	
880-16810-5	BH-7A	Soluble	Solid	DI Leach	
880-16810-6	BH-9A	Soluble	Solid	DI Leach	
MB 880-29572/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-29572/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-29572/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-16810-2 MS	BH-4A	Soluble	Solid	DI Leach	
880-16810-2 MSD	BH-4A	Soluble	Solid	DI Leach	

Leach Batch: 29660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16810-7	BH-10A	Soluble	Solid	DI Leach	
880-16810-8	BH-11A	Soluble	Solid	DI Leach	
880-16810-9	BH-12A	Soluble	Solid	DI Leach	
880-16810-10	BH-13A	Soluble	Solid	DI Leach	
880-16810-11	BH-14A	Soluble	Solid	DI Leach	
880-16810-12	BH-15A	Soluble	Solid	DI Leach	
880-16810-13	BH-16A	Soluble	Solid	DI Leach	
MB 880-29660/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-29660/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-29660/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-16810-7 MS	BH-10A	Soluble	Solid	DI Leach	
880-16810-7 MSD	BH-10A	Soluble	Solid	DI Leach	

QC Association Summary

Client: GHD Services Inc. Job ID: 880-16810-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

HPLC/IC

Analysis Batch: 29761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16810-1	BH-3A	Soluble	Solid	300.0	29572
880-16810-2	BH-4A	Soluble	Solid	300.0	29572
880-16810-3	BH-5A	Soluble	Solid	300.0	29572
880-16810-4	BH-6A	Soluble	Solid	300.0	29572
880-16810-5	BH-7A	Soluble	Solid	300.0	29572
880-16810-6	BH-9A	Soluble	Solid	300.0	29572
MB 880-29572/1-A	Method Blank	Soluble	Solid	300.0	29572
LCS 880-29572/2-A	Lab Control Sample	Soluble	Solid	300.0	29572
LCSD 880-29572/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	29572
880-16810-2 MS	BH-4A	Soluble	Solid	300.0	29572
880-16810-2 MSD	BH-4A	Soluble	Solid	300.0	29572

Analysis Batch: 29862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16810-7	BH-10A	Soluble	Solid	300.0	29660
880-16810-8	BH-11A	Soluble	Solid	300.0	29660
880-16810-9	BH-12A	Soluble	Solid	300.0	29660
880-16810-10	BH-13A	Soluble	Solid	300.0	29660
880-16810-11	BH-14A	Soluble	Solid	300.0	29660
880-16810-12	BH-15A	Soluble	Solid	300.0	29660
880-16810-13	BH-16A	Soluble	Solid	300.0	29660
MB 880-29660/1-A	Method Blank	Soluble	Solid	300.0	29660
LCS 880-29660/2-A	Lab Control Sample	Soluble	Solid	300.0	29660
LCSD 880-29660/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	29660
880-16810-7 MS	BH-10A	Soluble	Solid	300.0	29660
880-16810-7 MSD	BH-10A	Soluble	Solid	300.0	29660

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16810-1
SDG: Lea County NM

Client Sample ID: BH-3A
Date Collected: 07/11/22 10:30
Date Received: 07/12/22 11:15

Lab Sample ID: 880-16810-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	29773	07/14/22 16:44	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29894	07/18/22 12:48	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30031	07/19/22 09:21	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29712	07/14/22 09:34	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29622	07/13/22 09:24	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29609	07/13/22 15:38	SM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	29572	07/12/22 16:02	KS	XEN MID
Soluble	Analysis	300.0		1			29761	07/15/22 14:51	CH	XEN MID

Client Sample ID: BH-4A
Date Collected: 07/11/22 10:40
Date Received: 07/12/22 11:15

Lab Sample ID: 880-16810-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	29773	07/14/22 16:44	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29894	07/18/22 13:09	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30031	07/19/22 09:21	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29712	07/14/22 09:34	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29622	07/13/22 09:24	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29609	07/13/22 15:59	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	29572	07/12/22 16:02	KS	XEN MID
Soluble	Analysis	300.0		1			29761	07/15/22 15:00	CH	XEN MID

Client Sample ID: BH-5A
Date Collected: 07/11/22 10:50
Date Received: 07/12/22 11:15

Lab Sample ID: 880-16810-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	29773	07/14/22 16:44	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29894	07/18/22 13:29	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30031	07/19/22 09:21	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29712	07/14/22 09:34	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29622	07/13/22 09:24	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29609	07/13/22 16:42	SM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	29572	07/12/22 16:02	KS	XEN MID
Soluble	Analysis	300.0		1			29761	07/15/22 15:28	CH	XEN MID

Client Sample ID: BH-6A
Date Collected: 07/11/22 11:00
Date Received: 07/12/22 11:15

Lab Sample ID: 880-16810-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	29773	07/14/22 16:44	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29894	07/18/22 13:49	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30031	07/19/22 09:21	SM	XEN MID

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16810-1
SDG: Lea County NM

Client Sample ID: BH-6A
Date Collected: 07/11/22 11:00
Date Received: 07/12/22 11:15

Lab Sample ID: 880-16810-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			29712	07/14/22 09:34	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29622	07/13/22 09:24	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29609	07/13/22 17:03	SM	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	29572	07/12/22 16:02	KS	XEN MID
Soluble	Analysis	300.0		1			29761	07/15/22 15:37	CH	XEN MID

Client Sample ID: BH-7A
Date Collected: 07/11/22 11:10
Date Received: 07/12/22 11:15

Lab Sample ID: 880-16810-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	29773	07/14/22 16:44	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29894	07/18/22 14:10	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30031	07/19/22 09:21	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29712	07/14/22 09:34	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29622	07/13/22 09:24	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29609	07/13/22 17:24	SM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	29572	07/12/22 16:02	KS	XEN MID
Soluble	Analysis	300.0		1			29761	07/15/22 16:05	CH	XEN MID

Client Sample ID: BH-9A
Date Collected: 07/11/22 11:20
Date Received: 07/12/22 11:15

Lab Sample ID: 880-16810-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	29773	07/14/22 16:44	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29894	07/18/22 14:30	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30031	07/19/22 09:21	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29712	07/14/22 09:34	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	29622	07/13/22 09:24	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29609	07/13/22 17:46	SM	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	29572	07/12/22 16:02	KS	XEN MID
Soluble	Analysis	300.0		1			29761	07/15/22 16:14	CH	XEN MID

Client Sample ID: BH-10A
Date Collected: 07/11/22 11:30
Date Received: 07/12/22 11:15

Lab Sample ID: 880-16810-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	29773	07/14/22 16:44	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29894	07/18/22 14:51	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30031	07/19/22 09:21	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29712	07/14/22 09:34	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29622	07/13/22 09:24	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29609	07/13/22 18:07	SM	XEN MID

Lab Chronicle

Client: GHD Services Inc. Job ID: 880-16810-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Client Sample ID: BH-10A
Date Collected: 07/11/22 11:30
Date Received: 07/12/22 11:15

Lab Sample ID: 880-16810-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	29660	07/13/22 12:39	SMC	XEN MID
Soluble	Analysis	300.0		1			29862	07/16/22 15:21	CH	XEN MID

Client Sample ID: BH-11A
Date Collected: 07/11/22 11:40
Date Received: 07/12/22 11:15

Lab Sample ID: 880-16810-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	29773	07/14/22 16:44	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29894	07/18/22 15:11	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30031	07/19/22 09:21	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29712	07/14/22 09:34	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	29622	07/13/22 09:24	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29609	07/13/22 18:28	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	29660	07/13/22 12:39	SMC	XEN MID
Soluble	Analysis	300.0		1			29862	07/16/22 15:48	CH	XEN MID

Client Sample ID: BH-12A
Date Collected: 07/11/22 11:50
Date Received: 07/12/22 11:15

Lab Sample ID: 880-16810-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	29773	07/14/22 16:44	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29894	07/18/22 15:32	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30031	07/19/22 09:21	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29712	07/14/22 09:34	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29622	07/13/22 09:24	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29609	07/13/22 18:49	SM	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	29660	07/13/22 12:39	SMC	XEN MID
Soluble	Analysis	300.0		1			29862	07/16/22 15:57	CH	XEN MID

Client Sample ID: BH-13A
Date Collected: 07/11/22 12:00
Date Received: 07/12/22 11:15

Lab Sample ID: 880-16810-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	29773	07/14/22 16:44	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29894	07/18/22 15:52	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30031	07/19/22 09:21	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29712	07/14/22 09:34	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29622	07/13/22 09:24	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29609	07/13/22 19:10	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	29660	07/13/22 12:39	SMC	XEN MID
Soluble	Analysis	300.0		1			29862	07/16/22 16:07	CH	XEN MID

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16810-1
SDG: Lea County NM

Client Sample ID: BH-14A
Date Collected: 07/11/22 00:00
Date Received: 07/12/22 11:15

Lab Sample ID: 880-16810-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	29773	07/14/22 16:44	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29894	07/18/22 17:45	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30031	07/19/22 09:21	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29712	07/14/22 09:34	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29622	07/13/22 09:24	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29609	07/13/22 19:31	SM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	29660	07/13/22 12:39	SMC	XEN MID
Soluble	Analysis	300.0		1			29862	07/16/22 16:47	CH	XEN MID

Client Sample ID: BH-15A
Date Collected: 07/11/22 00:00
Date Received: 07/12/22 11:15

Lab Sample ID: 880-16810-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	29773	07/14/22 16:44	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29894	07/18/22 18:05	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30031	07/19/22 09:21	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29712	07/14/22 09:34	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	29622	07/13/22 09:24	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29609	07/13/22 19:52	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	29660	07/13/22 12:39	SMC	XEN MID
Soluble	Analysis	300.0		1			29862	07/16/22 17:15	CH	XEN MID

Client Sample ID: BH-16A
Date Collected: 07/11/22 00:00
Date Received: 07/12/22 11:15

Lab Sample ID: 880-16810-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	29773	07/14/22 16:44	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29894	07/18/22 18:26	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30031	07/19/22 09:21	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29712	07/14/22 09:34	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	29672	07/13/22 15:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29692	07/14/22 18:05	SM	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	29660	07/13/22 12:39	SMC	XEN MID
Soluble	Analysis	300.0		1			29862	07/16/22 17:24	CH	XEN MID

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

Accreditation/Certification Summary

Client: GHD Services Inc. Job ID: 880-16810-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: GHD Services Inc. Job ID: 880-16810-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (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.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16810-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-16810-1	BH-3A	Solid	07/11/22 10:30	07/12/22 11:15	1'
880-16810-2	BH-4A	Solid	07/11/22 10:40	07/12/22 11:15	1'
880-16810-3	BH-5A	Solid	07/11/22 10:50	07/12/22 11:15	1'
880-16810-4	BH-6A	Solid	07/11/22 11:00	07/12/22 11:15	1'
880-16810-5	BH-7A	Solid	07/11/22 11:10	07/12/22 11:15	1'
880-16810-6	BH-9A	Solid	07/11/22 11:20	07/12/22 11:15	1'
880-16810-7	BH-10A	Solid	07/11/22 11:30	07/12/22 11:15	1'
880-16810-8	BH-11A	Solid	07/11/22 11:40	07/12/22 11:15	1'
880-16810-9	BH-12A	Solid	07/11/22 11:50	07/12/22 11:15	1'
880-16810-10	BH-13A	Solid	07/11/22 12:00	07/12/22 11:15	1'
880-16810-11	BH-14A	Solid	07/11/22 00:00	07/12/22 11:15	
880-16810-12	BH-15A	Solid	07/11/22 00:00	07/12/22 11:15	
880-16810-13	BH-16A	Solid	07/11/22 00:00	07/12/22 11:15	

Xenco Laboratories

The Environmental Lab of Texas

CHAIN OF CUSTODY RECORD

12600 West I-20 East
Odessa, Texas 79765

880-16810 Chain of Custody

Project Manager: Becky.Haskell@GHD.com
Company Name: GHD
Company Address: 2135 S. Loop 250 W.
City/State/Zip: Midland, TX 79703
Telephone No: 432-686-0086 Fax No:
Sampler Signature:
e-mail: Heath.Boyd@GHD.com

Project Name: Ranco Federal 22 Battery 1
Project #: 12580761
Project Loc: Lea County, NM
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #:

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge / GW=Groundwater S=Soil/Solid / NP=Non-Potable Specify Other	Analyze For: TCLP / TOTAL: TPH 418.1 8015M	TPH TX 1005 TX 1006	Cations (Ca Mg Na K)	Anions (Cl SO4 Alkalinity)	SAR / ESP / CEC	Metals As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N O R M	Chloride 300.0	RUSH TAT (Pre-Schedule) 24 48 72 hrs	Standard TAT
	BH-3		1'	7/11/22	1030		1							1		S	X							X			X		X
	BH-4		↓	↓	1040		1							1		↓	X							X			X		X
	BH-5				1050		1							1			X							X			X		X
	BH-6				1100		1							1			X							X			X		X
	BH-7				1110		1							1			X							X			X		X
	BH-8				1120		1							1			X							X			X		X
	BH-10				1130		1							1			X							X			X		X
	BH-11				1140		1							1			X							X			X		X
	BH-12				1150		1							1			X							X			X		X
	BH-13		↓	↓	1200		1							1		↓	X							X			X		X

Special Instructions: Please Email: Becky, Heath, Nikki.Michler@CDEVINC.com
Direct Bill to: Centennial Resources Production Attn to Nikki

Relinquished by	Date	Time	Received by	Date	Time
	7/11/22	1450	Esperanza Carrillo		
Relinquished by	Date	Time	Received by	Date	Time
				7/12/22	1115
Relinquished by	Date	Time	Received by ELOT	Date	Time

Laboratory Comments.
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
Labels on container(s) Y N
Custody seals on container(s) Y N
Custody seals on cooler(s) Y N
Sample Hand Delivered Y N
by Sampler/Client Rep ? Y N
by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt	As Read	Corrected
	1.3	1. °C

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 880-16810-1
SDG Number: Lea County NM

Login Number: 16810
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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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ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-16876-1
Laboratory Sample Delivery Group: Lea County NM
Client Project/Site: Romeo Federal 22 Battery 1

For:
GHD Services Inc.
2135 South Loop 250 West
Midland, Texas 79703

Attn: Becky Haskell

Authorized for release by:
7/21/2022 11:25:19 AM

Debbie Simmons, Project Manager
(832)986-6768
Debbie.Simmons@et.eurofinsus.com

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.

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Laboratory Job ID: 880-16876-1
SDG: Lea County NM

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Definitions/Glossary

Client: GHD Services Inc. Job ID: 880-16876-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
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: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16876-1
SDG: Lea County NM

Job ID: 880-16876-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-16876-1

Comments
per phone conversation with Heath Boyd, all samples collected this week from Romeo Battery should include a A after the ID

Receipt
The samples were received on 7/13/2022 11:00 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 was 2.4º C.

GC VOA
Method 8021B: The continuing calibration verification (CCV) associated with batch 880-30096 recovered above the upper control limit for o-Xylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-30143 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-30143/20).

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

GC Semi VOA
Method 8015B NM: The method blank for preparation batch 880-29794 and analytical batch 880-29786 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

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

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

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

Client Sample Results

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16876-1
SDG: Lea County NM

Client Sample ID: BH-19A

Date Collected: 07/12/22 10:40
Date Received: 07/13/22 11:00

Lab Sample ID: 880-16876-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0000768	U	0.000399	0.0000768	mg/Kg		07/20/22 13:38	07/20/22 20:50	1
Toluene	<0.0000910	U	0.000399	0.0000910	mg/Kg		07/20/22 13:38	07/20/22 20:50	1
Ethylbenzene	<0.000113	U	0.000399	0.000113	mg/Kg		07/20/22 13:38	07/20/22 20:50	1
m-Xylene & p-Xylene	<0.000202	U	0.000798	0.000202	mg/Kg		07/20/22 13:38	07/20/22 20:50	1
o-Xylene	<0.0000687	U	0.000399	0.0000687	mg/Kg		07/20/22 13:38	07/20/22 20:50	1
Xylenes, Total	<0.000202	U	0.000798	0.000202	mg/Kg		07/20/22 13:38	07/20/22 20:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*07/20/22 13:38*	*07/20/22 20:50*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*07/20/22 13:38*	*07/20/22 20:50*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000202	U	0.000798	0.000202	mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.0	U	49.9	15.0	mg/Kg			07/18/22 09:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		07/15/22 08:39	07/15/22 14:24	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		07/15/22 08:39	07/15/22 14:24	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		07/15/22 08:39	07/15/22 14:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*07/15/22 08:39*	*07/15/22 14:24*	*1*
o-Terphenyl	*101*		*70 - 130*	*07/15/22 08:39*	*07/15/22 14:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**24.8**		4.95	0.850	mg/Kg			07/16/22 17:43	1

Client Sample ID: BH-21A

Date Collected: 07/12/22 10:50
Date Received: 07/13/22 11:00

Lab Sample ID: 880-16876-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0000775	U	0.000402	0.0000775	mg/Kg		07/20/22 13:38	07/20/22 21:17	1
Toluene	<0.0000918	U	0.000402	0.0000918	mg/Kg		07/20/22 13:38	07/20/22 21:17	1
Ethylbenzene	<0.000114	U	0.000402	0.000114	mg/Kg		07/20/22 13:38	07/20/22 21:17	1
m-Xylene & p-Xylene	<0.000203	U	0.000805	0.000203	mg/Kg		07/20/22 13:38	07/20/22 21:17	1
o-Xylene	<0.0000692	U	0.000402	0.0000692	mg/Kg		07/20/22 13:38	07/20/22 21:17	1
Xylenes, Total	<0.000203	U	0.000805	0.000203	mg/Kg		07/20/22 13:38	07/20/22 21:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*07/20/22 13:38*	*07/20/22 21:17*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*07/20/22 13:38*	*07/20/22 21:17*	*1*

Client Sample Results

Client: GHD Services Inc. Job ID: 880-16876-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Client Sample ID: BH-21A
Lab Sample ID: 880-16876-2
Date Collected: 07/12/22 10:50
Matrix: Solid
Date Received: 07/13/22 11:00

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000203	U	0.000805	0.000203	mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**25.6**	**J**	50.0	15.0	mg/Kg			07/18/22 09:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 14:45	1
Diesel Range Organics (Over C10-C28)	**25.6**	**J B**	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 14:45	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 14:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*07/15/22 08:39*	*07/15/22 14:45*	*1*
o-Terphenyl	*86*		*70 - 130*	*07/15/22 08:39*	*07/15/22 14:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.67**	**J**	4.98	0.855	mg/Kg			07/16/22 17:52	1

Client Sample ID: BH-22A
Lab Sample ID: 880-16876-3
Date Collected: 07/12/22 11:00
Matrix: Solid
Date Received: 07/13/22 11:00

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0000765	U	0.000398	0.0000765	mg/Kg		07/20/22 13:38	07/20/22 23:03	1
Toluene	**0.000245**	**J**	0.000398	0.0000907	mg/Kg		07/20/22 13:38	07/20/22 23:03	1
Ethylbenzene	<0.000112	U	0.000398	0.000112	mg/Kg		07/20/22 13:38	07/20/22 23:03	1
m-Xylene & p-Xylene	<0.000201	U	0.000795	0.000201	mg/Kg		07/20/22 13:38	07/20/22 23:03	1
o-Xylene	<0.0000684	U	0.000398	0.0000684	mg/Kg		07/20/22 13:38	07/20/22 23:03	1
Xylenes, Total	<0.000201	U	0.000795	0.000201	mg/Kg		07/20/22 13:38	07/20/22 23:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*07/20/22 13:38*	*07/20/22 23:03*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*07/20/22 13:38*	*07/20/22 23:03*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.000245**	**J**	0.000795	0.000201	mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**29.5**	**J**	50.0	15.0	mg/Kg			07/18/22 09:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 15:06	1
Diesel Range Organics (Over C10-C28)	**29.5**	**J B**	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 15:06	1

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Client Sample Results

Client: GHD Services Inc. Job ID: 880-16876-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Client Sample ID: BH-22A
Lab Sample ID: 880-16876-3
Date Collected: 07/12/22 11:00
Matrix: Solid
Date Received: 07/13/22 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 15:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*07/15/22 08:39*	*07/15/22 15:06*	*1*
o-Terphenyl	*81*		*70 - 130*	*07/15/22 08:39*	*07/15/22 15:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9.93**		5.00	0.858	mg/Kg			07/16/22 18:01	1

Client Sample ID: BH-23A
Lab Sample ID: 880-16876-4
Date Collected: 07/12/22 11:10
Matrix: Solid
Date Received: 07/13/22 11:00

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0000768	U	0.000399	0.0000768	mg/Kg		07/20/22 13:38	07/20/22 23:29	1
Toluene	<0.0000910	U	0.000399	0.0000910	mg/Kg		07/20/22 13:38	07/20/22 23:29	1
Ethylbenzene	<0.000113	U	0.000399	0.000113	mg/Kg		07/20/22 13:38	07/20/22 23:29	1
m-Xylene & p-Xylene	<0.000202	U	0.000798	0.000202	mg/Kg		07/20/22 13:38	07/20/22 23:29	1
o-Xylene	<0.0000687	U	0.000399	0.0000687	mg/Kg		07/20/22 13:38	07/20/22 23:29	1
Xylenes, Total	<0.000202	U	0.000798	0.000202	mg/Kg		07/20/22 13:38	07/20/22 23:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*07/20/22 13:38*	*07/20/22 23:29*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*07/20/22 13:38*	*07/20/22 23:29*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000202	U	0.000798	0.000202	mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**26.0**	**J**	49.9	15.0	mg/Kg			07/18/22 09:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		07/15/22 08:39	07/15/22 15:52	1
Diesel Range Organics (Over C10-C28)	**26.0**	**J B**	49.9	15.0	mg/Kg		07/15/22 08:39	07/15/22 15:52	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		07/15/22 08:39	07/15/22 15:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*07/15/22 08:39*	*07/15/22 15:52*	*1*
o-Terphenyl	*85*		*70 - 130*	*07/15/22 08:39*	*07/15/22 15:52*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.15**	**J**	5.05	0.867	mg/Kg			07/16/22 18:29	1

Client Sample Results

Client: GHD Services Inc. Job ID: 880-16876-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Client Sample ID: BH-24A
Lab Sample ID: 880-16876-5
Date Collected: 07/12/22 11:20
Matrix: Solid
Date Received: 07/13/22 11:00

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0000768	U	0.000399	0.0000768	mg/Kg		07/20/22 13:38	07/20/22 23:54	1
Toluene	<0.0000910	U	0.000399	0.0000910	mg/Kg		07/20/22 13:38	07/20/22 23:54	1
Ethylbenzene	<0.000113	U	0.000399	0.000113	mg/Kg		07/20/22 13:38	07/20/22 23:54	1
m-Xylene & p-Xylene	<0.000202	U	0.000798	0.000202	mg/Kg		07/20/22 13:38	07/20/22 23:54	1
o-Xylene	<0.0000687	U	0.000399	0.0000687	mg/Kg		07/20/22 13:38	07/20/22 23:54	1
Xylenes, Total	<0.000202	U	0.000798	0.000202	mg/Kg		07/20/22 13:38	07/20/22 23:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*07/20/22 13:38*	*07/20/22 23:54*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*07/20/22 13:38*	*07/20/22 23:54*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000202	U	0.000798	0.000202	mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**25.0**	**J**	49.9	15.0	mg/Kg			07/18/22 09:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		07/15/22 08:39	07/15/22 16:13	1
Diesel Range Organics (Over C10-C28)	**25.0**	**J B**	49.9	15.0	mg/Kg		07/15/22 08:39	07/15/22 16:13	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		07/15/22 08:39	07/15/22 16:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*07/15/22 08:39*	*07/15/22 16:13*	*1*
o-Terphenyl	*87*		*70 - 130*	*07/15/22 08:39*	*07/15/22 16:13*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.9**		5.04	0.865	mg/Kg			07/16/22 18:38	1

Client Sample ID: BH-25A
Lab Sample ID: 880-16876-6
Date Collected: 07/12/22 11:30
Matrix: Solid
Date Received: 07/13/22 11:00

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		07/15/22 09:11	07/20/22 18:32	1
Toluene	**0.00103**	**J**	0.00200	0.000457	mg/Kg		07/15/22 09:11	07/20/22 18:32	1
Ethylbenzene	**0.000592**	**J**	0.00200	0.000566	mg/Kg		07/15/22 09:11	07/20/22 18:32	1
m-Xylene & p-Xylene	**0.00121**	**J**	0.00401	0.00101	mg/Kg		07/15/22 09:11	07/20/22 18:32	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		07/15/22 09:11	07/20/22 18:32	1
Xylenes, Total	**0.00121**	**J**	0.00401	0.00101	mg/Kg		07/15/22 09:11	07/20/22 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*07/15/22 09:11*	*07/20/22 18:32*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*07/15/22 09:11*	*07/20/22 18:32*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16876-1
SDG: Lea County NM

Client Sample ID: BH-25A

Lab Sample ID: 880-16876-6
Matrix: Solid
Date Collected: 07/12/22 11:30
Date Received: 07/13/22 11:00

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00283**	**J**	0.00401	0.00101	mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**28.2**	**J**	50.0	15.0	mg/Kg			07/18/22 09:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 16:56	1
Diesel Range Organics (Over C10-C28)	**28.2**	**J B**	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 16:56	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 16:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*07/15/22 08:39*	*07/15/22 16:56*	*1*
o-Terphenyl	*87*		*70 - 130*	*07/15/22 08:39*	*07/15/22 16:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.30**		5.04	0.865	mg/Kg			07/16/22 19:06	1

Client Sample ID: BH-26A

Lab Sample ID: 880-16876-7
Matrix: Solid
Date Collected: 07/12/22 11:40
Date Received: 07/13/22 11:00

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		07/15/22 09:11	07/20/22 18:52	1
Toluene	**0.000646**	**J**	0.00199	0.000454	mg/Kg		07/15/22 09:11	07/20/22 18:52	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		07/15/22 09:11	07/20/22 18:52	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		07/15/22 09:11	07/20/22 18:52	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		07/15/22 09:11	07/20/22 18:52	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		07/15/22 09:11	07/20/22 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*07/15/22 09:11*	*07/20/22 18:52*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*07/15/22 09:11*	*07/20/22 18:52*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.0	U	50.0	15.0	mg/Kg			07/18/22 09:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 17:17	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 17:17	1

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Client Sample Results

Client: GHD Services Inc. Job ID: 880-16876-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Client Sample ID: BH-26A
Lab Sample ID: 880-16876-7
Date Collected: 07/12/22 11:40 **Matrix: Solid**
Date Received: 07/13/22 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 17:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*07/15/22 08:39*	*07/15/22 17:17*	*1*
o-Terphenyl	*99*		*70 - 130*	*07/15/22 08:39*	*07/15/22 17:17*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.70**		4.98	0.855	mg/Kg			07/16/22 19:15	1

Client Sample ID: BH-28A
Lab Sample ID: 880-16876-8
Date Collected: 07/12/22 11:50 **Matrix: Solid**
Date Received: 07/13/22 11:00

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		07/15/22 09:11	07/20/22 19:13	1
Toluene	**0.00343**		0.00200	0.000455	mg/Kg		07/15/22 09:11	07/20/22 19:13	1
Ethylbenzene	**0.00125**	**J**	0.00200	0.000564	mg/Kg		07/15/22 09:11	07/20/22 19:13	1
m-Xylene & p-Xylene	**0.00188**	**J**	0.00399	0.00101	mg/Kg		07/15/22 09:11	07/20/22 19:13	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		07/15/22 09:11	07/20/22 19:13	1
Xylenes, Total	**0.00188**	**J**	0.00399	0.00101	mg/Kg		07/15/22 09:11	07/20/22 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*07/15/22 09:11*	*07/20/22 19:13*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*07/15/22 09:11*	*07/20/22 19:13*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00656**		0.00399	0.00101	mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**27.5**	**J**	49.9	15.0	mg/Kg			07/18/22 09:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		07/15/22 08:39	07/15/22 17:38	1
Diesel Range Organics (Over C10-C28)	**27.5**	**J B**	49.9	15.0	mg/Kg		07/15/22 08:39	07/15/22 17:38	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		07/15/22 08:39	07/15/22 17:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*07/15/22 08:39*	*07/15/22 17:38*	*1*
o-Terphenyl	*83*		*70 - 130*	*07/15/22 08:39*	*07/15/22 17:38*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.4**		5.00	0.858	mg/Kg			07/16/22 19:24	1

Client Sample Results

Client: GHD Services Inc. Job ID: 880-16876-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Client Sample ID: BH-30A
Date Collected: 07/12/22 12:00
Date Received: 07/13/22 11:00

Lab Sample ID: 880-16876-9
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000566	J	0.00201	0.000387	mg/Kg		07/15/22 09:11	07/20/22 19:33	1
Toluene	0.00421		0.00201	0.000459	mg/Kg		07/15/22 09:11	07/20/22 19:33	1
Ethylbenzene	0.00248		0.00201	0.000568	mg/Kg		07/15/22 09:11	07/20/22 19:33	1
m-Xylene & p-Xylene	0.00299	J	0.00402	0.00102	mg/Kg		07/15/22 09:11	07/20/22 19:33	1
o-Xylene	0.000673	J	0.00201	0.000346	mg/Kg		07/15/22 09:11	07/20/22 19:33	1
Xylenes, Total	0.00366	J	0.00402	0.00102	mg/Kg		07/15/22 09:11	07/20/22 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*07/15/22 09:11*	*07/20/22 19:33*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*07/15/22 09:11*	*07/20/22 19:33*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0109		0.00402	0.00102	mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	25.1	J	50.0	15.0	mg/Kg			07/18/22 09:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 17:59	1
Diesel Range Organics (Over C10-C28)	25.1	J B	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 17:59	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 17:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*07/15/22 08:39*	*07/15/22 17:59*	*1*
o-Terphenyl	*87*		*70 - 130*	*07/15/22 08:39*	*07/15/22 17:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	58.0		4.99	0.857	mg/Kg			07/16/22 19:33	1

Surrogate Summary

Client: GHD Services Inc. Job ID: 880-16876-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-16876-1	BH-19A	89	106
880-16876-2	BH-21A	85	93
880-16876-3	BH-22A	103	98
880-16876-4	BH-23A	96	93
880-16876-5	BH-24A	80	96
880-16876-6	BH-25A	109	96
880-16876-7	BH-26A	107	98
880-16876-8	BH-28A	107	88
880-16876-9	BH-30A	102	96
LCS 880-29817/1-A	Lab Control Sample	109	97
LCS 880-30144/1-A	Lab Control Sample	102	108
LCSD 880-29817/2-A	Lab Control Sample Dup	101	95
LCSD 880-30144/2-A	Lab Control Sample Dup	102	97
MB 880-29817/5-A	Method Blank	98	96
MB 880-30144/5-A	Method Blank	74	96

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**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-16876-1	BH-19A	92	101
880-16876-2	BH-21A	81	86
880-16876-3	BH-22A	76	81
880-16876-4	BH-23A	79	85
880-16876-5	BH-24A	80	87
880-16876-6	BH-25A	80	87
880-16876-7	BH-26A	88	99
880-16876-8	BH-28A	79	83
880-16876-9	BH-30A	80	87
LCS 880-29794/2-A	Lab Control Sample	108	118
LCSD 880-29794/3-A	Lab Control Sample Dup	114	122
MB 880-29794/1-A	Method Blank	103	119

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16876-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-29817/5-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29817

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		07/15/22 09:11	07/20/22 12:46	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		07/15/22 09:11	07/20/22 12:46	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		07/15/22 09:11	07/20/22 12:46	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		07/15/22 09:11	07/20/22 12:46	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		07/15/22 09:11	07/20/22 12:46	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		07/15/22 09:11	07/20/22 12:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*07/15/22 09:11*	*07/20/22 12:46*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*07/15/22 09:11*	*07/20/22 12:46*	*1*

Lab Sample ID: LCS 880-29817/1-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29817

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1048		mg/Kg		105	70 - 130
Toluene	0.100	0.1037		mg/Kg		104	70 - 130
Ethylbenzene	0.100	0.1069		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	0.200	0.2278		mg/Kg		114	70 - 130
o-Xylene	0.100	0.1203		mg/Kg		120	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-29817/2-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29817

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09444		mg/Kg		94	70 - 130	10	35
Toluene	0.100	0.09316		mg/Kg		93	70 - 130	11	35
Ethylbenzene	0.100	0.09138		mg/Kg		91	70 - 130	16	35
m-Xylene & p-Xylene	0.200	0.1945		mg/Kg		97	70 - 130	16	35
o-Xylene	0.100	0.1025		mg/Kg		103	70 - 130	16	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: MB 880-30144/5-A
Matrix: Solid
Analysis Batch: 30143

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 30144

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0000770	U	0.000400	0.0000770	mg/Kg		07/20/22 13:38	07/20/22 16:53	1
Toluene	<0.0000912	U	0.000400	0.0000912	mg/Kg		07/20/22 13:38	07/20/22 16:53	1

QC Sample Results

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16876-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-30144/5-A
Matrix: Solid
Analysis Batch: 30143

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 30144

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.000113	U	0.000400	0.000113	mg/Kg		07/20/22 13:38	07/20/22 16:53	1
m-Xylene & p-Xylene	<0.000202	U	0.000800	0.000202	mg/Kg		07/20/22 13:38	07/20/22 16:53	1
o-Xylene	<0.0000688	U	0.000400	0.0000688	mg/Kg		07/20/22 13:38	07/20/22 16:53	1
Xylenes, Total	<0.000202	U	0.000800	0.000202	mg/Kg		07/20/22 13:38	07/20/22 16:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*70 - 130*	*07/20/22 13:38*	*07/20/22 16:53*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*07/20/22 13:38*	*07/20/22 16:53*	*1*

Lab Sample ID: LCS 880-30144/1-A
Matrix: Solid
Analysis Batch: 30143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 30144

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09565		mg/Kg		96	70 - 130
Toluene	0.100	0.08912		mg/Kg		89	70 - 130
Ethylbenzene	0.100	0.09670		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	0.200	0.1865		mg/Kg		93	70 - 130
o-Xylene	0.100	0.1011		mg/Kg		101	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: LCSD 880-30144/2-A
Matrix: Solid
Analysis Batch: 30143

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 30144

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.08707		mg/Kg		87	70 - 130	9	35
Toluene	0.100	0.08620		mg/Kg		86	70 - 130	3	35
Ethylbenzene	0.100	0.09094		mg/Kg		91	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.1750		mg/Kg		87	70 - 130	6	35
o-Xylene	0.100	0.09566		mg/Kg		96	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

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

Lab Sample ID: MB 880-29794/1-A
Matrix: Solid
Analysis Batch: 29786

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29794

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	15.50	J	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 10:08	1

QC Sample Results

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16876-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-29794/1-A
Matrix: Solid
Analysis Batch: 29786

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29794

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	15.19	J	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 10:08	1
Oll Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 10:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*07/15/22 08:39*	*07/15/22 10:08*	*1*
o-Terphenyl	*119*		*70 - 130*	*07/15/22 08:39*	*07/15/22 10:08*	*1*

Lab Sample ID: LCS 880-29794/2-A
Matrix: Solid
Analysis Batch: 29786

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29794

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	967.8		mg/Kg		97	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	935.7		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*118*		*70 - 130*

Lab Sample ID: LCSD 880-29794/3-A
Matrix: Solid
Analysis Batch: 29786

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29794

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1074		mg/Kg		107	70 - 130	10	20
Diesel Range Organics (Over C10-C28)			1000	1032		mg/Kg		103	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*114*		*70 - 130*
o-Terphenyl	*122*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-29660/1-A
Matrix: Solid
Analysis Batch: 29862

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.858	U	5.00	0.858	mg/Kg			07/16/22 14:53	1

QC Sample Results

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16876-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-29660/2-A
Matrix: Solid
Analysis Batch: 29862

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	264.9		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-29660/3-A
Matrix: Solid
Analysis Batch: 29862

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	264.8		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 880-16876-3 MS
Matrix: Solid
Analysis Batch: 29862

Client Sample ID: BH-22A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	9.93		250	276.3		mg/Kg		107	90 - 110		

Lab Sample ID: 880-16876-3 MSD
Matrix: Solid
Analysis Batch: 29862

Client Sample ID: BH-22A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	9.93		250	276.0		mg/Kg		106	90 - 110	0	20

QC Association Summary

Client: GHD Services Inc. Job ID: 880-16876-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

GC VOA

Prep Batch: 29817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16876-6	BH-25A	Total/NA	Solid	5035	
880-16876-7	BH-26A	Total/NA	Solid	5035	
880-16876-8	BH-28A	Total/NA	Solid	5035	
880-16876-9	BH-30A	Total/NA	Solid	5035	
MB 880-29817/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-29817/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-29817/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 30096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16876-6	BH-25A	Total/NA	Solid	8021B	29817
880-16876-7	BH-26A	Total/NA	Solid	8021B	29817
880-16876-8	BH-28A	Total/NA	Solid	8021B	29817
880-16876-9	BH-30A	Total/NA	Solid	8021B	29817
MB 880-29817/5-A	Method Blank	Total/NA	Solid	8021B	29817
LCS 880-29817/1-A	Lab Control Sample	Total/NA	Solid	8021B	29817
LCSD 880-29817/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	29817

Analysis Batch: 30143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16876-1	BH-19A	Total/NA	Solid	8021B	30144
880-16876-2	BH-21A	Total/NA	Solid	8021B	30144
880-16876-3	BH-22A	Total/NA	Solid	8021B	30144
880-16876-4	BH-23A	Total/NA	Solid	8021B	30144
880-16876-5	BH-24A	Total/NA	Solid	8021B	30144
MB 880-30144/5-A	Method Blank	Total/NA	Solid	8021B	30144
LCS 880-30144/1-A	Lab Control Sample	Total/NA	Solid	8021B	30144
LCSD 880-30144/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	30144

Prep Batch: 30144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16876-1	BH-19A	Total/NA	Solid	5035	
880-16876-2	BH-21A	Total/NA	Solid	5035	
880-16876-3	BH-22A	Total/NA	Solid	5035	
880-16876-4	BH-23A	Total/NA	Solid	5035	
880-16876-5	BH-24A	Total/NA	Solid	5035	
MB 880-30144/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-30144/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-30144/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 30197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16876-1	BH-19A	Total/NA	Solid	Total BTEX	
880-16876-2	BH-21A	Total/NA	Solid	Total BTEX	
880-16876-3	BH-22A	Total/NA	Solid	Total BTEX	
880-16876-4	BH-23A	Total/NA	Solid	Total BTEX	
880-16876-5	BH-24A	Total/NA	Solid	Total BTEX	
880-16876-6	BH-25A	Total/NA	Solid	Total BTEX	
880-16876-7	BH-26A	Total/NA	Solid	Total BTEX	
880-16876-8	BH-28A	Total/NA	Solid	Total BTEX	
880-16876-9	BH-30A	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16876-1
SDG: Lea County NM

GC Semi VOA

Analysis Batch: 29786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16876-1	BH-19A	Total/NA	Solid	8015B NM	29794
880-16876-2	BH-21A	Total/NA	Solid	8015B NM	29794
880-16876-3	BH-22A	Total/NA	Solid	8015B NM	29794
880-16876-4	BH-23A	Total/NA	Solid	8015B NM	29794
880-16876-5	BH-24A	Total/NA	Solid	8015B NM	29794
880-16876-6	BH-25A	Total/NA	Solid	8015B NM	29794
880-16876-7	BH-26A	Total/NA	Solid	8015B NM	29794
880-16876-8	BH-28A	Total/NA	Solid	8015B NM	29794
880-16876-9	BH-30A	Total/NA	Solid	8015B NM	29794
MB 880-29794/1-A	Method Blank	Total/NA	Solid	8015B NM	29794
LCS 880-29794/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29794
LCSD 880-29794/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29794

Prep Batch: 29794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16876-1	BH-19A	Total/NA	Solid	8015NM Prep	
880-16876-2	BH-21A	Total/NA	Solid	8015NM Prep	
880-16876-3	BH-22A	Total/NA	Solid	8015NM Prep	
880-16876-4	BH-23A	Total/NA	Solid	8015NM Prep	
880-16876-5	BH-24A	Total/NA	Solid	8015NM Prep	
880-16876-6	BH-25A	Total/NA	Solid	8015NM Prep	
880-16876-7	BH-26A	Total/NA	Solid	8015NM Prep	
880-16876-8	BH-28A	Total/NA	Solid	8015NM Prep	
880-16876-9	BH-30A	Total/NA	Solid	8015NM Prep	
MB 880-29794/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29794/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-29794/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 29903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16876-1	BH-19A	Total/NA	Solid	8015 NM	
880-16876-2	BH-21A	Total/NA	Solid	8015 NM	
880-16876-3	BH-22A	Total/NA	Solid	8015 NM	
880-16876-4	BH-23A	Total/NA	Solid	8015 NM	
880-16876-5	BH-24A	Total/NA	Solid	8015 NM	
880-16876-6	BH-25A	Total/NA	Solid	8015 NM	
880-16876-7	BH-26A	Total/NA	Solid	8015 NM	
880-16876-8	BH-28A	Total/NA	Solid	8015 NM	
880-16876-9	BH-30A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 29660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16876-1	BH-19A	Soluble	Solid	DI Leach	
880-16876-2	BH-21A	Soluble	Solid	DI Leach	
880-16876-3	BH-22A	Soluble	Solid	DI Leach	
880-16876-4	BH-23A	Soluble	Solid	DI Leach	
880-16876-5	BH-24A	Soluble	Solid	DI Leach	
880-16876-6	BH-25A	Soluble	Solid	DI Leach	
880-16876-7	BH-26A	Soluble	Solid	DI Leach	

QC Association Summary

Client: GHD Services Inc. Job ID: 880-16876-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

HPLC/IC (Continued)

Leach Batch: 29660 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16876-8	BH-28A	Soluble	Solid	DI Leach	
880-16876-9	BH-30A	Soluble	Solid	DI Leach	
MB 880-29660/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-29660/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-29660/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-16876-3 MS	BH-22A	Soluble	Solid	DI Leach	
880-16876-3 MSD	BH-22A	Soluble	Solid	DI Leach	

Analysis Batch: 29862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16876-1	BH-19A	Soluble	Solid	300.0	29660
880-16876-2	BH-21A	Soluble	Solid	300.0	29660
880-16876-3	BH-22A	Soluble	Solid	300.0	29660
880-16876-4	BH-23A	Soluble	Solid	300.0	29660
880-16876-5	BH-24A	Soluble	Solid	300.0	29660
880-16876-6	BH-25A	Soluble	Solid	300.0	29660
880-16876-7	BH-26A	Soluble	Solid	300.0	29660
880-16876-8	BH-28A	Soluble	Solid	300.0	29660
880-16876-9	BH-30A	Soluble	Solid	300.0	29660
MB 880-29660/1-A	Method Blank	Soluble	Solid	300.0	29660
LCS 880-29660/2-A	Lab Control Sample	Soluble	Solid	300.0	29660
LCSD 880-29660/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	29660
880-16876-3 MS	BH-22A	Soluble	Solid	300.0	29660
880-16876-3 MSD	BH-22A	Soluble	Solid	300.0	29660

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16876-1
SDG: Lea County NM

Client Sample ID: BH-19A
Date Collected: 07/12/22 10:40
Date Received: 07/13/22 11:00

Lab Sample ID: 880-16876-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	30144	07/20/22 13:38	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	1.0 mL	30143	07/20/22 20:50	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30197	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29903	07/18/22 09:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	29794	07/15/22 08:39	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29786	07/15/22 14:24	SM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	29660	07/13/22 12:39	SMC	XEN MID
Soluble	Analysis	300.0		1			29862	07/16/22 17:43	CH	XEN MID

Client Sample ID: BH-21A
Date Collected: 07/12/22 10:50
Date Received: 07/13/22 11:00

Lab Sample ID: 880-16876-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	30144	07/20/22 13:38	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	1.0 mL	30143	07/20/22 21:17	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30197	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29903	07/18/22 09:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	29794	07/15/22 08:39	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29786	07/15/22 14:45	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	29660	07/13/22 12:39	SMC	XEN MID
Soluble	Analysis	300.0		1			29862	07/16/22 17:52	CH	XEN MID

Client Sample ID: BH-22A
Date Collected: 07/12/22 11:00
Date Received: 07/13/22 11:00

Lab Sample ID: 880-16876-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	30144	07/20/22 13:38	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	1.0 mL	30143	07/20/22 23:03	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30197	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29903	07/18/22 09:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	29794	07/15/22 08:39	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29786	07/15/22 15:06	SM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	29660	07/13/22 12:39	SMC	XEN MID
Soluble	Analysis	300.0		1			29862	07/16/22 18:01	CH	XEN MID

Client Sample ID: BH-23A
Date Collected: 07/12/22 11:10
Date Received: 07/13/22 11:00

Lab Sample ID: 880-16876-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	30144	07/20/22 13:38	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	1.0 mL	30143	07/20/22 23:29	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30197	07/21/22 08:55	SM	XEN MID

Eurofins Midland

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16876-1
SDG: Lea County NM

Client Sample ID: BH-23A
Date Collected: 07/12/22 11:10
Date Received: 07/13/22 11:00

Lab Sample ID: 880-16876-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			29903	07/18/22 09:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29794	07/15/22 08:39	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29786	07/15/22 15:52	SM	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	29660	07/13/22 12:39	SMC	XEN MID
Soluble	Analysis	300.0		1			29862	07/16/22 18:29	CH	XEN MID

Client Sample ID: BH-24A
Date Collected: 07/12/22 11:20
Date Received: 07/13/22 11:00

Lab Sample ID: 880-16876-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	30144	07/20/22 13:38	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	1.0 mL	30143	07/20/22 23:54	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30197	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29903	07/18/22 09:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29794	07/15/22 08:39	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29786	07/15/22 16:13	SM	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	29660	07/13/22 12:39	SMC	XEN MID
Soluble	Analysis	300.0		1			29862	07/16/22 18:38	CH	XEN MID

Client Sample ID: BH-25A
Date Collected: 07/12/22 11:30
Date Received: 07/13/22 11:00

Lab Sample ID: 880-16876-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	29817	07/15/22 09:11	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30096	07/20/22 18:32	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30197	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29903	07/18/22 09:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29794	07/15/22 08:39	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29786	07/15/22 16:56	SM	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	29660	07/13/22 12:39	SMC	XEN MID
Soluble	Analysis	300.0		1			29862	07/16/22 19:06	CH	XEN MID

Client Sample ID: BH-26A
Date Collected: 07/12/22 11:40
Date Received: 07/13/22 11:00

Lab Sample ID: 880-16876-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	29817	07/15/22 09:11	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30096	07/20/22 18:52	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30197	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29903	07/18/22 09:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29794	07/15/22 08:39	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29786	07/15/22 17:17	SM	XEN MID

Eurofins Midland

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16876-1
SDG: Lea County NM

Client Sample ID: BH-26A
Date Collected: 07/12/22 11:40
Date Received: 07/13/22 11:00

Lab Sample ID: 880-16876-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	29660	07/13/22 12:39	SMC	XEN MID
Soluble	Analysis	300.0		1			29862	07/16/22 19:15	CH	XEN MID

Client Sample ID: BH-28A
Date Collected: 07/12/22 11:50
Date Received: 07/13/22 11:00

Lab Sample ID: 880-16876-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	29817	07/15/22 09:11	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30096	07/20/22 19:13	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30197	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29903	07/18/22 09:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29794	07/15/22 08:39	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29786	07/15/22 17:38	SM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	29660	07/13/22 12:39	SMC	XEN MID
Soluble	Analysis	300.0		1			29862	07/16/22 19:24	CH	XEN MID

Client Sample ID: BH-30A
Date Collected: 07/12/22 12:00
Date Received: 07/13/22 11:00

Lab Sample ID: 880-16876-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	29817	07/15/22 09:11	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30096	07/20/22 19:33	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30197	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29903	07/18/22 09:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29794	07/15/22 08:39	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29786	07/15/22 17:59	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	29660	07/13/22 12:39	SMC	XEN MID
Soluble	Analysis	300.0		1			29862	07/16/22 19:33	CH	XEN MID

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

Accreditation/Certification Summary

Client: GHD Services Inc. Job ID: 880-16876-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: GHD Services Inc. Job ID: 880-16876-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (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.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16876-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-16876-1	BH-19A	Solid	07/12/22 10:40	07/13/22 11:00
880-16876-2	BH-21A	Solid	07/12/22 10:50	07/13/22 11:00
880-16876-3	BH-22A	Solid	07/12/22 11:00	07/13/22 11:00
880-16876-4	BH-23A	Solid	07/12/22 11:10	07/13/22 11:00
880-16876-5	BH-24A	Solid	07/12/22 11:20	07/13/22 11:00
880-16876-6	BH-25A	Solid	07/12/22 11:30	07/13/22 11:00
880-16876-7	BH-26A	Solid	07/12/22 11:40	07/13/22 11:00
880-16876-8	BH-28A	Solid	07/12/22 11:50	07/13/22 11:00
880-16876-9	BH-30A	Solid	07/12/22 12:00	07/13/22 11:00

Xenco Laboratories

The Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Becky.Haskell@GHD.com
Company Name: GHD
Company Address: 2135 S. Loop 250 W
City/State/Zip: Midland, TX 79703
Telephone No: 432-686-0086
Fax No:
Sampler Signature:
e-mail: Heath.Boyd@GHD.com

Project Name: Ronco Federal 22 Battery 1
Project #: 12580761
Project Loc: Lea County, NM
PO #:
Report Format: ☐ Standard ☐ TRRP ☐ NPDES

880-16876 Chain of Custody

FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TPH 418.1	8015M	8015B	TPH TX 1005	TPH TX 1006	Cations (Ca Mg Na K)	Anions (Cl SO4 Alkalinity)	SAR / ESP / CEC	Metals As Ag Ba Cd Cr Pb Hg Se (TCLP / TOTAL)	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 6260	RCI	N O R M	Chloride 300 m	RUSH TAT (Pre-Schedule) 24 48 72 hrs	Standard TAT
BH-19		3'	7/12/22	1040		-									S	X											X			X		X
BH-21		1'		1050		1										X											X			X		X
BH-22		1		1100		1										X											X			X		X
BH-23		1'		1110		1										X											X			X		X
BH-24		1'		1120		1										X											X			X		X
BH-25		1'		1130		1										X											X			X		X
BH-26		1'		1140		1										X											X			X		X
BH-28		1'		1150		1										X											X			X		X
BH-30		3'	X	1200		1										X											X			X		X

Special Instructions: Please Email: Becky, Heath, Nikki.Mishler@VINCOE.com | Direct Bill to: Centennial Resources Production Attn. Nikki

Relinquished by	Date	Time	Received by	Date	Time
	7/12/22	1410		7/12/22	1410
Relinquished by	Date	Time	Received by	Date	Time
				7/13/22	1100
Relinquished by	Date	Time	Received by ELOT	Date	Time

Laboratory Comments

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep ?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt	As Read	Corrected
	2.6	2.4 °C

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 880-16876-1
SDG Number: Lea County NM

Login Number: 16876
List Number: 1
Creator: Kramer, Jessica

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
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").	N/A	

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ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-16923-1
Laboratory Sample Delivery Group: Lea County, NM
Client Project/Site: Romeo Federal 22 Battery 1

For:
GHD Services Inc.
2135 South Loop 250 West
Midland, Texas 79703

Attn: Becky Haskell

Authorized for release by:
7/21/2022 11:33:49 AM

Debbie Simmons, Project Manager
(832)986-6768
Debbie.Simmons@et.eurofinsus.com

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.

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Laboratory Job ID: 880-16923-1
SDG: Lea County, NM

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Definitions/Glossary

Client: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
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: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

Job ID: 880-16923-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-16923-1

Receipt
The samples were received on 7/14/2022 10:30 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 1.1°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
Method 8015MOD_NM: The method blank for preparation batch 880-29794 and analytical batch 880-29786 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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.

Client Sample Results

Client: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

Client Sample ID: BH-31A
Lab Sample ID: 880-16923-1
Date Collected: 07/13/22 10:10
Matrix: Solid
Date Received: 07/14/22 10:30
Sample Depth: 2.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		07/15/22 13:29	07/17/22 22:29	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		07/15/22 13:29	07/17/22 22:29	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		07/15/22 13:29	07/17/22 22:29	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		07/15/22 13:29	07/17/22 22:29	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		07/15/22 13:29	07/17/22 22:29	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		07/15/22 13:29	07/17/22 22:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*07/15/22 13:29*	*07/17/22 22:29*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*07/15/22 13:29*	*07/17/22 22:29*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00399	0.00101	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**139**		50.0	15.0	mg/Kg			07/18/22 09:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		07/15/22 14:19	07/15/22 23:18	1
Diesel Range Organics (Over C10-C28)	**139**		50.0	15.0	mg/Kg		07/15/22 14:19	07/15/22 23:18	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		07/15/22 14:19	07/15/22 23:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*07/15/22 14:19*	*07/15/22 23:18*	*1*
o-Terphenyl	*94*		*70 - 130*	*07/15/22 14:19*	*07/15/22 23:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**35.4**		4.99	0.857	mg/Kg			07/20/22 07:43	1

Client Sample ID: BH-34A
Lab Sample ID: 880-16923-2
Date Collected: 07/13/22 10:20
Matrix: Solid
Date Received: 07/14/22 10:30
Sample Depth: 3.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		07/15/22 13:29	07/17/22 22:49	1
Toluene	<0.000453	U	0.00199	0.000453	mg/Kg		07/15/22 13:29	07/17/22 22:49	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		07/15/22 13:29	07/17/22 22:49	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		07/15/22 13:29	07/17/22 22:49	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		07/15/22 13:29	07/17/22 22:49	1
Xylenes, Total	<0.00100	U	0.00398	0.00100	mg/Kg		07/15/22 13:29	07/17/22 22:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*07/15/22 13:29*	*07/17/22 22:49*	*1*

Eurofins Midland

Client Sample Results

Client: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

Client Sample ID: BH-34A
Lab Sample ID: 880-16923-2
Date Collected: 07/13/22 10:20
Matrix: Solid
Date Received: 07/14/22 10:30
Sample Depth: 3.5'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*07/15/22 13:29*	*07/17/22 22:49*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00398	0.00100	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**733**		49.9	15.0	mg/Kg			07/18/22 09:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		07/15/22 14:19	07/15/22 23:39	1
Diesel Range Organics (Over C10-C28)	**733**		49.9	15.0	mg/Kg		07/15/22 14:19	07/15/22 23:39	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		07/15/22 14:19	07/15/22 23:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*90*		*70 - 130*	*07/15/22 14:19*	*07/15/22 23:39*	*1*
o-Terphenyl	*97*		*70 - 130*	*07/15/22 14:19*	*07/15/22 23:39*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11500**		99.4	17.1	mg/Kg			07/20/22 07:50	20

Client Sample ID: SW-1A
Lab Sample ID: 880-16923-3
Date Collected: 07/13/22 10:30
Matrix: Solid
Date Received: 07/14/22 10:30
Sample Depth: 1'-4'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		07/15/22 13:29	07/17/22 23:10	1
Toluene	**0.00117**	**J**	0.00200	0.000457	mg/Kg		07/15/22 13:29	07/17/22 23:10	1
Ethylbenzene	**0.00138**	**J**	0.00200	0.000566	mg/Kg		07/15/22 13:29	07/17/22 23:10	1
m-Xylene & p-Xylene	**0.00330**	**J**	0.00401	0.00101	mg/Kg		07/15/22 13:29	07/17/22 23:10	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		07/15/22 13:29	07/17/22 23:10	1
Xylenes, Total	**0.00330**	**J**	0.00401	0.00101	mg/Kg		07/15/22 13:29	07/17/22 23:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*07/15/22 13:29*	*07/17/22 23:10*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*07/15/22 13:29*	*07/17/22 23:10*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00585**		0.00401	0.00101	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.0	U	49.9	15.0	mg/Kg			07/18/22 09:00	1

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Client Sample Results

Client: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

Client Sample ID: SW-1A — Lab Sample ID: 880-16923-3

Date Collected: 07/13/22 10:30 **Matrix: Solid**
Date Received: 07/14/22 10:30
Sample Depth: 1'-4'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		07/15/22 14:19	07/16/22 00:01	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		07/15/22 14:19	07/16/22 00:01	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		07/15/22 14:19	07/16/22 00:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*07/15/22 14:19*	*07/16/22 00:01*	*1*
o-Terphenyl	*96*		*70 - 130*	*07/15/22 14:19*	*07/16/22 00:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**65.3**		4.98	0.855	mg/Kg			07/20/22 08:14	1

Client Sample ID: SW-2A — Lab Sample ID: 880-16923-4

Date Collected: 07/13/22 10:40 **Matrix: Solid**
Date Received: 07/14/22 10:30
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		07/15/22 13:29	07/17/22 23:30	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		07/15/22 13:29	07/17/22 23:30	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		07/15/22 13:29	07/17/22 23:30	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		07/15/22 13:29	07/17/22 23:30	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		07/15/22 13:29	07/17/22 23:30	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		07/15/22 13:29	07/17/22 23:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*07/15/22 13:29*	*07/17/22 23:30*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*07/15/22 13:29*	*07/17/22 23:30*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00399	0.00101	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**22.6**	**J**	49.9	15.0	mg/Kg			07/18/22 09:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		07/15/22 08:39	07/15/22 18:21	1
Diesel Range Organics (Over C10-C28)	**22.6**	**J B**	49.9	15.0	mg/Kg		07/15/22 08:39	07/15/22 18:21	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		07/15/22 08:39	07/15/22 18:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*07/15/22 08:39*	*07/15/22 18:21*	*1*
o-Terphenyl	*88*		*70 - 130*	*07/15/22 08:39*	*07/15/22 18:21*	*1*

Client Sample Results

Client: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

Client Sample ID: SW-2A
Lab Sample ID: 880-16923-4
Date Collected: 07/13/22 10:40 **Matrix: Solid**
Date Received: 07/14/22 10:30
Sample Depth: 2'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9.92**		5.01	0.860	mg/Kg			07/20/22 08:22	1

Client Sample ID: SW-3A
Lab Sample ID: 880-16923-5
Date Collected: 07/13/22 10:50 **Matrix: Solid**
Date Received: 07/14/22 10:30
Sample Depth: 4'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		07/15/22 13:29	07/17/22 23:51	1
Toluene	**0.000539**	**J**	0.00199	0.000453	mg/Kg		07/15/22 13:29	07/17/22 23:51	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		07/15/22 13:29	07/17/22 23:51	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		07/15/22 13:29	07/17/22 23:51	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		07/15/22 13:29	07/17/22 23:51	1
Xylenes, Total	<0.00100	U	0.00398	0.00100	mg/Kg		07/15/22 13:29	07/17/22 23:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*07/15/22 13:29*	*07/17/22 23:51*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*07/15/22 13:29*	*07/17/22 23:51*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00398	0.00100	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**26.1**	**J**	50.0	15.0	mg/Kg			07/18/22 09:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 18:42	1
Diesel Range Organics (Over C10-C28)	**26.1**	**J B**	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 18:42	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 18:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*07/15/22 08:39*	*07/15/22 18:42*	*1*
o-Terphenyl	*90*		*70 - 130*	*07/15/22 08:39*	*07/15/22 18:42*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**245**		4.97	0.853	mg/Kg			07/20/22 08:30	1

Client Sample Results

Client: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

Client Sample ID: SW-4A
Lab Sample ID: 880-16923-6
Date Collected: 07/13/22 11:00
Matrix: Solid
Date Received: 07/14/22 10:30
Sample Depth: 4'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000381	U	0.00198	0.000381	mg/Kg		07/15/22 13:29	07/18/22 00:11	1
Toluene	<0.000451	U	0.00198	0.000451	mg/Kg		07/15/22 13:29	07/18/22 00:11	1
Ethylbenzene	<0.000559	U	0.00198	0.000559	mg/Kg		07/15/22 13:29	07/18/22 00:11	1
m-Xylene & p-Xylene	<0.00100	U	0.00396	0.00100	mg/Kg		07/15/22 13:29	07/18/22 00:11	1
o-Xylene	<0.000341	U	0.00198	0.000341	mg/Kg		07/15/22 13:29	07/18/22 00:11	1
Xylenes, Total	<0.00100	U	0.00396	0.00100	mg/Kg		07/15/22 13:29	07/18/22 00:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*07/15/22 13:29*	*07/18/22 00:11*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*07/15/22 13:29*	*07/18/22 00:11*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00396	0.00100	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.0	U	50.0	15.0	mg/Kg			07/18/22 09:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 19:03	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 19:03	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 19:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*07/15/22 08:39*	*07/15/22 19:03*	*1*
o-Terphenyl	*93*		*70 - 130*	*07/15/22 08:39*	*07/15/22 19:03*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4.68**	**J**	4.98	0.855	mg/Kg			07/20/22 08:38	1

Client Sample ID: SW-10A
Lab Sample ID: 880-16923-7
Date Collected: 07/13/22 11:10
Matrix: Solid
Date Received: 07/14/22 10:30
Sample Depth: 3'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		07/15/22 13:29	07/18/22 00:31	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		07/15/22 13:29	07/18/22 00:31	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		07/15/22 13:29	07/18/22 00:31	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		07/15/22 13:29	07/18/22 00:31	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		07/15/22 13:29	07/18/22 00:31	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		07/15/22 13:29	07/18/22 00:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*07/15/22 13:29*	*07/18/22 00:31*	*1*

Client Sample Results

Client: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

Client Sample ID: SW-10A **Lab Sample ID: 880-16923-7**
Date Collected: 07/13/22 11:10 **Matrix: Solid**
Date Received: 07/14/22 10:30
Sample Depth: 3'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*07/15/22 13:29*	*07/18/22 00:31*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00401	0.00101	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**23.2**	**J**	49.8	14.9	mg/Kg			07/18/22 09:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.9	U	49.8	14.9	mg/Kg		07/15/22 08:39	07/15/22 19:24	1
Diesel Range Organics (Over C10-C28)	**23.2**	**J B**	49.8	14.9	mg/Kg		07/15/22 08:39	07/15/22 19:24	1
OII Range Organics (Over C28-C36)	<14.9	U	49.8	14.9	mg/Kg		07/15/22 08:39	07/15/22 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*07/15/22 08:39*	*07/15/22 19:24*	*1*
o-Terphenyl	*87*		*70 - 130*	*07/15/22 08:39*	*07/15/22 19:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19.6**		5.00	0.858	mg/Kg			07/20/22 08:45	1

Surrogate Summary

Client: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-16923-1	BH-31A	95	85
880-16923-2	BH-34A	107	84
880-16923-3	SW-1A	111	88
880-16923-4	SW-2A	91	87
880-16923-5	SW-3A	107	87
880-16923-6	SW-4A	110	77
880-16923-7	SW-10A	91	87
LCS 880-29859/1-A	Lab Control Sample	100	98
LCSD 880-29859/2-A	Lab Control Sample Dup	101	99
MB 880-29772/5-A	Method Blank	97	89
MB 880-29859/5-A	Method Blank	89	83

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**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-16923-1	BH-31A	86	94
880-16923-2	BH-34A	90	97
880-16923-3	SW-1A	85	96
880-16923-4	SW-2A	79	88
880-16923-5	SW-3A	81	90
880-16923-6	SW-4A	83	93
880-16923-7	SW-10A	79	87
LCS 880-29794/2-A	Lab Control Sample	108	118
LCS 880-29867/2-A	Lab Control Sample	111	127
LCSD 880-29794/3-A	Lab Control Sample Dup	114	122
LCSD 880-29867/3-A	Lab Control Sample Dup	93	104
MB 880-29794/1-A	Method Blank	103	119
MB 880-29867/1-A	Method Blank	101	121

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-29772/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 29882 **Prep Batch: 29772**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		07/14/22 16:34	07/17/22 15:57	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		07/14/22 16:34	07/17/22 15:57	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		07/14/22 16:34	07/17/22 15:57	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		07/14/22 16:34	07/17/22 15:57	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		07/14/22 16:34	07/17/22 15:57	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		07/14/22 16:34	07/17/22 15:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*07/14/22 16:34*	*07/17/22 15:57*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*07/14/22 16:34*	*07/17/22 15:57*	*1*

Lab Sample ID: MB 880-29859/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 29882 **Prep Batch: 29859**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		07/15/22 13:29	07/17/22 21:05	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		07/15/22 13:29	07/17/22 21:05	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		07/15/22 13:29	07/17/22 21:05	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		07/15/22 13:29	07/17/22 21:05	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		07/15/22 13:29	07/17/22 21:05	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		07/15/22 13:29	07/17/22 21:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*07/15/22 13:29*	*07/17/22 21:05*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*07/15/22 13:29*	*07/17/22 21:05*	*1*

Lab Sample ID: LCS 880-29859/1-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 29882 **Prep Batch: 29859**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09047		mg/Kg		90	70 - 130		
Toluene			0.100	0.08792		mg/Kg		88	70 - 130		
Ethylbenzene			0.100	0.09113		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1803		mg/Kg		90	70 - 130		
o-Xylene			0.100	0.09914		mg/Kg		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-29859/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 29882 **Prep Batch: 29859**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09400		mg/Kg		94	70 - 130	4	35

QC Sample Results

Client: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-29859/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 29882 **Prep Batch: 29859**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09138		mg/Kg		91	70 - 130	4	35
Ethylbenzene			0.100	0.09441		mg/Kg		94	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1860		mg/Kg		93	70 - 130	3	35
o-Xylene			0.100	0.1024		mg/Kg		102	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

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

Lab Sample ID: MB 880-29794/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 29786 **Prep Batch: 29794**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	15.50	J	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 10:08	1
Diesel Range Organics (Over C10-C28)	15.19	J	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 10:08	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		07/15/22 08:39	07/15/22 10:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*07/15/22 08:39*	*07/15/22 10:08*	*1*
o-Terphenyl	*119*		*70 - 130*	*07/15/22 08:39*	*07/15/22 10:08*	*1*

Lab Sample ID: LCS 880-29794/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 29786 **Prep Batch: 29794**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	967.8		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)			1000	935.7		mg/Kg		94	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*118*		*70 - 130*

Lab Sample ID: LCSD 880-29794/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 29786 **Prep Batch: 29794**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1074		mg/Kg		107	70 - 130	10	20
Diesel Range Organics (Over C10-C28)			1000	1032		mg/Kg		103	70 - 130	10	20

QC Sample Results

Client: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-29794/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 29786 **Prep Batch: 29794**

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	122		70 - 130

Lab Sample ID: MB 880-29867/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 29786 **Prep Batch: 29867**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		07/15/22 14:19	07/15/22 20:28	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		07/15/22 14:19	07/15/22 20:28	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		07/15/22 14:19	07/15/22 20:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	07/15/22 14:19	07/15/22 20:28	1
o-Terphenyl	121		70 - 130	07/15/22 14:19	07/15/22 20:28	1

Lab Sample ID: LCS 880-29867/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 29786 **Prep Batch: 29867**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	976.0		mg/Kg		98	70 - 130
Diesel Range Organics (Over C10-C28)	1000	996.5		mg/Kg		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	127		70 - 130

Lab Sample ID: LCSD 880-29867/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 29786 **Prep Batch: 29867**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	997.8		mg/Kg		100	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	1000	867.3		mg/Kg		87	70 - 130	14	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	104		70 - 130

QC Sample Results

Client: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-29758/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 29939

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.858	U	5.00	0.858	mg/Kg			07/20/22 05:06	1

Lab Sample ID: LCS 880-29758/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 29939

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	274.8		mg/Kg		110	90 - 110

Lab Sample ID: LCSD 880-29758/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 29939

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	272.4		mg/Kg		109	90 - 110	1	20

QC Association Summary

Client: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

GC VOA

Prep Batch: 29772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-29772/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 29859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16923-1	BH-31A	Total/NA	Solid	5035	
880-16923-2	BH-34A	Total/NA	Solid	5035	
880-16923-3	SW-1A	Total/NA	Solid	5035	
880-16923-4	SW-2A	Total/NA	Solid	5035	
880-16923-5	SW-3A	Total/NA	Solid	5035	
880-16923-6	SW-4A	Total/NA	Solid	5035	
880-16923-7	SW-10A	Total/NA	Solid	5035	
MB 880-29859/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-29859/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-29859/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 29882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16923-1	BH-31A	Total/NA	Solid	8021B	29859
880-16923-2	BH-34A	Total/NA	Solid	8021B	29859
880-16923-3	SW-1A	Total/NA	Solid	8021B	29859
880-16923-4	SW-2A	Total/NA	Solid	8021B	29859
880-16923-5	SW-3A	Total/NA	Solid	8021B	29859
880-16923-6	SW-4A	Total/NA	Solid	8021B	29859
880-16923-7	SW-10A	Total/NA	Solid	8021B	29859
MB 880-29772/5-A	Method Blank	Total/NA	Solid	8021B	29772
MB 880-29859/5-A	Method Blank	Total/NA	Solid	8021B	29859
LCS 880-29859/1-A	Lab Control Sample	Total/NA	Solid	8021B	29859
LCSD 880-29859/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	29859

Analysis Batch: 29994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16923-1	BH-31A	Total/NA	Solid	Total BTEX	
880-16923-2	BH-34A	Total/NA	Solid	Total BTEX	
880-16923-3	SW-1A	Total/NA	Solid	Total BTEX	
880-16923-4	SW-2A	Total/NA	Solid	Total BTEX	
880-16923-5	SW-3A	Total/NA	Solid	Total BTEX	
880-16923-6	SW-4A	Total/NA	Solid	Total BTEX	
880-16923-7	SW-10A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 29786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16923-1	BH-31A	Total/NA	Solid	8015B NM	29867
880-16923-2	BH-34A	Total/NA	Solid	8015B NM	29867
880-16923-3	SW-1A	Total/NA	Solid	8015B NM	29867
880-16923-4	SW-2A	Total/NA	Solid	8015B NM	29794
880-16923-5	SW-3A	Total/NA	Solid	8015B NM	29794
880-16923-6	SW-4A	Total/NA	Solid	8015B NM	29794
880-16923-7	SW-10A	Total/NA	Solid	8015B NM	29794
MB 880-29794/1-A	Method Blank	Total/NA	Solid	8015B NM	29794

QC Association Summary

Client: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

GC Semi VOA (Continued)

Analysis Batch: 29786 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-29867/1-A	Method Blank	Total/NA	Solid	8015B NM	29867
LCS 880-29794/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29794
LCS 880-29867/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29867
LCSD 880-29794/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29794
LCSD 880-29867/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29867

Prep Batch: 29794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16923-4	SW-2A	Total/NA	Solid	8015NM Prep	
880-16923-5	SW-3A	Total/NA	Solid	8015NM Prep	
880-16923-6	SW-4A	Total/NA	Solid	8015NM Prep	
880-16923-7	SW-10A	Total/NA	Solid	8015NM Prep	
MB 880-29794/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29794/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-29794/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Prep Batch: 29867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16923-1	BH-31A	Total/NA	Solid	8015NM Prep	
880-16923-2	BH-34A	Total/NA	Solid	8015NM Prep	
880-16923-3	SW-1A	Total/NA	Solid	8015NM Prep	
MB 880-29867/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29867/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-29867/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 29904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16923-1	BH-31A	Total/NA	Solid	8015 NM	
880-16923-2	BH-34A	Total/NA	Solid	8015 NM	
880-16923-3	SW-1A	Total/NA	Solid	8015 NM	
880-16923-4	SW-2A	Total/NA	Solid	8015 NM	
880-16923-5	SW-3A	Total/NA	Solid	8015 NM	
880-16923-6	SW-4A	Total/NA	Solid	8015 NM	
880-16923-7	SW-10A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 29758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16923-1	BH-31A	Soluble	Solid	DI Leach	
880-16923-2	BH-34A	Soluble	Solid	DI Leach	
880-16923-3	SW-1A	Soluble	Solid	DI Leach	
880-16923-4	SW-2A	Soluble	Solid	DI Leach	
880-16923-5	SW-3A	Soluble	Solid	DI Leach	
880-16923-6	SW-4A	Soluble	Solid	DI Leach	
880-16923-7	SW-10A	Soluble	Solid	DI Leach	
MB 880-29758/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-29758/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-29758/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

HPLC/IC

Analysis Batch: 29939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16923-1	BH-31A	Soluble	Solid	300.0	29758
880-16923-2	BH-34A	Soluble	Solid	300.0	29758
880-16923-3	SW-1A	Soluble	Solid	300.0	29758
880-16923-4	SW-2A	Soluble	Solid	300.0	29758
880-16923-5	SW-3A	Soluble	Solid	300.0	29758
880-16923-6	SW-4A	Soluble	Solid	300.0	29758
880-16923-7	SW-10A	Soluble	Solid	300.0	29758
MB 880-29758/1-A	Method Blank	Soluble	Solid	300.0	29758
LCS 880-29758/2-A	Lab Control Sample	Soluble	Solid	300.0	29758
LCSD 880-29758/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	29758

Lab Chronicle

Client: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

Client Sample ID: BH-31A — Lab Sample ID: 880-16923-1

Date Collected: 07/13/22 10:10 **Matrix: Solid**
Date Received: 07/14/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	29859	07/15/22 13:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29882	07/17/22 22:29	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29994	07/18/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29904	07/18/22 09:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29867	07/15/22 14:19	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29786	07/15/22 23:18	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	29758	07/14/22 13:04	SMC	XEN MID
Soluble	Analysis	300.0		1			29939	07/20/22 07:43	CH	XEN MID

Client Sample ID: BH-34A — Lab Sample ID: 880-16923-2

Date Collected: 07/13/22 10:20 **Matrix: Solid**
Date Received: 07/14/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	29859	07/15/22 13:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29882	07/17/22 22:49	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29994	07/18/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29904	07/18/22 09:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29867	07/15/22 14:19	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29786	07/15/22 23:39	SM	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	29758	07/14/22 13:04	SMC	XEN MID
Soluble	Analysis	300.0		20			29939	07/20/22 07:50	CH	XEN MID

Client Sample ID: SW-1A — Lab Sample ID: 880-16923-3

Date Collected: 07/13/22 10:30 **Matrix: Solid**
Date Received: 07/14/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	29859	07/15/22 13:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29882	07/17/22 23:10	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29994	07/18/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29904	07/18/22 09:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	29867	07/15/22 14:19	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29786	07/16/22 00:01	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	29758	07/14/22 13:04	SMC	XEN MID
Soluble	Analysis	300.0		1			29939	07/20/22 08:14	CH	XEN MID

Client Sample ID: SW-2A — Lab Sample ID: 880-16923-4

Date Collected: 07/13/22 10:40 **Matrix: Solid**
Date Received: 07/14/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	29859	07/15/22 13:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29882	07/17/22 23:30	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29994	07/18/22 15:39	SM	XEN MID

Eurofins Midland

Lab Chronicle

Client: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

Client Sample ID: SW-2A — Lab Sample ID: 880-16923-4

Date Collected: 07/13/22 10:40 **Matrix: Solid**
Date Received: 07/14/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			29904	07/18/22 09:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29794	07/15/22 08:39	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29786	07/15/22 18:21	SM	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	29758	07/14/22 13:04	SMC	XEN MID
Soluble	Analysis	300.0		1			29939	07/20/22 08:22	CH	XEN MID

Client Sample ID: SW-3A — Lab Sample ID: 880-16923-5

Date Collected: 07/13/22 10:50 **Matrix: Solid**
Date Received: 07/14/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	29859	07/15/22 13:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29882	07/17/22 23:51	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29994	07/18/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29904	07/18/22 09:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29794	07/15/22 08:39	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29786	07/15/22 18:42	SM	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	29758	07/14/22 13:04	SMC	XEN MID
Soluble	Analysis	300.0		1			29939	07/20/22 08:30	CH	XEN MID

Client Sample ID: SW-4A — Lab Sample ID: 880-16923-6

Date Collected: 07/13/22 11:00 **Matrix: Solid**
Date Received: 07/14/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	29859	07/15/22 13:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29882	07/18/22 00:11	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29994	07/18/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29904	07/18/22 09:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29794	07/15/22 08:39	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29786	07/15/22 19:03	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	29758	07/14/22 13:04	SMC	XEN MID
Soluble	Analysis	300.0		1			29939	07/20/22 08:38	CH	XEN MID

Client Sample ID: SW-10A — Lab Sample ID: 880-16923-7

Date Collected: 07/13/22 11:10 **Matrix: Solid**
Date Received: 07/14/22 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	29859	07/15/22 13:29	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29882	07/18/22 00:31	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29994	07/18/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29904	07/18/22 09:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	29794	07/15/22 08:39	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29786	07/15/22 19:24	SM	XEN MID

Eurofins Midland

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16923-1
SDG: Lea County, NM

Client Sample ID: SW-10A

Date Collected: 07/13/22 11:10
Date Received: 07/14/22 10:30

Lab Sample ID: 880-16923-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	29758	07/14/22 13:04	SMC	XEN MID
Soluble	Analysis	300.0		1			29939	07/20/22 08:45	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: GHD Services Inc. Job ID: 880-16923-1
Project/Site: Romeo Federal 22 Battery 1 SDG: Lea County, NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (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.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 880-16923-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-16923-1	BH-31A	Solid	07/13/22 10:10	07/14/22 10:30	2.5'
880-16923-2	BH-34A	Solid	07/13/22 10:20	07/14/22 10:30	3.5'
880-16923-3	SW-1A	Solid	07/13/22 10:30	07/14/22 10:30	1'-4'
880-16923-4	SW-2A	Solid	07/13/22 10:40	07/14/22 10:30	2'
880-16923-5	SW-3A	Solid	07/13/22 10:50	07/14/22 10:30	4'
880-16923-6	SW-4A	Solid	07/13/22 11:00	07/14/22 10:30	4'
880-16923-7	SW-10A	Solid	07/13/22 11:10	07/14/22 10:30	3'

Xenco Laboratories

The Environmental Lab of Texas

880-16923 Chain of Custody

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

16923

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Becky.Haskell@GHD.com
Company Name: GHD
Company Address: 2135 S. Loop 250 W.
City/State/Zip: Midland, TX 79703
Telephone No: 432-686-0086
Fax No:
Sampler Signature:
e-mail: Heath.Boal@GHD.COM

Project Name: Ranco Federal 22 Battery 1
Project #: 12580761
Project Loc: Lea County, NM
PO #:
Report Format: ☑ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #:

(lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP / TOTAL: TPH 418.1 / 8015M	TPH TX 1005 / TX 1006	Cations (Ca Mg Na K)	Anions (Cl SO4 Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	NORM	Chloride 300 M		PUSH TAT (Pre-Schedule) 24 48 72 hrs	Standard TAT
	BH-3A		2.5'	7/13/22	1010		1			✓						S	X							X			X			X
	BH-3A		3.5'		1020		1									S	X							X			X			X
	SW-1A	1'	4'		1030		1									S	X							X			X			X
	SW-2A	5	2'		1040		1									S	X							X			X			X
	SW-3A	5	4'		1050		1									S	X							X			X			X
	SW-4A	5	4'		1100		1									S	X							X			X			X
	SW-10A	5	3'	X	1110		1									S	X							X			X			X

Special Instructions: Please Email: Heath, Becky Nikki.Mishler@VINCDE.com
Direct Bill to - Centennial Resources Production Attn to. Nikki

Relinquished by	Date	Time	Received by	Date	Time
	7/13/22	1440	Mariann Carrillo	7/13/22	2:35PM
Relinquished by	Date	Time	Received by	Date	Time
Mariann Carrillo	7/13/22	2:35		7/14/22	10:30
Relinquished by	Date	Time	Received by ELOT	Date	Time

Laboratory Comments.

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep ?		X
by Couner? UPS DHL (FedEx) Lone Star		

Temperature Upon Receipt	As Read	Corrected
	1.3	1.1 °C

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7/21/2022

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 880-16923-1
SDG Number: Lea County, NM

Login Number: 16923
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-18467-1
Laboratory Sample Delivery Group: Lea County, NM
Client Project/Site: Romeo

For:
GHD Services Inc.
2135 South Loop 250 West
Midland, Texas 79703

Attn: James (J.T.) Murrey

Debbie Simmons

Authorized for release by:
9/6/2022 5:48:27 PM

Debbie Simmons, Project Manager
(832)986-6768
Debbie.Simmons@et.eurofinsus.com

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.

Client: GHD Services Inc.
Project/Site: Romeo

Laboratory Job ID: 880-18467-1
SDG: Lea County, NM

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Definitions/Glossary

Client: GHD Services Inc. Job ID: 880-18467-1
Project/Site: Romeo SDG: Lea County, NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
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: GHD Services Inc.
Project/Site: Romeo

Job ID: 880-18467-1
SDG: Lea County, NM

Job ID: 880-18467-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-18467-1

Comments
No additional comments.

Receipt
The samples were received on 8/24/2022 10:40 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 was 1.9º C.

GC VOA
Method 8021B: The continuing calibration verification (CCV) associated with batch 880-33696 recovered above the upper control limit for Benzene, Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-33696/82).

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-33696 recovered above the upper control limit for Toluene and o-Xylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-33696/113).

Method 8021B: Surrogate recovery for the following samples were outside control limits: BH-31B (880-18467-3), BH-34B (880-18467-4), (LCS 880-33658/1-A) and (LCSD 880-33658/2-A). Evidence of matrix interferences is not obvious.

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

GC Semi VOA
Method 8015B NM: The method blank for preparation batch 880-32866 and analytical batch 880-32894 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

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

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

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

Client Sample Results

Client: GHD Services Inc.
Project/Site: Romeo

Job ID: 880-18467-1
SDG: Lea County, NM

Client Sample ID: BH-3B
Date Collected: 08/22/22 11:15
Date Received: 08/24/22 10:40

Lab Sample ID: 880-18467-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg		08/31/22 14:40	09/02/22 00:23	1
Toluene	<0.000459	U	0.00201	0.000459	mg/Kg		08/31/22 14:40	09/02/22 00:23	1
Ethylbenzene	<0.000568	U	0.00201	0.000568	mg/Kg		08/31/22 14:40	09/02/22 00:23	1
m-Xylene & p-Xylene	<0.00102	U	0.00402	0.00102	mg/Kg		08/31/22 14:40	09/02/22 00:23	1
o-Xylene	<0.000346	U	0.00201	0.000346	mg/Kg		08/31/22 14:40	09/02/22 00:23	1
Xylenes, Total	<0.00102	U	0.00402	0.00102	mg/Kg		08/31/22 14:40	09/02/22 00:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*08/31/22 14:40*	*09/02/22 00:23*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*08/31/22 14:40*	*09/02/22 00:23*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00402	0.00102	mg/Kg			09/02/22 11:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**81.0**		49.9	15.0	mg/Kg			08/26/22 09:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**41.0**	**J B**	49.9	15.0	mg/Kg		08/24/22 16:32	08/25/22 17:35	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		08/24/22 16:32	08/25/22 17:35	1
Oil Range Organics (Over C28-C36)	**40.0**	**J**	49.9	15.0	mg/Kg		08/24/22 16:32	08/25/22 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*08/24/22 16:32*	*08/25/22 17:35*	*1*
o-Terphenyl	*89*		*70 - 130*	*08/24/22 16:32*	*08/25/22 17:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.6**		5.00	0.858	mg/Kg			08/30/22 05:41	1

Client Sample ID: BH-7B
Date Collected: 08/22/22 12:55
Date Received: 08/24/22 10:40

Lab Sample ID: 880-18467-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		08/31/22 14:40	09/02/22 00:43	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		08/31/22 14:40	09/02/22 00:43	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		08/31/22 14:40	09/02/22 00:43	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		08/31/22 14:40	09/02/22 00:43	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		08/31/22 14:40	09/02/22 00:43	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		08/31/22 14:40	09/02/22 00:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*08/31/22 14:40*	*09/02/22 00:43*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*08/31/22 14:40*	*09/02/22 00:43*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: Romeo

Job ID: 880-18467-1
SDG: Lea County, NM

Client Sample ID: BH-7B
Date Collected: 08/22/22 12:55
Date Received: 08/24/22 10:40

Lab Sample ID: 880-18467-2
Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00401	0.00101	mg/Kg			09/02/22 11:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**75.7**		49.8	14.9	mg/Kg			08/26/22 09:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**40.8**	**J B**	49.8	14.9	mg/Kg		08/24/22 16:32	08/25/22 17:57	1
Diesel Range Organics (Over C10-C28)	<14.9	U	49.8	14.9	mg/Kg		08/24/22 16:32	08/25/22 17:57	1
Oil Range Organics (Over C28-C36)	**34.9**	**J**	49.8	14.9	mg/Kg		08/24/22 16:32	08/25/22 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*08/24/22 16:32*	*08/25/22 17:57*	*1*
o-Terphenyl	*78*		*70 - 130*	*08/24/22 16:32*	*08/25/22 17:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.7**		5.00	0.858	mg/Kg			08/30/22 05:50	1

Client Sample ID: BH-31B
Date Collected: 08/23/22 10:45
Date Received: 08/24/22 10:40

Lab Sample ID: 880-18467-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		09/02/22 15:18	09/05/22 13:02	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		09/02/22 15:18	09/05/22 13:02	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		09/02/22 15:18	09/05/22 13:02	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		09/02/22 15:18	09/05/22 13:02	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		09/02/22 15:18	09/05/22 13:02	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		09/02/22 15:18	09/05/22 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*137*	*S1+*	*70 - 130*	*09/02/22 15:18*	*09/05/22 13:02*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*09/02/22 15:18*	*09/05/22 13:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00399	0.00101	mg/Kg			09/02/22 11:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**86.0**		50.0	15.0	mg/Kg			08/26/22 09:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**44.9**	**J B**	50.0	15.0	mg/Kg		08/24/22 16:32	08/25/22 18:18	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Romeo

Job ID: 880-18467-1
SDG: Lea County, NM

Client Sample ID: BH-31B
Date Collected: 08/23/22 10:45
Date Received: 08/24/22 10:40

Lab Sample ID: 880-18467-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		08/24/22 16:32	08/25/22 18:18	1
Oil Range Organics (Over C28-C36)	**41.1**	**J**	50.0	15.0	mg/Kg		08/24/22 16:32	08/25/22 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*08/24/22 16:32*	*08/25/22 18:18*	*1*
o-Terphenyl	*83*		*70 - 130*	*08/24/22 16:32*	*08/25/22 18:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1080**		5.03	0.863	mg/Kg			08/30/22 05:59	1

Client Sample ID: BH-34B
Date Collected: 08/23/22 11:00
Date Received: 08/24/22 10:40

Lab Sample ID: 880-18467-4
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		09/02/22 15:18	09/05/22 13:29	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		09/02/22 15:18	09/05/22 13:29	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		09/02/22 15:18	09/05/22 13:29	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		09/02/22 15:18	09/05/22 13:29	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		09/02/22 15:18	09/05/22 13:29	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		09/02/22 15:18	09/05/22 13:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*151*	*S1+*	*70 - 130*	*09/02/22 15:18*	*09/05/22 13:29*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*09/02/22 15:18*	*09/05/22 13:29*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00401	0.00101	mg/Kg			09/02/22 11:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**77.3**		49.9	15.0	mg/Kg			08/26/22 09:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**40.3**	**J B**	49.9	15.0	mg/Kg		08/24/22 16:32	08/25/22 18:39	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		08/24/22 16:32	08/25/22 18:39	1
Oil Range Organics (Over C28-C36)	**37.0**	**J**	49.9	15.0	mg/Kg		08/24/22 16:32	08/25/22 18:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*08/24/22 16:32*	*08/25/22 18:39*	*1*
o-Terphenyl	*79*		*70 - 130*	*08/24/22 16:32*	*08/25/22 18:39*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: Romeo

Job ID: 880-18467-1
SDG: Lea County, NM

Client Sample ID: BH-34B

Date Collected: 08/23/22 11:00
Date Received: 08/24/22 10:40

Lab Sample ID: 880-18467-4

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	80.9		5.00	0.858	mg/Kg			08/30/22 06:27	1

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Romeo

Job ID: 880-18467-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-18467-1	BH-3B	90	103
880-18467-2	BH-7B	95	105
880-18467-3	BH-31B	137 S1+	93
880-18467-4	BH-34B	151 S1+	95
LCS 880-33466/1-A	Lab Control Sample	94	99
LCS 880-33658/1-A	Lab Control Sample	141 S1+	95
LCSD 880-33466/2-A	Lab Control Sample Dup	96	101
LCSD 880-33658/2-A	Lab Control Sample Dup	137 S1+	90
MB 880-33371/5-A	Method Blank	103	69 S1-
MB 880-33466/5-A	Method Blank	78	116
MB 880-33658/5-A	Method Blank	105	71

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**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-18467-1	BH-3B	85	89
880-18467-2	BH-7B	77	78
880-18467-3	BH-31B	81	83
880-18467-4	BH-34B	76	79
LCS 880-32866/2-A	Lab Control Sample	81	93
LCSD 880-32866/3-A	Lab Control Sample Dup	92	108
MB 880-32866/1-A	Method Blank	88	95

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: GHD Services Inc.
Project/Site: Romeo

Job ID: 880-18467-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-33371/5-A
Matrix: Solid
Analysis Batch: 33696

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33371

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		08/30/22 14:16	09/04/22 20:08	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		08/30/22 14:16	09/04/22 20:08	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		08/30/22 14:16	09/04/22 20:08	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/30/22 14:16	09/04/22 20:08	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		08/30/22 14:16	09/04/22 20:08	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		08/30/22 14:16	09/04/22 20:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*08/30/22 14:16*	*09/04/22 20:08*	*1*
1,4-Difluorobenzene (Surr)	*69*	*S1-*	*70 - 130*	*08/30/22 14:16*	*09/04/22 20:08*	*1*

Lab Sample ID: MB 880-33466/5-A
Matrix: Solid
Analysis Batch: 33557

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33466

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		08/31/22 14:40	09/01/22 18:00	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		08/31/22 14:40	09/01/22 18:00	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		08/31/22 14:40	09/01/22 18:00	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		08/31/22 14:40	09/01/22 18:00	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		08/31/22 14:40	09/01/22 18:00	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		08/31/22 14:40	09/01/22 18:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*08/31/22 14:40*	*09/01/22 18:00*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*08/31/22 14:40*	*09/01/22 18:00*	*1*

Lab Sample ID: LCS 880-33466/1-A
Matrix: Solid
Analysis Batch: 33557

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33466

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1098		mg/Kg		110	70 - 130
Toluene	0.100	0.1103		mg/Kg		110	70 - 130
Ethylbenzene	0.100	0.1076		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	0.200	0.1975		mg/Kg		99	70 - 130
o-Xylene	0.100	0.1037		mg/Kg		104	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-33466/2-A
Matrix: Solid
Analysis Batch: 33557

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33466

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1142		mg/Kg		114	70 - 130	4	35

QC Sample Results

Client: GHD Services Inc.
Project/Site: Romeo

Job ID: 880-18467-1
SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-33466/2-A
Matrix: Solid
Analysis Batch: 33557

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33466

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1143		mg/Kg		114	70 - 130	4	35
Ethylbenzene			0.100	0.1120		mg/Kg		112	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.2059		mg/Kg		103	70 - 130	4	35
o-Xylene			0.100	0.1080		mg/Kg		108	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: MB 880-33658/5-A
Matrix: Solid
Analysis Batch: 33696

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33658

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		09/02/22 15:18	09/05/22 09:38	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		09/02/22 15:18	09/05/22 09:38	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		09/02/22 15:18	09/05/22 09:38	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		09/02/22 15:18	09/05/22 09:38	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		09/02/22 15:18	09/05/22 09:38	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		09/02/22 15:18	09/05/22 09:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*09/02/22 15:18*	*09/05/22 09:38*	*1*
1,4-Difluorobenzene (Surr)	*71*		*70 - 130*	*09/02/22 15:18*	*09/05/22 09:38*	*1*

Lab Sample ID: LCS 880-33658/1-A
Matrix: Solid
Analysis Batch: 33696

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33658

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene			0.100	0.1064		mg/Kg		106	70 - 130
Toluene			0.100	0.1061		mg/Kg		106	70 - 130
Ethylbenzene			0.100	0.09992		mg/Kg		100	70 - 130
m-Xylene & p-Xylene			0.200	0.2000		mg/Kg		100	70 - 130
o-Xylene			0.100	0.1148		mg/Kg		115	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*141*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: LCSD 880-33658/2-A
Matrix: Solid
Analysis Batch: 33696

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33658

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1115		mg/Kg		111	70 - 130	5	35
Toluene			0.100	0.1107		mg/Kg		111	70 - 130	4	35
Ethylbenzene			0.100	0.1018		mg/Kg		102	70 - 130	2	35

Eurofins Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Romeo

Job ID: 880-18467-1
SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-33658/2-A
Matrix: Solid
Analysis Batch: 33696

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33658

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
m-Xylene & p-Xylene			0.200	0.2028		mg/Kg		101	70 - 130	1	35
o-Xylene			0.100	0.1164		mg/Kg		116	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*137*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

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

Lab Sample ID: MB 880-32866/1-A
Matrix: Solid
Analysis Batch: 32894

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32866

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	23.81	J	50.0	15.0	mg/Kg		08/24/22 16:32	08/25/22 10:52	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		08/24/22 16:32	08/25/22 10:52	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		08/24/22 16:32	08/25/22 10:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*08/24/22 16:32*	*08/25/22 10:52*	*1*
o-Terphenyl	*95*		*70 - 130*	*08/24/22 16:32*	*08/25/22 10:52*	*1*

Lab Sample ID: LCS 880-32866/2-A
Matrix: Solid
Analysis Batch: 32894

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32866

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	858.4		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)			1000	863.3		mg/Kg		86	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*81*		*70 - 130*
o-Terphenyl	*93*		*70 - 130*

Lab Sample ID: LCSD 880-32866/3-A
Matrix: Solid
Analysis Batch: 32894

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32866

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	926.7		mg/Kg		93	70 - 130	8	20
Diesel Range Organics (Over C10-C28)			1000	979.5		mg/Kg		98	70 - 130	13	20

QC Sample Results

Client: GHD Services Inc.
Project/Site: Romeo

Job ID: 880-18467-1
SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-32866/3-A
Matrix: Solid
Analysis Batch: 32894

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32866

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32918/1-A
Matrix: Solid
Analysis Batch: 33245

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.858	U	5.00	0.858	mg/Kg			08/30/22 03:23	1

Lab Sample ID: LCS 880-32918/2-A
Matrix: Solid
Analysis Batch: 33245

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	251.2		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-32918/3-A
Matrix: Solid
Analysis Batch: 33245

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	251.4		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 880-18467-3 MS
Matrix: Solid
Analysis Batch: 33245

Client Sample ID: BH-31B
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1080		252	1314	4	mg/Kg		91	90 - 110		

Lab Sample ID: 880-18467-3 MSD
Matrix: Solid
Analysis Batch: 33245

Client Sample ID: BH-31B
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1080		252	1320	4	mg/Kg		94	90 - 110	0	20

QC Association Summary

Client: GHD Services Inc.
Project/Site: Romeo

Job ID: 880-18467-1
SDG: Lea County, NM

GC VOA

Prep Batch: 33371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-33371/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 33466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-18467-1	BH-3B	Total/NA	Solid	5035	
880-18467-2	BH-7B	Total/NA	Solid	5035	
MB 880-33466/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-33466/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-33466/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 33557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-18467-1	BH-3B	Total/NA	Solid	8021B	33466
880-18467-2	BH-7B	Total/NA	Solid	8021B	33466
MB 880-33466/5-A	Method Blank	Total/NA	Solid	8021B	33466
LCS 880-33466/1-A	Lab Control Sample	Total/NA	Solid	8021B	33466
LCSD 880-33466/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	33466

Analysis Batch: 33640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-18467-1	BH-3B	Total/NA	Solid	Total BTEX	
880-18467-2	BH-7B	Total/NA	Solid	Total BTEX	
880-18467-3	BH-31B	Total/NA	Solid	Total BTEX	
880-18467-4	BH-34B	Total/NA	Solid	Total BTEX	

Prep Batch: 33658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-18467-3	BH-31B	Total/NA	Solid	5035	
880-18467-4	BH-34B	Total/NA	Solid	5035	
MB 880-33658/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-33658/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-33658/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 33696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-18467-3	BH-31B	Total/NA	Solid	8021B	33658
880-18467-4	BH-34B	Total/NA	Solid	8021B	33658
MB 880-33371/5-A	Method Blank	Total/NA	Solid	8021B	33371
MB 880-33658/5-A	Method Blank	Total/NA	Solid	8021B	33658
LCS 880-33658/1-A	Lab Control Sample	Total/NA	Solid	8021B	33658
LCSD 880-33658/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	33658

GC Semi VOA

Prep Batch: 32866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-18467-1	BH-3B	Total/NA	Solid	8015NM Prep	
880-18467-2	BH-7B	Total/NA	Solid	8015NM Prep	
880-18467-3	BH-31B	Total/NA	Solid	8015NM Prep	
880-18467-4	BH-34B	Total/NA	Solid	8015NM Prep	
MB 880-32866/1-A	Method Blank	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: GHD Services Inc.
Project/Site: Romeo

Job ID: 880-18467-1
SDG: Lea County, NM

GC Semi VOA (Continued)

Prep Batch: 32866 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-32866/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32866/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-18467-1	BH-3B	Total/NA	Solid	8015B NM	32866
880-18467-2	BH-7B	Total/NA	Solid	8015B NM	32866
880-18467-3	BH-31B	Total/NA	Solid	8015B NM	32866
880-18467-4	BH-34B	Total/NA	Solid	8015B NM	32866
MB 880-32866/1-A	Method Blank	Total/NA	Solid	8015B NM	32866
LCS 880-32866/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32866
LCSD 880-32866/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32866

Analysis Batch: 33030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-18467-1	BH-3B	Total/NA	Solid	8015 NM	
880-18467-2	BH-7B	Total/NA	Solid	8015 NM	
880-18467-3	BH-31B	Total/NA	Solid	8015 NM	
880-18467-4	BH-34B	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-18467-1	BH-3B	Soluble	Solid	DI Leach	
880-18467-2	BH-7B	Soluble	Solid	DI Leach	
880-18467-3	BH-31B	Soluble	Solid	DI Leach	
880-18467-4	BH-34B	Soluble	Solid	DI Leach	
MB 880-32918/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32918/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32918/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-18467-3 MS	BH-31B	Soluble	Solid	DI Leach	
880-18467-3 MSD	BH-31B	Soluble	Solid	DI Leach	

Analysis Batch: 33245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-18467-1	BH-3B	Soluble	Solid	300.0	32918
880-18467-2	BH-7B	Soluble	Solid	300.0	32918
880-18467-3	BH-31B	Soluble	Solid	300.0	32918
880-18467-4	BH-34B	Soluble	Solid	300.0	32918
MB 880-32918/1-A	Method Blank	Soluble	Solid	300.0	32918
LCS 880-32918/2-A	Lab Control Sample	Soluble	Solid	300.0	32918
LCSD 880-32918/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32918
880-18467-3 MS	BH-31B	Soluble	Solid	300.0	32918
880-18467-3 MSD	BH-31B	Soluble	Solid	300.0	32918

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Romeo

Job ID: 880-18467-1
SDG: Lea County, NM

Client Sample ID: BH-3B
Date Collected: 08/22/22 11:15
Date Received: 08/24/22 10:40

Lab Sample ID: 880-18467-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	33466	08/31/22 14:40	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33557	09/02/22 00:23	EL	EET MID
Total/NA	Analysis	Total BTEX		1			33640	09/02/22 11:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33030	08/26/22 09:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	32866	08/24/22 16:32	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	32894	08/25/22 17:35	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	32918	08/25/22 09:42	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	33245	08/30/22 05:41	CH	EET MID

Client Sample ID: BH-7B
Date Collected: 08/22/22 12:55
Date Received: 08/24/22 10:40

Lab Sample ID: 880-18467-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	33466	08/31/22 14:40	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33557	09/02/22 00:43	EL	EET MID
Total/NA	Analysis	Total BTEX		1			33640	09/02/22 11:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33030	08/26/22 09:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	32866	08/24/22 16:32	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	32894	08/25/22 17:57	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	32918	08/25/22 09:42	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	33245	08/30/22 05:50	CH	EET MID

Client Sample ID: BH-31B
Date Collected: 08/23/22 10:45
Date Received: 08/24/22 10:40

Lab Sample ID: 880-18467-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	33658	09/02/22 15:18	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33696	09/05/22 13:02	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33640	09/02/22 11:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33030	08/26/22 09:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32866	08/24/22 16:32	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	32894	08/25/22 18:18	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	32918	08/25/22 09:42	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	33245	08/30/22 05:59	CH	EET MID

Client Sample ID: BH-34B
Date Collected: 08/23/22 11:00
Date Received: 08/24/22 10:40

Lab Sample ID: 880-18467-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	33658	09/02/22 15:18	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33696	09/05/22 13:29	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33640	09/02/22 11:24	AJ	EET MID

Eurofins Midland

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Romeo

Job ID: 880-18467-1
SDG: Lea County, NM

Client Sample ID: BH-34B
Date Collected: 08/23/22 11:00
Date Received: 08/24/22 10:40

Lab Sample ID: 880-18467-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			33030	08/26/22 09:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	32866	08/24/22 16:32	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	32894	08/25/22 18:39	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	32918	08/25/22 09:42	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	33245	08/30/22 06:27	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: GHD Services Inc. Job ID: 880-18467-1
Project/Site: Romeo SDG: Lea County, NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: GHD Services Inc.
Project/Site: Romeo

Job ID: 880-18467-1
SDG: Lea County, NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET 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.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: GHD Services Inc.
Project/Site: Romeo

Job ID: 880-18467-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-18467-1	BH-3B	Solid	08/22/22 11:15	08/24/22 10:40
880-18467-2	BH-7B	Solid	08/22/22 12:55	08/24/22 10:40
880-18467-3	BH-31B	Solid	08/23/22 10:45	08/24/22 10:40
880-18467-4	BH-34B	Solid	08/23/22 11:00	08/24/22 10:40

Xenco Laboratories

The Environmental Lab of Texas

18467

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: JT. Murrey@GHD.com
Company Name: GHD
Company Address: 2135 S. Loop 250 W.
City/State/Zip: Midland, TX 79703
Telephone No: 432-686-0086
Fax No:
Sampler Signature:
e-mail: Heath.Boyd@GHD.com

Project Name: Romeo
Project #: 12
Project Loc: Lea County, NM
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #:

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge	GW=Groundwater S=Soil/Solid	NP=Non-Potable Specify Other	Analyze For: TCLP / TOTAL: TPH 418.1	8015M	TPH TX 1005	TX 1006	Cations (Ca Mg Na K)	Anions (Cl SO4 Alkalinity)	SAR / ESP / CEC	Metals As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chloride 300 m	RUSH TAT (Pre-Schedule) 24 48 72 hrs	Standard TAT
	BH-3B			8/22/22	1115		1										S		X									X			X		X
	BH-7B			"	1255		1										S		X									X			X		X
	BH-31B			8/23/22	1045		1										S		X									X			X		X
	BH-34B			8/23/22	1100		1										S		X									X			X		X

880-18467 Chain of Custody

Special Instructions: Please Email: JT.Murrey@GHD.com, Reece@GHD.com ~~Nikki.Mishler@GHD.com~~ Nikki.Mishler@cdevinc.com Direct Bill to: Centinniel Resources Production Attn: Nikki

Relinquished by:	Date	Time	Received by	Date	Time
	8/23/22	1330		8-23	1:21
Relinquished by	Date	Time	Received by	Date	Time
	8-23	1:21		8/24	10:40
Relinquished by	Date	Time	Received by ELOT	Date	Time

Laboratory Comments

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep ?		N
by Courier? UPS DHL FedEx Lone Star		
Temperature Upon Receipt	As Read 1.7	Corrected 1.9 °C

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 880-18467-1
SDG Number: Lea County, NM

Login Number: 18467
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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	

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2956-1
Laboratory Sample Delivery Group: 12580761
Client Project/Site: Romeo Federal 22 Battery 1

For:
GHD Services Inc.
2135 South Loop 250 West
Midland, Texas 79703

Attn: James (J.T.) Murrey

Authorized for release by:
9/28/2022 5:00:56 PM

Debbie Simmons, Project Manager
(832)986-6768
Debbie.Simmons@et.eurofinsus.com

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.

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Laboratory Job ID: 890-2956-1
SDG: 12580761

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Definitions/Glossary

Client: GHD Services Inc. Job ID: 890-2956-1
Project/Site: Romeo Federal 22 Battery 1 SDG: 12580761

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high 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: GHD Services Inc. Job ID: 890-2956-1
Project/Site: Romeo Federal 22 Battery 1 SDG: 12580761

Job ID: 890-2956-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2956-1

Comments
No additional comments.

Receipt
The sample was received on 9/14/2022 1:29 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.6º C.

GC VOA
Method 8021B: The continuing calibration verification (CCV) associated with batch 880-35226 recovered above the upper control limit for Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (CCV 880-35226/2). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCS 880-35092/1-A) and (LCSD 880-35092/2-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (CCV 880-35226/20). Evidence of matrix interferences is not obvious.

Method 8021B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 880-35092 and analytical batch 880-35226 recovered outside control limits for the following analytes: Ethylbenzene, m-Xylene & p-Xylene, o-Xylene and Xylenes, Total. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

GC Semi VOA
Method 8015B NM: The surrogate recovery for the blank associated with preparation batch 880-34675 and analytical batch 880-34626 was outside the upper control limits.

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

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

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

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

Client Sample Results

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 890-2956-1
SDG: 12580761

Client Sample ID: BH-31 C

Date Collected: 09/12/22 13:30
Date Received: 09/14/22 13:29
Sample Depth: 4'

Lab Sample ID: 890-2956-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	0.000383	mg/Kg		09/23/22 08:21	09/23/22 14:06	1
Toluene	<0.00199	U	0.00199	0.000453	mg/Kg		09/23/22 08:21	09/23/22 14:06	1
Ethylbenzene	<0.00199	U *+	0.00199	0.000562	mg/Kg		09/23/22 08:21	09/23/22 14:06	1
m-Xylene & p-Xylene	<0.00398	U *+	0.00398	0.00100	mg/Kg		09/23/22 08:21	09/23/22 14:06	1
o-Xylene	<0.00199	U *+	0.00199	0.000342	mg/Kg		09/23/22 08:21	09/23/22 14:06	1
Xylenes, Total	<0.00398	U *+	0.00398	0.00100	mg/Kg		09/23/22 08:21	09/23/22 14:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*09/23/22 08:21*	*09/23/22 14:06*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*09/23/22 08:21*	*09/23/22 14:06*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	0.00100	mg/Kg			09/26/22 12:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	15.0	mg/Kg			09/19/22 11:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	15.0	mg/Kg		09/16/22 11:48	09/17/22 05:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	15.0	mg/Kg		09/16/22 11:48	09/17/22 05:39	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	15.0	mg/Kg		09/16/22 11:48	09/17/22 05:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*09/16/22 11:48*	*09/17/22 05:39*	*1*
o-Terphenyl	*96*		*70 - 130*	*09/16/22 11:48*	*09/17/22 05:39*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**875**		4.99	0.857	mg/Kg			09/21/22 05:21	1

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 890-2956-1
SDG: 12580761

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2956-1	BH-31 C	121	84
LCS 880-35092/1-A	Lab Control Sample	138 S1+	126
LCSD 880-35092/2-A	Lab Control Sample Dup	166 S1+	136 S1+
MB 880-35092/5-A	Method Blank	121	113

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**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2956-1	BH-31 C	94	96
LCS 880-34675/2-A	Lab Control Sample	125	117
LCSD 880-34675/3-A	Lab Control Sample Dup	120	111
MB 880-34675/1-A	Method Blank	135 S1+	145 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 890-2956-1
SDG: 12580761

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-35092/5-A
Matrix: Solid
Analysis Batch: 35226

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 35092

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000385	mg/Kg		09/21/22 15:19	09/23/22 11:20	1
Toluene	<0.00200	U	0.00200	0.000456	mg/Kg		09/21/22 15:19	09/23/22 11:20	1
Ethylbenzene	<0.00200	U	0.00200	0.000565	mg/Kg		09/21/22 15:19	09/23/22 11:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	0.00101	mg/Kg		09/21/22 15:19	09/23/22 11:20	1
o-Xylene	<0.00200	U	0.00200	0.000344	mg/Kg		09/21/22 15:19	09/23/22 11:20	1
Xylenes, Total	<0.00400	U	0.00400	0.00101	mg/Kg		09/21/22 15:19	09/23/22 11:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*09/21/22 15:19*	*09/23/22 11:20*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*09/21/22 15:19*	*09/23/22 11:20*	*1*

Lab Sample ID: LCS 880-35092/1-A
Matrix: Solid
Analysis Batch: 35226

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 35092

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09803		mg/Kg		98	70 - 130		
Toluene			0.100	0.09879		mg/Kg		99	70 - 130		
Ethylbenzene			0.100	0.1144		mg/Kg		114	70 - 130		
m-Xylene & p-Xylene			0.200	0.2610	*+	mg/Kg		131	70 - 130		
o-Xylene			0.100	0.1269		mg/Kg		127	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*138*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*126*		*70 - 130*

Lab Sample ID: LCSD 880-35092/2-A
Matrix: Solid
Analysis Batch: 35226

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 35092

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1127		mg/Kg		113	70 - 130	14	35
Toluene			0.100	0.1105		mg/Kg		110	70 - 130	11	35
Ethylbenzene			0.100	0.1355	*+	mg/Kg		136	70 - 130	17	35
m-Xylene & p-Xylene			0.200	0.3060	*+	mg/Kg		153	70 - 130	16	35
o-Xylene			0.100	0.1482	*+	mg/Kg		148	70 - 130	16	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*166*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*136*	*S1+*	*70 - 130*

QC Sample Results

Client: GHD Services Inc. Job ID: 890-2956-1
Project/Site: Romeo Federal 22 Battery 1 SDG: 12580761

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

Lab Sample ID: MB 880-34675/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34626 — **Prep Batch: 34675**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	15.0	mg/Kg		09/16/22 11:48	09/17/22 03:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	15.0	mg/Kg		09/16/22 11:48	09/17/22 03:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	15.0	mg/Kg		09/16/22 11:48	09/17/22 03:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*135*	*S1+*	*70 - 130*	*09/16/22 11:48*	*09/17/22 03:30*	*1*
o-Terphenyl	*145*	*S1+*	*70 - 130*	*09/16/22 11:48*	*09/17/22 03:30*	*1*

Lab Sample ID: LCS 880-34675/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34626 — **Prep Batch: 34675**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1086		mg/Kg		109	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1082		mg/Kg		108	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*125*		*70 - 130*
o-Terphenyl	*117*		*70 - 130*

Lab Sample ID: LCSD 880-34675/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34626 — **Prep Batch: 34675**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1081		mg/Kg		108	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	1000	1029		mg/Kg		103	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*120*		*70 - 130*
o-Terphenyl	*111*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-34666/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 34958

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	0.858	mg/Kg			09/21/22 03:24	1

QC Sample Results

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 890-2956-1
SDG: 12580761

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-34666/2-A
Matrix: Solid
Analysis Batch: 34958

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	255.4		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-34666/3-A
Matrix: Solid
Analysis Batch: 34958

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	251.8		mg/Kg		101	90 - 110	1	20

QC Association Summary

Client: GHD Services Inc. Job ID: 890-2956-1
Project/Site: Romeo Federal 22 Battery 1 SDG: 12580761

GC VOA

Prep Batch: 35092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2956-1	BH-31 C	Total/NA	Solid	5035	
MB 880-35092/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-35092/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-35092/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 35226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2956-1	BH-31 C	Total/NA	Solid	8021B	35092
MB 880-35092/5-A	Method Blank	Total/NA	Solid	8021B	35092
LCS 880-35092/1-A	Lab Control Sample	Total/NA	Solid	8021B	35092
LCSD 880-35092/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	35092

Analysis Batch: 35402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2956-1	BH-31 C	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 34626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2956-1	BH-31 C	Total/NA	Solid	8015B NM	34675
MB 880-34675/1-A	Method Blank	Total/NA	Solid	8015B NM	34675
LCS 880-34675/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	34675
LCSD 880-34675/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	34675

Prep Batch: 34675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2956-1	BH-31 C	Total/NA	Solid	8015NM Prep	
MB 880-34675/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-34675/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-34675/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 34824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2956-1	BH-31 C	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 34666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2956-1	BH-31 C	Soluble	Solid	DI Leach	
MB 880-34666/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-34666/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-34666/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 34958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2956-1	BH-31 C	Soluble	Solid	300.0	34666
MB 880-34666/1-A	Method Blank	Soluble	Solid	300.0	34666
LCS 880-34666/2-A	Lab Control Sample	Soluble	Solid	300.0	34666
LCSD 880-34666/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	34666

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 890-2956-1
SDG: 12580761

Client Sample ID: BH-31 C

Date Collected: 09/12/22 13:30
Date Received: 09/14/22 13:29

Lab Sample ID: 890-2956-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	35092	09/23/22 08:21	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35226	09/23/22 14:06	MR	EET MID
Total/NA	Analysis	Total BTEX		1			35402	09/26/22 12:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			34824	09/19/22 11:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	34675	09/16/22 11:48	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34626	09/17/22 05:39	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	34666	09/16/22 10:42	CH	EET MID
Soluble	Analysis	300.0		1			34958	09/21/22 05:21	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: GHD Services Inc. Job ID: 890-2956-1
Project/Site: Romeo Federal 22 Battery 1 SDG: 12580761

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: GHD Services Inc. Job ID: 890-2956-1
Project/Site: Romeo Federal 22 Battery 1 SDG: 12580761

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: GHD Services Inc.
Project/Site: Romeo Federal 22 Battery 1

Job ID: 890-2956-1
SDG: 12580761

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2956-1	BH-31 C	Solid	09/12/22 13:30	09/14/22 13:29	4'

eurofins | Environment Testing Xenco

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

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Project Manager:	JT MURREY	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. COOP 250 W.	Address:	
City, State ZIP:	MIDLAND, TX 79703	City, State ZIP:	
Phone:	432-686-0086 Email: JT.MURREY@GHD.COM		

Work Order Comments

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

~~Project Name:~~	ROMEO FEDERAL 22 BATTERY 1	Turn Around	
Project Number:	12580761	☑ Routine ☐ Rush	
Project Location:	LEA COUNTY, NM	Due Date:	
Sampler's Name:	CHRIS NEILL	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	ROMEO FEDERAL 22 BATTERY 1		

SAMPLE RECEIPT	Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:		TNM-027
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:		-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:		5.8
Total Containers:		Corrected Temperature:		5.6

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	TPH 8015 M	BTEX 8021 B	CHLORIDE 300 M	Sample Comments
BH-31 C	S	9/12/22	1330	4'	C	1		X	X	X	

890-2956 Chain of Custody

Preservative Codes

None: (NO) DI Water: H_2O
Cool: (Cool) MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: NaSO$_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

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 SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Stuf	9/14/22 1339			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 890-2956-1
SDG Number: 12580761

Login Number: 2956
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins 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	

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 890-2956-1
SDG Number: 12580761

Login Number: 2956
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 09/16/22 11:00 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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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ANALYTICAL REPORT

PREPARED FOR

Attn: James (J.T.) Murrey
GHD Services Inc.
2135 South Loop 250 West
Midland, Texas 79703

Generated 12/5/2022 5:47:03 PM

JOB DESCRIPTION

Romero Battery Release
SDG NUMBER Rurual of Eunice, NM

JOB NUMBER

880-21947-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

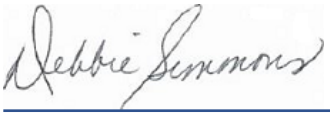
See page two for job notes and contact information.

Eurofins Midland

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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Authorized for release by
Debbie Simmons, Project Manager
Debbie.Simmons@et.eurofinsus.com
(832)986-6768

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Definitions/Glossary

Client: GHD Services Inc. Job ID: 880-21947-1
Project/Site: Romero Battery Release SDG: Rurual of Eunice, NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high 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: GHD Services Inc. Job ID: 880-21947-1
Project/Site: Romero Battery Release SDG: Rurual of Eunice, NM

Job ID: 880-21947-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-21947-1

Receipt
The sample was received on 11/28/2022 1:46 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.5°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: SW-11 (880-21947-1).

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-40456 and 880-40468 and analytical batch 880-40542 was outside the control limits.

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: The surrogate recovery for the blank associated with preparation batch 880-40514 and analytical batch 880-40408 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-40514/2-A) and (LCSD 880-40514/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SW-11 (880-21947-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-40514 and analytical batch 880-40408 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-40514 and analytical batch 880-40408 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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.

Client Sample Results

Client: GHD Services Inc.
Project/Site: Romero Battery Release

Job ID: 880-21947-1
SDG: Rurual of Eunice, NM

Client Sample ID: SW-11

Date Collected: 11/23/22 09:30
Date Received: 11/28/22 13:46

Lab Sample ID: 880-21947-1

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		11/29/22 13:24	11/30/22 12:43	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		11/29/22 13:24	11/30/22 12:43	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		11/29/22 13:24	11/30/22 12:43	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		11/29/22 13:24	11/30/22 12:43	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		11/29/22 13:24	11/30/22 12:43	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		11/29/22 13:24	11/30/22 12:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*11/29/22 13:24*	*11/30/22 12:43*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*11/29/22 13:24*	*11/30/22 12:43*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00401	0.00101	mg/Kg			11/30/22 14:30	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**29.9**	**J**	50.0	15.0	mg/Kg			11/29/22 12:08	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**29.9**	**J B F2**	50.0	15.0	mg/Kg		11/28/22 16:34	11/29/22 02:12	1
Diesel Range Organics (Over C10-C28)	<15.0	U F1	50.0	15.0	mg/Kg		11/28/22 16:34	11/29/22 02:12	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/28/22 16:34	11/29/22 02:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*139*	*S1+*	*70 - 130*	*11/28/22 16:34*	*11/29/22 02:12*	*1*
o-Terphenyl	*151*	*S1+*	*70 - 130*	*11/28/22 16:34*	*11/29/22 02:12*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**69.1**		5.05	0.399	mg/Kg			11/28/22 19:35	1

Surrogate Summary

Client: GHD Services Inc. Job ID: 880-21947-1
Project/Site: Romero Battery Release SDG: Rurual of Eunice, NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-21947-1	SW-11	109	110
LCS 880-40468/1-A	Lab Control Sample	91	108
LCSD 880-40468/2-A	Lab Control Sample Dup	93	102
MB 880-40456/5-A	Method Blank	63 S1-	97
MB 880-40468/5-A	Method Blank	64 S1-	91

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**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-21947-1	SW-11	139 S1+	151 S1+
880-21947-1 MS	SW-11	120	106
880-21947-1 MSD	SW-11	100	104
LCS 880-40514/2-A	Lab Control Sample	135 S1+	139 S1+
LCSD 880-40514/3-A	Lab Control Sample Dup	190 S1+	187 S1+
MB 880-40514/1-A	Method Blank	136 S1+	150 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: GHD Services Inc. Job ID: 880-21947-1
Project/Site: Romero Battery Release SDG: Rurual of Eunice, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-40456/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 40542 **Prep Batch: 40456**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		11/28/22 12:33	11/29/22 11:44	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		11/28/22 12:33	11/29/22 11:44	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		11/28/22 12:33	11/29/22 11:44	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		11/28/22 12:33	11/29/22 11:44	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		11/28/22 12:33	11/29/22 11:44	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		11/28/22 12:33	11/29/22 11:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*63*	*S1-*	*70 - 130*	*11/28/22 12:33*	*11/29/22 11:44*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*11/28/22 12:33*	*11/29/22 11:44*	*1*

Lab Sample ID: MB 880-40468/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 40542 **Prep Batch: 40468**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		11/28/22 14:12	11/30/22 01:56	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		11/28/22 14:12	11/30/22 01:56	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		11/28/22 14:12	11/30/22 01:56	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		11/28/22 14:12	11/30/22 01:56	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		11/28/22 14:12	11/30/22 01:56	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		11/28/22 14:12	11/30/22 01:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*64*	*S1-*	*70 - 130*	*11/28/22 14:12*	*11/30/22 01:56*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*11/28/22 14:12*	*11/30/22 01:56*	*1*

Lab Sample ID: LCS 880-40468/1-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 40542 **Prep Batch: 40468**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1124		mg/Kg		112	70 - 130
Toluene	0.100	0.09729		mg/Kg		97	70 - 130
Ethylbenzene	0.100	0.08761		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	0.200	0.1740		mg/Kg		87	70 - 130
o-Xylene	0.100	0.09189		mg/Kg		92	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: LCSD 880-40468/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 40542 **Prep Batch: 40468**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1194		mg/Kg		119	70 - 130	6	35

QC Sample Results

Client: GHD Services Inc. Job ID: 880-21947-1
Project/Site: Romero Battery Release SDG: Rurual of Eunice, NM

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

Lab Sample ID: LCSD 880-40468/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 40542 **Prep Batch: 40468**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1035		mg/Kg		104	70 - 130	6	35
Ethylbenzene			0.100	0.09377		mg/Kg		94	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1884		mg/Kg		94	70 - 130	8	35
o-Xylene			0.100	0.09769		mg/Kg		98	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

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

Lab Sample ID: MB 880-40514/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 40408 **Prep Batch: 40514**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	16.05	J	50.0	15.0	mg/Kg		11/28/22 16:34	11/29/22 06:30	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		11/28/22 16:34	11/29/22 06:30	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/28/22 16:34	11/29/22 06:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*136*	*S1+*	*70 - 130*	*11/28/22 16:34*	*11/29/22 06:30*	*1*
o-Terphenyl	*150*	*S1+*	*70 - 130*	*11/28/22 16:34*	*11/29/22 06:30*	*1*

Lab Sample ID: LCS 880-40514/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 40408 **Prep Batch: 40514**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1074		mg/Kg		107	70 - 130
Diesel Range Organics (Over C10-C28)			1000	995.7		mg/Kg		100	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*135*	*S1+*	*70 - 130*
o-Terphenyl	*139*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-40514/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 40408 **Prep Batch: 40514**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	903.6		mg/Kg		90	70 - 130	17	20
Diesel Range Organics (Over C10-C28)			1000	990.3		mg/Kg		99	70 - 130	1	20

QC Sample Results

Client: GHD Services Inc. Job ID: 880-21947-1
Project/Site: Romero Battery Release SDG: Rurual of Eunice, NM

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

Lab Sample ID: LCSD 880-40514/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 40408 **Prep Batch: 40514**

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	190	S1+	70 - 130
o-Terphenyl	187	S1+	70 - 130

Lab Sample ID: 880-21947-1 MS **Client Sample ID: SW-11**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 40408 **Prep Batch: 40514**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	29.9	J B F2	999	1202		mg/Kg		117	70 - 130
Diesel Range Organics (Over C10-C28)	<15.0	U F1	999	1382	F1	mg/Kg		138	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	120		70 - 130
o-Terphenyl	106		70 - 130

Lab Sample ID: 880-21947-1 MSD **Client Sample ID: SW-11**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 40408 **Prep Batch: 40514**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	29.9	J B F2	997	926.9	F2	mg/Kg		90	70 - 130	26	20
Diesel Range Organics (Over C10-C28)	<15.0	U F1	997	1267		mg/Kg		127	70 - 130	9	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	104		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-40467/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 40515

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	5.00	0.395	mg/Kg			11/28/22 18:35	1

Lab Sample ID: LCS 880-40467/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 40515

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	261.2		mg/Kg		104	90 - 110

QC Sample Results

Client: GHD Services Inc. Job ID: 880-21947-1
Project/Site: Romero Battery Release SDG: Rurual of Eunice, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-40467/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 40515

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	262.8		mg/Kg		105	90 - 110	1	20

QC Association Summary

Client: GHD Services Inc. Job ID: 880-21947-1
Project/Site: Romero Battery Release SDG: Rurual of Eunice, NM

GC VOA

Prep Batch: 40456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-40456/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 40468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21947-1	SW-11	Total/NA	Solid	5035	
MB 880-40468/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-40468/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-40468/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 40542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21947-1	SW-11	Total/NA	Solid	8021B	40468
MB 880-40456/5-A	Method Blank	Total/NA	Solid	8021B	40456
MB 880-40468/5-A	Method Blank	Total/NA	Solid	8021B	40468
LCS 880-40468/1-A	Lab Control Sample	Total/NA	Solid	8021B	40468
LCSD 880-40468/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	40468

Analysis Batch: 40718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21947-1	SW-11	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 40408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21947-1	SW-11	Total/NA	Solid	8015B NM	40514
MB 880-40514/1-A	Method Blank	Total/NA	Solid	8015B NM	40514
LCS 880-40514/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	40514
LCSD 880-40514/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	40514
880-21947-1 MS	SW-11	Total/NA	Solid	8015B NM	40514
880-21947-1 MSD	SW-11	Total/NA	Solid	8015B NM	40514

Prep Batch: 40514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21947-1	SW-11	Total/NA	Solid	8015NM Prep	
MB 880-40514/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-40514/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-40514/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-21947-1 MS	SW-11	Total/NA	Solid	8015NM Prep	
880-21947-1 MSD	SW-11	Total/NA	Solid	8015NM Prep	

Analysis Batch: 40605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21947-1	SW-11	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 40467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21947-1	SW-11	Soluble	Solid	DI Leach	
MB 880-40467/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-40467/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

QC Association Summary

Client: GHD Services Inc. Job ID: 880-21947-1
Project/Site: Romero Battery Release SDG: Rurual of Eunice, NM

HPLC/IC (Continued)

Leach Batch: 40467 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-40467/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 40515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-21947-1	SW-11	Soluble	Solid	300.0	40467
MB 880-40467/1-A	Method Blank	Soluble	Solid	300.0	40467
LCS 880-40467/2-A	Lab Control Sample	Soluble	Solid	300.0	40467
LCSD 880-40467/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	40467

Lab Chronicle

Client: GHD Services Inc. Job ID: 880-21947-1
Project/Site: Romero Battery Release SDG: Rurual of Eunice, NM

Client Sample ID: SW-11 Lab Sample ID: 880-21947-1

Date Collected: 11/23/22 09:30 **Matrix: Solid**
Date Received: 11/28/22 13:46

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	40468	11/29/22 13:24	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40542	11/30/22 12:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			40718	11/30/22 14:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			40605	11/29/22 12:08	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	40514	11/28/22 16:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40408	11/29/22 02:12	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	40467	11/28/22 13:50	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40515	11/28/22 19:35	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: GHD Services Inc. Job ID: 880-21947-1
Project/Site: Romero Battery Release SDG: Rurual of Eunice, NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: GHD Services Inc. Job ID: 880-21947-1
Project/Site: Romero Battery Release SDG: Rurual of Eunice, NM

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: GHD Services Inc.
Project/Site: Romero Battery Release

Job ID: 880-21947-1
SDG: Rurual of Eunice, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-21947-1	SW-11	Solid	11/23/22 09:30	11/28/22 13:46

eurofins | Environment Testing Xenco

Chain of Custody

Houston TX (281) 240-4200 Dallas TX (214) 902-0300
Midland TX (432) 704-5440 San Antonio TX (210) 509-3334
EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs NM (575) 392 7550 Carlsbad NM (575) 988-3199

Work Order No: 21947

www.xenco.com Page _____ of _____

Project Manager	J T Murrey	Bill to (if different)	Permian Resources (former Centennial)
Company Name	GHD Services	Company Name	Permian Resources (former Centennial)
Address	2135 S Loop 250 West	Address	500 W Illinois Ave , Suite 500
City, State ZIP	Midland, TX 79703	City, State ZIP	Midland, TX 79701
Phone	361-252-6136	Email	jt murrey@ghd com, nikki mishler@cdevinc com
Project Name	Romero Battery Release	Turn Around	Routine Rush
Project Number	CDEV ID 54383	Due Date	12/1/2022
Project Location	Rurual of Eunice, NM	TAT starts the day received by the lab if received by 4 30pm	
Sampler's Name	J T Murrey		
PO #	CDEV ID 54383		

Work Order Comments

Program UST/PST PRP Brownfields RR Superfund

State of Project

Reporting Level II Level III PST/UST TRRP Level IV

Deliverables EDD ADaPT Other

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID	IR8	
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-.3	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading	5.8	
Total Containers.		Corrected Temperature	5.5	

Preservative Codes

None NO; DI Water H_2O; Cool Cool; MeOH Me; HCL HC; HNO_3. HN; H_2SO_4. H_2; NaOH Na; H_3PO_4 HP; $NaHSO_4$ NABIS; $Na_2S_2O_3$. $NaSO_3$; Zn Acetate+NaOH Zn; NaOH+Ascorbic Acid SAPC

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	BTEX 8021B	TPH 8015M (GRO+DRO+ORO)	Chlorides	Sample Comments
SW-11	S	11/23/2022	9 30		Grab	1		X	X	X	

Parameters

880-21947 Chain of Custody

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 SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg 1631 / 245 1 / 7470 / 7471

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1		11/28/22 1340	2		
3			4		
5			6		

Revised Date 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 880-21947-1
SDG Number: Rurual of Eunice, NM

Login Number: 21947
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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	

Attachment B
Photographic Log

4/27/2022 - Northern area of excavation facing north.

4/27/2022 - Northern area of excavation facing northwest.

Site Photographic Log
CRP Romeo Federal 22 Battery 1 Release Site

4/27/2022 - Southwest corner of upper excavation area facing northeast.

4/27/2022 - Southern area of excavation facing southeast.

Site Photographic Log
CRP Romeo Federal 22 Battery 1 Release Site

4/27/2022 - Southern area of excavation facing southeast.

4/27/2022 - Southern area of excavation facing east.

Site Photographic Log
CRP Romeo Federal 22 Battery 1 Release Site

4/27/2022 - Northern area of excavation facing east.

4/27/2022 - Northern area of excavation facing east.

GHD

Site Photographic Log
CRP Romeo Federal 22 Battery 1 Release Site

4/27/2022 - Northern area of excavation facing east.

4/27/2022 - Northern area of excavation facing southeast.

4/27/2022 - Northern area of excavation facing south.

9/14/2022 - Southern tip of excavation facing north.

Site Photographic Log
CRP Romeo Federal 22 Battery 1 Release Site

8/25/2022 - Northern area of excavation facing north.

8/25/2022 - Northern area of excavation facing north.

GHD

Site Photographic Log
CRP Romeo Federal 22 Battery 1 Release Site

Attachment C
Sampling Notifications and Extensions

Nate Reece

From: J.T. Murrey
Sent: Thursday, December 8, 2022 10:34 AM
To: Nate Reece
Subject: FW: [EXTERNAL] RE: Romeo Federal 22 Battery 1 (nAPP2208051921 Sampling Notification

DISABLEFILINGSTATUS: 0

J.T. Murrey

GHD
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2135 S. Loop 250 West, Midland, TX 79703 USA
M 361 252 6136 | **E** jt.murrey@ghd.com

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US: 866 812 9565
Canada: 800 679 9082

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Connect

From: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Sent: Friday, November 18, 2022 11:14 AM
To: J.T. Murrey <JT.Murrey@ghd.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>
Subject: RE: [EXTERNAL] RE: Romeo Federal 22 Battery 1 (nAPP2208051921 Sampling Notification

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Jocelyn Harimon ● Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
http:// **www.emnrd.nm.gov**

From: J.T. Murrey <JT.Murrey@ghd.com>
Sent: Friday, November 18, 2022 9:45 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: FW: [EXTERNAL] RE: Romeo Federal 22 Battery 1 (nAPP2208051921 Sampling Notification

To Whom it May Concern,

GHD on behalf of Centennial Resource Production, Inc., respectfully submits notification of sampling to be conducted at the below location.

Romeo Federal 22 Battery 1
D-22-24S-34E
Lea County, NM
nAPP2208051921

Sampling will begin at 9:00 a.m. on Wednesday, November 23, 2022.

Thank You,

J.T. Murrey

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2135 S. Loop 250 West, Midland, TX 79703 USA
M 361 252 6136 | **E** jt.murrey@ghd.com

GHD FIRST 24 Hour Emergency Response
US: 866 812 9565
Canada: 800 679 9082

From: Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Sent: Friday, September 9, 2022 10:06 AM
To: J.T. Murrey <JT.Murrey@ghd.com>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@state.nm.us>
Subject: FW: [EXTERNAL] RE: Romeo Federal 22 Battery 1 (nAPP2208051921 Sampling Notification

J.T.

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thanks,
Jennifer Nobui

From: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Sent: Friday, September 9, 2022 8:27 AM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>
Subject: Fw: [EXTERNAL] RE: Romeo Federal 22 Battery 1 (nAPP2208051921 Sampling Notification

---

From: J.T. Murrey <JT.Murrey@ghd.com>
Sent: Thursday, September 8, 2022 12:53 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Cc: nikki.mishler@cdevinc.com <Nikki.Mishler@cdevinc.com>; Glenn Quinney <Glenn.Quinney@ghd.com>
Subject: [EXTERNAL] RE: Romeo Federal 22 Battery 1 (nAPP2208051921 Sampling Notification

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

To Whom it May Concern,

GHD on behalf of Centennial Resource Production, Inc., respectfully submits notification of sampling to be conducted at the below location.

Romeo Federal 22 Battery 1
D-22-24S-34E
Lea County, NM
nAPP2208051921

Sampling will begin at 2:00 p.m. on Monday, September 12, 2022.

Thank You,

J.T. Murrey
Senior Project Manager

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M 361 252 6136 | **E** jt.murrey@ghd.com

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Canada: 800 679 9082

From: J.T. Murrey
Sent: Tuesday, August 16, 2022 2:18 PM
To: ocd.enviro@state.nm.us
Cc: nikki.mishler@cdevinc.com; Heath Boyd <Heath.Boyd@ghd.com>; Glenn Quinney <Glenn.Quinney@ghd.com>
Subject: RE: Romeo Federal 22 Battery 1 (nAPP2208051921 Sampling Notification

To Whom it May Concern,

GHD on behalf of Centennial Resource Production, Inc., respectfully submits notification of sampling to be conducted at the below location.

Romeo Federal 22 Battery 1
D-22-24S-34E
Lea County, NM
nAPP2208051921

Sampling will begin at 12:00 p.m. on Monday, August 22, 2022 and will be continuous through Thursday, August 25, 2022.

Thank You,

J.T. Murrey
Senior Project Manager

GHD
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1712 S. Staples St., Corpus Christi, Texas 78404
D 1 361 232 4280 | **M** 361 252 6136 | **E** jt.murrey@ghd.com

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US: 866 812 9565
Canada: 800 679 9082

Please consider the environment before printing this email

From: Becky Haskell <Becky.Haskell@ghd.com>
Sent: Thursday, April 14, 2022 2:31 PM
To: OCDOnline@state.nm.us
Cc: nikki.mishler@cdevinc.com; Zach Comino <Zach.Comino@ghd.com>; Becky Haskell <Becky.Haskell@ghd.com>
Subject: Romeo Federal 22 Battery 1 (nAPP2208051921 Sampling Notification

To Whom it May Concern,

GHD on behalf of Centennial Resource Production, Inc., respectfully submits notification of sampling to be conducted at the below location.

Romeo Federal 22 Battery 1
D-22-24S-34E
Lea County, NM

nAPP2208051921

Sampling will begin at 1:45 p.m. on Tuesday, April 19, 2022 and will be continuous through Friday, April 22, 2022.

Thank You,

Thank You,

Becky Haskell
Senior Project Manager

GHD
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2135 S. Loop 250 West, Midland, Texas 79703
D 432-686-0086 **M 432-250-7917 E** becky.haskell@ghd.com

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Becky Haskell

From: Heath Boyd
Sent: Wednesday, July 6, 2022 3:44 PM
To: OCD.enviro@state.nm.us
Cc: Becky Haskell; nikki.mishler@cdevinc.com; Heath Boyd; J.T. Murrey
Subject: Sampling notification

DISABLEFILINGSTA10

To Whom it May Concern,

GHD on behalf of Centennial Resource Production, Inc., respectfully submits notification of sampling to be conducted at the below location.

Romeo Federal 22 Battery 1
D-22-24S-34E
Lea County, NM
nAPP2208051921

Sampling will begin at 9:30 a.m. on Monday, July 11, 2022 and will be continuous through Friday, July 15, 2022.

Heath D. Boyd
Enviornmental Technician

GHD
2135 S. Loop 250 W.
Midland, TX 79703
Mobile: 432-210-7306
Office: 432-686-0086
Email: Heath.Boyd@GHD.com

From: Nobui, Jennifer, EMNRD
To: J.T. Murrey
Cc: Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD
Subject: FW: [EXTERNAL] RE: Romeo Federal 22 Battery 1 (nAPP2208051921 Sampling Notification
Date: Friday, September 9, 2022 10:06:41 AM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png

> You don't often get email from jennifer.nobui@state.nm.us. Learn why this is important

J.T.

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thanks,
Jennifer Nobui

From: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Sent: Friday, September 9, 2022 8:27 AM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>
Subject: Fw: [EXTERNAL] RE: Romeo Federal 22 Battery 1 (nAPP2208051921 Sampling Notification

---

From: J.T. Murrey <JT.Murrey@ghd.com>
Sent: Thursday, September 8, 2022 12:53 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Cc: nikki.mishler@cdevinc.com <Nikki.Mishler@cdevinc.com>; Glenn Quinney <Glenn.Quinney@ghd.com>
Subject: [EXTERNAL] RE: Romeo Federal 22 Battery 1 (nAPP2208051921 Sampling Notification

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

To Whom it May Concern,

GHD on behalf of Centennial Resource Production, Inc., respectfully submits notification of sampling to be conducted at the below location.

Romeo Federal 22 Battery 1
D-22-24S-34E
Lea County, NM
nAPP2208051921

Sampling will begin at 2:00 p.m. on Monday, September 12, 2022.

Thank You,

J.T. Murrey
Senior Project Manager

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M 361 252 6136 | **E** jt.murrey@ghd.com

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Canada: 800 679 9082

From: J.T. Murrey
Sent: Tuesday, August 16, 2022 2:18 PM
To: ocd.enviro@state.nm.us
Cc: nikki.mishler@cdevinc.com; Heath Boyd <Heath.Boyd@ghd.com>; Glenn Quinney <Glenn.Quinney@ghd.com>
Subject: RE: Romeo Federal 22 Battery 1 (nAPP2208051921 Sampling Notification

To Whom it May Concern,

GHD on behalf of Centennial Resource Production, Inc., respectfully submits notification of sampling to be conducted at the below location.

Romeo Federal 22 Battery 1
D-22-24S-34E
Lea County, NM
nAPP2208051921

Sampling will begin at 12:00 p.m. on Monday, August 22, 2022 and will be continuous through Thursday, August 25, 2022.

Thank You,

J.T. Murrey
Senior Project Manager

GHD
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1712 S. Staples St., Corpus Christi, Texas 78404
D 1 361 232 4280 | **M** 361 252 6136 | **E** jt.murrey@ghd.com

Nate Reece

From: Nikki Mishler <Nikki.Mishler@permianres.com>
Sent: Monday, December 12, 2022 8:38 AM
To: Nate Reece
Subject: FW: -EXTERNAL- RE: [EXTERNAL] nAPP2208051921 - Request for Extension

From: Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Sent: Wednesday, September 14, 2022 3:41 PM
To: Nikki Mishler <Nikki.Mishler@cdevinc.com>
Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@state.nm.us>
Subject: -EXTERNAL- RE: [EXTERNAL] nAPP2208051921 - Request for Extension

Hello Nikki

OCD approves a request for a 90-day extension to December 23, 2022 to submit a closure report. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thanks
Jennifer Nobui

From: Nikki Mishler <Nikki.Mishler@cdevinc.com>
Sent: Wednesday, September 14, 2022 12:32 PM
To: Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Subject: [EXTERNAL] nAPP2208051921 - Request for Extension

Good Afternoon Jennifer,

I would like to request a 90-day extension to complete remediation activities and submit the closure report for the below release at the Romeo 22 Federal Battery. A few areas at the site required more excavation activities than originally anticipated and has delayed completion of field activities. At this time, final confirmation soil samples have been submitted to the laboratory. If laboratory analytical results indicate the release site has been remediated to the criteria referenced in the approved Remediation Plan, the site will be backfilled, and a closure report will be submitted to the OCD.

Thank you,

Nikki Mishler
432-634-8722

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Wednesday, June 22, 2022 11:14 AM
To: Nikki Mishler <Nikki.Mishler@cdevinc.com>
Subject: -EXTERNAL- The Oil Conservation Division (OCD) has approved the application, Application ID: 117478

To whom it may concern (c/o Nikki Mishler for CENTENNIAL RESOURCE PRODUCTION, LLC),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2208051921,
with the following conditions:

- **Remediation Plan Approved. Please request Deferral in final Remediation Summary Report once excavation activities have been completed.**

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,
Jennifer Nobui
Environmental Specialist-Advanced
505-476-3441
Jennifer.Nobui@state.nm.us

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

CAUTION: This email originated from outside of the organization. If it appears to be internal, check directly with assumed source

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

CONDITIONS

Action 166198

CONDITIONS

Operator: CENTENNIAL RESOURCE PRODUCTION, LLC 1001 17th Street, Suite 1800 Denver, CO 80202	OGRID: 372165
	Action Number: 166198
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	1/10/2023