

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	nAPP2110638995
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party EOG Resources, Inc.	OGRID 7377
Contact Name Chase Settle	Contact Telephone 575-748-1471
Contact email Chase_Settle@eogresources.com	Incident # (assigned by OCD) nAPP2110638995
Contact mailing address 104 S. 4th Street, Artesia, NM 88210	

Location of Release Source

Latitude 32.85828 Longitude -103.92643
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Jackson B #17	Site Type Flow Line
Date Release Discovered 04/12/2021	API# (if applicable) 30-015-04039

Unit Letter	Section	Township	Range	County
M	1	17S	30E	Eddy

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

Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) Unknown	Volume Recovered (bbls) 0
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Historical impacts discovered along the flow line during the well P&A process. Release volume and date are unknown.

State of New Mexico
Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> 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: <u>Chase Settle</u>	Title: <u>Rep Safety & Environmental Sr</u>
Signature: <u></u>	Date: <u>04/16/2021</u>
email: <u>Chase_Settle@eogresources.com</u>	Telephone: <u>575-748-1471</u>
<u>OCD Only</u>	
Received by: _____	Date: _____

Incident ID	nAPP2110638995
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Site Assessment/Characterization

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

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

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

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


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

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

State of New Mexico
Oil Conservation Division

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

Printed Name: Chase Settle Title: Rep Safety & Environmental Sr
Signature:  Date: 08/31/2021
email: Chase_Settle@eogresources.com Telephone: 575-748-1471

OCD Only

Received by: _____ Date: _____

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Remediation Plan


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

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

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

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

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

Printed Name: Chase Settle Title: Rep Safety & Environmental Sr
Signature:  Date: 08/31/2021
email: Chase_Settle@eogresources.com Telephone: 575-748-1471

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

Incident ID	nAPP2110638995
District RP	
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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: Chase Settle Title: Rep Safety & Environmental Sr
Signature: Chase Settle Date: 03/29/2022
email: Chase_Settle@eogresources.com Telephone: 575-748-1471

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: 04/18/2022
Printed Name: Jennifer Nobui Title: Environmental Specialist A

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

Our ref: 11228312

March 28, 2022

New Mexico Oil Conservation Division
District 2
811 South First Street
Artesia, New Mexico 88210

Re: **Site Characterization and Closure Report**
Jackson B #17 Flowline Area #1 Release Site
EOG Resources Inc.
Incident ID: nAPP2110638995
M-01-17S-30E, Eddy County, New Mexico

To Whom It May Concern:

1. Introduction

GHD Services, Inc. (GHD), on behalf of EOG Resources (EOG), submits this Site Characterization and Closure Report to the New Mexico Oil Conservation Division (NMOCD) District 2 Office. This Report provides documentation of delineation, sampling, remedial activities, and analyses in the affected area at the EOG Jackson B #17 Flowline Area #1 Release Site (Site). The Site is located in Unit Letter M Section 01 of Township 17 South and Range 30 East in Eddy County, New Mexico. The GPS coordinates for the release site are 32.85828 N latitude and 103.92643 W longitude. The release occurred on land managed by the Bureau of Land Management (BLM). Figure 1 depicts the Site location. The EOG production facility and other site details are depicted on Figure 2.

2. Background Information

A C-141 Release Notification for this release was submitted to the NMOCD on April 16, 2021. The C-141 stated that no known volume or date could be assigned to this historical release. The potential release area was discovered during EOG well plugging and flowline removal associated with this location. Soils within the former flowline area appeared to be discolored and after discussions between field personnel and environmental staff, EOG made the decision to go ahead and file a C-141 for this suspect release location.

A Site Characterization and Remediation Work Plan date August 31, 2021 was submitted to the NMOCD for approval. The work plan was approved by the NMOCD on January 21, 2022. The Release Notification, Site Assessment/Characterization, Remediation Plan, and Closure portions of Form C-141 for Incident Number nAPP2110638995 are attached to the front of this report.

3. Groundwater and Site Characterization

GHD characterized the Site according to Table 1, 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 release falls under the jurisdiction of the NMOCD District 2 in Artesia, New Mexico.

On May 18, 2021, Talon LPE (Talon) installed a temporary well, Jackson B #59 Temp Well, at GPS Coordinates 32.85697 N latitude and 103.92703 W longitude, to approximately 125 feet below ground surface (ft bgs) which is located approximately 0.5 miles from the Site. The Jackson B #59 Temp Well was left open for 72 hours and a water level meter was utilized to determine the presence or absence of groundwater. No groundwater was detected, and the temporary well was plugged and abandoned. Depth to groundwater for this Site is greater than one hundred (100) feet bgs. No other receptors (karst potential areas, water wells, playas, wetlands, waterways, lakebeds or ordinance boundaries) were located within each specific boundaries or distance from the Site. According to the Site characterization evaluation and 19.15.29.12.C(4)(a)(i) the Site is located within an area with depth to groundwater greater than one hundred (100) feet and meets the closure criteria for depth to groundwater greater than one hundred (100) feet in Table 1 in NMAC 19.15.29.12. The Site characterization documentation (Talon's Temporary Well Log, Karst Potential, FEMA, Points of Diversion and Wetlands maps) are provided in Attachment A. The soil and closure criteria are listed below:

General Site Characterization and Groundwater:

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

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

Constituent	Limits
Chloride	20,000 mg/kg
TPH (GRO+DRO+MRO)	2,500 mg/kg
TPH (GRO+DRO)	1,000 mg/kg
Benzene	10mg/kg
BTEX	50 mg/kg

4. Initial Soil Delineation Assessment Summary and Findings

On April 20, 2021, an EOG representative, installed three (3) hand borings, A1-1, A1-2, and A1-3, within the suspected impacted area. Soil samples were collected at depths ranging from one (1) to ten (10) feet bgs. All soil samples were 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 by Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico. Analytical results indicated BTEX concentrations above 50 mg/kg in soil samples A1-1 6' and A1-1 8' and TPH concentrations above 2,500 mg/kg in soil samples A1-1 Surface through A1-8', A1-2 Surface, A1-2 3', and A1-3 2'. None of the samples exhibited chloride concentrations above Table 1 Closure Criteria.

On May 25, 2021, GHD Services Inc. (GHD) and EOG's contractor BDS Enterprises, LLC (BDS), on behalf of EOG, installed test pits in the areas of A1-1 through A1-3 to obtain deeper samples and assess the

horizontal extent of impacts in seven additional test pits, TP-1 through TP-7 within and around the suspected affected area. The test pit locations were excavated to depths ranging from surface to approximately twenty (20) ft bgs. Soil samples were collected from varying depths of the test pits and field screened for chloride and hydrocarbons. Select samples were submitted to HEAL in Albuquerque, New Mexico and analyzed for BTEX by EPA Method 8021B, TPH by Method 8015B Modified, and chloride by EPA Method 300. Analytical results indicated none of the samples exhibited benzene, BTEX, TPH or chloride concentrations above Table I Closure Criteria.

On July 22, 2021, GHD and Talon returned to the site to install a soil boring near A1-1 to fully delineate the release to less than 600 mg/kg for chloride concentrations. The soil boring was installed to a depth of thirty-five (35) ft bgs. Samples were collected in approximately five (5) foot intervals beginning at twenty-five (25) ft bgs. Soil samples were submitted to HEAL in Albuquerque, New Mexico and analyzed for BTEX by EPA Method 8021B, TPH by Method 8015B Modified, and chloride by EPA Method 300. Analytical results indicated none of the samples exhibited benzene, BTEX, TPH or chloride concentrations above Table I Closure Criteria. The A1-1 Soil Boring Log is provided as Attachment B.

Figure 2 depicts the locations of the initial delineation samples and analytical concentrations. Analytical results are provided in Table 1, on Figure 2, and in the Laboratory Analytical Reports provided in Attachment C.

5. **Excavation, Waste Management and Confirmation Sampling**

Due to the initial soil sampling activities exhibiting BTEX, TPH and chloride concentrations above NMAC Table I Closure Criteria values for depth to groundwater greater than one hundred (100) feet and above NMAC 19.15.29.13 for restoration closure criteria GHD and Standard Safety and Supply (SS) mobilized to the site on February 7, 2022, to excavate the affected soils. Excavation activities continued through February 28, 2022, and the extents were modified based off ongoing analytical sample results (discussed below). The area containing affected soil totaled approximately 1,445 square feet and was excavated to depths ranging from approximately 4 to 22 feet below grade. As shown in Figure 3, a total of nineteen (19) sidewall composite and fourteen (14) bottom hole composite confirmation samples were collected. Samples BH-1 through BH-9 and BH-12 were collected at a depth of approximately four (4) feet below grade, BH-10 and BH-11 were collected at a depth of approximately eleven (11) feet below grade. All samples were taken to HEAL in Albuquerque, New Mexico and analyzed for BTEX by EPA Method 8021B, TPH by Method 8015B Modified, and chloride by EPA Method 300. All confirmation samples collected represented areas no greater than two hundred (200) square feet. Two (2) bottom hole samples, BH-7 and BH-8 and two (2) sidewall samples, SW-3 and SW-11 exhibited either TPH or chloride concentrations above closure criteria.

The areas represented by BH-7, BH-8, SW-3 and SW-11 were further excavated. Samples BH-7A and BH-8A were collected at a depth of approximately twenty-two (22) feet below grade. The confirmation samples were taken to HEAL in Albuquerque, New Mexico. All samples were analyzed for BTEX by EPA Method 8021B, TPH by Method 8015B Modified, and chloride by EPA Method 300. All confirmation samples collected represented areas no greater than 200 square feet. None of the final confirmation samples exhibited benzene, BTEX, TPH or chloride concentrations above Table I Closure Criteria. Laboratory Analytical Reports and Chain-of-Custody Documentation are provided in Attachment C. Analytical results are summarized in Table 1 and on attached Figure 3. A photographic log is included as Attachment C.

Waste Management activities were performed in coordination with EOG directives. EOG 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 (WM-1-035), Lea Land, LLC facility located at MM64, Highway 62/180 East, Carlsbad, NM, 88220. Approximately 482.04 tons of impacted soil were disposed at Lea Land, LLC, the waste manifests from February 2, 2022, through March 15, 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. Confirmation Sampling Notifications are included as Attachment E.

6. nAPP2110638995 Closure Requests

Site characterization, soil delineation, and remediation activities for this incident number have been performed in accordance with applicable NMOCD guidance and regulations. Based upon supporting documentation provided in this report, GHD, on behalf of EOG, respectfully requests closure and no further regulatory actions for nAPP2110638995.

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

Sincerely,

GHD



Nate Reece
Environmental Scientist



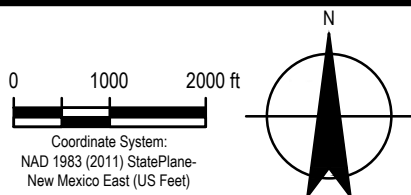
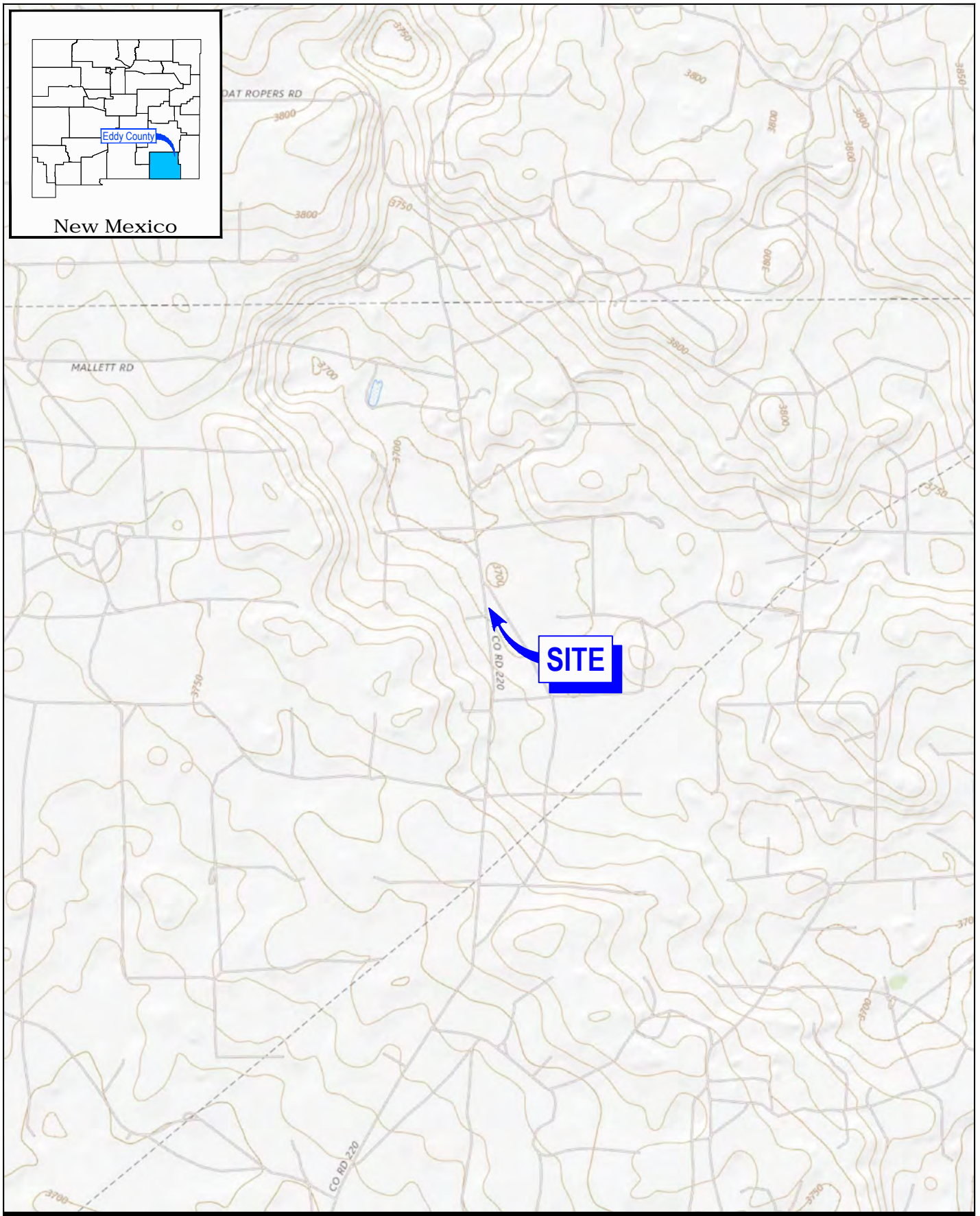
Becky Haskell
Senior Project Manager

NR/bh/2

Encl. Figure 1 – Site Location Map
 Figure 2 – Site Assessment Soil Analytical Results Map
 Figure 3 – Confirmation Sampling Analytical Results Map
 Table 1 – Summary of Soil Analytical Data
 Table 2 – Soil Disposal Summary
 Attachment A – Site Characterization Documentation
 Attachment B – A1-1 Soil Boring Log
 Attachment C – Photographic Log
 Attachment D – Laboratory Analytical Reports and Chain-of-Custody Documentation
 Attachment E – Confirmation Sampling Notification

cc: Chase Settle

Figures



Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)



EOG RESOURCES
EDDY COUNTY, NEW MEXICO
JACKSON B #17 FLOWLINE AREA #1

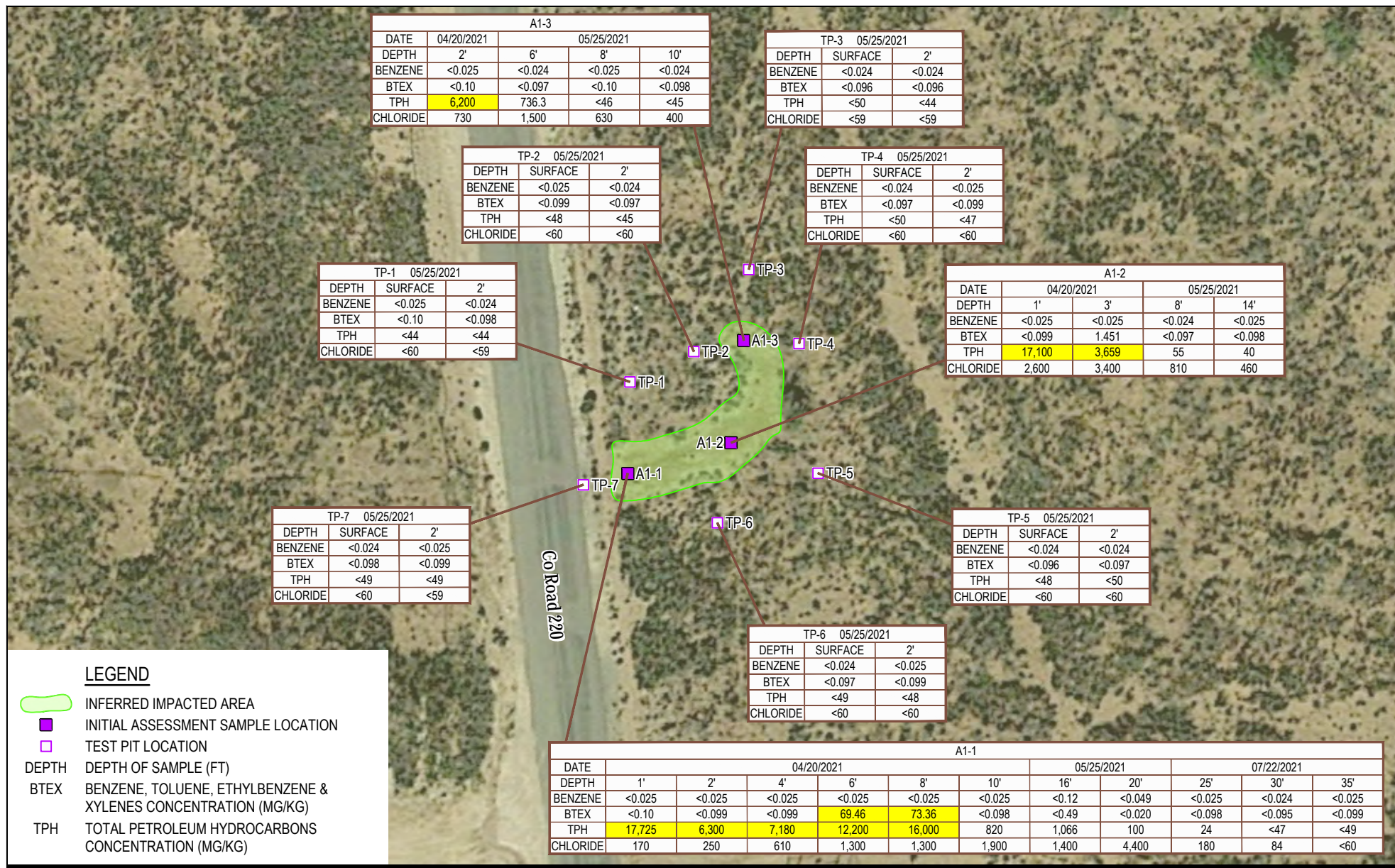
Project No. 11228312
Date August 2021

SITE LOCATION MAP

FIGURE 1

Filename: \\ghdnet\ghd\USMidland\Projects\562\11228312\Digital_Design\ACAD\Figures\RPT001\11228312-GHD-0000-RPT-EN-0101_DL-001.dwg

Data Source: USGS 7.5 Minute Quad "Loco Hills and Henshaw Tank, New Mexico"
Lat/Long: 32.858298° North, 103.926368° West



NOTES:

- RESULTS IN MILLIGRAMS PER KILOGRAM (MG/KG).
- SEE TABLE 1 FOR FULL ANALYTICAL RESULTS/DETAILS.
- YELLOW SHADED CELLS INDICATE EXCEEDANCE.



EOG RESOURCES
EDDY COUNTY, NEW MEXICO
JACKSON B #17 FLOWLINE AREA #1

Project No. **11228312**
 Date **August 2021**

SITE ASSESSMENT:
SOIL ANALYTICAL RESULTS MAP

FIGURE 2

Sample ID	Sample Date	Depth (ft bgs)	Benzene	BTEX	Total Petroleum Hydrocarbons (TPH)	Chloride
					Total GRO/DRO/MRO	
			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	2,500 mg/kg	20,000 mg/kg			
Confirmation Samples						
BH-1	2/8/22	4	<0.023	<0.093	190	2,100
BH-2	2/8/22	4	<0.024	<0.098	400	2,200
BH-3	2/8/22	4	<0.025	<0.099	<46	3,600
BH-4	2/8/22	4	<0.024	<0.097	<48	880
BH-5	2/8/22	4	<0.025	<0.099	1,370	1,200
BH-6	2/8/22	4	<0.023	<0.093	<46	310
BH-7	2/8/22	4	<0.025	<0.10	1,690	1,100
BH-7A	2/28/22	22	<0.024	<0.096	<650	480
BH-8	2/8/22	4	<0.12	1.2	4,474	2,100
BH-8A	2/28/22	22	<0.024	<0.098	<50	1,700
BH-9	2/8/22	4	<0.023	<0.094	<48	350
BH-10	2/8/22	11	<0.024	<0.097	<47	2,000
BH-11	2/8/22	11	<0.023	<0.092	<48	2,800
BH-12	2/23/2022	4	<0.024	<0.095	<47	2,100
SW-1	2/8/22	Sidewall	<0.025	<0.099	<43	<60
SW-2	2/8/22	Sidewall	<0.024	<0.095	<48	<60
SW-3	2/8/22	Sidewall	<0.024	<0.098	<48	1,400
SW-3A	2/23/2022	Sidewall	<0.024	<0.095	<48	<59
SW-4	2/8/22	Sidewall	<0.024	<0.094	<49	<60
SW-5	2/8/22	Sidewall	<0.024	<0.098	<50	74
SW-6	2/8/22	Sidewall	<0.024	<0.096	<49	<60
SW-7	2/8/22	Sidewall	<0.024	<0.095	<47	93
SW-8	2/8/22	Sidewall	<0.024	<0.095	580	750
SW-9	2/8/22	Sidewall	<0.024	<0.097	<48	210
SW-10	2/8/22	Sidewall	<0.025	<0.098	<46	2,200
SW-11	2/8/22	Sidewall	<0.12	<0.49	6300	1,900
SW-N-11'-22'	2/28/22	Sidewall	<0.024	<0.098	<47	690
SW-S-11'-22'	2/28/22	Sidewall	<0.024	<0.097	22	1,400
SW-E-11'-22'	2/28/22	Sidewall	<0.025	<0.10	<42	690
SW-W-11'-22'	2/28/22	Sidewall	<0.024	<0.095	9.6	2,000
SW-12	2/23/2022	Sidewall	<0.025	<0.099	<45	1,700
SW-13	2/23/2022	Sidewall	<0.024	<0.097	<40	350
SW-14	2/23/2022	Sidewall	<0.024	<0.095	<48	1,000

LEGEND

EXCAVATED AREA

DEPTH OF SAMPLE (FT)

BTEX BENZENE, TOLUENE, ETHYLBENZENE & XYLENES CONCENTRATION (MG/KG)

TPH TOTAL PETROLEUM HYDROCARBONS CONCENTRATION (MG/KG)

INDICATES SIDE WALL COMPOSITE SAMPLE

INDICATES SIDE WALL COMPOSITE SAMPLE

INDICATES SIDE WALL COMPOSITE SAMPLE

SAMPLE POINT EXCAVATED

NOTES:

RESULTS IN MILLIGRAMS PER KILOGRAM (MG/KG).

SEE TABLE 1 FOR FULL ANALYTICAL RESULTS/DETAILS.

YELLOW SHADED CELLS INDICATE EXCEEDANCE.

0 5 10 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

EOG RESOURCES
EDDY COUNTY, NEW MEXICO
JACKSON B #17 FLOWLINE AREA #1

CONFIRMATION SAMPLING:
SOIL ANALYTICAL RESULTS MAP

Project No. 11228312
Date March 2022

FIGURE 3

Released to Imaging: 4/18/2022 9:56:38 AM

Data Source: Image © 2021 Google - Imagery Date: November 2, 2017
Lat/Long: 32.858298° North, 103.926368° West

Tables

Table 1
Summary of Soil Analytical Data
Jackson B #17 Area #1
EOG Resources
Eddy 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)	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
			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			
Initial Assessment Samples												
A1-1 Sur	4/20/2021	1'	<0.025	<0.050	<0.050	<0.10	<0.10	25	8,400	9,300	17,725	170
A1-1 2'	4/20/2021	2'	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	2,700	3,600	6,300	250
A1-1 4'	4/20/2021	4'	<0.025	<0.050	<0.050	<0.099	<0.099	180	4,500	2,500	7,180	610
A1-1 6'	4/20/2021	6'	<0.025	0.16	2.3	67	69.46	1,200	7,600	3,400	12,200	1,300
A1-1 8'	4/20/2021	8'	<0.025	0.16	1.2	72	73.36	1,400	9,900	4,700	16,000	1,300
A1-1 10'	4/20/2021	10'	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	300	520	820	1,900
A1-1 16'	5/25/2021	16'	<0.12	<0.24	<0.24	<0.49	<0.49	66	590	410	1,066	1,400
A1-1 20'	5/25/2021	20'	<0.049	<0.098	<0.098	<0.020	<0.020	<9.8	100	<50	100	4,400
A1-1 25'	7/22/2021	25'	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	24	<49	24	180
A1-1 30'	7/22/2021	30'	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	<9.4	<47	<47	84
A1-1 35'	7/22/2021	35'	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.8	<49	<49	<60
A1-2 Sur	4/20/2021	1'	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	9,500	7,600	17,100	2,600
A1-2 3'	4/20/2021	3'	<0.025	<0.049	0.051	1.4	1.451	59	2,300	1,300	3,659	3,400
A1-2 8'	5/25/2021	8'	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	55	<49	55	810
A1-2 14'	5/25/2021	14'	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	40	<48	40	460
A1-3 2'	4/20/2021	2'	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	3,000	3,200	6,200	730
A1-3 6'	5/25/2021	6'	<0.024	<0.049	<0.049	<0.097	<0.097	6.3	340	390	736.3	1,500
A1-3 8'	5/25/2021	8'	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<9.2	<46	<46	630
A1-3 10'	5/25/2021	10'	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.0	<45	<45	400
TP1-S	5/25/2021	Surface	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<8.8	<44	<44	<60
TP1-2	5/25/2021	2'	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<8.8	<44	<44	<59
TP2-S	5/25/2021	Surface	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.6	<48	<48	<60
TP2-2	5/25/2021	2'	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<8.9	<45	<45	<60
TP3-S	5/25/2021	Surface	<0.024	<0.048	<0.048	<0.096	<0.096	<4.9	<9.9	<50	<50	<59
TP3-2	5/25/2021	2'	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<8.8	<44	<44	<59
TP4-S	5/25/2021	Surface	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<10	<50	<50	<60
TP4-2	5/25/2021	2'	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.5	<47	<47	<60
TP5-S	5/25/2021	Surface	<0.024	<0.049	<0.049	<0.096	<0.096	<4.8	<9.7	<48	<48	<60
TP5-2	5/25/2021	2'	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<9.9	<50	<50	<60
TP6-S	5/25/2021	Surface	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<9.9	<49	<49	<60
TP6-2	5/25/2021	2'	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.6	<48	<48	<60
TP7-S	5/25/2021	Surface	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.8	<49	<49	<60
TP7-2	5/25/2021	2'	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.8	<49	<49	<59
Bottom Hole Confirmation Samples												
BH-1	2/8/2022	4	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	60	130	190	2,100

Table 1
Summary of Soil Analytical Data
Jackson B #17 Area #1
EOG Resources
Eddy County, New Mexico

Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	Total Petroleum Hydrocarbons (TPH)				Chloride
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	GRO(C6-C10)	DRO(C10-C28)	MRO (C28-C35)	Total GRO/DRO/MRO	mg/kg
			Table 1 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-2	2/8/2022	4	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	250	150	400	2,200
BH-3	2/8/2022	4	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.2	<46	<46	3,600
BH-4	2/8/2022	4	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	14	<48	<48	880
BH-5	2/8/2022	4	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	790	580	1,370	1,200
BH-6	2/8/2022	4	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	<9.3	<46	<46	310
BH-7	2/8/2022	4	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	1,100	590	1,690	1,100
BH-7A	2/28/2022	22	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<130	<650	<650	480
BH-8	2/8/2022	4	<0.12	<0.25	0.31	1.2	1.2	74	2,800	1,600	4,474	2,100
BH-8A	2/28/2022	22	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<10	<50	<50	1,700
BH-9	2/8/2022	4	<0.023	<0.047	<0.047	<0.094	<0.094	<4.7	<9.7	<48	<48	350
BH-10	2/8/2022	11	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<9.4	<47	<47	2,000
BH-11	2/8/2022	11	<0.023	<0.046	<0.046	<0.092	<0.092	<4.6	<9.5	<48	<48	2,800
BH-12	2/23/2022	4	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	<9.4	<47	<47	2,100
Sidewall Confirmation Samples												
SW-1	2/8/2022	Sidewall	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<8.5	<43	<43	<60
SW-2	2/8/2022	Sidewall	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	<9.6	<48	<48	<60
SW-3	2/8/2022	Sidewall	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.7	<48	<48	1,400
SW-3A	2/23/2022	Sidewall	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	<9.6	<48	<48	<59
SW-4	2/8/2022	Sidewall	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	<9.7	<49	<49	<60
SW-5	2/8/2022	Sidewall	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.9	<50	<50	74
SW-6	2/8/2022	Sidewall	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.9	<49	<49	<60
SW-7	2/8/2022	Sidewall	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	<9.4	<47	<47	93
SW-8	2/8/2022	Sidewall	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	310	270	580	750
SW-9	2/8/2022	Sidewall	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<9.7	<48	<48	210
SW-10	2/8/2022	Sidewall	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.2	<46	<46	2,200
SW-11	2/8/2022	Sidewall	<0.12	<0.25	<0.25	<0.49	<0.49	<25	3,600	2,700	6,900	1,900
SW-N-11'-22'	2/28/2022	Sidewall	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.4	<47	<47	690
SW-S-11'-22'	2/28/2022	Sidewall	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	22	<45	22	1,400
SW-E-11'-22'	2/28/2022	Sidewall	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<8.4	<42	<42	690
SW-W-11'-22'	2/28/2022	Sidewall	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	9.6	<47	9.6	2,000
SW-12	2/23/2022	Sidewall	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.1	<45	<45	1,700
SW-13	2/23/2022	Sidewall	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<8.1	<40	<40	350
SW-14	2/23/2022	Sidewall	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	<9.6	<48	<48	1,000

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

Yellow shaded cells indicate analytical samples that exceed the NMAC 19.15.29.12 Table I for depth to water greater than 100 ft

Peach shaded cells indicate analytical samples that exceed the NMAC 19.15.29.12 Table I for depth to water less than 50 ft

Table 1
Summary of Soil Analytical Data
Jackson B #17 Area #1
EOG Resources
Eddy 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)	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
			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
B-BH-2	Sample Point Excavated											

Table 2
Daily Disposal Summary
Jackson B #17 Flowline Area #1
EOG Resources
Eddy, County, New Mexico

Date of Disposal	Total Pounds Disposed	Total Tons Disposed
2/2/2022	605,820	302.91
2/8/2022	80,600	40.30
2/28/2022	187,740	93.87
3/15/2022	89,920	44.96
Project Total	964,080	482.04

Attachment A

Site Characterization Documentation

EOG Resources

Eddy County, NM

Groundwater Reference Map

Legend

-  .10 Miles
-  .30 Miles
-  .50 Miles
-  Jackson B
-  Temporary Well




1000 ft


EOG Jackson B#59

Eddy County, New Mexico

Legend

 32.85697,-103.92703

32.85697,-103.92703

 Jackson B#59 Temp Well

Square Lake Rd

220

Google Earth



1000 ft



BORING LOG

Project No.: 700438.238.01

Weather: Clear, Temp.: 75°F

Driller: D. Londagin

Site Name: Jackson B #59

Logger: D. Adkins

Rig Type: Reich Drill

Location: Eddy County, New Mexico

Field Instrument: NA

Bit Size: 5-7/8"

Date: 5/18/2021

Latitude: 32.85697 N

Drilling Method: Air Rotary

Boring Number: B-1

Longitude: -103.92703 W

Sample Retrieval Method: Drill Cuttings

Time	Lab Sample Collected	Sample Interval (ft)	Sample Recovery (ft)	USCS	Composition (%)	Sample Material/Comments Include composition, color, grain size, moisture, hardness, plasticity, density	Hydrocarbon Odor	PID (ppm)
	<input type="checkbox"/>	0-30'				Red/brown fine Sand (SP)	<u>None</u> Slight Mod. Strong	
	<input type="checkbox"/>	30-40'				Red/brown fine Sand (SP) with varying amounts of silt and caliche	<u>None</u> Slight Mod. Strong	
	<input type="checkbox"/>	40-80'				Dry, dark red/brown sandy Silts (SM)	<u>None</u> Slight Mod. Strong	
	<input type="checkbox"/>	80-125'				Red/brown fine Sand (SP)	<u>None</u> Slight Mod. Strong	
	<input type="checkbox"/>					__ TD 125' __	None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	

Surface Elevation: _____

Notes: Groundwater Not Encountered @ 125' BGS – 72 hr.

Logger Initials: DJA

Time	Lab Sample Collected	Sample Interval (ft)	Sample Recovery (ft)	USCS	Composition (%)	Sample Material/Comments Include composition, color, grain size, moisture, hardness, plasticity, density	Hydrocarbon Odor	PID (ppm)
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	
	<input type="checkbox"/>						None Slight Mod. Strong	






Notes:

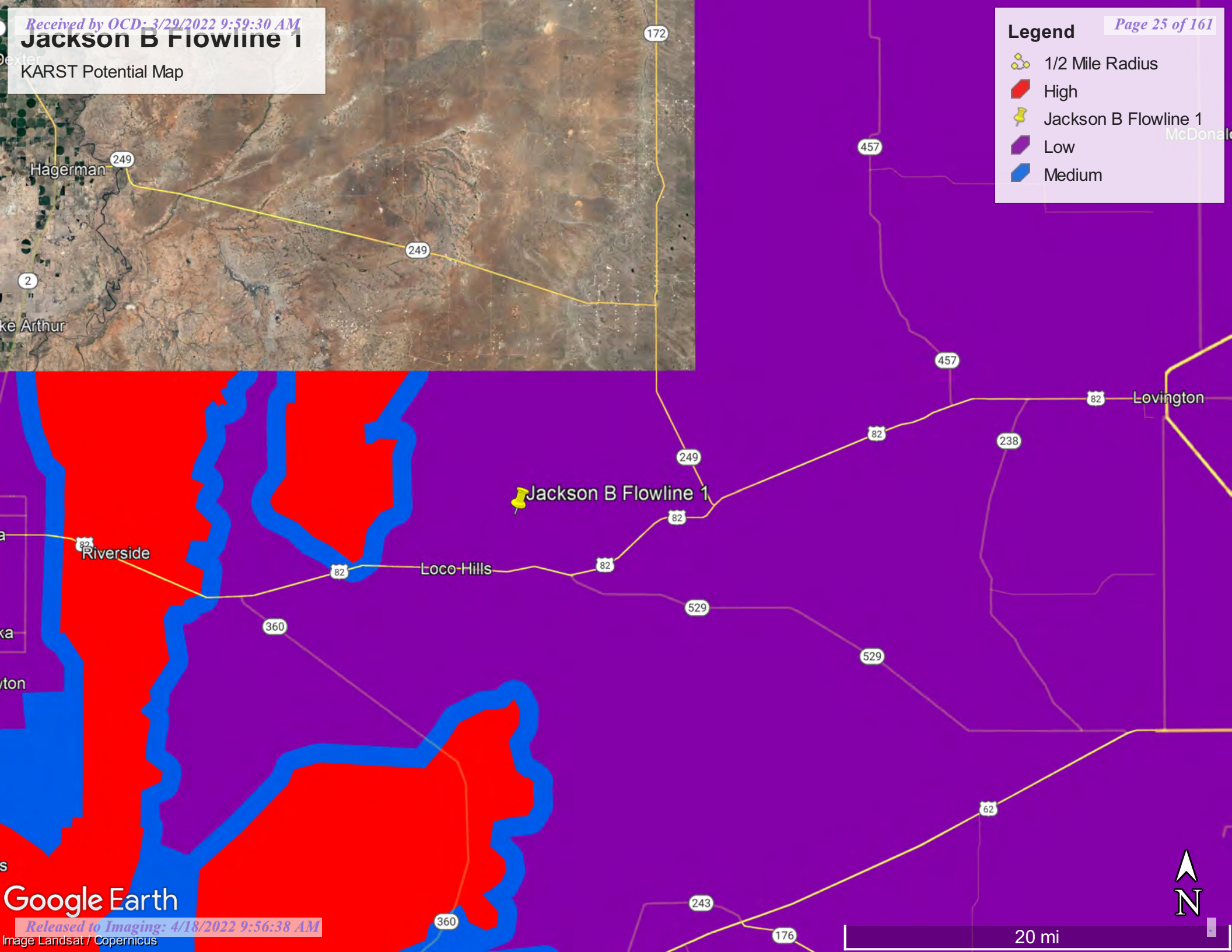
The borehole was advanced to 125' below ground surface (bgs). A 2-inch diameter temporary well constructed of schedule 40 PVC thread coupled to 10-feet of machine slotted well screen was installed in the open borehole. 72-hours after installation, a Solinst water level meter was utilized to determine the presence or absence of groundwater. The temporary well casing was subsequently removed and the bore hole backfilled with hole plug (bentonite chips) and hydrated.

Jackson B Flowline 1

KARST Potential Map

Legend

-  1/2 Mile Radius
-  High
-  Jackson B Flowline 1
-  Low
-  Medium



Google Earth

OSE PUBLIC PRINT



8/19/2021, 4:36:15 PM

GIS WATERS PODs

● Pending

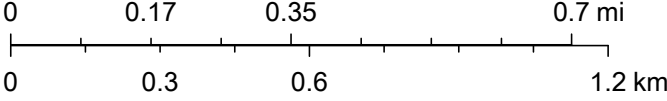
□ OSE District Boundary

New Mexico State Trust Lands

■ Both Estates

■ SiteBoundaries

1:18,056





Esri, HERE, iPC, U.S. Department of Energy Office of Legacy Management, Esri, HERE, Garmin, iPC, Maxar


Jackson B Flowline 1

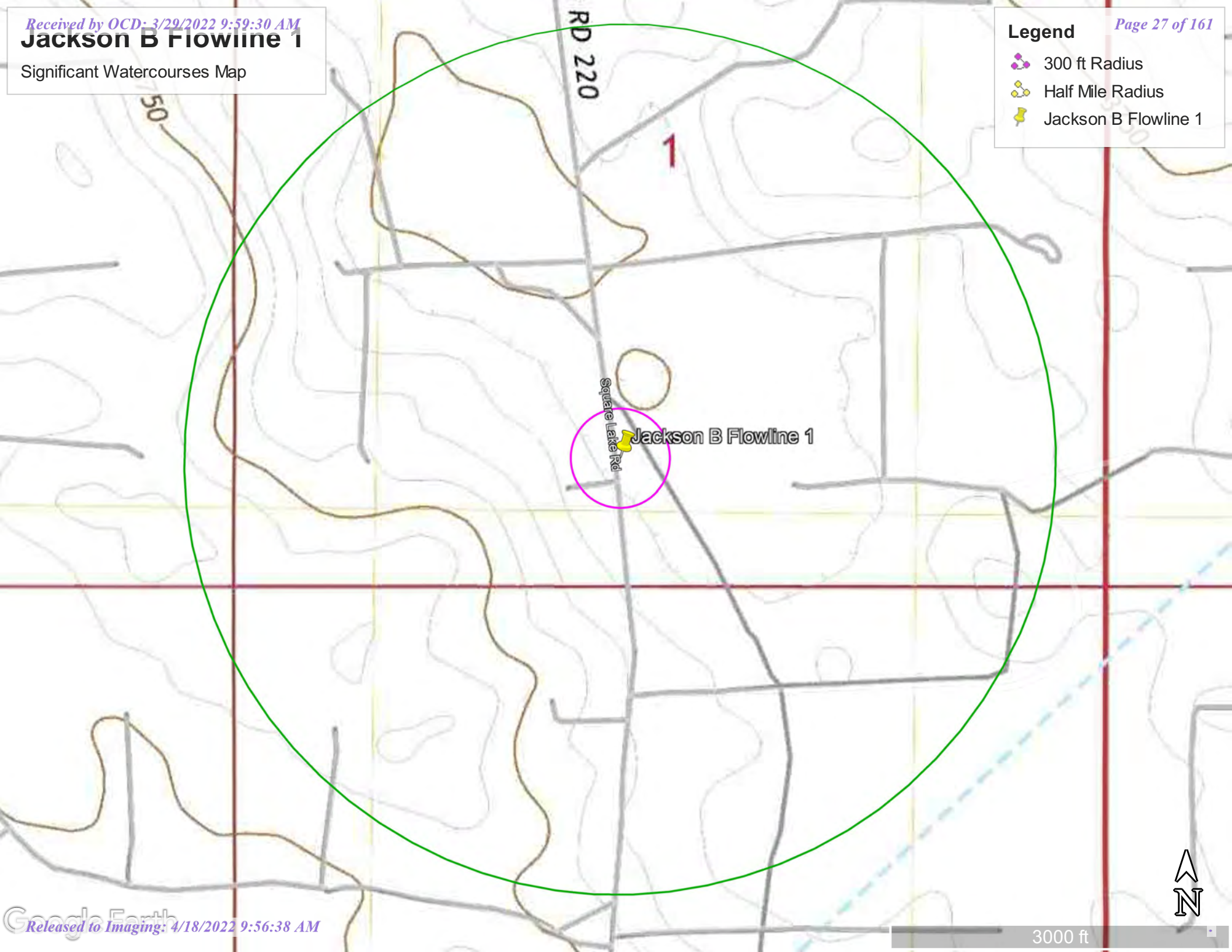
Significant Watercourses Map

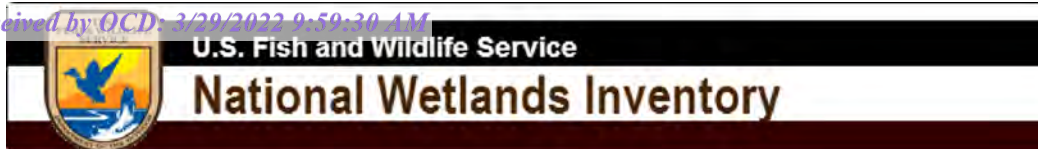
Legend

 300 ft Radius

 Half Mile Radius

 Jackson B Flowline 1





EOG Jackson #17 Flowline Area #1



August 26, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Flood Hazard Layer FIRMMette



103°55'54"W 32°51'45"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **8/19/2021 at 6:39 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Attachment B A1-1 Soil Boring Log



STRATIGRAPHIC LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: EOG/Jackson B #17 Flowline Area #1

HOLE DESIGNATION: A1-1

PROJECT NUMBER: 11228312

DATE COMPLETED: 22 July 2021

CLIENT: EOG Resources. INC.

DRILLING METHOD: Air Rotary

LOCATION: M-1-17S-30E; 32.858274, -103.926467

FIELD PERSONNEL: Lee M./Zach C.

File: \\GHDNET\GHD\USMIDLAND\PROJECTS\56211228312\FIELD NOTES\GINT LOGS\GPJ Library File: 11228312 GHD_ENVIRO_V04.GLB Report: OVERBURDEN LOG Date: 26/7/21

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	SAMPLE				
			NUMBER	INTERVAL	REC (%)	mS/cm	NaCl
5	Start strat log @ 20ft						
10							
15							
20	SAND, fine/medium, red and brown, dry	20.00	20-25'		100	80	Non Detect
25	CLAYEY SAND, red and brown, caliche interbedded throughout, dry	25.00	25-30'		100	120	Non Detect
30	SAND, fine/medium, red and brown, dry	30.00	30-35'		100	80	Non Detect
35	END OF BOREHOLE @ 35.00ft BGS	35.00					
40							
45							
50							
55							
60							
65							
70							
75							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

Attachment C Photographic Log



Site Photograph

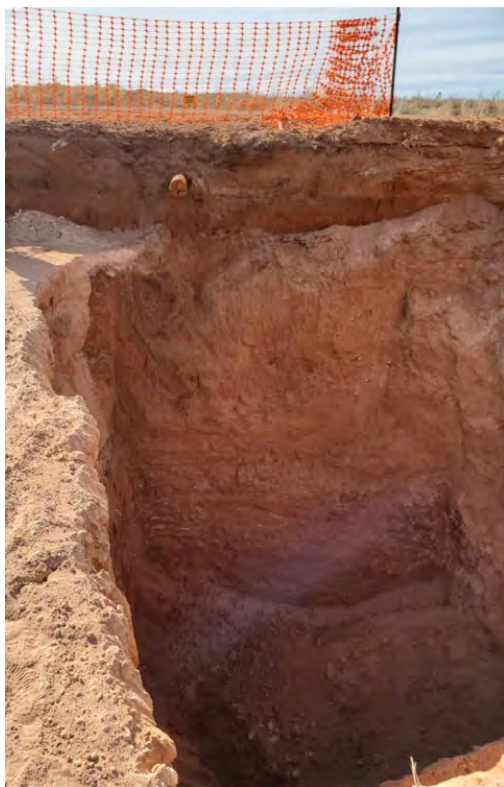
**EOG Jackson B #17 Area #1
Release Site.**

GHD | Report for EOG | 11228312



Site Photograph

**EOG Jackson B #17 Area #1
Release Site.**



Site Photograph

**EOG Jackson B #17 Area #1
Release Site.**

GHD | Report for EOG | 11228312

Appendix D

Laboratory Analytical Reports and Chain-of-Custody Documentation



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

April 29, 2021

Chase Settle

EOG

105 South Fourth Street

Artesia, NM 88210

TEL:

FAX

RE: Jackson B 17

OrderNo.: 2104970

Dear Chase Settle:

Hall Environmental Analysis Laboratory received 9 sample(s) on 4/22/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2104970

Date Reported: 4/29/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: A1-1 Sur

Project: Jackson B 17

Collection Date: 4/20/2021 2:54:00 PM

Lab ID: 2104970-001

Matrix: SOIL

Received Date: 4/22/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	170	60		mg/Kg	20	4/27/2021 1:07:56 AM	59643
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	8400	480		mg/Kg	50	4/23/2021 1:09:27 PM	59581
Motor Oil Range Organics (MRO)	9300	2400		mg/Kg	50	4/23/2021 1:09:27 PM	59581
Surr: DNOP	0	70-130	S	%Rec	50	4/23/2021 1:09:27 PM	59581
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	25	5.0		mg/Kg	1	4/24/2021 7:28:00 PM	59578
Surr: BFB	175	70-130	S	%Rec	1	4/24/2021 7:28:00 PM	59578
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/24/2021 7:28:00 PM	59578
Toluene	ND	0.050		mg/Kg	1	4/24/2021 7:28:00 PM	59578
Ethylbenzene	ND	0.050		mg/Kg	1	4/24/2021 7:28:00 PM	59578
Xylenes, Total	ND	0.10		mg/Kg	1	4/24/2021 7:28:00 PM	59578
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	4/24/2021 7:28:00 PM	59578

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 1 of 13

Analytical Report

Lab Order 2104970

Date Reported: 4/29/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: A1-1 2'

Project: Jackson B 17

Collection Date: 4/20/2021 2:56:00 PM

Lab ID: 2104970-002

Matrix: SOIL

Received Date: 4/22/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	250	60		mg/Kg	20	4/27/2021 1:20:21 AM	59643
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	2700	470		mg/Kg	50	4/25/2021 11:09:11 AM	59581
Motor Oil Range Organics (MRO)	3600	2400		mg/Kg	50	4/25/2021 11:09:11 AM	59581
Surr: DNOP	0	70-130	S	%Rec	50	4/25/2021 11:09:11 AM	59581
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/24/2021 7:47:00 PM	59578
Surr: BFB	122	70-130		%Rec	1	4/24/2021 7:47:00 PM	59578
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/24/2021 7:47:00 PM	59578
Toluene	ND	0.050		mg/Kg	1	4/24/2021 7:47:00 PM	59578
Ethylbenzene	ND	0.050		mg/Kg	1	4/24/2021 7:47:00 PM	59578
Xylenes, Total	ND	0.099		mg/Kg	1	4/24/2021 7:47:00 PM	59578
Surr: 4-Bromofluorobenzene	88.2	70-130		%Rec	1	4/24/2021 7:47:00 PM	59578

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 2 of 13

Analytical Report

Lab Order 2104970

Date Reported: 4/29/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: A1-1 4'

Project: Jackson B 17

Collection Date: 4/20/2021 2:58:00 PM

Lab ID: 2104970-003

Matrix: SOIL

Received Date: 4/22/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	610	60		mg/Kg	20	4/27/2021 1:32:45 AM	59643
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	4500	190		mg/Kg	20	4/25/2021 11:34:52 AM	59581
Motor Oil Range Organics (MRO)	2500	970		mg/Kg	20	4/25/2021 11:34:52 AM	59581
Surr: DNOP	0	70-130	S	%Rec	20	4/25/2021 11:34:52 AM	59581
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	180	5.0		mg/Kg	1	4/24/2021 8:07:00 PM	59578
Surr: BFB	305	70-130	S	%Rec	1	4/24/2021 8:07:00 PM	59578
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/24/2021 8:07:00 PM	59578
Toluene	ND	0.050		mg/Kg	1	4/24/2021 8:07:00 PM	59578
Ethylbenzene	0.084	0.050		mg/Kg	1	4/24/2021 8:07:00 PM	59578
Xylenes, Total	1.3	0.099		mg/Kg	1	4/24/2021 8:07:00 PM	59578
Surr: 4-Bromofluorobenzene	124	70-130		%Rec	1	4/24/2021 8:07:00 PM	59578

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 3 of 13

Analytical Report

Lab Order 2104970

Date Reported: 4/29/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: A1-1 6'

Project: Jackson B 17

Collection Date: 4/20/2021 3:00:00 PM

Lab ID: 2104970-004

Matrix: SOIL

Received Date: 4/22/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	1300	61		mg/Kg	20	4/27/2021 2:09:59 AM	59643
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	7600	190		mg/Kg	20	4/25/2021 12:00:21 PM	59581
Motor Oil Range Organics (MRO)	3400	970		mg/Kg	20	4/25/2021 12:00:21 PM	59581
Surr: DNOP	0	70-130	S	%Rec	20	4/25/2021 12:00:21 PM	59581
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	1200	250		mg/Kg	50	4/27/2021 5:38:00 PM	59578
Surr: BFB	280	70-130	S	%Rec	50	4/27/2021 5:38:00 PM	59578
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/24/2021 8:27:00 PM	59578
Toluene	0.16	0.050		mg/Kg	1	4/24/2021 8:27:00 PM	59578
Ethylbenzene	2.3	0.050		mg/Kg	1	4/24/2021 8:27:00 PM	59578
Xylenes, Total	67	5.0		mg/Kg	50	4/27/2021 5:38:00 PM	59578
Surr: 4-Bromofluorobenzene	552	70-130	S	%Rec	1	4/24/2021 8:27:00 PM	59578

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 4 of 13

Analytical Report

Lab Order 2104970

Date Reported: 4/29/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: A1-1 8'

Project: Jackson B 17

Collection Date: 4/20/2021 3:02:00 PM

Lab ID: 2104970-005

Matrix: SOIL

Received Date: 4/22/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	1300	60		mg/Kg	20	4/27/2021 2:22:23 AM	59643
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	9900	470		mg/Kg	50	4/25/2021 12:26:08 PM	59581
Motor Oil Range Organics (MRO)	4700	2400		mg/Kg	50	4/25/2021 12:26:08 PM	59581
Surr: DNOP	0	70-130	S	%Rec	50	4/25/2021 12:26:08 PM	59581
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	1400	250		mg/Kg	50	4/27/2021 6:18:00 PM	59578
Surr: BFB	275	70-130	S	%Rec	50	4/27/2021 6:18:00 PM	59578
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/24/2021 8:47:00 PM	59578
Toluene	0.16	0.050		mg/Kg	1	4/24/2021 8:47:00 PM	59578
Ethylbenzene	1.2	0.050		mg/Kg	1	4/24/2021 8:47:00 PM	59578
Xylenes, Total	72	5.0		mg/Kg	50	4/27/2021 6:18:00 PM	59578
Surr: 4-Bromofluorobenzene	402	70-130	S	%Rec	1	4/24/2021 8:47:00 PM	59578

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 5 of 13

Analytical Report

Lab Order 2104970

Date Reported: 4/29/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: A1-1 10'

Project: Jackson B 17

Collection Date: 4/20/2021 3:05:00 PM

Lab ID: 2104970-006

Matrix: SOIL

Received Date: 4/22/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	1900	59		mg/Kg	20	4/27/2021 2:34:47 AM	59643
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	300	9.8		mg/Kg	1	4/26/2021 11:53:14 PM	59581
Motor Oil Range Organics (MRO)	520	49		mg/Kg	1	4/26/2021 11:53:14 PM	59581
Surr: DNOP	92.6	70-130		%Rec	1	4/26/2021 11:53:14 PM	59581
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/27/2021 6:58:00 PM	59578
Surr: BFB	111	70-130		%Rec	1	4/27/2021 6:58:00 PM	59578
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/27/2021 6:58:00 PM	59578
Toluene	ND	0.049		mg/Kg	1	4/27/2021 6:58:00 PM	59578
Ethylbenzene	ND	0.049		mg/Kg	1	4/27/2021 6:58:00 PM	59578
Xylenes, Total	ND	0.098		mg/Kg	1	4/27/2021 6:58:00 PM	59578
Surr: 4-Bromofluorobenzene	90.3	70-130		%Rec	1	4/27/2021 6:58:00 PM	59578

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 6 of 13

Analytical Report

Lab Order 2104970

Date Reported: 4/29/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: A1-2 Sur

Project: Jackson B 17

Collection Date: 4/20/2021 3:08:00 PM

Lab ID: 2104970-007

Matrix: SOIL

Received Date: 4/22/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	2600	150		mg/Kg	50	4/27/2021 8:43:07 AM	59643
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	9500	490		mg/Kg	50	4/25/2021 1:17:56 PM	59581
Motor Oil Range Organics (MRO)	7600	2500		mg/Kg	50	4/25/2021 1:17:56 PM	59581
Surr: DNOP	0	70-130	S	%Rec	50	4/25/2021 1:17:56 PM	59581
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/27/2021 7:39:00 PM	59578
Surr: BFB	130	70-130		%Rec	1	4/27/2021 7:39:00 PM	59578
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/27/2021 7:39:00 PM	59578
Toluene	ND	0.050		mg/Kg	1	4/27/2021 7:39:00 PM	59578
Ethylbenzene	ND	0.050		mg/Kg	1	4/27/2021 7:39:00 PM	59578
Xylenes, Total	ND	0.099		mg/Kg	1	4/27/2021 7:39:00 PM	59578
Surr: 4-Bromofluorobenzene	90.6	70-130		%Rec	1	4/27/2021 7:39:00 PM	59578

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 7 of 13

Analytical Report

Lab Order 2104970

Date Reported: 4/29/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: A1-2 3'

Project: Jackson B 17

Collection Date: 4/20/2021 3:11:00 PM

Lab ID: 2104970-008

Matrix: SOIL

Received Date: 4/22/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	3400	150		mg/Kg	50	4/27/2021 8:55:31 AM	59643
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	2300	200		mg/Kg	20	4/25/2021 1:43:54 PM	59581
Motor Oil Range Organics (MRO)	1300	1000		mg/Kg	20	4/25/2021 1:43:54 PM	59581
Surr: DNOP	0	70-130	S	%Rec	20	4/25/2021 1:43:54 PM	59581
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	59	4.9		mg/Kg	1	4/24/2021 9:47:00 PM	59578
Surr: BFB	236	70-130	S	%Rec	1	4/24/2021 9:47:00 PM	59578
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/24/2021 9:47:00 PM	59578
Toluene	ND	0.049		mg/Kg	1	4/24/2021 9:47:00 PM	59578
Ethylbenzene	0.051	0.049		mg/Kg	1	4/24/2021 9:47:00 PM	59578
Xylenes, Total	1.4	0.099		mg/Kg	1	4/24/2021 9:47:00 PM	59578
Surr: 4-Bromofluorobenzene	138	70-130	S	%Rec	1	4/24/2021 9:47:00 PM	59578

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 8 of 13

Analytical Report

Lab Order 2104970

Date Reported: 4/29/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: A1-3 2'

Project: Jackson B 17

Collection Date: 4/20/2021 3:14:00 PM

Lab ID: 2104970-009

Matrix: SOIL

Received Date: 4/22/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	730	60		mg/Kg	20	4/27/2021 3:12:00 AM	59643
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	3000	480		mg/Kg	50	4/25/2021 2:09:59 PM	59581
Motor Oil Range Organics (MRO)	3200	2400		mg/Kg	50	4/25/2021 2:09:59 PM	59581
Surr: DNOP	0	70-130	S	%Rec	50	4/25/2021 2:09:59 PM	59581
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/24/2021 10:06:00 PM	59578
Surr: BFB	110	70-130		%Rec	1	4/24/2021 10:06:00 PM	59578
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/24/2021 10:06:00 PM	59578
Toluene	ND	0.050		mg/Kg	1	4/24/2021 10:06:00 PM	59578
Ethylbenzene	ND	0.050		mg/Kg	1	4/24/2021 10:06:00 PM	59578
Xylenes, Total	ND	0.10		mg/Kg	1	4/24/2021 10:06:00 PM	59578
Surr: 4-Bromofluorobenzene	87.4	70-130		%Rec	1	4/24/2021 10:06:00 PM	59578

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 9 of 13

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2104970

29-Apr-21

Client: EOG
Project: Jackson B 17

Sample ID: MB-59643	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 59643	RunNo: 76958								
Prep Date: 4/26/2021	Analysis Date: 4/26/2021	SeqNo: 2727668	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-59643	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 59643	RunNo: 76958								
Prep Date: 4/26/2021	Analysis Date: 4/26/2021	SeqNo: 2727669	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.2	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2104970

29-Apr-21

Client: EOG
Project: Jackson B 17

Sample ID: MB-59581	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 59581	RunNo: 76896								
Prep Date: 4/22/2021	Analysis Date: 4/23/2021	SeqNo: 2725255 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	13		10.00		129	70	130			

Sample ID: LCS-59581	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 59581	RunNo: 76896								
Prep Date: 4/22/2021	Analysis Date: 4/23/2021	SeqNo: 2725258 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	62	10	50.00	0	124	68.9	141			
Surr: DNOP	6.6		5.000		131	70	130			S

Sample ID: MB-59616	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 59616	RunNo: 76932								
Prep Date: 4/23/2021	Analysis Date: 4/26/2021	SeqNo: 2726483 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.7		10.00		86.8	70	130			

Sample ID: LCS-59616	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 59616	RunNo: 76932								
Prep Date: 4/23/2021	Analysis Date: 4/26/2021	SeqNo: 2726484 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		88.9	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2104970

29-Apr-21

Client: EOG
Project: Jackson B 17

Sample ID: LCS-59578	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 59578	RunNo: 76952								
Prep Date: 4/22/2021	Analysis Date: 4/24/2021	SeqNo: 2727288	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.8	78.6	131			
Surr: BFB	1200		1000		115	70	130			

Sample ID: MB-59578	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 59578	RunNo: 76952								
Prep Date: 4/22/2021	Analysis Date: 4/24/2021	SeqNo: 2727289	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		105	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2104970

29-Apr-21

Client: EOG
Project: Jackson B 17

Sample ID: LCS-59578	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 59578	RunNo: 76952								
Prep Date: 4/22/2021	Analysis Date: 4/24/2021	SeqNo: 2727317	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	88.4	80	120			
Toluene	0.87	0.050	1.000	0	87.1	80	120			
Ethylbenzene	0.89	0.050	1.000	0	89.4	80	120			
Xylenes, Total	2.6	0.10	3.000	0	87.9	80	120			
Surr: 4-Bromofluorobenzene	0.88		1.000		87.9	70	130			

Sample ID: MB-59578	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 59578	RunNo: 76952								
Prep Date: 4/22/2021	Analysis Date: 4/24/2021	SeqNo: 2727318	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.88		1.000		88.4	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

Page 13 of 13



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: EOG

Work Order Number: 2104970

RcptNo: 1

Received By: Cheyenne Cason

4/22/2021 7:55:00 AM

CC

Completed By: Desiree Dominguez

4/22/2021 8:13:30 AM

DD

Reviewed By: JR 4/22/21

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace $<1/4$ " for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

IO
of preserved bottles checked for pH: 4/22/21
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.7	Good				



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

June 10, 2021

Tom Larson

GHD

6121 Indian School Road, NE #200

Albuquerque, NM 87110

TEL: (505) 884-0672

FAX

RE: Jackson B 17 Flowline 1

OrderNo.: 2105B47

Dear Tom Larson:

Hall Environmental Analysis Laboratory received 21 sample(s) on 5/27/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Jackson B 17 Flowline 1

Lab Order: 2105B47

Lab ID: 2105B47-001

Collection Date: 5/25/2021 9:25:00 AM

Client Sample ID: A1-1 16'

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	1400	60		mg/Kg	20	6/2/2021 1:30:13 PM	60384
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	66	24		mg/Kg	5	5/29/2021 10:28:00 AM	60310
Surr: BFB	104	70-130		%Rec	5	5/29/2021 10:28:00 AM	60310
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	590	43		mg/Kg	5	6/1/2021 4:24:15 PM	60311
Motor Oil Range Organics (MRO)	410	210		mg/Kg	5	6/1/2021 4:24:15 PM	60311
Surr: DNOP	102	70-130		%Rec	5	6/1/2021 4:24:15 PM	60311
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.12		mg/Kg	5	5/29/2021 10:28:00 AM	60310
Toluene	ND	0.24		mg/Kg	5	5/29/2021 10:28:00 AM	60310
Ethylbenzene	0.43	0.24		mg/Kg	5	5/29/2021 10:28:00 AM	60310
Xylenes, Total	1.5	0.49		mg/Kg	5	5/29/2021 10:28:00 AM	60310
Surr: 1,2-Dichloroethane-d4	84.1	70-130		%Rec	5	5/29/2021 10:28:00 AM	60310
Surr: 4-Bromofluorobenzene	84.0	70-130		%Rec	5	5/29/2021 10:28:00 AM	60310
Surr: Dibromofluoromethane	102	70-130		%Rec	5	5/29/2021 10:28:00 AM	60310
Surr: Toluene-d8	94.4	70-130		%Rec	5	5/29/2021 10:28:00 AM	60310

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Jackson B 17 Flowline 1

Lab Order: 2105B47

Lab ID: 2105B47-002

Collection Date: 5/25/2021 9:35:00 AM

Client Sample ID: A1-1 20'

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	4400	150		mg/Kg	50	6/4/2021 9:43:51 AM	60384
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	9.8		mg/Kg	2	5/29/2021 10:56:32 AM	60310
Surr: BFB	103	70-130		%Rec	2	5/29/2021 10:56:32 AM	60310
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	100	10		mg/Kg	1	5/29/2021 1:46:09 PM	60311
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/29/2021 1:46:09 PM	60311
Surr: DNOP	110	70-130		%Rec	1	5/29/2021 1:46:09 PM	60311
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.049		mg/Kg	2	5/29/2021 10:56:32 AM	60310
Toluene	ND	0.098		mg/Kg	2	5/29/2021 10:56:32 AM	60310
Ethylbenzene	ND	0.098		mg/Kg	2	5/29/2021 10:56:32 AM	60310
Xylenes, Total	ND	0.20		mg/Kg	2	5/29/2021 10:56:32 AM	60310
Surr: 1,2-Dichloroethane-d4	83.3	70-130		%Rec	2	5/29/2021 10:56:32 AM	60310
Surr: 4-Bromofluorobenzene	90.9	70-130		%Rec	2	5/29/2021 10:56:32 AM	60310
Surr: Dibromofluoromethane	104	70-130		%Rec	2	5/29/2021 10:56:32 AM	60310
Surr: Toluene-d8	96.3	70-130		%Rec	2	5/29/2021 10:56:32 AM	60310

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Jackson B 17 Flowline 1

Lab Order: 2105B47**Lab ID:** 2105B47-003**Collection Date:** 5/25/2021 10:00:00 AM**Client Sample ID:** A1-2 8'**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	810	60		mg/Kg	20	6/2/2021 1:55:01 PM	60384
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/29/2021 11:25:06 AM	60310
Surr: BFB	102	70-130		%Rec	1	5/29/2021 11:25:06 AM	60310
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	55	9.8		mg/Kg	1	5/29/2021 1:56:26 PM	60311
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/29/2021 1:56:26 PM	60311
Surr: DNOP	114	70-130		%Rec	1	5/29/2021 1:56:26 PM	60311
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/29/2021 11:25:06 AM	60310
Toluene	ND	0.048		mg/Kg	1	5/29/2021 11:25:06 AM	60310
Ethylbenzene	ND	0.048		mg/Kg	1	5/29/2021 11:25:06 AM	60310
Xylenes, Total	ND	0.097		mg/Kg	1	5/29/2021 11:25:06 AM	60310
Surr: 1,2-Dichloroethane-d4	87.0	70-130		%Rec	1	5/29/2021 11:25:06 AM	60310
Surr: 4-Bromofluorobenzene	88.0	70-130		%Rec	1	5/29/2021 11:25:06 AM	60310
Surr: Dibromofluoromethane	106	70-130		%Rec	1	5/29/2021 11:25:06 AM	60310
Surr: Toluene-d8	97.8	70-130		%Rec	1	5/29/2021 11:25:06 AM	60310

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix		E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded		J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit		P	Sample pH Not In Range
	PQL	Practical Quantitative Limit		RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix			

Page 3 of 28

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Jackson B 17 Flowline 1

Lab Order: 2105B47

Lab ID: 2105B47-004

Collection Date: 5/25/2021 10:10:00 AM

Client Sample ID: A1-2 14'

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	460	60		mg/Kg	20	6/2/2021 2:07:26 PM	60384
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2021 11:53:41 AM	60316
Surr: BFB	104	70-130		%Rec	1	5/29/2021 11:53:41 AM	60316
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	40	9.7		mg/Kg	1	6/1/2021 10:58:11 AM	60318
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/1/2021 10:58:11 AM	60318
Surr: DNOP	127	70-130		%Rec	1	6/1/2021 10:58:11 AM	60318
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	5/29/2021 11:53:41 AM	60316
Toluene	ND	0.049		mg/Kg	1	5/29/2021 11:53:41 AM	60316
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2021 11:53:41 AM	60316
Xylenes, Total	ND	0.098		mg/Kg	1	5/29/2021 11:53:41 AM	60316
Surr: 1,2-Dichloroethane-d4	88.6	70-130		%Rec	1	5/29/2021 11:53:41 AM	60316
Surr: 4-Bromofluorobenzene	95.8	70-130		%Rec	1	5/29/2021 11:53:41 AM	60316
Surr: Dibromofluoromethane	108	70-130		%Rec	1	5/29/2021 11:53:41 AM	60316
Surr: Toluene-d8	96.8	70-130		%Rec	1	5/29/2021 11:53:41 AM	60316

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD

Lab Order: 2105B47

Project: Jackson B 17 Flowline 1

Lab ID: 2105B47-005

Collection Date: 5/25/2021 10:20:00 AM

Client Sample ID: A1-3 6'

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	1500	60		mg/Kg	20	6/2/2021 2:19:50 PM	60384
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	6.3	4.9		mg/Kg	1	5/29/2021 3:13:57 PM	60316
Surr: BFB	107	70-130		%Rec	1	5/29/2021 3:13:57 PM	60316
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	340	19		mg/Kg	2	6/2/2021 4:11:46 PM	60318
Motor Oil Range Organics (MRO)	390	96		mg/Kg	2	6/2/2021 4:11:46 PM	60318
Surr: DNOP	96.3	70-130		%Rec	2	6/2/2021 4:11:46 PM	60318
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/29/2021 3:13:57 PM	60316
Toluene	ND	0.049		mg/Kg	1	5/29/2021 3:13:57 PM	60316
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2021 3:13:57 PM	60316
Xylenes, Total	0.14	0.097		mg/Kg	1	5/29/2021 3:13:57 PM	60316
Surr: 1,2-Dichloroethane-d4	88.2	70-130		%Rec	1	5/29/2021 3:13:57 PM	60316
Surr: 4-Bromofluorobenzene	88.7	70-130		%Rec	1	5/29/2021 3:13:57 PM	60316
Surr: Dibromofluoromethane	107	70-130		%Rec	1	5/29/2021 3:13:57 PM	60316
Surr: Toluene-d8	94.7	70-130		%Rec	1	5/29/2021 3:13:57 PM	60316

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Jackson B 17 Flowline 1

Lab Order: 2105B47

Lab ID: 2105B47-006

Collection Date: 5/25/2021 10:25:00 AM

Client Sample ID: A1-3 8'

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	630	60		mg/Kg	20	6/2/2021 2:32:15 PM	60384
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/29/2021 4:39:44 PM	60316
Surr: BFB	103	70-130		%Rec	1	5/29/2021 4:39:44 PM	60316
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	6/1/2021 11:36:54 AM	60318
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/1/2021 11:36:54 AM	60318
Surr: DNOP	126	70-130		%Rec	1	6/1/2021 11:36:54 AM	60318
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	5/29/2021 4:39:44 PM	60316
Toluene	ND	0.050		mg/Kg	1	5/29/2021 4:39:44 PM	60316
Ethylbenzene	ND	0.050		mg/Kg	1	5/29/2021 4:39:44 PM	60316
Xylenes, Total	ND	0.10		mg/Kg	1	5/29/2021 4:39:44 PM	60316
Surr: 1,2-Dichloroethane-d4	85.5	70-130		%Rec	1	5/29/2021 4:39:44 PM	60316
Surr: 4-Bromofluorobenzene	95.1	70-130		%Rec	1	5/29/2021 4:39:44 PM	60316
Surr: Dibromofluoromethane	101	70-130		%Rec	1	5/29/2021 4:39:44 PM	60316
Surr: Toluene-d8	96.3	70-130		%Rec	1	5/29/2021 4:39:44 PM	60316

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 6 of 28

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Jackson B 17 Flowline 1

Lab Order: 2105B47**Lab ID:** 2105B47-007**Collection Date:** 5/25/2021 10:30:00 AM**Client Sample ID:** A1-3 10'**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	400	60		mg/Kg	20	6/2/2021 3:09:28 PM	60384
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2021 5:08:20 PM	60316
Surr: BFB	100	70-130		%Rec	1	5/29/2021 5:08:20 PM	60316
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	6/1/2021 11:46:35 AM	60318
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	6/1/2021 11:46:35 AM	60318
Surr: DNOP	126	70-130		%Rec	1	6/1/2021 11:46:35 AM	60318
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/29/2021 5:08:20 PM	60316
Toluene	ND	0.049		mg/Kg	1	5/29/2021 5:08:20 PM	60316
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2021 5:08:20 PM	60316
Xylenes, Total	ND	0.098		mg/Kg	1	5/29/2021 5:08:20 PM	60316
Surr: 1,2-Dichloroethane-d4	80.2	70-130		%Rec	1	5/29/2021 5:08:20 PM	60316
Surr: 4-Bromofluorobenzene	97.0	70-130		%Rec	1	5/29/2021 5:08:20 PM	60316
Surr: Dibromofluoromethane	102	70-130		%Rec	1	5/29/2021 5:08:20 PM	60316
Surr: Toluene-d8	94.7	70-130		%Rec	1	5/29/2021 5:08:20 PM	60316

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Jackson B 17 Flowline 1

Lab Order: 2105B47**Lab ID:** 2105B47-008**Collection Date:** 5/25/2021 10:45:00 AM**Client Sample ID:** TP1-S**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	6/2/2021 3:21:53 PM	60384
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/29/2021 5:36:54 PM	60316
Surr: BFB	105	70-130		%Rec	1	5/29/2021 5:36:54 PM	60316
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	6/1/2021 11:56:18 AM	60318
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	6/1/2021 11:56:18 AM	60318
Surr: DNOP	103	70-130		%Rec	1	6/1/2021 11:56:18 AM	60318
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	5/29/2021 5:36:54 PM	60316
Toluene	ND	0.050		mg/Kg	1	5/29/2021 5:36:54 PM	60316
Ethylbenzene	ND	0.050		mg/Kg	1	5/29/2021 5:36:54 PM	60316
Xylenes, Total	ND	0.10		mg/Kg	1	5/29/2021 5:36:54 PM	60316
Surr: 1,2-Dichloroethane-d4	87.6	70-130		%Rec	1	5/29/2021 5:36:54 PM	60316
Surr: 4-Bromofluorobenzene	96.5	70-130		%Rec	1	5/29/2021 5:36:54 PM	60316
Surr: Dibromofluoromethane	102	70-130		%Rec	1	5/29/2021 5:36:54 PM	60316
Surr: Toluene-d8	99.8	70-130		%Rec	1	5/29/2021 5:36:54 PM	60316

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 8 of 28

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Jackson B 17 Flowline 1

Lab Order: 2105B47

Lab ID: 2105B47-009

Collection Date: 5/25/2021 10:50:00 AM

Client Sample ID: TP1-2

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	59		mg/Kg	20	6/2/2021 3:34:18 PM	60384
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2021 6:05:29 PM	60316
Surr: BFB	105	70-130		%Rec	1	5/29/2021 6:05:29 PM	60316
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	6/1/2021 12:06:01 PM	60318
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	6/1/2021 12:06:01 PM	60318
Surr: DNOP	106	70-130		%Rec	1	6/1/2021 12:06:01 PM	60318
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/29/2021 6:05:29 PM	60316
Toluene	ND	0.049		mg/Kg	1	5/29/2021 6:05:29 PM	60316
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2021 6:05:29 PM	60316
Xylenes, Total	ND	0.098		mg/Kg	1	5/29/2021 6:05:29 PM	60316
Surr: 1,2-Dichloroethane-d4	84.5	70-130		%Rec	1	5/29/2021 6:05:29 PM	60316
Surr: 4-Bromofluorobenzene	96.7	70-130		%Rec	1	5/29/2021 6:05:29 PM	60316
Surr: Dibromofluoromethane	102	70-130		%Rec	1	5/29/2021 6:05:29 PM	60316
Surr: Toluene-d8	97.9	70-130		%Rec	1	5/29/2021 6:05:29 PM	60316

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD

Lab Order: 2105B47

Project: Jackson B 17 Flowline 1

Lab ID: 2105B47-010

Collection Date: 5/25/2021 11:00:00 AM

Client Sample ID: TP2-S

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	6/2/2021 3:46:42 PM	60384
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/29/2021 6:34:02 PM	60316
Surr: BFB	103	70-130		%Rec	1	5/29/2021 6:34:02 PM	60316
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/3/2021 6:40:03 PM	60318
Motor Oil Range Organics (MRO)	52	48		mg/Kg	1	6/3/2021 6:40:03 PM	60318
Surr: DNOP	113	70-130		%Rec	1	6/3/2021 6:40:03 PM	60318
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	5/29/2021 6:34:02 PM	60316
Toluene	ND	0.050		mg/Kg	1	5/29/2021 6:34:02 PM	60316
Ethylbenzene	ND	0.050		mg/Kg	1	5/29/2021 6:34:02 PM	60316
Xylenes, Total	ND	0.099		mg/Kg	1	5/29/2021 6:34:02 PM	60316
Surr: 1,2-Dichloroethane-d4	85.8	70-130		%Rec	1	5/29/2021 6:34:02 PM	60316
Surr: 4-Bromofluorobenzene	96.5	70-130		%Rec	1	5/29/2021 6:34:02 PM	60316
Surr: Dibromofluoromethane	98.8	70-130		%Rec	1	5/29/2021 6:34:02 PM	60316
Surr: Toluene-d8	96.8	70-130		%Rec	1	5/29/2021 6:34:02 PM	60316

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD

Lab Order: 2105B47

Project: Jackson B 17 Flowline 1

Lab ID: 2105B47-011

Collection Date: 5/25/2021 11:05:00 AM

Client Sample ID: TP2-2

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	6/2/2021 3:59:07 PM	60384
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/29/2021 7:02:50 PM	60316
Surr: BFB	106	70-130		%Rec	1	5/29/2021 7:02:50 PM	60316
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	6/1/2021 12:25:28 PM	60318
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	6/1/2021 12:25:28 PM	60318
Surr: DNOP	117	70-130		%Rec	1	6/1/2021 12:25:28 PM	60318
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/29/2021 7:02:50 PM	60316
Toluene	ND	0.048		mg/Kg	1	5/29/2021 7:02:50 PM	60316
Ethylbenzene	ND	0.048		mg/Kg	1	5/29/2021 7:02:50 PM	60316
Xylenes, Total	ND	0.097		mg/Kg	1	5/29/2021 7:02:50 PM	60316
Surr: 1,2-Dichloroethane-d4	85.8	70-130		%Rec	1	5/29/2021 7:02:50 PM	60316
Surr: 4-Bromofluorobenzene	98.4	70-130		%Rec	1	5/29/2021 7:02:50 PM	60316
Surr: Dibromofluoromethane	100	70-130		%Rec	1	5/29/2021 7:02:50 PM	60316
Surr: Toluene-d8	99.0	70-130		%Rec	1	5/29/2021 7:02:50 PM	60316

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix		E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded		J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit		P	Sample pH Not In Range
	PQL	Practical Quantitative Limit		RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix			

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD

Lab Order: 2105B47

Project: Jackson B 17 Flowline 1

Lab ID: 2105B47-012

Collection Date: 5/25/2021 11:10:00 AM

Client Sample ID: TP3-S

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	59		mg/Kg	20	6/2/2021 4:36:21 PM	60394
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2021 7:31:26 PM	60316
Surr: BFB	106	70-130		%Rec	1	5/29/2021 7:31:26 PM	60316
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/1/2021 12:35:13 PM	60318
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/1/2021 12:35:13 PM	60318
Surr: DNOP	116	70-130		%Rec	1	6/1/2021 12:35:13 PM	60318
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/29/2021 7:31:26 PM	60316
Toluene	ND	0.049		mg/Kg	1	5/29/2021 7:31:26 PM	60316
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2021 7:31:26 PM	60316
Xylenes, Total	ND	0.098		mg/Kg	1	5/29/2021 7:31:26 PM	60316
Surr: 1,2-Dichloroethane-d4	89.7	70-130		%Rec	1	5/29/2021 7:31:26 PM	60316
Surr: 4-Bromofluorobenzene	97.9	70-130		%Rec	1	5/29/2021 7:31:26 PM	60316
Surr: Dibromofluoromethane	106	70-130		%Rec	1	5/29/2021 7:31:26 PM	60316
Surr: Toluene-d8	97.8	70-130		%Rec	1	5/29/2021 7:31:26 PM	60316

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Jackson B 17 Flowline 1

Lab Order: 2105B47

Lab ID: 2105B47-013

Collection Date: 5/25/2021 11:15:00 AM

Client Sample ID: TP3-2

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	59		mg/Kg	20	6/2/2021 4:48:45 PM	60394
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/29/2021 7:59:58 PM	60316
Surr: BFB	108	70-130		%Rec	1	5/29/2021 7:59:58 PM	60316
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	6/1/2021 12:44:58 PM	60318
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	6/1/2021 12:44:58 PM	60318
Surr: DNOP	100	70-130		%Rec	1	6/1/2021 12:44:58 PM	60318
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/29/2021 7:59:58 PM	60316
Toluene	ND	0.048		mg/Kg	1	5/29/2021 7:59:58 PM	60316
Ethylbenzene	ND	0.048		mg/Kg	1	5/29/2021 7:59:58 PM	60316
Xylenes, Total	ND	0.096		mg/Kg	1	5/29/2021 7:59:58 PM	60316
Surr: 1,2-Dichloroethane-d4	87.4	70-130		%Rec	1	5/29/2021 7:59:58 PM	60316
Surr: 4-Bromofluorobenzene	99.6	70-130		%Rec	1	5/29/2021 7:59:58 PM	60316
Surr: Dibromofluoromethane	103	70-130		%Rec	1	5/29/2021 7:59:58 PM	60316
Surr: Toluene-d8	100	70-130		%Rec	1	5/29/2021 7:59:58 PM	60316

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Jackson B 17 Flowline 1

Lab Order: 2105B47

Lab ID: 2105B47-014

Collection Date: 5/25/2021 11:20:00 AM

Client Sample ID: TP4-S

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	6/2/2021 5:01:09 PM	60394
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2021 8:28:35 PM	60316
Surr: BFB	106	70-130		%Rec	1	5/29/2021 8:28:35 PM	60316
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/1/2021 12:54:43 PM	60318
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/1/2021 12:54:43 PM	60318
Surr: DNOP	109	70-130		%Rec	1	6/1/2021 12:54:43 PM	60318
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/29/2021 8:28:35 PM	60316
Toluene	ND	0.049		mg/Kg	1	5/29/2021 8:28:35 PM	60316
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2021 8:28:35 PM	60316
Xylenes, Total	ND	0.097		mg/Kg	1	5/29/2021 8:28:35 PM	60316
Surr: 1,2-Dichloroethane-d4	87.2	70-130		%Rec	1	5/29/2021 8:28:35 PM	60316
Surr: 4-Bromofluorobenzene	95.7	70-130		%Rec	1	5/29/2021 8:28:35 PM	60316
Surr: Dibromofluoromethane	99.8	70-130		%Rec	1	5/29/2021 8:28:35 PM	60316
Surr: Toluene-d8	95.5	70-130		%Rec	1	5/29/2021 8:28:35 PM	60316

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Jackson B 17 Flowline 1

Lab Order: 2105B47

Lab ID: 2105B47-015

Collection Date: 5/25/2021 11:25:00 AM

Client Sample ID: TP4-2

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	6/4/2021 9:56:13 AM	60394
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/29/2021 8:57:13 PM	60316
Surr: BFB	104	70-130		%Rec	1	5/29/2021 8:57:13 PM	60316
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/1/2021 1:04:31 PM	60318
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/1/2021 1:04:31 PM	60318
Surr: DNOP	129	70-130		%Rec	1	6/1/2021 1:04:31 PM	60318
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	5/29/2021 8:57:13 PM	60316
Toluene	ND	0.050		mg/Kg	1	5/29/2021 8:57:13 PM	60316
Ethylbenzene	ND	0.050		mg/Kg	1	5/29/2021 8:57:13 PM	60316
Xylenes, Total	ND	0.099		mg/Kg	1	5/29/2021 8:57:13 PM	60316
Surr: 1,2-Dichloroethane-d4	87.4	70-130		%Rec	1	5/29/2021 8:57:13 PM	60316
Surr: 4-Bromofluorobenzene	97.8	70-130		%Rec	1	5/29/2021 8:57:13 PM	60316
Surr: Dibromofluoromethane	104	70-130		%Rec	1	5/29/2021 8:57:13 PM	60316
Surr: Toluene-d8	95.8	70-130		%Rec	1	5/29/2021 8:57:13 PM	60316

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Jackson B 17 Flowline 1

Lab Order: 2105B47

Lab ID: 2105B47-016

Collection Date: 5/25/2021 11:30:00 AM

Client Sample ID: TP5-S

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	6/2/2021 5:50:48 PM	60394
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/29/2021 9:25:56 PM	60316
Surr: BFB	100	70-130		%Rec	1	5/29/2021 9:25:56 PM	60316
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/1/2021 1:14:18 PM	60318
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/1/2021 1:14:18 PM	60318
Surr: DNOP	121	70-130		%Rec	1	6/1/2021 1:14:18 PM	60318
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/29/2021 9:25:56 PM	60316
Toluene	ND	0.048		mg/Kg	1	5/29/2021 9:25:56 PM	60316
Ethylbenzene	ND	0.048		mg/Kg	1	5/29/2021 9:25:56 PM	60316
Xylenes, Total	ND	0.096		mg/Kg	1	5/29/2021 9:25:56 PM	60316
Surr: 1,2-Dichloroethane-d4	88.7	70-130		%Rec	1	5/29/2021 9:25:56 PM	60316
Surr: 4-Bromofluorobenzene	92.6	70-130		%Rec	1	5/29/2021 9:25:56 PM	60316
Surr: Dibromofluoromethane	98.4	70-130		%Rec	1	5/29/2021 9:25:56 PM	60316
Surr: Toluene-d8	95.3	70-130		%Rec	1	5/29/2021 9:25:56 PM	60316

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
		D	Sample Diluted Due to Matrix	E	Value above quantitation range
		H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
		ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
		PQL	Practical Quantitative Limit	RL	Reporting Limit
		S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Jackson B 17 Flowline 1

Lab Order: 2105B47

Lab ID: 2105B47-017

Collection Date: 5/25/2021 11:35:00 AM

Client Sample ID: TP5-2

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	6/2/2021 6:03:12 PM	60394
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2021 9:54:27 PM	60316
Surr: BFB	102	70-130		%Rec	1	5/29/2021 9:54:27 PM	60316
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/1/2021 1:24:07 PM	60318
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/1/2021 1:24:07 PM	60318
Surr: DNOP	121	70-130		%Rec	1	6/1/2021 1:24:07 PM	60318
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/29/2021 9:54:27 PM	60316
Toluene	ND	0.049		mg/Kg	1	5/29/2021 9:54:27 PM	60316
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2021 9:54:27 PM	60316
Xylenes, Total	ND	0.097		mg/Kg	1	5/29/2021 9:54:27 PM	60316
Surr: 1,2-Dichloroethane-d4	80.9	70-130		%Rec	1	5/29/2021 9:54:27 PM	60316
Surr: 4-Bromofluorobenzene	97.8	70-130		%Rec	1	5/29/2021 9:54:27 PM	60316
Surr: Dibromofluoromethane	102	70-130		%Rec	1	5/29/2021 9:54:27 PM	60316
Surr: Toluene-d8	97.7	70-130		%Rec	1	5/29/2021 9:54:27 PM	60316

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Jackson B 17 Flowline 1

Lab Order: 2105B47

Lab ID: 2105B47-018

Collection Date: 5/25/2021 11:40:00 AM

Client Sample ID: TP6-S

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	6/2/2021 6:15:36 PM	60394
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2021 10:22:57 PM	60316
Surr: BFB	103	70-130		%Rec	1	5/29/2021 10:22:57 PM	60316
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/1/2021 1:33:58 PM	60318
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/1/2021 1:33:58 PM	60318
Surr: DNOP	120	70-130		%Rec	1	6/1/2021 1:33:58 PM	60318
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/29/2021 10:22:57 PM	60316
Toluene	ND	0.049		mg/Kg	1	5/29/2021 10:22:57 PM	60316
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2021 10:22:57 PM	60316
Xylenes, Total	ND	0.097		mg/Kg	1	5/29/2021 10:22:57 PM	60316
Surr: 1,2-Dichloroethane-d4	85.7	70-130		%Rec	1	5/29/2021 10:22:57 PM	60316
Surr: 4-Bromofluorobenzene	96.1	70-130		%Rec	1	5/29/2021 10:22:57 PM	60316
Surr: Dibromofluoromethane	103	70-130		%Rec	1	5/29/2021 10:22:57 PM	60316
Surr: Toluene-d8	97.6	70-130		%Rec	1	5/29/2021 10:22:57 PM	60316

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Jackson B 17 Flowline 1

Lab Order: 2105B47

Lab ID: 2105B47-019

Collection Date: 5/25/2021 11:45:00 AM

Client Sample ID: TP6-2

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	6/2/2021 6:28:01 PM	60394
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/29/2021 10:51:28 PM	60316
Surr: BFB	102	70-130		%Rec	1	5/29/2021 10:51:28 PM	60316
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/1/2021 1:43:50 PM	60318
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/1/2021 1:43:50 PM	60318
Surr: DNOP	101	70-130		%Rec	1	6/1/2021 1:43:50 PM	60318
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	5/29/2021 10:51:28 PM	60316
Toluene	ND	0.050		mg/Kg	1	5/29/2021 10:51:28 PM	60316
Ethylbenzene	ND	0.050		mg/Kg	1	5/29/2021 10:51:28 PM	60316
Xylenes, Total	ND	0.099		mg/Kg	1	5/29/2021 10:51:28 PM	60316
Surr: 1,2-Dichloroethane-d4	85.1	70-130		%Rec	1	5/29/2021 10:51:28 PM	60316
Surr: 4-Bromofluorobenzene	97.4	70-130		%Rec	1	5/29/2021 10:51:28 PM	60316
Surr: Dibromofluoromethane	100	70-130		%Rec	1	5/29/2021 10:51:28 PM	60316
Surr: Toluene-d8	96.6	70-130		%Rec	1	5/29/2021 10:51:28 PM	60316

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD

Lab Order: 2105B47

Project: Jackson B 17 Flowline 1

Lab ID: 2105B47-020

Collection Date: 5/25/2021 11:50:00 AM

Client Sample ID: TP7-S

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	6/2/2021 6:40:25 PM	60394
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2021 11:20:01 PM	60316
Surr: BFB	102	70-130		%Rec	1	5/29/2021 11:20:01 PM	60316
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/4/2021 1:07:50 PM	60318
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/4/2021 1:07:50 PM	60318
Surr: DNOP	83.0	70-130		%Rec	1	6/4/2021 1:07:50 PM	60318
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.024		mg/Kg	1	5/29/2021 11:20:01 PM	60316
Toluene	ND	0.049		mg/Kg	1	5/29/2021 11:20:01 PM	60316
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2021 11:20:01 PM	60316
Xylenes, Total	ND	0.098		mg/Kg	1	5/29/2021 11:20:01 PM	60316
Surr: 1,2-Dichloroethane-d4	87.7	70-130		%Rec	1	5/29/2021 11:20:01 PM	60316
Surr: 4-Bromofluorobenzene	93.4	70-130		%Rec	1	5/29/2021 11:20:01 PM	60316
Surr: Dibromofluoromethane	101	70-130		%Rec	1	5/29/2021 11:20:01 PM	60316
Surr: Toluene-d8	94.5	70-130		%Rec	1	5/29/2021 11:20:01 PM	60316

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix		E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded		J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit		P	Sample pH Not In Range
	PQL	Practical Quantitative Limit		RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix			

Analytical Report

Lab Order: 2105B47

Date Reported: 6/10/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Jackson B 17 Flowline 1

Lab Order: 2105B47

Lab ID: 2105B47-021

Collection Date: 5/25/2021 11:55:00 AM

Client Sample ID: TP7-2

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	59		mg/Kg	20	6/2/2021 6:52:50 PM	60394
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/29/2021 11:48:37 PM	60316
Surr: BFB	105	70-130		%Rec	1	5/29/2021 11:48:37 PM	60316
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/2/2021 1:24:14 PM	60318
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/2/2021 1:24:14 PM	60318
Surr: DNOP	92.2	70-130		%Rec	1	6/2/2021 1:24:14 PM	60318
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.025		mg/Kg	1	5/29/2021 11:48:37 PM	60316
Toluene	ND	0.050		mg/Kg	1	5/29/2021 11:48:37 PM	60316
Ethylbenzene	ND	0.050		mg/Kg	1	5/29/2021 11:48:37 PM	60316
Xylenes, Total	ND	0.099		mg/Kg	1	5/29/2021 11:48:37 PM	60316
Surr: 1,2-Dichloroethane-d4	85.5	70-130		%Rec	1	5/29/2021 11:48:37 PM	60316
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	5/29/2021 11:48:37 PM	60316
Surr: Dibromofluoromethane	98.7	70-130		%Rec	1	5/29/2021 11:48:37 PM	60316
Surr: Toluene-d8	98.0	70-130		%Rec	1	5/29/2021 11:48:37 PM	60316

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2105B47

10-Jun-21

Client: GHD**Project:** Jackson B 17 Flowline 1

Sample ID: MB-60384	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 60384	RunNo: 78792								
Prep Date: 6/2/2021	Analysis Date: 6/2/2021	SeqNo: 2764168 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-60384	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 60384	RunNo: 78792								
Prep Date: 6/2/2021	Analysis Date: 6/2/2021	SeqNo: 2764169 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.8	90	110			

Sample ID: MB-60394	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 60394	RunNo: 78792								
Prep Date: 6/2/2021	Analysis Date: 6/2/2021	SeqNo: 2764200 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-60394	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 60394	RunNo: 78792								
Prep Date: 6/2/2021	Analysis Date: 6/2/2021	SeqNo: 2764201 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.4	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

Page 22 of 28

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2105B47

10-Jun-21

Client: GHD**Project:** Jackson B 17 Flowline 1

Sample ID: LCS-60311	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 60311	RunNo: 78762								
Prep Date: 5/28/2021	Analysis Date: 5/29/2021	SeqNo: 2761235	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	64	10	50.00	0	128	68.9	141			
Surr: DNOP	6.2		5.000		124	70	130			

Sample ID: MB-60311	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 60311	RunNo: 78762								
Prep Date: 5/28/2021	Analysis Date: 5/29/2021	SeqNo: 2761240	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		107	70	130			

Sample ID: 2105B47-004AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: A1-2 14'	Batch ID: 60318	RunNo: 78780								
Prep Date: 5/28/2021	Analysis Date: 6/1/2021	SeqNo: 2762478	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	70	9.5	47.35	39.63	63.1	15	184			
Surr: DNOP	5.0		4.735		106	70	130			

Sample ID: 2105B47-004AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: A1-2 14'	Batch ID: 60318	RunNo: 78780								
Prep Date: 5/28/2021	Analysis Date: 6/1/2021	SeqNo: 2762479	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	72	9.3	46.64	39.63	68.4	15	184	3.00	23.9	
Surr: DNOP	5.5		4.664		117	70	130	0	0	

Sample ID: LCS-60318	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 60318	RunNo: 78780								
Prep Date: 5/28/2021	Analysis Date: 6/1/2021	SeqNo: 2762508	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.00	0	110	68.9	141			
Surr: DNOP	5.2		5.000		105	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

Page 23 of 28

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2105B47

10-Jun-21

Client: GHD

Project: Jackson B 17 Flowline 1

Sample ID: MB-60318	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 60318	RunNo: 78780								
Prep Date: 5/28/2021	Analysis Date: 6/1/2021	SeqNo: 2762510	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		113	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2105B47

10-Jun-21

Client: GHD**Project:** Jackson B 17 Flowline 1

Sample ID: lcs-60310	SampType: LCS4		TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: BatchQC	Batch ID: 60310		RunNo: 78775							
Prep Date: 5/27/2021	Analysis Date: 5/28/2021		SeqNo: 2761812		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	109	80	120			
Toluene	0.98	0.050	1.000	0	97.6	80	120			
Ethylbenzene	1.0	0.050	1.000	0	99.7	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.3	80	120			
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		88.5	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		95.1	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.49		0.5000		97.6	70	130			

Sample ID: lcs-60316	SampType: LCS		TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: LCSS	Batch ID: 60316		RunNo: 78775							
Prep Date: 5/27/2021	Analysis Date: 5/29/2021		SeqNo: 2761813		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	106	70	130			
Toluene	0.97	0.050	1.000	0	96.7	70	130			
Surr: 1,2-Dichloroethane-d4	0.40		0.5000		80.7	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.3	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		98.0	70	130			
Surr: Toluene-d8	0.47		0.5000		93.0	70	130			

Sample ID: mb-60310	SampType: MBLK		TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: PBS	Batch ID: 60310		RunNo: 78775							
Prep Date: 5/27/2021	Analysis Date: 5/28/2021		SeqNo: 2761814		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		88.8	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.0	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		101	70	130			
Surr: Toluene-d8	0.48		0.5000		96.3	70	130			

Sample ID: mb-60316	SampType: MBLK		TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: PBS	Batch ID: 60316		RunNo: 78775							
Prep Date: 5/27/2021	Analysis Date: 5/29/2021		SeqNo: 2761815		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2105B47

10-Jun-21

Client: GHD**Project:** Jackson B 17 Flowline 1

Sample ID: mb-60316	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 60316	RunNo: 78775								
Prep Date: 5/27/2021	Analysis Date: 5/29/2021	SeqNo: 2761815	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		86.3	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		95.3	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		105	70	130			
Surr: Toluene-d8	0.48		0.5000		95.4	70	130			

Sample ID: 2105b47-005ams	SampType: MS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: A1-3 6'	Batch ID: 60316	RunNo: 78775								
Prep Date: 5/27/2021	Analysis Date: 5/29/2021	SeqNo: 2761840	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.024	0.9775	0	112	73.5	138			
Toluene	1.1	0.049	0.9775	0	111	83	131			
Ethylbenzene	1.1	0.049	0.9775	0.03682	109	84.9	132			
Xylenes, Total	3.4	0.098	2.933	0.1351	112	79.6	144			
Surr: 1,2-Dichloroethane-d4	0.41		0.4888		84.6	70	130			
Surr: 4-Bromofluorobenzene	0.44		0.4888		90.5	70	130			
Surr: Dibromofluoromethane	0.49		0.4888		100	70	130			
Surr: Toluene-d8	0.47		0.4888		96.2	70	130			

Sample ID: 2105b47-005amsd	SampType: MSD4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: A1-3 6'	Batch ID: 60316	RunNo: 78775								
Prep Date: 5/27/2021	Analysis Date: 5/29/2021	SeqNo: 2761841	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	0.9891	0	117	73.5	138	5.94	20	
Toluene	1.1	0.049	0.9891	0	109	83	131	0.718	20	
Ethylbenzene	1.1	0.049	0.9891	0.03682	110	84.9	132	2.16	20	
Xylenes, Total	3.3	0.099	2.967	0.1351	105	79.6	144	5.00	20	
Surr: 1,2-Dichloroethane-d4	0.41		0.4946		83.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.46		0.4946		92.5	70	130	0	0	
Surr: Dibromofluoromethane	0.50		0.4946		102	70	130	0	0	
Surr: Toluene-d8	0.47		0.4946		94.6	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

Page 26 of 28

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2105B47

10-Jun-21

Client: GHD**Project:** Jackson B 17 Flowline 1

Sample ID: ics-60310	SampType: LCS			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: LCSS	Batch ID: 60310			RunNo: 78775						
Prep Date: 5/27/2021	Analysis Date: 5/28/2021			SeqNo: 2761980		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.2	70	130			
Surr: BFB	500		500.0		101	70	130			

Sample ID: ics-60316	SampType: LCS			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: LCSS	Batch ID: 60316			RunNo: 78775						
Prep Date: 5/27/2021	Analysis Date: 5/29/2021			SeqNo: 2761981		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	86.4	70	130			
Surr: BFB	500		500.0		101	70	130			

Sample ID: mb-60310	SampType: MBLK			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: PBS	Batch ID: 60310			RunNo: 78775						
Prep Date: 5/27/2021	Analysis Date: 5/28/2021			SeqNo: 2761983		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	520		500.0		103	70	130			

Sample ID: mb-60316	SampType: MBLK			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: PBS	Batch ID: 60316			RunNo: 78775						
Prep Date: 5/27/2021	Analysis Date: 5/29/2021			SeqNo: 2761984		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	500		500.0		99.6	70	130			

Sample ID: 2105b47-004ams	SampType: MS			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: A1-2 14'	Batch ID: 60316			RunNo: 78775						
Prep Date: 5/27/2021	Analysis Date: 5/29/2021			SeqNo: 2762003		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.9	24.56	0	91.8	64.4	124			
Surr: BFB	490		491.2		100	70	130			

Sample ID: 2105b47-004amsd	SampType: MSD			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: A1-2 14'	Batch ID: 60316			RunNo: 78775						
Prep Date: 5/27/2021	Analysis Date: 5/29/2021			SeqNo: 2762004		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

Page 27 of 28

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 2105B47
10-Jun-21

Client: GHD
Project: Jackson B 17 Flowline 1

Sample ID: 2105b47-004amsd		SampType: MSD		TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: A1-2 14'		Batch ID: 60316		RunNo: 78775						
Prep Date: 5/27/2021		Analysis Date: 5/29/2021		SeqNo: 2762004		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.9	24.53	0	98.3	64.4	124	6.72	20	
Surr: BFB	510		490.7		105	70	130	0	0	

Qualifiers:

- *

Value exceeds Maximum Contaminant Level.
- D

Sample Diluted Due to Matrix
- H

Holding times for preparation or analysis exceeded
- ND

Not Detected at the Reporting Limit
- PQL

Practical Quantitative Limit
- S

% Recovery outside of range due to dilution or matrix
- B

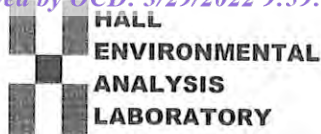
Analyte detected in the associated Method Blank
- E

Value above quantitation range
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: **GHD**Work Order Number: **2105B47**

RcptNo: 1

Received By: **Juan Rojas**

5/27/2021 7:40:00 AM

*Juan Rojas*Completed By: **Cheyenne Cason**

5/27/2021 8:35:30 AM

Cheyenne Cason

Reviewed By:

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace $<1/4"$ for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by: *SPA 5.27.21*

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.4	Good				
2	0.7	Good				



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

August 04, 2021

Tom Larson
GHD Midland
2135 S Loop 250 W
Midland, TX 79703
TEL: (432) 686-0086
FAX

RE: Jackson B 17 Flowline Area 1

OrderNo.: 2107C48

Dear Tom Larson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 7/24/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2107C48

Date Reported: 8/4/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: AI-1 25'

Project: Jackson B 17 Flowline Area 1

Collection Date: 7/22/2021 2:10:00 PM

Lab ID: 2107C48-001

Matrix: SOIL

Received Date: 7/24/2021 7:48:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	180	60		mg/Kg	20	7/30/2021 4:08:09 AM	61662
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	24	9.8		mg/Kg	1	7/27/2021 4:49:48 PM	61572
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/27/2021 4:49:48 PM	61572
Surr: DNOP	123	70-130		%Rec	1	7/27/2021 4:49:48 PM	61572
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/29/2021 10:55:09 AM	61570
Surr: BFB	107	70-130		%Rec	1	7/29/2021 10:55:09 AM	61570
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	7/29/2021 10:55:09 AM	61570
Toluene	ND	0.049		mg/Kg	1	7/29/2021 10:55:09 AM	61570
Ethylbenzene	ND	0.049		mg/Kg	1	7/29/2021 10:55:09 AM	61570
Xylenes, Total	ND	0.098		mg/Kg	1	7/29/2021 10:55:09 AM	61570
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	7/29/2021 10:55:09 AM	61570

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 2107C48

Date Reported: 8/4/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: AI-1 30'

Project: Jackson B 17 Flowline Area 1

Collection Date: 7/22/2021 2:20:00 PM

Lab ID: 2107C48-002

Matrix: SOIL

Received Date: 7/24/2021 7:48:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	84	61		mg/Kg	20	7/30/2021 4:20:33 AM	61662
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/27/2021 4:59:36 PM	61572
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/27/2021 4:59:36 PM	61572
Surr: DNOP	109	70-130		%Rec	1	7/27/2021 4:59:36 PM	61572
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/29/2021 11:18:40 AM	61570
Surr: BFB	108	70-130		%Rec	1	7/29/2021 11:18:40 AM	61570
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	7/29/2021 11:18:40 AM	61570
Toluene	ND	0.047		mg/Kg	1	7/29/2021 11:18:40 AM	61570
Ethylbenzene	ND	0.047		mg/Kg	1	7/29/2021 11:18:40 AM	61570
Xylenes, Total	ND	0.095		mg/Kg	1	7/29/2021 11:18:40 AM	61570
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	7/29/2021 11:18:40 AM	61570

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 2 of 7

Analytical Report

Lab Order 2107C48

Date Reported: 8/4/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: AI-1 35'

Project: Jackson B 17 Flowline Area 1

Collection Date: 7/22/2021 2:40:00 PM

Lab ID: 2107C48-003

Matrix: SOIL

Received Date: 7/24/2021 7:48:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	7/30/2021 4:32:58 AM	61662
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/27/2021 5:09:22 PM	61572
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/27/2021 5:09:22 PM	61572
Surr: DNOP	122	70-130		%Rec	1	7/27/2021 5:09:22 PM	61572
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/29/2021 11:42:09 AM	61570
Surr: BFB	107	70-130		%Rec	1	7/29/2021 11:42:09 AM	61570
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	7/29/2021 11:42:09 AM	61570
Toluene	ND	0.049		mg/Kg	1	7/29/2021 11:42:09 AM	61570
Ethylbenzene	ND	0.049		mg/Kg	1	7/29/2021 11:42:09 AM	61570
Xylenes, Total	ND	0.099		mg/Kg	1	7/29/2021 11:42:09 AM	61570
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	7/29/2021 11:42:09 AM	61570

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 3 of 7

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2107C48

04-Aug-21

Client: GHD Midland**Project:** Jackson B 17 Flowline Area 1

Sample ID: MB-61662	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 61662	RunNo: 80187								
Prep Date: 7/29/2021	Analysis Date: 7/30/2021	SeqNo: 2823381	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-61662	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 61662	RunNo: 80187								
Prep Date: 7/29/2021	Analysis Date: 7/30/2021	SeqNo: 2823382	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.6	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

Page 4 of 7

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2107C48

04-Aug-21

Client: GHD Midland**Project:** Jackson B 17 Flowline Area 1

Sample ID: MB-61572	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 61572	RunNo: 80098								
Prep Date: 7/26/2021	Analysis Date: 7/27/2021	SeqNo: 2820635 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		123	70	130			

Sample ID: LCS-61572	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 61572	RunNo: 80098								
Prep Date: 7/26/2021	Analysis Date: 7/27/2021	SeqNo: 2820636 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	106	68.9	141			
Surr: DNOP	4.9		5.000		97.3	70	130			

Sample ID: MB-61656	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 61656	RunNo: 80208								
Prep Date: 7/29/2021	Analysis Date: 7/30/2021	SeqNo: 2825038 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		102	70	130			

Sample ID: LCS-61656	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 61656	RunNo: 80208								
Prep Date: 7/29/2021	Analysis Date: 7/30/2021	SeqNo: 2825039 Units: %Rec								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		5.000		100	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2107C48

04-Aug-21

Client: GHD Midland**Project:** Jackson B 17 Flowline Area 1

Sample ID: lcs-61570	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 61570		RunNo: 80156							
Prep Date: 7/26/2021	Analysis Date: 7/28/2021		SeqNo: 2822398		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	78.6	131			
Surr: BFB	1200		1000		120	70	130			

Sample ID: mb-61570	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 61570		RunNo: 80156							
Prep Date: 7/26/2021	Analysis Date: 7/29/2021		SeqNo: 2822400		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		106	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

Page 6 of 7

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2107C48

04-Aug-21

Client: GHD Midland**Project:** Jackson B 17 Flowline Area 1

Sample ID: LCS-61570	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 61570		RunNo: 80156							
Prep Date: 7/26/2021	Analysis Date: 7/28/2021		SeqNo: 2822450		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	88.8	80	120			
Toluene	0.91	0.050	1.000	0	91.1	80	120			
Ethylbenzene	0.91	0.050	1.000	0	91.0	80	120			
Xylenes, Total	2.8	0.10	3.000	0	91.7	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	70	130			

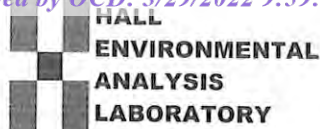
Sample ID: mb-61570	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 61570		RunNo: 80156							
Prep Date: 7/26/2021	Analysis Date: 7/29/2021		SeqNo: 2822452		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

Page 7 of 7



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: **GHD Midland**Work Order Number: **2107C48**

RcptNo: 1

Received By: **Cheyenne Cason** 7/24/2021 7:48:00 AMCompleted By: **Cheyenne Cason** 7/24/2021 8:16:30 AMReviewed By: **SPA 7.24.21***Chad**Chad*

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace $<1/4"$ for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by: *cu* 7/24/21

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good				



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

February 22, 2022

Becky Haskell
GHD Midland
2135 S Loop 250 W
Midland, TX 79703
TEL: (432) 686-0086
FAX

RE: Jackson B 17 Flowline Area 1

OrderNo.: 2202488

Dear Becky Haskell:

Hall Environmental Analysis Laboratory received 22 sample(s) on 2/10/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: SW-1

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 12:35:00 PM

Lab ID: 2202488-001

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	2/16/2022 3:26:23 AM	65573
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	8.5		mg/Kg	1	2/16/2022 9:30:54 AM	65497
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	2/16/2022 9:30:54 AM	65497
Surr: DNOP	96.9	51.1-141		%Rec	1	2/16/2022 9:30:54 AM	65497
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/12/2022 4:20:00 AM	65486
Surr: BFB	95.2	70-130		%Rec	1	2/12/2022 4:20:00 AM	65486
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/12/2022 4:20:00 AM	65486
Toluene	ND	0.049		mg/Kg	1	2/12/2022 4:20:00 AM	65486
Ethylbenzene	ND	0.049		mg/Kg	1	2/12/2022 4:20:00 AM	65486
Xylenes, Total	ND	0.099		mg/Kg	1	2/12/2022 4:20:00 AM	65486
Surr: 4-Bromofluorobenzene	96.9	70-130		%Rec	1	2/12/2022 4:20:00 AM	65486

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 1 of 29

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: SW-2

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 11:00:00 AM

Lab ID: 2202488-002

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	2/16/2022 3:38:48 AM	65573
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/16/2022 9:41:27 AM	65497
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/16/2022 9:41:27 AM	65497
Surr: DNOP	88.6	51.1-141		%Rec	1	2/16/2022 9:41:27 AM	65497
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/12/2022 4:40:00 AM	65486
Surr: BFB	93.6	70-130		%Rec	1	2/12/2022 4:40:00 AM	65486
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/12/2022 4:40:00 AM	65486
Toluene	ND	0.047		mg/Kg	1	2/12/2022 4:40:00 AM	65486
Ethylbenzene	ND	0.047		mg/Kg	1	2/12/2022 4:40:00 AM	65486
Xylenes, Total	ND	0.095		mg/Kg	1	2/12/2022 4:40:00 AM	65486
Surr: 4-Bromofluorobenzene	92.5	70-130		%Rec	1	2/12/2022 4:40:00 AM	65486

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 2 of 29

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: SW-3

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 11:05:00 AM

Lab ID: 2202488-003

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	1400	61		mg/Kg	20	2/16/2022 3:51:13 AM	65573
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/16/2022 9:52:04 AM	65497
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/16/2022 9:52:04 AM	65497
Surr: DNOP	91.2	51.1-141		%Rec	1	2/16/2022 9:52:04 AM	65497
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/12/2022 4:59:00 AM	65486
Surr: BFB	95.2	70-130		%Rec	1	2/12/2022 4:59:00 AM	65486
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/12/2022 4:59:00 AM	65486
Toluene	ND	0.049		mg/Kg	1	2/12/2022 4:59:00 AM	65486
Ethylbenzene	ND	0.049		mg/Kg	1	2/12/2022 4:59:00 AM	65486
Xylenes, Total	ND	0.098		mg/Kg	1	2/12/2022 4:59:00 AM	65486
Surr: 4-Bromofluorobenzene	91.1	70-130		%Rec	1	2/12/2022 4:59:00 AM	65486

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 3 of 29

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: SW-4

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 11:10:00 AM

Lab ID: 2202488-004

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	2/16/2022 4:03:37 AM	65573
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/16/2022 10:02:58 AM	65497
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/16/2022 10:02:58 AM	65497
Surr: DNOP	97.4	51.1-141		%Rec	1	2/16/2022 10:02:58 AM	65497
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/12/2022 5:19:00 AM	65486
Surr: BFB	94.9	70-130		%Rec	1	2/12/2022 5:19:00 AM	65486
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/12/2022 5:19:00 AM	65486
Toluene	ND	0.047		mg/Kg	1	2/12/2022 5:19:00 AM	65486
Ethylbenzene	ND	0.047		mg/Kg	1	2/12/2022 5:19:00 AM	65486
Xylenes, Total	ND	0.094		mg/Kg	1	2/12/2022 5:19:00 AM	65486
Surr: 4-Bromofluorobenzene	96.8	70-130		%Rec	1	2/12/2022 5:19:00 AM	65486

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 4 of 29

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: SW-5

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 11:15:00 AM

Lab ID: 2202488-005

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	74	60		mg/Kg	20	2/16/2022 4:16:01 AM	65573
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/16/2022 10:13:36 AM	65497
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/16/2022 10:13:36 AM	65497
Surr: DNOP	91.6	51.1-141		%Rec	1	2/16/2022 10:13:36 AM	65497
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/12/2022 5:39:00 AM	65486
Surr: BFB	93.2	70-130		%Rec	1	2/12/2022 5:39:00 AM	65486
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/12/2022 5:39:00 AM	65486
Toluene	ND	0.049		mg/Kg	1	2/12/2022 5:39:00 AM	65486
Ethylbenzene	ND	0.049		mg/Kg	1	2/12/2022 5:39:00 AM	65486
Xylenes, Total	ND	0.098		mg/Kg	1	2/12/2022 5:39:00 AM	65486
Surr: 4-Bromofluorobenzene	91.8	70-130		%Rec	1	2/12/2022 5:39:00 AM	65486

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 5 of 29

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: SW-6

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 12:40:00 PM

Lab ID: 2202488-006

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	ND	60		mg/Kg	20	2/16/2022 4:28:26 AM	65573
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/16/2022 12:52:33 PM	65497
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/16/2022 12:52:33 PM	65497
Surr: DNOP	106	51.1-141		%Rec	1	2/16/2022 12:52:33 PM	65497
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/12/2022 5:58:00 AM	65486
Surr: BFB	99.9	70-130		%Rec	1	2/12/2022 5:58:00 AM	65486
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/12/2022 5:58:00 AM	65486
Toluene	ND	0.048		mg/Kg	1	2/12/2022 5:58:00 AM	65486
Ethylbenzene	ND	0.048		mg/Kg	1	2/12/2022 5:58:00 AM	65486
Xylenes, Total	ND	0.096		mg/Kg	1	2/12/2022 5:58:00 AM	65486
Surr: 4-Bromofluorobenzene	95.3	70-130		%Rec	1	2/12/2022 5:58:00 AM	65486

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 6 of 29

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: SW-7

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 12:45:00 PM

Lab ID: 2202488-007

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	93	60		mg/Kg	20	2/16/2022 5:05:40 AM	65573
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	12	9.4		mg/Kg	1	2/16/2022 1:16:47 PM	65497
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/16/2022 1:16:47 PM	65497
Surr: DNOP	103	51.1-141		%Rec	1	2/16/2022 1:16:47 PM	65497
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/12/2022 6:18:00 AM	65486
Surr: BFB	92.0	70-130		%Rec	1	2/12/2022 6:18:00 AM	65486
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/12/2022 6:18:00 AM	65486
Toluene	ND	0.047		mg/Kg	1	2/12/2022 6:18:00 AM	65486
Ethylbenzene	ND	0.047		mg/Kg	1	2/12/2022 6:18:00 AM	65486
Xylenes, Total	ND	0.095		mg/Kg	1	2/12/2022 6:18:00 AM	65486
Surr: 4-Bromofluorobenzene	95.6	70-130		%Rec	1	2/12/2022 6:18:00 AM	65486

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 7 of 29

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: SW-8

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 11:45:00 AM

Lab ID: 2202488-008

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	750	59		mg/Kg	20	2/16/2022 5:18:04 AM	65573
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	310	50		mg/Kg	5	2/16/2022 12:04:18 PM	65497
Motor Oil Range Organics (MRO)	270	250		mg/Kg	5	2/16/2022 12:04:18 PM	65497
Surr: DNOP	124	51.1-141		%Rec	5	2/16/2022 12:04:18 PM	65497
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/12/2022 6:37:00 AM	65486
Surr: BFB	96.9	70-130		%Rec	1	2/12/2022 6:37:00 AM	65486
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/12/2022 6:37:00 AM	65486
Toluene	ND	0.047		mg/Kg	1	2/12/2022 6:37:00 AM	65486
Ethylbenzene	ND	0.047		mg/Kg	1	2/12/2022 6:37:00 AM	65486
Xylenes, Total	ND	0.095		mg/Kg	1	2/12/2022 6:37:00 AM	65486
Surr: 4-Bromofluorobenzene	95.1	70-130		%Rec	1	2/12/2022 6:37:00 AM	65486

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 8 of 29

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: SW-9

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 11:50:00 AM

Lab ID: 2202488-009

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	210	60		mg/Kg	20	2/16/2022 5:30:29 AM	65573
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/16/2022 10:56:20 AM	65497
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/16/2022 10:56:20 AM	65497
Surr: DNOP	105	51.1-141		%Rec	1	2/16/2022 10:56:20 AM	65497
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/12/2022 6:57:00 AM	65486
Surr: BFB	97.5	70-130		%Rec	1	2/12/2022 6:57:00 AM	65486
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/12/2022 6:57:00 AM	65486
Toluene	ND	0.049		mg/Kg	1	2/12/2022 6:57:00 AM	65486
Ethylbenzene	ND	0.049		mg/Kg	1	2/12/2022 6:57:00 AM	65486
Xylenes, Total	ND	0.097		mg/Kg	1	2/12/2022 6:57:00 AM	65486
Surr: 4-Bromofluorobenzene	91.1	70-130		%Rec	1	2/12/2022 6:57:00 AM	65486

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 9 of 29

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: SW-10

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 11:55:00 AM

Lab ID: 2202488-010

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	2200	150		mg/Kg	50	2/17/2022 10:50:53 AM	65573
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	13	9.2		mg/Kg	1	2/16/2022 3:31:39 AM	65517
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/16/2022 3:31:39 AM	65517
Surr: DNOP	100	51.1-141		%Rec	1	2/16/2022 3:31:39 AM	65517
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/14/2022 9:38:22 AM	65499
Surr: BFB	109	70-130		%Rec	1	2/14/2022 9:38:22 AM	65499
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/14/2022 9:38:22 AM	65499
Toluene	ND	0.049		mg/Kg	1	2/14/2022 9:38:22 AM	65499
Ethylbenzene	ND	0.049		mg/Kg	1	2/14/2022 9:38:22 AM	65499
Xylenes, Total	ND	0.098		mg/Kg	1	2/14/2022 9:38:22 AM	65499
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	2/14/2022 9:38:22 AM	65499

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: SW-11

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 12:00:00 PM

Lab ID: 2202488-011

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	1900	60		mg/Kg	20	2/16/2022 3:31:22 PM	65586
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	3600	480		mg/Kg	50	2/16/2022 4:13:16 AM	65517
Motor Oil Range Organics (MRO)	2700	2400		mg/Kg	50	2/16/2022 4:13:16 AM	65517
Surr: DNOP	0	51.1-141	S	%Rec	50	2/16/2022 4:13:16 AM	65517
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	2/14/2022 10:48:20 AM	65499
Surr: BFB	129	70-130		%Rec	5	2/14/2022 10:48:20 AM	65499
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	2/14/2022 10:48:20 AM	65499
Toluene	ND	0.25		mg/Kg	5	2/14/2022 10:48:20 AM	65499
Ethylbenzene	ND	0.25		mg/Kg	5	2/14/2022 10:48:20 AM	65499
Xylenes, Total	ND	0.49		mg/Kg	5	2/14/2022 10:48:20 AM	65499
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	5	2/14/2022 10:48:20 AM	65499

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: BH-1

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 11:20:00 AM

Lab ID: 2202488-012

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	2100	61		mg/Kg	20	2/16/2022 3:43:46 PM	65586
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	60	9.3		mg/Kg	1	2/16/2022 4:23:36 AM	65517
Motor Oil Range Organics (MRO)	130	47		mg/Kg	1	2/16/2022 4:23:36 AM	65517
Surr: DNOP	117	51.1-141		%Rec	1	2/16/2022 4:23:36 AM	65517
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/14/2022 11:59:00 AM	65499
Surr: BFB	113	70-130		%Rec	1	2/14/2022 11:59:00 AM	65499
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	2/14/2022 11:59:00 AM	65499
Toluene	ND	0.047		mg/Kg	1	2/14/2022 11:59:00 AM	65499
Ethylbenzene	ND	0.047		mg/Kg	1	2/14/2022 11:59:00 AM	65499
Xylenes, Total	ND	0.093		mg/Kg	1	2/14/2022 11:59:00 AM	65499
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	2/14/2022 11:59:00 AM	65499

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: BH-2

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 11:25:00 AM

Lab ID: 2202488-013

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	2200	60		mg/Kg	20	2/16/2022 3:56:10 PM	65586
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	250	9.6		mg/Kg	1	2/16/2022 4:44:20 AM	65517
Motor Oil Range Organics (MRO)	150	48		mg/Kg	1	2/16/2022 4:44:20 AM	65517
Surr: DNOP	96.3	51.1-141		%Rec	1	2/16/2022 4:44:20 AM	65517
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/14/2022 12:22:51 PM	65499
Surr: BFB	114	70-130		%Rec	1	2/14/2022 12:22:51 PM	65499
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/14/2022 12:22:51 PM	65499
Toluene	ND	0.049		mg/Kg	1	2/14/2022 12:22:51 PM	65499
Ethylbenzene	ND	0.049		mg/Kg	1	2/14/2022 12:22:51 PM	65499
Xylenes, Total	ND	0.098		mg/Kg	1	2/14/2022 12:22:51 PM	65499
Surr: 4-Bromofluorobenzene	108	70-130		%Rec	1	2/14/2022 12:22:51 PM	65499

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 13 of 29

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: BH-3

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 11:30:00 AM

Lab ID: 2202488-014

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	3600	150		mg/Kg	50	2/16/2022 4:08:35 PM	65586
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/16/2022 5:05:05 AM	65517
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/16/2022 5:05:05 AM	65517
Surr: DNOP	102	51.1-141		%Rec	1	2/16/2022 5:05:05 AM	65517
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/14/2022 12:46:41 PM	65499
Surr: BFB	119	70-130		%Rec	1	2/14/2022 12:46:41 PM	65499
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/14/2022 12:46:41 PM	65499
Toluene	ND	0.050		mg/Kg	1	2/14/2022 12:46:41 PM	65499
Ethylbenzene	ND	0.050		mg/Kg	1	2/14/2022 12:46:41 PM	65499
Xylenes, Total	ND	0.099		mg/Kg	1	2/14/2022 12:46:41 PM	65499
Surr: 4-Bromofluorobenzene	112	70-130		%Rec	1	2/14/2022 12:46:41 PM	65499

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 14 of 29

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: BH-4

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 11:35:00 AM

Lab ID: 2202488-015

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	880	60		mg/Kg	20	2/16/2022 4:20:59 PM	65586
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	14	9.7		mg/Kg	1	2/16/2022 5:15:29 AM	65517
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/16/2022 5:15:29 AM	65517
Surr: DNOP	89.5	51.1-141		%Rec	1	2/16/2022 5:15:29 AM	65517
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/14/2022 1:10:34 PM	65499
Surr: BFB	118	70-130		%Rec	1	2/14/2022 1:10:34 PM	65499
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/14/2022 1:10:34 PM	65499
Toluene	ND	0.048		mg/Kg	1	2/14/2022 1:10:34 PM	65499
Ethylbenzene	ND	0.048		mg/Kg	1	2/14/2022 1:10:34 PM	65499
Xylenes, Total	ND	0.097		mg/Kg	1	2/14/2022 1:10:34 PM	65499
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	2/14/2022 1:10:34 PM	65499

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 15 of 29

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: BH-5

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 12:30:00 PM

Lab ID: 2202488-016

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	1200	60		mg/Kg	20	2/17/2022 11:28:06 AM	65610
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	790	99		mg/Kg	10	2/16/2022 5:25:54 AM	65517
Motor Oil Range Organics (MRO)	580	500		mg/Kg	10	2/16/2022 5:25:54 AM	65517
Surr: DNOP	0	51.1-141	S	%Rec	10	2/16/2022 5:25:54 AM	65517
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/14/2022 1:34:03 PM	65499
Surr: BFB	119	70-130		%Rec	1	2/14/2022 1:34:03 PM	65499
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/14/2022 1:34:03 PM	65499
Toluene	ND	0.049		mg/Kg	1	2/14/2022 1:34:03 PM	65499
Ethylbenzene	ND	0.049		mg/Kg	1	2/14/2022 1:34:03 PM	65499
Xylenes, Total	ND	0.099		mg/Kg	1	2/14/2022 1:34:03 PM	65499
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	2/14/2022 1:34:03 PM	65499

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 16 of 29

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: BH-6

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 11:40:00 AM

Lab ID: 2202488-017

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	310	60		mg/Kg	20	2/17/2022 11:40:31 AM	65610
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/16/2022 5:36:25 AM	65517
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/16/2022 5:36:25 AM	65517
Surr: DNOP	82.3	51.1-141		%Rec	1	2/16/2022 5:36:25 AM	65517
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/14/2022 1:57:46 PM	65499
Surr: BFB	116	70-130		%Rec	1	2/14/2022 1:57:46 PM	65499
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	2/14/2022 1:57:46 PM	65499
Toluene	ND	0.047		mg/Kg	1	2/14/2022 1:57:46 PM	65499
Ethylbenzene	ND	0.047		mg/Kg	1	2/14/2022 1:57:46 PM	65499
Xylenes, Total	ND	0.093		mg/Kg	1	2/14/2022 1:57:46 PM	65499
Surr: 4-Bromofluorobenzene	111	70-130		%Rec	1	2/14/2022 1:57:46 PM	65499

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 17 of 29

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: BH-7

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 12:20:00 PM

Lab ID: 2202488-018

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	1100	60		mg/Kg	20	2/17/2022 11:52:55 AM	65610
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	1100	96		mg/Kg	10	2/16/2022 5:47:00 AM	65517
Motor Oil Range Organics (MRO)	590	480		mg/Kg	10	2/16/2022 5:47:00 AM	65517
Surr: DNOP	0	51.1-141	S	%Rec	10	2/16/2022 5:47:00 AM	65517
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/14/2022 2:21:28 PM	65499
Surr: BFB	126	70-130		%Rec	1	2/14/2022 2:21:28 PM	65499
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/14/2022 2:21:28 PM	65499
Toluene	ND	0.050		mg/Kg	1	2/14/2022 2:21:28 PM	65499
Ethylbenzene	ND	0.050		mg/Kg	1	2/14/2022 2:21:28 PM	65499
Xylenes, Total	ND	0.10		mg/Kg	1	2/14/2022 2:21:28 PM	65499
Surr: 4-Bromofluorobenzene	108	70-130		%Rec	1	2/14/2022 2:21:28 PM	65499

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: BH-8

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 12:25:00 PM

Lab ID: 2202488-019

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	2100	150		mg/Kg	50	2/17/2022 1:19:45 PM	65610
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	2800	180		mg/Kg	20	2/16/2022 5:57:39 AM	65517
Motor Oil Range Organics (MRO)	1600	920		mg/Kg	20	2/16/2022 5:57:39 AM	65517
Surr: DNOP	0	51.1-141	S	%Rec	20	2/16/2022 5:57:39 AM	65517
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	74	25		mg/Kg	5	2/14/2022 2:45:10 PM	65499
Surr: BFB	268	70-130	S	%Rec	5	2/14/2022 2:45:10 PM	65499
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	2/14/2022 2:45:10 PM	65499
Toluene	ND	0.25		mg/Kg	5	2/14/2022 2:45:10 PM	65499
Ethylbenzene	0.31	0.25		mg/Kg	5	2/14/2022 2:45:10 PM	65499
Xylenes, Total	1.2	0.49		mg/Kg	5	2/14/2022 2:45:10 PM	65499
Surr: 4-Bromofluorobenzene	123	70-130		%Rec	5	2/14/2022 2:45:10 PM	65499

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: BH-9

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 12:05:00 PM

Lab ID: 2202488-020

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	350	60		mg/Kg	20	2/17/2022 12:17:43 PM	65610
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/16/2022 6:08:19 AM	65517
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/16/2022 6:08:19 AM	65517
Surr: DNOP	78.7	51.1-141		%Rec	1	2/16/2022 6:08:19 AM	65517
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/14/2022 3:55:56 PM	65499
Surr: BFB	116	70-130		%Rec	1	2/14/2022 3:55:56 PM	65499
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	2/14/2022 3:55:56 PM	65499
Toluene	ND	0.047		mg/Kg	1	2/14/2022 3:55:56 PM	65499
Ethylbenzene	ND	0.047		mg/Kg	1	2/14/2022 3:55:56 PM	65499
Xylenes, Total	ND	0.094		mg/Kg	1	2/14/2022 3:55:56 PM	65499
Surr: 4-Bromofluorobenzene	110	70-130		%Rec	1	2/14/2022 3:55:56 PM	65499

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 20 of 29

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: BH-10

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 12:10:00 PM

Lab ID: 2202488-021

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	2000	60		mg/Kg	20	2/17/2022 12:30:08 PM	65610
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	17	9.4		mg/Kg	1	2/16/2022 6:19:00 AM	65517
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/16/2022 6:19:00 AM	65517
Surr: DNOP	99.4	51.1-141		%Rec	1	2/16/2022 6:19:00 AM	65517
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/14/2022 4:19:37 PM	65499
Surr: BFB	114	70-130		%Rec	1	2/14/2022 4:19:37 PM	65499
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/14/2022 4:19:37 PM	65499
Toluene	ND	0.049		mg/Kg	1	2/14/2022 4:19:37 PM	65499
Ethylbenzene	ND	0.049		mg/Kg	1	2/14/2022 4:19:37 PM	65499
Xylenes, Total	ND	0.097		mg/Kg	1	2/14/2022 4:19:37 PM	65499
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	2/14/2022 4:19:37 PM	65499

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report

Lab Order 2202488

Date Reported: 2/22/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: BH-11

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/8/2022 12:15:00 PM

Lab ID: 2202488-022

Matrix: SOIL

Received Date: 2/10/2022 8:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	2800	150		mg/Kg	50	2/17/2022 1:32:09 PM	65610
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/16/2022 6:29:51 AM	65517
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/16/2022 6:29:51 AM	65517
Surr: DNOP	95.4	51.1-141		%Rec	1	2/16/2022 6:29:51 AM	65517
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/14/2022 4:43:25 PM	65499
Surr: BFB	115	70-130		%Rec	1	2/14/2022 4:43:25 PM	65499
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	2/14/2022 4:43:25 PM	65499
Toluene	ND	0.046		mg/Kg	1	2/14/2022 4:43:25 PM	65499
Ethylbenzene	ND	0.046		mg/Kg	1	2/14/2022 4:43:25 PM	65499
Xylenes, Total	ND	0.092		mg/Kg	1	2/14/2022 4:43:25 PM	65499
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	2/14/2022 4:43:25 PM	65499

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 22 of 29

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2202488

22-Feb-22

Client: GHD Midland**Project:** Jackson B 17 Flowline Area 1

Sample ID: LCS-65573	SampType: lcs			TestCode: EPA Method 300.0: Anions						
Client ID: LCSS	Batch ID: 65573			RunNo: 85831						
Prep Date: 2/15/2022	Analysis Date: 2/15/2022			SeqNo: 3023545		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.7	90	110			

Sample ID: MB-65610	SampType: mblk			TestCode: EPA Method 300.0: Anions						
Client ID: PBS	Batch ID: 65610			RunNo: 85918						
Prep Date: 2/17/2022	Analysis Date: 2/17/2022			SeqNo: 3025704		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-65610	SampType: lcs			TestCode: EPA Method 300.0: Anions						
Client ID: LCSS	Batch ID: 65610			RunNo: 85918						
Prep Date: 2/17/2022	Analysis Date: 2/17/2022			SeqNo: 3025705		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.7	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2202488

22-Feb-22

Client: GHD Midland**Project:** Jackson B 17 Flowline Area 1

Sample ID: MB-65497	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 65497	RunNo: 85809								
Prep Date: 2/11/2022	Analysis Date: 2/14/2022	SeqNo: 3022507 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.4		10.00		94.4	51.1	141			

Sample ID: LCS-65497	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 65497	RunNo: 85809								
Prep Date: 2/11/2022	Analysis Date: 2/14/2022	SeqNo: 3022508 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.3	68.9	135			
Surr: DNOP	3.9		5.000		78.1	51.1	141			

Sample ID: 2202488-010AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SW-10	Batch ID: 65517	RunNo: 85857								
Prep Date: 2/14/2022	Analysis Date: 2/16/2022	SeqNo: 3023395 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.2	46.21	12.55	79.3	39.3	155			
Surr: DNOP	3.9		4.621		83.7	51.1	141			

Sample ID: 2202488-010AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SW-10	Batch ID: 65517	RunNo: 85857								
Prep Date: 2/14/2022	Analysis Date: 2/16/2022	SeqNo: 3023396 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	9.5	47.30	12.55	92.3	39.3	155	13.3	23.4	
Surr: DNOP	4.1		4.730		85.7	51.1	141	0	0	

Sample ID: LCS-65517	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 65517	RunNo: 85859								
Prep Date: 2/14/2022	Analysis Date: 2/15/2022	SeqNo: 3023640 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	81.9	68.9	135			
Surr: DNOP	4.0		5.000		79.3	51.1	141			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 2202488
22-Feb-22

Client: GHD Midland
Project: Jackson B 17 Flowline Area 1

Sample ID: MB-65517	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 65517	RunNo: 85859								
Prep Date: 2/14/2022	Analysis Date: 2/15/2022	SeqNo: 3023642		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.9		10.00		99.1	51.1	141			

Qualifiers:

- *

Value exceeds Maximum Contaminant Level.
- D

Sample Diluted Due to Matrix
- H

Holding times for preparation or analysis exceeded
- ND

Not Detected at the Reporting Limit
- PQL

Practical Quantitative Limit
- S

% Recovery outside of range due to dilution or matrix interference
- B

Analyte detected in the associated Method Blank
- E

Estimated value
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2202488

22-Feb-22

Client: GHD Midland
Project: Jackson B 17 Flowline Area 1

Sample ID: lcs-65486	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 65486			RunNo: 85799						
Prep Date: 2/10/2022	Analysis Date: 2/11/2022			SeqNo: 3021130		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	78.6	131			
Surr: BFB	1100		1000		111	70	130			

Sample ID: mb-65486	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 65486			RunNo: 85799						
Prep Date: 2/10/2022	Analysis Date: 2/11/2022			SeqNo: 3021131		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		96.4	70	130			

Sample ID: mb-65499	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 65499			RunNo: 85817						
Prep Date: 2/11/2022	Analysis Date: 2/14/2022			SeqNo: 3021837		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		114	70	130			

Sample ID: LCS-65499	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 65499			RunNo: 85817						
Prep Date: 2/11/2022	Analysis Date: 2/14/2022			SeqNo: 3021838		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	102	78.6	131			
Surr: BFB	1200		1000		123	70	130			

Sample ID: 2202488-010ams	SampType: MS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: SW-10	Batch ID: 65499			RunNo: 85817						
Prep Date: 2/11/2022	Analysis Date: 2/14/2022			SeqNo: 3021840		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.9	24.73	0	96.4	70	130			
Surr: BFB	1200		989.1		122	70	130			

Sample ID: 2202488-010amsd	SampType: MSD			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: SW-10	Batch ID: 65499			RunNo: 85817						
Prep Date: 2/11/2022	Analysis Date: 2/14/2022			SeqNo: 3021841		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202488

22-Feb-22

Client: GHD Midland

Project: Jackson B 17 Flowline Area 1

Sample ID: 2202488-010amsd		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range						
Client ID: SW-10		Batch ID: 65499		RunNo: 85817						
Prep Date: 2/11/2022		Analysis Date: 2/14/2022		SeqNo: 3021841			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.9	24.63	0	98.6	70	130	1.94	20	
Surr: BFB	1200		985.2		122	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Page 27 of 29

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2202488

22-Feb-22

Client: GHD Midland**Project:** Jackson B 17 Flowline Area 1

Sample ID: lcs-65486	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 65486	RunNo: 85799								
Prep Date: 2/10/2022	Analysis Date: 2/11/2022	SeqNo: 3021256 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	106	80	120			
Toluene	1.0	0.050	1.000	0	105	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	70	130			

Sample ID: mb-65486	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 65486	RunNo: 85799								
Prep Date: 2/10/2022	Analysis Date: 2/11/2022	SeqNo: 3021257 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.91		1.000		90.9	70	130			

Sample ID: mb-65499	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 65499	RunNo: 85817								
Prep Date: 2/11/2022	Analysis Date: 2/14/2022	SeqNo: 3021884 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		109	70	130			

Sample ID: lcs-65499	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 65499	RunNo: 85817								
Prep Date: 2/11/2022	Analysis Date: 2/14/2022	SeqNo: 3021885 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.6	80	120			
Toluene	0.97	0.050	1.000	0	97.4	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.0	80	120			
Xylenes, Total	2.9	0.10	3.000	0	98.1	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2202488

22-Feb-22

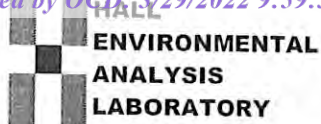
Client: GHD Midland**Project:** Jackson B 17 Flowline Area 1

Sample ID: 2202488-011ams		SampType: MS		TestCode: EPA Method 8021B: Volatiles						
Client ID: SW-11		Batch ID: 65499		RunNo: 85817						
Prep Date: 2/11/2022		Analysis Date: 2/14/2022		SeqNo: 3021888		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.76	0.12	0.9852	0	76.9	80	120			S
Toluene	0.80	0.25	0.9852	0	81.4	80	120			
Ethylbenzene	0.82	0.25	0.9852	0.07136	75.8	80	120			S
Xylenes, Total	2.5	0.49	2.956	0.2923	73.8	80	120			S
Surr: 4-Bromofluorobenzene	5.3		4.926		108	70	130			

Sample ID: 2202488-011amsd		SampType: MSD		TestCode: EPA Method 8021B: Volatiles						
Client ID: SW-11		Batch ID: 65499		RunNo: 85817						
Prep Date: 2/11/2022		Analysis Date: 2/14/2022		SeqNo: 3021889		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.71	0.12	0.9804	0	72.7	80	120	6.11	20	S
Toluene	0.75	0.25	0.9804	0	76.6	80	120	6.57	20	S
Ethylbenzene	0.75	0.25	0.9804	0.07136	69.5	80	120	8.38	20	S
Xylenes, Total	2.3	0.49	2.941	0.2923	68.1	80	120	7.44	20	S
Surr: 4-Bromofluorobenzene	5.4		4.902		110	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: GHD Midland

Work Order Number: 2202488

RcptNo: 1

Received By: Cheyenne Cason 2/10/2022 8:20:00 AM

Completed By: Tracy Casarrubias 2/10/2022 9:48:00 AM

Reviewed By: JAC 2/10/22

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace $<1/4"$ for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐
of preserved bottles checked for pH:
(<2 or >12 unless noted)
Adjusted?
Checked by: KPG 2/10/22

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

March 08, 2022

Becky Haskell
GHD Midland
2135 S Loop 250 W
Midland, TX 79703
TEL: (432) 686-0086
FAX:

RE: Jackson B Flowline Area 1

OrderNo.: 2202C09

Dear Becky Haskell:

Hall Environmental Analysis Laboratory received 5 sample(s) on 2/25/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2202C09

Date Reported: 3/8/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: SW-3A

Project: Jackson B Flowline Area 1

Collection Date: 2/23/2022 9:00:00 AM

Lab ID: 2202C09-001

Matrix: SOIL

Received Date: 2/25/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LRN
Chloride	ND	59		mg/Kg	20	3/3/2022 3:38:56 PM	65919
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/2/2022 2:11:22 PM	65852
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/2/2022 2:11:22 PM	65852
Surr: DNOP	73.9	51.1-141		%Rec	1	3/2/2022 2:11:22 PM	65852
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/28/2022 7:54:27 PM	65809
Surr: BFB	106	70-130		%Rec	1	2/28/2022 7:54:27 PM	65809
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/28/2022 7:54:27 PM	65809
Toluene	ND	0.047		mg/Kg	1	2/28/2022 7:54:27 PM	65809
Ethylbenzene	ND	0.047		mg/Kg	1	2/28/2022 7:54:27 PM	65809
Xylenes, Total	ND	0.095		mg/Kg	1	2/28/2022 7:54:27 PM	65809
Surr: 4-Bromofluorobenzene	99.4	70-130		%Rec	1	2/28/2022 7:54:27 PM	65809

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 1 of 11

Analytical Report

Lab Order 2202C09

Date Reported: 3/8/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: BH-12

Project: Jackson B Flowline Area 1

Collection Date: 2/23/2022 9:05:00 AM

Lab ID: 2202C09-002

Matrix: SOIL

Received Date: 2/25/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LRN
Chloride	2100	60		mg/Kg	20	3/3/2022 3:51:20 PM	65919
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	3/2/2022 2:22:41 PM	65852
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/2/2022 2:22:41 PM	65852
Surr: DNOP	74.1	51.1-141		%Rec	1	3/2/2022 2:22:41 PM	65852
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/28/2022 8:18:00 PM	65809
Surr: BFB	103	70-130		%Rec	1	2/28/2022 8:18:00 PM	65809
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/28/2022 8:18:00 PM	65809
Toluene	ND	0.048		mg/Kg	1	2/28/2022 8:18:00 PM	65809
Ethylbenzene	ND	0.048		mg/Kg	1	2/28/2022 8:18:00 PM	65809
Xylenes, Total	ND	0.095		mg/Kg	1	2/28/2022 8:18:00 PM	65809
Surr: 4-Bromofluorobenzene	97.0	70-130		%Rec	1	2/28/2022 8:18:00 PM	65809

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 2 of 11

Analytical Report

Lab Order 2202C09

Date Reported: 3/8/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: SW-12

Project: Jackson B Flowline Area 1

Collection Date: 2/23/2022 1:55:00 PM

Lab ID: 2202C09-003

Matrix: SOIL

Received Date: 2/25/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LRN
Chloride	1700	60		mg/Kg	20	3/3/2022 4:03:45 PM	65919
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	3/2/2022 2:58:08 PM	65852
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	3/2/2022 2:58:08 PM	65852
Surr: DNOP	105	51.1-141		%Rec	1	3/2/2022 2:58:08 PM	65852
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/28/2022 8:41:26 PM	65809
Surr: BFB	104	70-130		%Rec	1	2/28/2022 8:41:26 PM	65809
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	2/28/2022 8:41:26 PM	65809
Toluene	ND	0.050		mg/Kg	1	2/28/2022 8:41:26 PM	65809
Ethylbenzene	ND	0.050		mg/Kg	1	2/28/2022 8:41:26 PM	65809
Xylenes, Total	ND	0.099		mg/Kg	1	2/28/2022 8:41:26 PM	65809
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	2/28/2022 8:41:26 PM	65809

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report

Lab Order 2202C09

Date Reported: 3/8/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: SW-13

Project: Jackson B Flowline Area 1

Collection Date: 2/23/2022 2:00:00 PM

Lab ID: 2202C09-004

Matrix: SOIL

Received Date: 2/25/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LRN
Chloride	350	59		mg/Kg	20	3/3/2022 4:16:10 PM	65919
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	8.1		mg/Kg	1	3/2/2022 3:09:25 PM	65852
Motor Oil Range Organics (MRO)	ND	40		mg/Kg	1	3/2/2022 3:09:25 PM	65852
Surr: DNOP	79.4	51.1-141		%Rec	1	3/2/2022 3:09:25 PM	65852
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/28/2022 11:02:00 PM	65809
Surr: BFB	106	70-130		%Rec	1	2/28/2022 11:02:00 PM	65809
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	2/28/2022 11:02:00 PM	65809
Toluene	ND	0.049		mg/Kg	1	2/28/2022 11:02:00 PM	65809
Ethylbenzene	ND	0.049		mg/Kg	1	2/28/2022 11:02:00 PM	65809
Xylenes, Total	ND	0.097		mg/Kg	1	2/28/2022 11:02:00 PM	65809
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	2/28/2022 11:02:00 PM	65809

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 4 of 11

Analytical Report

Lab Order 2202C09

Date Reported: 3/8/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: SW-14

Project: Jackson B Flowline Area 1

Collection Date: 2/23/2022 2:05:00 PM

Lab ID: 2202C09-005

Matrix: SOIL

Received Date: 2/25/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LRN
Chloride	1000	60		mg/Kg	20	3/3/2022 4:28:34 PM	65919
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/1/2022 4:13:26 PM	65838
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/1/2022 4:13:26 PM	65838
Surr: DNOP	102	51.1-141		%Rec	1	3/1/2022 4:13:26 PM	65838
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/28/2022 9:35:00 PM	65812
Surr: BFB	103	70-130		%Rec	1	2/28/2022 9:35:00 PM	65812
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/28/2022 9:35:00 PM	65812
Toluene	ND	0.048		mg/Kg	1	2/28/2022 9:35:00 PM	65812
Ethylbenzene	ND	0.048		mg/Kg	1	2/28/2022 9:35:00 PM	65812
Xylenes, Total	ND	0.095		mg/Kg	1	2/28/2022 9:35:00 PM	65812
Surr: 4-Bromofluorobenzene	91.1	70-130		%Rec	1	2/28/2022 9:35:00 PM	65812

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202C09

08-Mar-22

Client: GHD Midland

Project: Jackson B Flowline Area 1

Sample ID: MB-65919	SampType: mblk	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 65919	RunNo: 86224
Prep Date: 3/3/2022	Analysis Date: 3/3/2022	SeqNo: 3040668 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-65919	SampType: lcs	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 65919	RunNo: 86224
Prep Date: 3/3/2022	Analysis Date: 3/3/2022	SeqNo: 3040669 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	14	1.5 15.00 0 92.5 90 110

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Page 6 of 11

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2202C09

08-Mar-22

Client: GHD Midland**Project:** Jackson B Flowline Area 1

Sample ID: LCS-65838	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 65838	RunNo: 86162								
Prep Date: 2/28/2022	Analysis Date: 3/1/2022	SeqNo: 3037235 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	102	68.9	135			
Surr: DNOP	4.4		5.000		87.0	51.1	141			

Sample ID: MB-65838	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 65838	RunNo: 86162								
Prep Date: 2/28/2022	Analysis Date: 3/1/2022	SeqNo: 3037236 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.7		10.00		97.2	51.1	141			

Sample ID: 2202C09-005AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SW-14	Batch ID: 65838	RunNo: 86160								
Prep Date: 2/28/2022	Analysis Date: 3/1/2022	SeqNo: 3037628 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.0	45.13	7.571	84.6	39.3	155			
Surr: DNOP	4.0		4.513		87.9	51.1	141			

Sample ID: 2202C09-005AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SW-14	Batch ID: 65838	RunNo: 86160								
Prep Date: 2/28/2022	Analysis Date: 3/1/2022	SeqNo: 3037629 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	8.8	43.78	7.571	88.6	39.3	155	1.39	23.4	
Surr: DNOP	3.8		4.378		87.2	51.1	141	0	0	

Sample ID: LCS-65852	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 65852	RunNo: 86180								
Prep Date: 3/1/2022	Analysis Date: 3/2/2022	SeqNo: 3038792 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.1	68.9	135			
Surr: DNOP	4.5		5.000		89.4	51.1	141			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 2202C09
08-Mar-22

Client: GHD Midland
Project: Jackson B Flowline Area 1

Sample ID: MB-65852	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 65852	RunNo: 86180								
Prep Date: 3/1/2022	Analysis Date: 3/2/2022	SeqNo: 3038794		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		104	51.1	141			

Qualifiers:

- *

Value exceeds Maximum Contaminant Level.
- D

Sample Diluted Due to Matrix
- H

Holding times for preparation or analysis exceeded
- ND

Not Detected at the Reporting Limit
- PQL

Practical Quantitative Limit
- S

% Recovery outside of range due to dilution or matrix interference
- B

Analyte detected in the associated Method Blank
- E

Estimated value
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2202C09

08-Mar-22

Client: GHD Midland**Project:** Jackson B Flowline Area 1

Sample ID: mb-65809	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 65809	RunNo: 86141								
Prep Date: 2/25/2022	Analysis Date: 2/28/2022	SeqNo: 3035700 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		106	70	130			

Sample ID: lcs-65809	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 65809	RunNo: 86141								
Prep Date: 2/25/2022	Analysis Date: 2/28/2022	SeqNo: 3035701 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	78.6	131			
Surr: BFB	1200		1000		117	70	130			

Sample ID: lcs-65812	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 65812	RunNo: 86147								
Prep Date: 2/25/2022	Analysis Date: 2/28/2022	SeqNo: 3035984 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	78.6	131			
Surr: BFB	1200		1000		115	70	130			

Sample ID: mb-65812	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 65812	RunNo: 86147								
Prep Date: 2/25/2022	Analysis Date: 2/28/2022	SeqNo: 3035985 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		102	70	130			

Sample ID: 2202c09-005ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: SW-14	Batch ID: 65812	RunNo: 86147								
Prep Date: 2/25/2022	Analysis Date: 2/28/2022	SeqNo: 3035987 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.9	24.58	0	100	70	130			
Surr: BFB	1200		983.3		119	70	130			

Sample ID: 2202c09-005amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: SW-14	Batch ID: 65812	RunNo: 86147								
Prep Date: 2/25/2022	Analysis Date: 2/28/2022	SeqNo: 3035988 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2202C09

08-Mar-22

Client: GHD Midland

Project: Jackson B Flowline Area 1

Sample ID: 2202c09-005amsd		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range						
Client ID: SW-14		Batch ID: 65812		RunNo: 86147						
Prep Date: 2/25/2022		Analysis Date: 2/28/2022		SeqNo: 3035988		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.9	24.53	0	105	70	130	4.44	20	
Surr: BFB	1200		981.4		123	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2202C09

08-Mar-22

Client: GHD Midland**Project:** Jackson B Flowline Area 1

Sample ID: mb-65809	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 65809	RunNo: 86141								
Prep Date: 2/25/2022	Analysis Date: 2/28/2022	SeqNo: 3035742 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	70	130			

Sample ID: LCS-65809	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 65809	RunNo: 86141								
Prep Date: 2/25/2022	Analysis Date: 2/28/2022	SeqNo: 3035743 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.0	80	120			
Toluene	0.96	0.050	1.000	0	95.5	80	120			
Ethylbenzene	0.96	0.050	1.000	0	96.2	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.8	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	70	130			

Sample ID: lcs-65812	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 65812	RunNo: 86147								
Prep Date: 2/25/2022	Analysis Date: 2/28/2022	SeqNo: 3036059 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.2	80	120			
Toluene	0.93	0.050	1.000	0	93.3	80	120			
Ethylbenzene	0.94	0.050	1.000	0	94.0	80	120			
Xylenes, Total	2.8	0.10	3.000	0	93.6	80	120			
Surr: 4-Bromofluorobenzene	0.93		1.000		93.4	70	130			

Sample ID: mb-65812	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 65812	RunNo: 86147								
Prep Date: 2/25/2022	Analysis Date: 2/28/2022	SeqNo: 3036060 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.89		1.000		89.4	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: GHD Midland

Work Order Number: 2202C09

RcptNo: 1

Received By: Cheyenne Cason 2/25/2022 8:00:00 AM

Completed By: Desiree Dominguez 2/25/2022 8:29:15 AM

Reviewed By: *JD 2/25/22**Cloud**JD*

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace $<1/4"$ for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by: *KPG 2/25/22*

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.7	Good				



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

March 10, 2022

Becky Haskell
GHD Midland
2135 S Loop 250 W
Midland, TX 79703
TEL: (432) 686-0086
FAX

RE: Jackson B 17 Flowline Area 1

OrderNo.: 2203064

Dear Becky Haskell:

Hall Environmental Analysis Laboratory received 6 sample(s) on 3/2/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2203064

Date Reported: 3/10/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: BH-8A

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/28/2022 12:20:00 PM

Lab ID: 2203064-001

Matrix: SOIL

Received Date: 3/2/2022 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	1700	60		mg/Kg	20	3/8/2022 11:45:49 AM	66014
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/3/2022 10:41:05 PM	65927
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/3/2022 10:41:05 PM	65927
Surr: DNOP	92.8	51.1-141		%Rec	1	3/3/2022 10:41:05 PM	65927
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/3/2022 9:51:48 PM	65901
Surr: BFB	111	70-130		%Rec	1	3/3/2022 9:51:48 PM	65901
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	3/3/2022 9:51:48 PM	65901
Toluene	ND	0.049		mg/Kg	1	3/3/2022 9:51:48 PM	65901
Ethylbenzene	ND	0.049		mg/Kg	1	3/3/2022 9:51:48 PM	65901
Xylenes, Total	ND	0.098		mg/Kg	1	3/3/2022 9:51:48 PM	65901
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	3/3/2022 9:51:48 PM	65901

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 1 of 10

Analytical Report

Lab Order 2203064

Date Reported: 3/10/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: BH-7A

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/28/2022 12:25:00 PM

Lab ID: 2203064-002

Matrix: SOIL

Received Date: 3/2/2022 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	480	60		mg/Kg	20	3/8/2022 1:49:17 PM	66014
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	130		mg/Kg	1	3/3/2022 10:51:52 PM	65927
Motor Oil Range Organics (MRO)	ND	650		mg/Kg	1	3/3/2022 10:51:52 PM	65927
Surr: DNOP	95.7	51.1-141		%Rec	1	3/3/2022 10:51:52 PM	65927
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/3/2022 11:02:48 PM	65901
Surr: BFB	113	70-130		%Rec	1	3/3/2022 11:02:48 PM	65901
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	3/3/2022 11:02:48 PM	65901
Toluene	ND	0.048		mg/Kg	1	3/3/2022 11:02:48 PM	65901
Ethylbenzene	ND	0.048		mg/Kg	1	3/3/2022 11:02:48 PM	65901
Xylenes, Total	ND	0.096		mg/Kg	1	3/3/2022 11:02:48 PM	65901
Surr: 4-Bromofluorobenzene	108	70-130		%Rec	1	3/3/2022 11:02:48 PM	65901

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 2 of 10

Analytical Report

Lab Order 2203064

Date Reported: 3/10/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: SW-W-11'-22'

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/28/2022 12:30:00 PM

Lab ID: 2203064-003

Matrix: SOIL

Received Date: 3/2/2022 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	2000	60		mg/Kg	20	3/8/2022 2:01:37 PM	66014
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	9.6	9.4		mg/Kg	1	3/3/2022 11:02:39 PM	65927
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/3/2022 11:02:39 PM	65927
Surr: DNOP	104	51.1-141		%Rec	1	3/3/2022 11:02:39 PM	65927
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/4/2022 12:13:43 AM	65901
Surr: BFB	110	70-130		%Rec	1	3/4/2022 12:13:43 AM	65901
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	3/4/2022 12:13:43 AM	65901
Toluene	ND	0.047		mg/Kg	1	3/4/2022 12:13:43 AM	65901
Ethylbenzene	ND	0.047		mg/Kg	1	3/4/2022 12:13:43 AM	65901
Xylenes, Total	ND	0.095		mg/Kg	1	3/4/2022 12:13:43 AM	65901
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	3/4/2022 12:13:43 AM	65901

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report

Lab Order 2203064

Date Reported: 3/10/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: SW-N-11'-22'

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/28/2022 12:35:00 PM

Lab ID: 2203064-004

Matrix: SOIL

Received Date: 3/2/2022 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	690	60		mg/Kg	20	3/8/2022 2:13:57 PM	66014
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	12	9.4		mg/Kg	1	3/3/2022 11:13:27 PM	65927
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/3/2022 11:13:27 PM	65927
Surr: DNOP	96.4	51.1-141		%Rec	1	3/3/2022 11:13:27 PM	65927
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/4/2022 1:01:01 AM	65901
Surr: BFB	109	70-130		%Rec	1	3/4/2022 1:01:01 AM	65901
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	3/4/2022 1:01:01 AM	65901
Toluene	ND	0.049		mg/Kg	1	3/4/2022 1:01:01 AM	65901
Ethylbenzene	ND	0.049		mg/Kg	1	3/4/2022 1:01:01 AM	65901
Xylenes, Total	ND	0.098		mg/Kg	1	3/4/2022 1:01:01 AM	65901
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	3/4/2022 1:01:01 AM	65901

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 4 of 10

Analytical Report

Lab Order 2203064

Date Reported: 3/10/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: SW-E-11'-22'

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/28/2022 12:40:00 PM

Lab ID: 2203064-005

Matrix: SOIL

Received Date: 3/2/2022 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	690	59		mg/Kg	20	3/8/2022 2:26:18 PM	66014
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	8.4		mg/Kg	1	3/3/2022 11:24:16 PM	65927
Motor Oil Range Organics (MRO)	ND	42		mg/Kg	1	3/3/2022 11:24:16 PM	65927
Surr: DNOP	93.5	51.1-141		%Rec	1	3/3/2022 11:24:16 PM	65927
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/4/2022 1:24:36 AM	65901
Surr: BFB	110	70-130		%Rec	1	3/4/2022 1:24:36 AM	65901
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	3/4/2022 1:24:36 AM	65901
Toluene	ND	0.050		mg/Kg	1	3/4/2022 1:24:36 AM	65901
Ethylbenzene	ND	0.050		mg/Kg	1	3/4/2022 1:24:36 AM	65901
Xylenes, Total	ND	0.10		mg/Kg	1	3/4/2022 1:24:36 AM	65901
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	3/4/2022 1:24:36 AM	65901

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report

Lab Order 2203064

Date Reported: 3/10/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Client Sample ID: SW-S-11'-22'

Project: Jackson B 17 Flowline Area 1

Collection Date: 2/28/2022 12:55:00 PM

Lab ID: 2203064-006

Matrix: SOIL

Received Date: 3/2/2022 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	1400	60		mg/Kg	20	3/8/2022 2:38:39 PM	66014
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	22	9.0		mg/Kg	1	3/3/2022 11:35:06 PM	65927
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	3/3/2022 11:35:06 PM	65927
Surr: DNOP	98.3	51.1-141		%Rec	1	3/3/2022 11:35:06 PM	65927
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/4/2022 1:48:04 AM	65901
Surr: BFB	112	70-130		%Rec	1	3/4/2022 1:48:04 AM	65901
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	3/4/2022 1:48:04 AM	65901
Toluene	ND	0.048		mg/Kg	1	3/4/2022 1:48:04 AM	65901
Ethylbenzene	ND	0.048		mg/Kg	1	3/4/2022 1:48:04 AM	65901
Xylenes, Total	ND	0.097		mg/Kg	1	3/4/2022 1:48:04 AM	65901
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	3/4/2022 1:48:04 AM	65901

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Page 6 of 10

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2203064

10-Mar-22

Client: GHD Midland**Project:** Jackson B 17 Flowline Area 1

Sample ID: MB-66014	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 66014	RunNo: 86321								
Prep Date: 3/8/2022	Analysis Date: 3/8/2022	SeqNo: 3044969	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-66014	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 66014	RunNo: 86321								
Prep Date: 3/8/2022	Analysis Date: 3/8/2022	SeqNo: 3044970	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.0	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank
E Estimated value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2203064

10-Mar-22

Client: GHD Midland**Project:** Jackson B 17 Flowline Area 1

Sample ID: 2203064-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: BH-8A	Batch ID: 65927	RunNo: 86217								
Prep Date: 3/3/2022	Analysis Date: 3/3/2022	SeqNo: 3039839 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	9.9	49.60	5.946	88.6	39.3	155			
Surr: DNOP	4.8		4.960		96.0	51.1	141			

Sample ID: 2203064-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: BH-8A	Batch ID: 65927	RunNo: 86217								
Prep Date: 3/3/2022	Analysis Date: 3/4/2022	SeqNo: 3039840 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.4	47.04	5.946	92.3	39.3	155	1.06	23.4	
Surr: DNOP	5.0		4.704		106	51.1	141	0	0	

Sample ID: LCS-65927	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 65927	RunNo: 86217								
Prep Date: 3/3/2022	Analysis Date: 3/3/2022	SeqNo: 3039862 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.6	68.9	135			
Surr: DNOP	3.6		5.000		71.8	51.1	141			

Sample ID: MB-65927	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 65927	RunNo: 86217								
Prep Date: 3/3/2022	Analysis Date: 3/3/2022	SeqNo: 3039865 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	7.9		10.00		79.0	51.1	141			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2203064

10-Mar-22

Client: GHD Midland**Project:** Jackson B 17 Flowline Area 1

Sample ID: mb-65901	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 65901	RunNo: 86234								
Prep Date: 3/2/2022	Analysis Date: 3/3/2022	SeqNo: 3039486 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		109	70	130			

Sample ID: lcs-65901	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 65901	RunNo: 86234								
Prep Date: 3/2/2022	Analysis Date: 3/3/2022	SeqNo: 3039493 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.8	78.6	131			
Surr: BFB	1200		1000		121	70	130			

Sample ID: 2203064-001ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: BH-8A	Batch ID: 65901	RunNo: 86234								
Prep Date: 3/2/2022	Analysis Date: 3/3/2022	SeqNo: 3039510 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.8	24.25	0	111	70	130			
Surr: BFB	1200		969.9		122	70	130			

Sample ID: 2203064-001amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: BH-8A	Batch ID: 65901	RunNo: 86234								
Prep Date: 3/2/2022	Analysis Date: 3/3/2022	SeqNo: 3039517 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.8	23.90	0	110	70	130	2.61	20	
Surr: BFB	1200		956.0		124	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2203064

10-Mar-22

Client: GHD Midland**Project:** Jackson B 17 Flowline Area 1

Sample ID: mb-65901	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 65901	RunNo: 86234								
Prep Date: 3/2/2022	Analysis Date: 3/3/2022	SeqNo: 3039660 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	70	130			

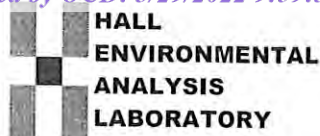
Sample ID: LCS-65901	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 65901	RunNo: 86234								
Prep Date: 3/2/2022	Analysis Date: 3/3/2022	SeqNo: 3039661 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.025	1.000	0	83.2	80	120			
Toluene	0.89	0.050	1.000	0	89.4	80	120			
Ethylbenzene	0.91	0.050	1.000	0	91.4	80	120			
Xylenes, Total	2.7	0.10	3.000	0	91.6	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	70	130			

Sample ID: 2203064-002ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: BH-7A	Batch ID: 65901	RunNo: 86234								
Prep Date: 3/2/2022	Analysis Date: 3/3/2022	SeqNo: 3039664 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.024	0.9747	0	95.7	68.8	120			
Toluene	1.0	0.049	0.9747	0	105	73.6	124			
Ethylbenzene	1.1	0.049	0.9747	0	108	72.7	129			
Xylenes, Total	3.1	0.097	2.924	0	108	75.7	126			
Surr: 4-Bromofluorobenzene	1.0		0.9747		107	70	130			

Sample ID: 2203064-002amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: BH-7A	Batch ID: 65901	RunNo: 86234								
Prep Date: 3/2/2022	Analysis Date: 3/3/2022	SeqNo: 3039665 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.024	0.9569	0	88.5	68.8	120	9.61	20	
Toluene	0.92	0.048	0.9569	0	96.0	73.6	124	10.7	20	
Ethylbenzene	0.94	0.048	0.9569	0	98.1	72.7	129	11.6	20	
Xylenes, Total	2.8	0.096	2.871	0	98.9	75.7	126	10.1	20	
Surr: 4-Bromofluorobenzene	1.0		0.9569		109	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		



*Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com*

Sample Log-In Check List

Client Name: GHD

Work Order Number: 2203064

RcptNo: 1

Received By: Tracy Casarrubias 3/2/2022 7:30:00 AM

Completed By: Cheyenne Cason 3/2/2022 8:13:21 AM

Reviewed By: KPC 3/2/22

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

[Log In](#)

- | | | | |
|------------------------------------------------------------------------------------------------|-----------------------------------------|----------------------------------------|----------------------------------------------------|
| 3. Was an attempt made to cool the samples? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/> |
| 5. Sample(s) in proper container(s)? | <u>Samples not frozen</u> | | |
| | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 6. Sufficient sample volume for indicated test(s)? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 7. Are samples (except VOA and ONG) properly preserved? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 8. Was preservative added to bottles? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/> |
| 9. Received at least 1 vial with headspace $<1/4"$ for AQ VOA? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 10. Were any sample containers received broken? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | |
| 11. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | # of preserved bottles checked for pH:
(<2) |
| 12. Are matrices correctly identified on Chain of Custody? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Adjusted?
(<2) |
| 13. Is it clear what analyses were requested? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 14. Were all holding times able to be met?
(If no, notify customer for authorization.) | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Checked by:
_____ |

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.4	Good	Not Present			
2	-0.9	Good	Not Present			
3	-0.1	Good	Not Present			

Chain-of-Custody Record

Client: GHD

Mailing Address:

2135 S. Loop 250 W. Midland, TX 79703

Phone #: (432) 686-0086

email or Fax#: Becky.Haskell@ghd.com

QA/QC Package:

☐ Standard☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC☐ Other☐ EDD (Type)

Turn-Around Time:

☒ Standard ☒ Rush 5 Day

Project Name:

Jackson B#17 Flowline Area #1

Project #:

11228312

Project Manager:

Becky Haskell

Tom Larson

Sampler: Heath Boyd

On Ice: ☒ Yes ☐ No

of Coolers: 3

Cooler Temp (including CF): See Remarks

Date Time Matrix Sample Name

2/28/22 1220 S BH-8A

1225 BH-7A

1230 SW-W-11'-22'

1235 SW-N-11'-22'

1240 SW-E-11'-22'

1255 SW-S-11'-22'

Container Type and #

4oz. Jar / 1 N/A

Preservative Type

N/A

HEAL No.

2203064

BTX / MTBE / TMBs (8021)

X

TPH:8015D(GRO / DRO / MRO)

X

8081 Pesticides/8082 PCBs

X

EDB (Method 504.1)

X

PAHs by 8310 or 8270SIMS

X

RCRA 8 Metals

X

Cl, F, Br, NO₃, NO₂, PO₄, SO₄

X

8260 (VOA)

X

8270 (Semi-VOA)

X

Chloride 300 M

X

Relinquished by:

B

Date:

2/28/22

Time:

1530

Relinquished by:

Amming

Date:

3/1/22

Time:

1900

Received by:

Amming

Date:

3/1/22

Time:

730

Received by:

Via: car

Date:

3/2/22

Time:

7:30

Remarks: Please email: Chase_Settle@eogresources.com;
Tom.Larson@ghd.com; Zach.Comino@ghd.com;
Heath.Boyd@ghd.com Along with Becky Haskell listed
above.

Direct Bill to EOG Chase Settle

1.144-8-44

2.109-8-0.9

3.-0.1-8-0.1

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL
ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Appendix E

Confirmation Sampling Notifications

Becky Haskell

From: Chase Settle <Chase_Settle@eogresources.com>
Sent: Thursday, February 3, 2022 5:51 PM
To: Zach Comino; Becky Haskell
Subject: FW: Jackson B 17 Flowline Area 1 (nAPP2110638995) Sampling Notification

From: Tina Huerta <Tina_Huerta@eogresources.com>
Sent: Thursday, February 3, 2022 4:35 PM
To: Robert.Hamlet@state.nm.us; blm_nm_cfo_spill@blm.gov
Cc: Artesia Regulatory <Artesia_Regulatory@eogresources.com>; Bob Asher <Bob_Asher@eogresources.com>; Chase Settle <Chase_Settle@eogresources.com>; Katie Jamison <Katie_Jamison@eogresources.com>; Yvette Moore <Yvette_Moore@eogresources.com>
Subject: Jackson B 17 Flowline Area 1 (nAPP2110638995) Sampling Notification

Good afternoon,

EOG Resources, Inc. respectfully submits notification of sampling activities to be conducted at the below site.

Jackson B 17 Flowline Area 1
M-1-17S-30E
Eddy County, NM
nAPP2110638995

Sampling will begin at 8:00 a.m. on Tuesday, February 8, 2022.

Thank you,

Tina Huerta
Regulatory Specialist
Direct: 575.748.4168
Cell: 575.703.3121
Email: tina_huerta@eogresources.com



Becky Haskell

From: Chase Settle <Chase_Settle@eogresources.com>
Sent: Wednesday, February 9, 2022 10:24 AM
To: Zach Comino; Becky Haskell
Subject: FW: Jackson B 17 Flowline Area 1 (nAPP2110638995) Sampling Notification

From: Tina Huerta <Tina_Huerta@eogresources.com>
Sent: Wednesday, February 9, 2022 9:20 AM
To: Robert.Hamlet@state.nm.us; blm_nm_cfo_spill@blm.gov
Cc: Artesia Regulatory <Artesia_Regulatory@eogresources.com>; Bob Asher <Bob_Asher@eogresources.com>; Chase Settle <Chase_Settle@eogresources.com>; Katie Jamison <Katie_Jamison@eogresources.com>; Yvette Moore <Yvette_Moore@eogresources.com>
Subject: Jackson B 17 Flowline Area 1 (nAPP2110638995) Sampling Notification

Good morning,

EOG Resources, Inc. respectfully submits notification of sampling activities to be conducted at the below site.

Jackson B 17 Flowline Area 1
M-1-17S-30E
Eddy County, NM
nAPP2110638995

Sampling will begin at 8:00 a.m. on Wednesday, February 16, 2022.

Thank you,

Tina Huerta
Regulatory Specialist
Direct: 575.748.4168
Cell: 575.703.3121
Email: tina_huerta@eogresources.com



Becky Haskell

From: Chase Settle <Chase_Settle@eogresources.com>
Sent: Thursday, February 17, 2022 11:17 AM
To: Zach Comino; Becky Haskell
Subject: FW: Jackson B 17 Flowline Area 1 (nAPP2110638995) Sampling Notification

From: Tina Huerta <Tina_Huerta@eogresources.com>
Sent: Thursday, February 17, 2022 9:50 AM
To: Robert.Hamlet@state.nm.us; blm_nm_cfo_spill@blm.gov
Cc: Artesia Regulatory <Artesia_Regulatory@eogresources.com>; Bob Asher <Bob_Asher@eogresources.com>; Chase Settle <Chase_Settle@eogresources.com>; Katie Jamison <Katie_Jamison@eogresources.com>; Yvette Moore <Yvette_Moore@eogresources.com>
Subject: Jackson B 17 Flowline Area 1 (nAPP2110638995) Sampling Notification

Good morning,

EOG Resources, Inc. respectfully submits notification of sampling activities to be conducted at the below site.

Jackson B 17 Flowline Area 1
M-1-17S-30E
Eddy County, NM
nAPP2110638995

Sampling will begin at 8:00 a.m. on Wednesday, February 23, 2022.

Thank you,

Tina Huerta
Regulatory Specialist
Direct: 575.748.4168
Cell: 575.703.3121
Email: tina_huerta@eogresources.com



Becky Haskell

From: Chase Settle <Chase_Settle@eogresources.com>
Sent: Monday, February 28, 2022 10:08 AM
To: Becky Haskell; Zach Comino
Subject: FW: [EXTERNAL] Jackson B 17 Flowline Area 1 (nAPP2110638995) Sampling Notification

Becky,

Not the request of NMOCD regarding Closure Reports.

Chase

From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Sent: Monday, February 28, 2022 9:03 AM
To: Tina Huerta <Tina_Huerta@eogresources.com>
Cc: Artesia Regulatory <Artesia_Regulatory@eogresources.com>; Bob Asher <Bob_Asher@eogresources.com>; Chase Settle <Chase_Settle@eogresources.com>; Katie Jamison <Katie_Jamison@eogresources.com>; Yvette Moore <Yvette_Moore@eogresources.com>
Subject: RE: [EXTERNAL] Jackson B 17 Flowline Area 1 (nAPP2110638995) Sampling Notification

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Thank you for the notifications. 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.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Tina Huerta <Tina_Huerta@eogresources.com>
Sent: Thursday, February 24, 2022 10:30 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; blm_nm_cfo_spill@blm.gov
Cc: Artesia Regulatory <Artesia_Regulatory@eogresources.com>; Bob Asher <Bob_Asher@eogresources.com>; Chase Settle <Chase_Settle@eogresources.com>; Katie Jamison <Katie_Jamison@eogresources.com>; Yvette Moore <Yvette_Moore@eogresources.com>
Subject: [EXTERNAL] Jackson B 17 Flowline Area 1 (nAPP2110638995) Sampling Notification

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good morning,

EOG Resources, Inc. respectfully submits notification of sampling activities to be conducted at the below site.

Jackson B 17 Flowline Area 1
M-1-17S-30E
Eddy County, NM
nAPP2110638995

Sampling will begin at 10:15 a.m. on Monday, February 28, 2022.

Thank you,

Tina Huerta
Regulatory Specialist
Direct: 575.748.4168
Cell: 575.703.3121
Email: tina_huerta@eogresources.com



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

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

CONDITIONS

Action 93871

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 93871
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	4/18/2022