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	nAPP2111044488
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)*
Contact mailing address 104 S. 4th Street, Artesia, NM 88210	

Location of Release Source

Latitude 32.85807 Longitude -103.93198
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Jackson B #17	Site Type Well
Date Release Discovered 04/19/2021	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)

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

Cause of Release
Historical impacts discovered during the P&A of the well. Release volume and date are unknown.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☑ No	If YES, for what reason(s) does the responsible party consider this a major release?
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

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

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

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

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

Printed Name: Chase Settle
Title: Rep Safety & Environmental Sr

Signature: Chase Settle
Date: 04/19/2021

email: Chase_Settle@eogresources.com
Telephone: 575-748-1471

OCD Only

Received by: _____
Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nAPP211104488
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2111044488
District RP	
Facility ID	
Application ID	

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

Printed Name: Chase Settle Title: Rep Safety & Environmental Sr

Signature: Chase Settle Date: 08/31/2021

email: Chase_Settle@eogresources.com Telephone: 575-748-1471

OCD Only

Received by: _____ Date: _____

Incident ID	nAPP211104488
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: 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: _____

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

Our ref: 11228313

August 27, 2021

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

Re: Site Characterization and Remediation Work Plan
Jackson B #17 Wellhead Release Site
EOG Resources Inc.
Incident ID: nAPP2111044488
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 Remediation Work Plan to the New Mexico Oil Conservation Division (NMOCD) District 2 Office. This Report provides documentation of delineation, sampling, and analyses in the affected area at the EOG Jackson B #17 Wellhead 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 32.85807 N latitude and 103.93198 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 initial report for this release was submitted to the NMOCD on April 19, 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 site abandonment activities associated with this location. Soils within the former oil well 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.

The Initial Form C-141, Site Assessment/Characterization and Remediation Plan portions of Form C-141 for Incident Number nAPP2111044488 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, at GPS Coordinates, 32.85697 N latitude and 103.92703 W longitude to approximately 125 feet below ground surface (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 May 24 through 25, 2021, GHD Services Inc. (GHD) and EOG's contractor BDS Enterprises, LLC (BDS), on behalf of EOG, installed five (5) test pits within the suspected impacted area. Soil samples were collected at eight (8) and twenty (20) feet bgs in test pit TP-1 and at the surface and two (2) feet bgs in TP-2 through TP-5. All soil samples were analyzed for BTEX by EPA Method 8021B, TPH by Method 8015B Modified, and chloride by EPA Method 300 by Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico. Analytical results indicated test pit TP-1 exhibited benzene, BTEX and Total TPH above Table 1 closure criteria at eight (8) feet and Total TPH at twenty (20) feet bgs. None of the other sample points exhibited benzene, BTEX, Total TPH or chloride concentrations above Table 1 closure criteria. Test pits TP-3 and TP-5 exhibited TPH and/or chloride concentrations above 100 mg/kg and 600 mg/kg, respectively, in the first four (4) feet bgs.

On July 22, 2021, GHD and Talon returned to the site to install a soil boring near TP1 to fully delineate the release to less than 100 mg/kg for TPH concentrations and 600 mg/kg for chloride concentrations. The soil boring was installed to a depth of seventy-five (75) feet bgs. Samples were collected in approximate five (5) foot intervals beginning at twenty-five 25 feet bgs. Select 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. TPH concentrations were delineated to below 100 mg/kg at twenty-five (25) feet bgs. The TP-5 Soil Boring Log is provided as Attachment B.

Figure 2, Site Assessment: Soil Analytical Results Map, 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. nAPP11104488 Proposed Work Plan

Test pit TP-1 exhibited benzene, BTEX and Total TPH above Table 1 closure criteria at eight (8) feet and Total TPH criteria was exceeded at twenty (20) feet bgs. None of the other samples submitted for analysis exhibited benzene, BTEX, Total TPH or chloride concentrations above Table 1 closure criteria. Test pits TP-3 and TP-5 exhibited TPH and/or chloride concentrations above 100 mg/kg and 600 mg/kg, respectively, in the first four (4) feet bgs.

GHD, on behalf of EOG, proposes to excavate soils containing Total TPH concentrations over 100 mg/kg and chloride concentrations over 600 mg/kg within the top four feet of the impacted area. Additionally, the TP-1 area will be excavated to nineteen and one-half (19.5) feet bgs or as deep as safely possible. The bottom of the excavation will be treated with a microbial strain to digest organics in the hydrocarbons. The excavation will be backfilled with non-impacted soil transported to the site. After ninety (90) days, or when a drilling rig is available, a drilling rig will be utilized to collect samples at twenty (20), twenty-three (23), twenty-five (25), and twenty-eight (28) feet bgs.

Composite confirmation samples will be collected from the sidewalls of the excavation from areas representing area no larger than two hundred (200) square feet. Discrete soil samples will be collected from the sidewalls if any staining is observed. No confirmation samples will be collected from the bottom of the excavation as the site is already vertically delineated. All confirmation samples will be taken to a certified laboratory and analyzed for BTEX by EPA Method 8021B, TPH by Method 8015B Modified, and chloride by EPA Method 300.

Excavated soils will be transported to a NMOCD approved disposal facility for disposal. The anticipated volume of soil to be disposed of is approximately 4,000 to 8,000 cubic yards depending on the final dimensions of the excavation based on the depth and site conditions encountered. The excavation will be backfilled with non-impacted soil transported to the site. The remediation will be performed within 180 days after the work plan has been approved. If a driller isn't available within that time frame a request for an extension will be submitted to the NMOCD. If the confirmation samples collected at twenty (20), twenty-three (23), twenty-five (25), and twenty-eight (28) feet bgs from the TP-1 excavation are below Table 1 closure criteria, a closure report will be prepared to document remediation activities and submitted to the NMOCD. If the samples exhibit Total TPH concentrations above Table 1 closure criteria a new work plan will be submitted to the NMOCD for approval.

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

Becky Haskell
Senior Project Manager

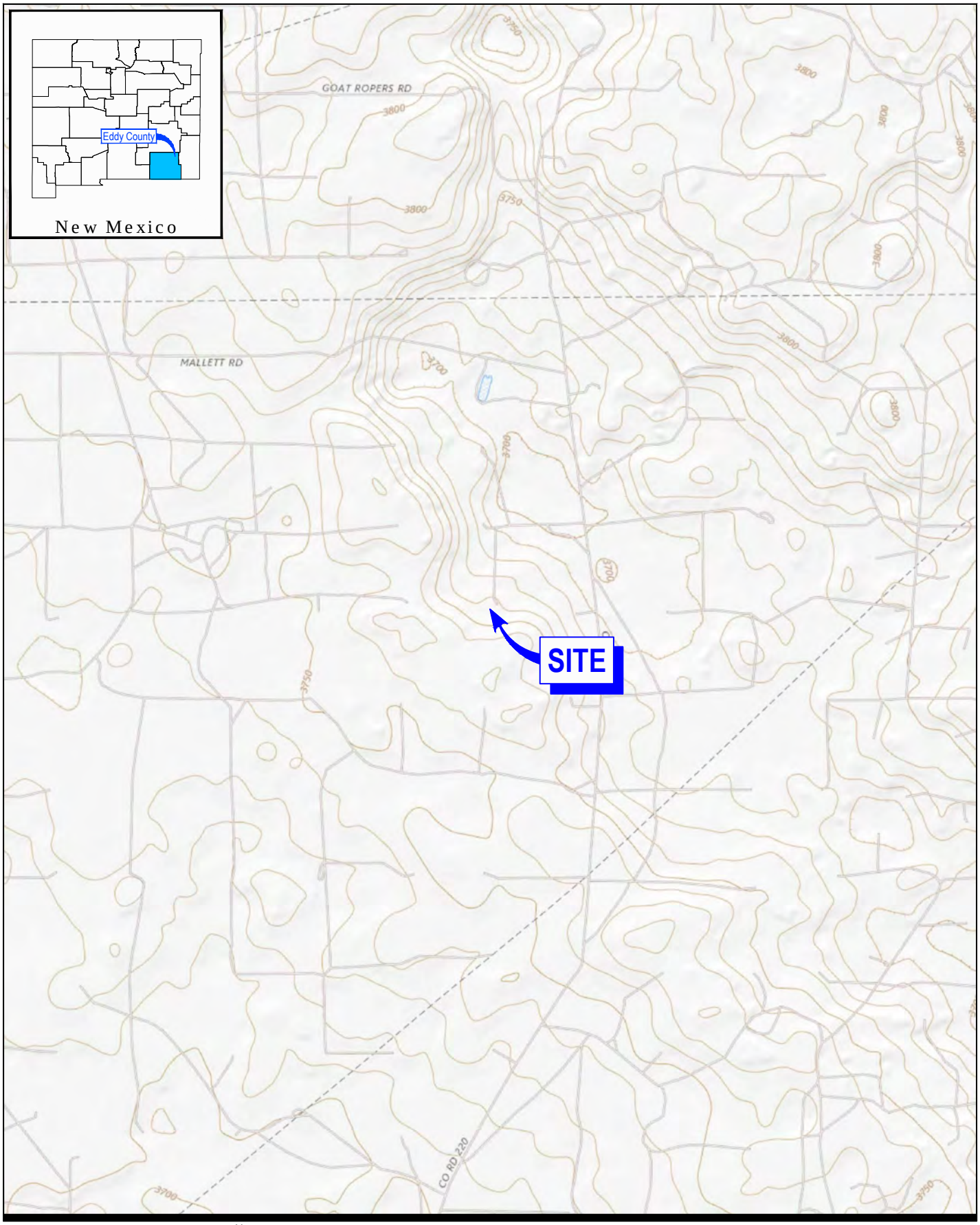
Thomas C. Larson, M.S.
Midland Operation Manager

BH/tl/1

Encl. Figure 1 – Site Location Map
Figure 2 – Site Assessment Soil Analytical Results Map
Table 1 – Summary of Soil Analytical Data
Attachment A – Site Characterization Documentation
Attachment B – TP-1 Soil Boring Log
Attachment C – Laboratory Analytical Reports and Chain-of-Custody Documentation

cc: Chase Settle

Figures



0 1000 2000 ft

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

N

GHD

EOG RESOURCES
EDDY COUNTY, NEW MEXICO
JACKSON B #17 WELLHEAD

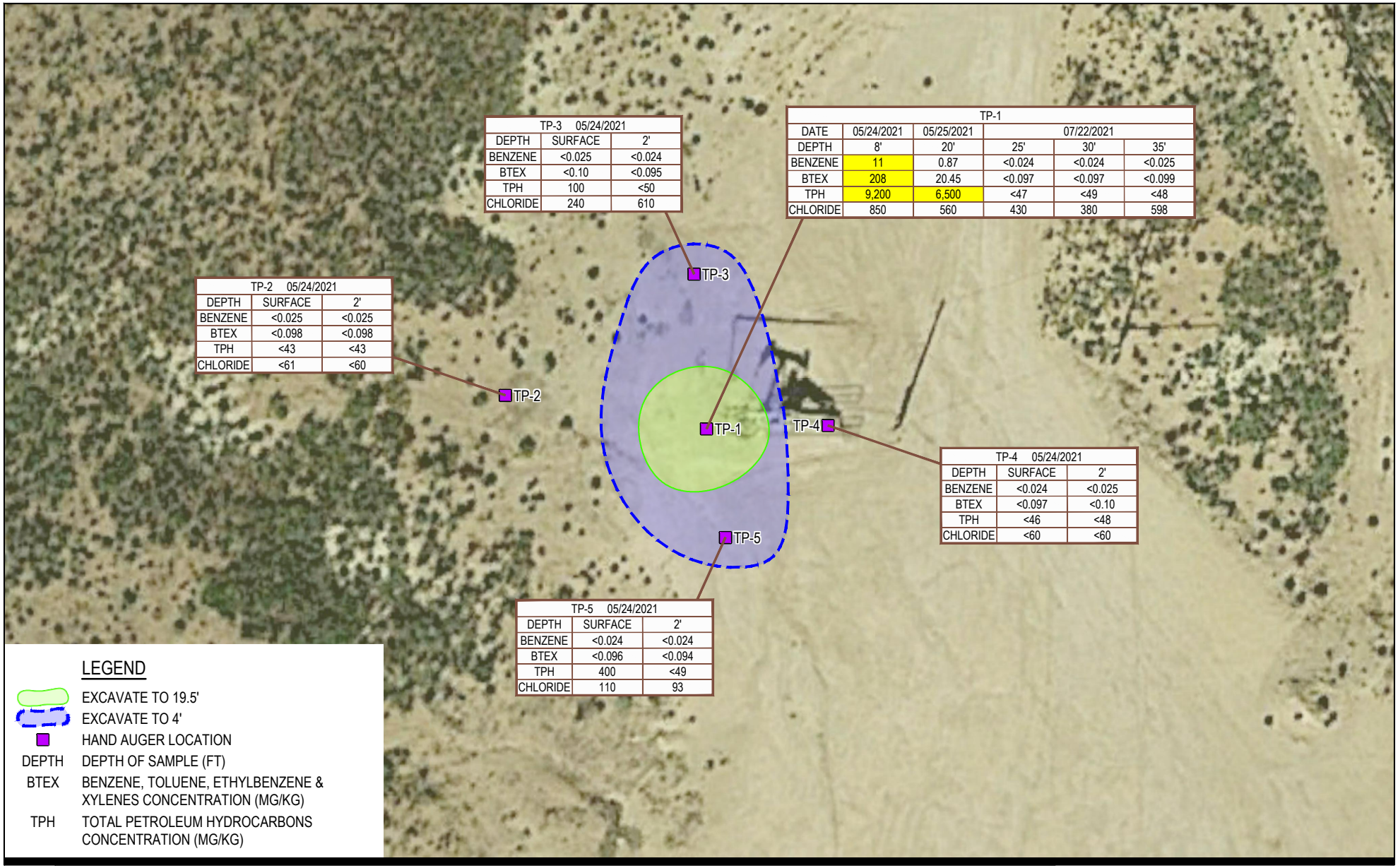
Project No. **11228313**
Date **August 2021**

SITE LOCATION MAP

FIGURE 1

Filename: \\ghdnet\ghd\US\Midland\Projects\562\11228313\Digital_Design\ACAD\Figures\RPT001\11228313-GHD-0000-RPT-EN-0101_DL-001.dwg

Data Source: USGS 7.5 Minute Quad "Loco Hills and Henshaw Tank, New Mexico"
Lat/Long: 32.858019° North, 103.931812° West



0 15 30 ft

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

N

NOTES:

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

GHD

EOG RESOURCES
EDDY COUNTY, NEW MEXICO
JACKSON B #17 WELLHEAD

SITE ASSESSMENT:
SOIL ANALYTICAL RESULTS MAP

Project No. **11228313**
Date **August 2021**

FIGURE 2

Filename: \\ghdnet\ghd\US\Midland\Projects\562\11228313\Digital_Design\ACAD\Figures\RPT001\11228313-GHD-0000-RPT-EN-0101_DL-001.dwg
Plot Date: 30 August 2021 9:27 AM

Data Source: Image © 2021 Google - Imagery Date: November 2, 2017
Lat/Long: 32.858019° North, 103.931812° West

Tables

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

Sample ID	Sample Date	Depth (feet bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	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 <50 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												
TP1-8	5/24/21	8	**11**	**58**	**63**	**76**	**208**	**1,600**	**3,200**	**4,400**	**9,200**	**850**
TP1-20	5/25/21	20	**0.87**	**0.38**	**10**	**9.2**	**20.45**	**570**	**3,500**	**2,500**	**6,500**	**560**
TP1-25	7/22/21	25	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<9.4	<47	<47	**430**
TP1-30	7/22/21	30	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<9.8	<49	<49	**380**
TP1-35	7/22/21	35	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.7	<48	<48	**598**
TP2-S	5/24/21	Surface	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<8.5	<43	<43	<61
TP2-2	5/24/21	2	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<8.6	<43	<43	<60
TP3-S	5/24/21	Surface	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<8.6	**100**	**100**	**240**
TP3-2	5/24/21	2	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	<10	<50	<50	**610**
TP4-S	5/24/21	Surface	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<9.2	<46	<46	<60
TP4-2	5/24/21	2	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<9.7	<48	<48	<60
TP5-S	5/24/21	Surface	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	**170**	**230**	**400**	**110**
TP5-2	5/24/21	2	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	<9.7	<49	<49	**93**

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 Oi
7. Yellow shaded cells indicate analytical samples that exceed the NMOC 19.15.29.12 Table Closure Criteria for the site.
8. J - the target analytes was positively identified below the quantitation limit and above the detection limi

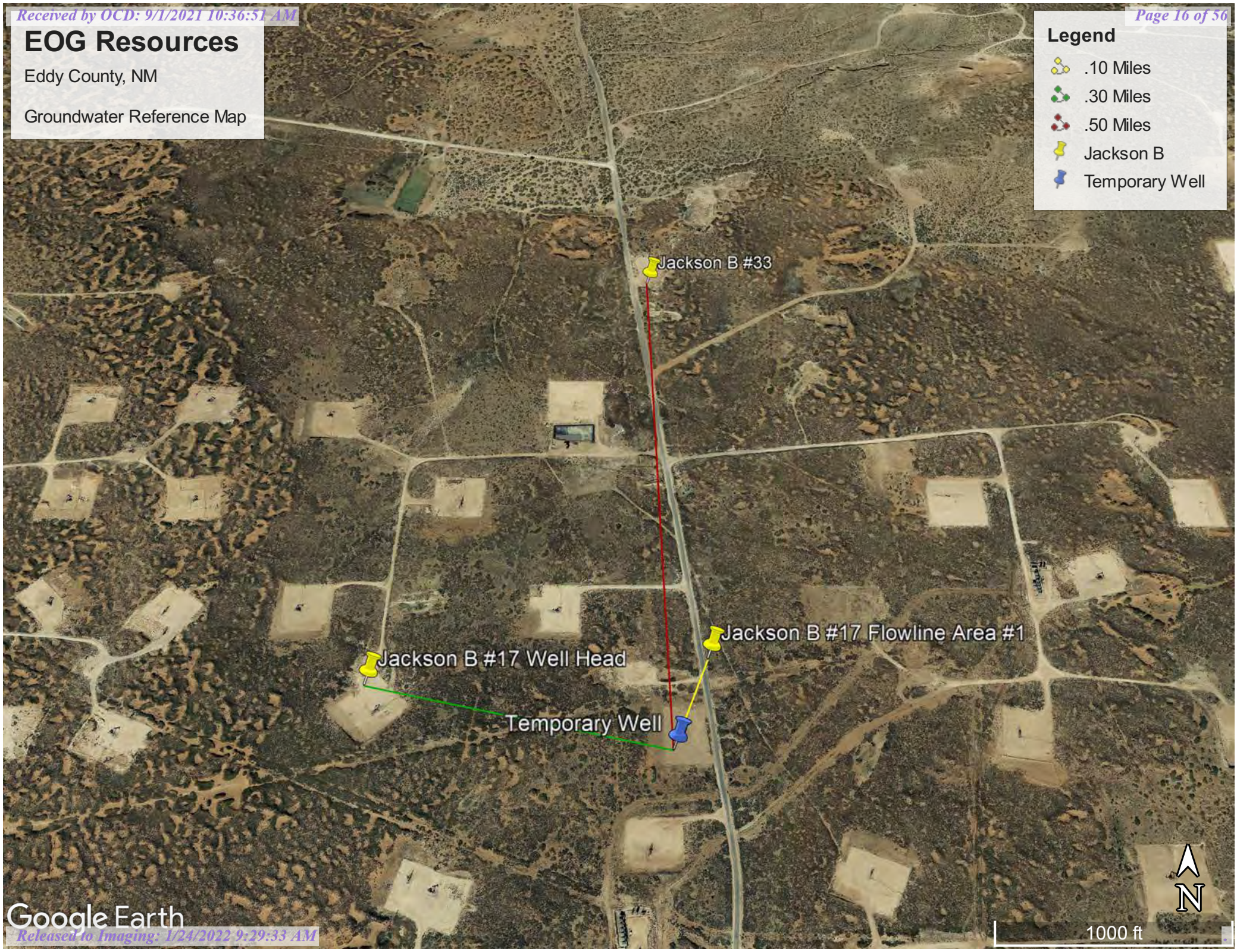
~~B-BH-2~~ Sample Point Excavated

Attachment A
Site Characterization Documentation

EOG Resources

Eddy County, NM

Groundwater Reference Map




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
© 2021 Google
N
1000 ft

BORING LOG

Project No.: 700438.238.01

Site Name: Jackson B #59

Location: Eddy County, New Mexico

Date: 5/18/2021

Boring Number: B-1

Weather: Clear, Temp.: 75°F

Logger: D. Adkins

Field Instrument: NA

Latitude: 32.85697 N

Longitude: -103.92703 W

Driller: D. Londagin

Rig Type: Reich Drill

Bit Size: 5-7/8”

Drilling Method: Air Rotary

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)
	☐	0-30’				Red/brown fine Sand (SP)	**None** Slight Mod. Strong	
	☐	30-40’				Red/brown fine Sand (SP) with varying amounts of silt and caliche	**None** Slight Mod. Strong	
	☐	40-80’				Dry, dark red/brown sandy Silts (SM)	**None** Slight Mod. Strong	
	☐	80-125’				Red/brown fine Sand (SP)	**None** Slight Mod. Strong	
	☐					__ TD 125’__	None Slight Mod. Strong	
	☐						None Slight Mod. Strong	
	☐						None Slight Mod. Strong	
	☐						None Slight Mod. Strong	
	☐						None Slight Mod. Strong	
	☐						None Slight Mod. Strong	
	☐						None Slight Mod. Strong	
	☐						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)
	☐						None Slight Mod. Strong	
	☐						None Slight Mod. Strong	
	☐						None Slight Mod. Strong	
	☐						None Slight Mod. Strong	
	☐						None Slight Mod. Strong	
	☐						None Slight Mod. Strong	
	☐						None Slight Mod. Strong	
	☐						None Slight Mod. Strong	
	☐						None Slight Mod. Strong	
	☐						None Slight Mod. Strong	
	☐						None Slight Mod. Strong	
	☐						None Slight Mod. Strong	
	☐						None Slight Mod. Strong	
	☐						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 Solinest 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.

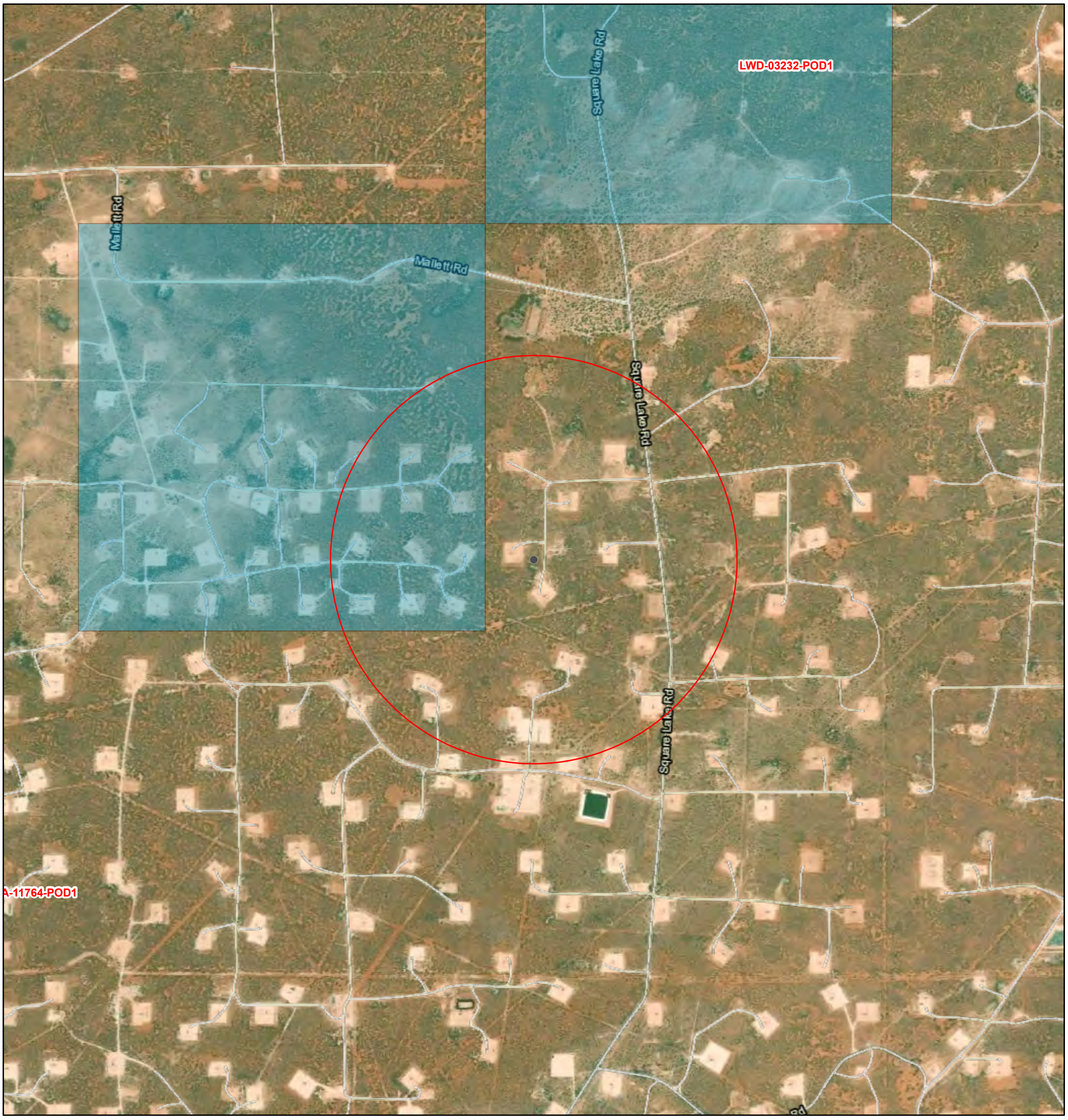
EOG Jackson B #17 Wellhead

Karst Potential Map

Legend

- EOG Jackson B #17 Wellhead
- High
- Low
- Medium

OSE PUBLIC PRINT



8/19/2021, 2:53:19 PM

OSE District Boundary

New Mexico State Trust Lands

Both Estates

SiteBoundaries

1:18,056

0 0.17 0.35 0.7 mi

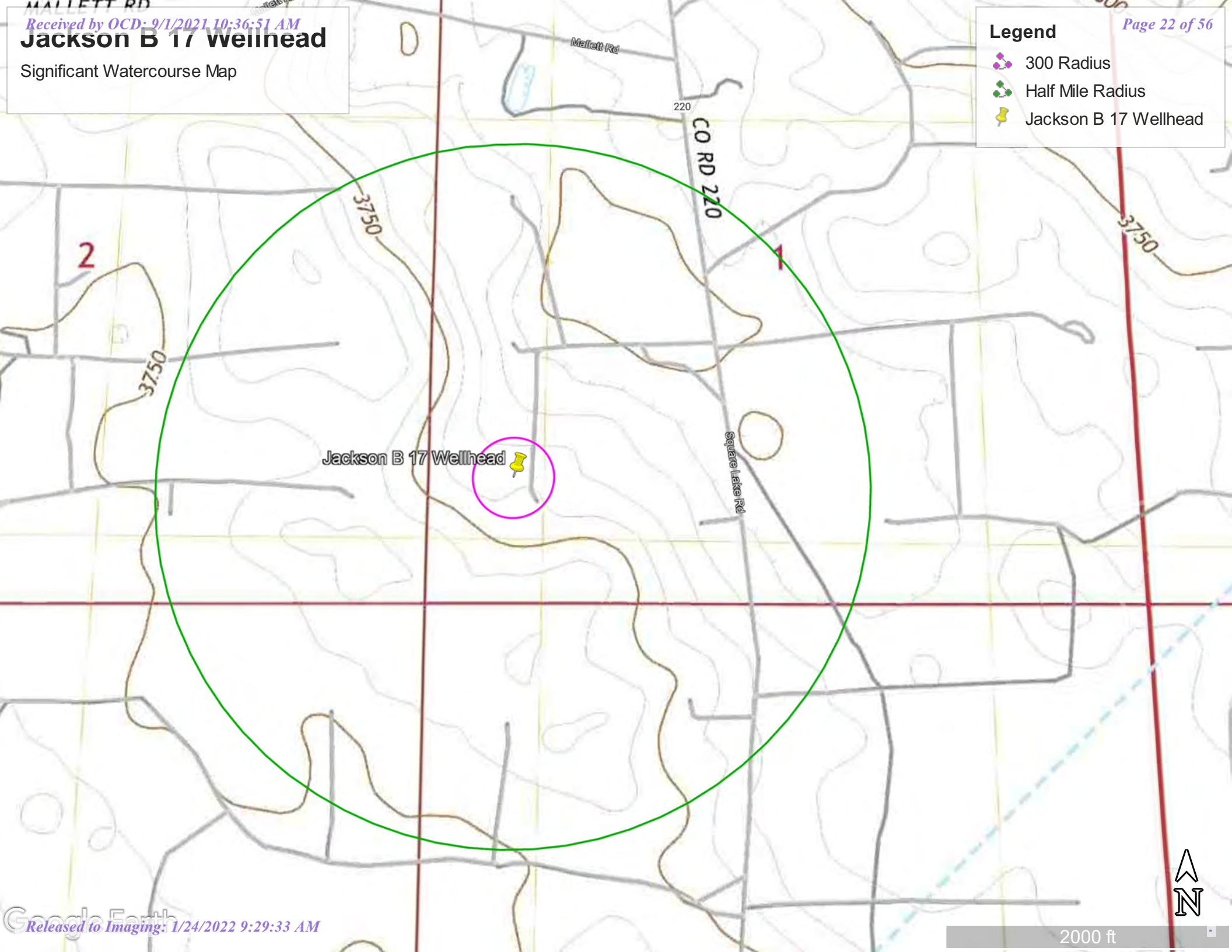
0 0.28 0.55 1.1 km

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

Printed from Public Web Map
Unofficial Map from OSE POD Locations Web Application

Jackson B 17 Wellhead

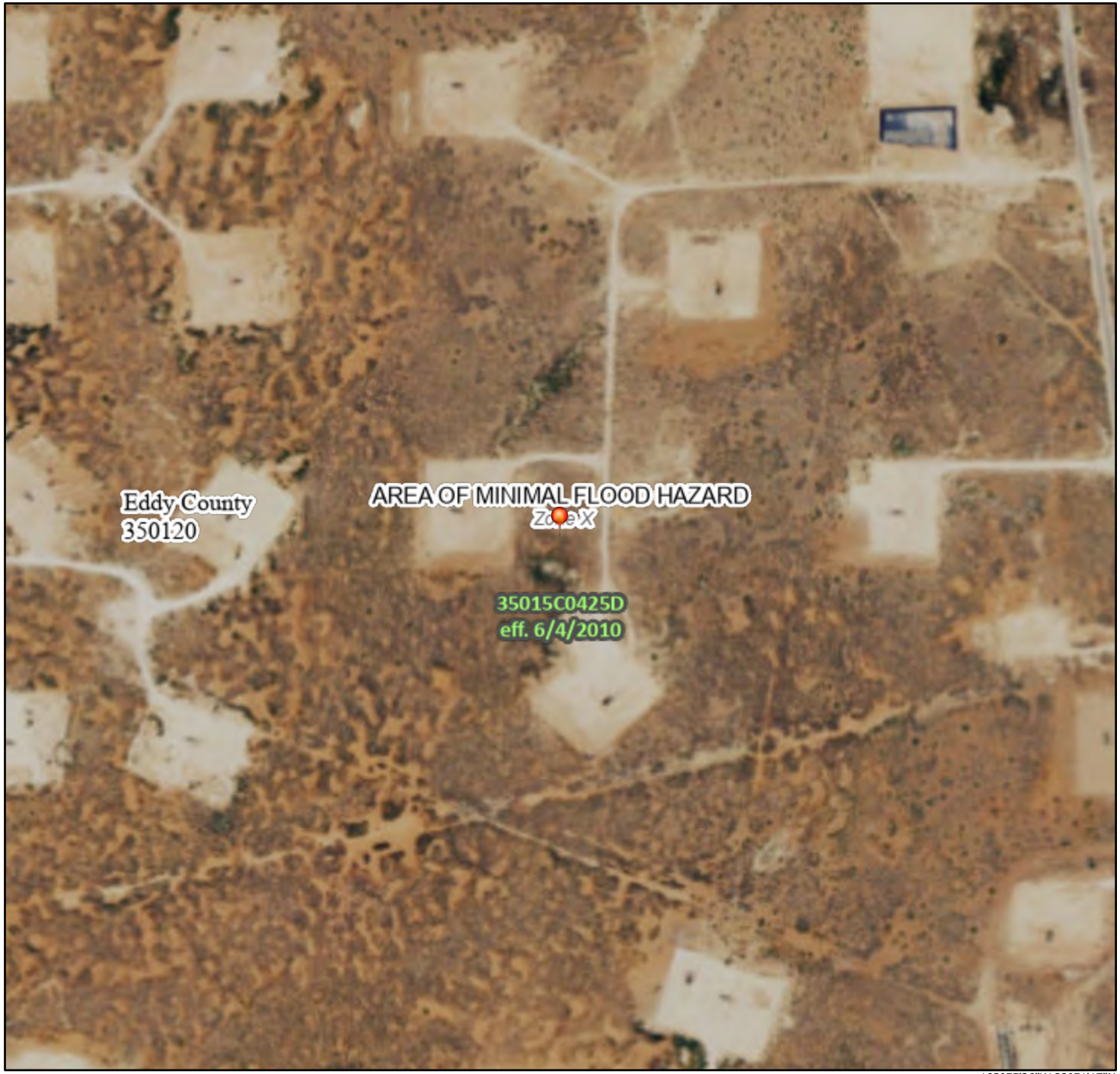
Significant Watercourse Map



National Flood Hazard Layer FIRMette

FEMA

103°56'14"W 32°51'47"N



103°55'36"W 32°51'17"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

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
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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 4:53 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.

U.S. Fish and Wildlife Service
National Wetlands Inventory

EOG Jackson B #17 Wellhead

August 27, 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 Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Attachment B
Soil Boring Log

TEST PIT STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: EOG/Jackson B #17 Wellhead PROJECT
NUMBER: 11228313
CLIENT: EOG Resources. INC.
LOCATION: M-01-17S-30E, Eddy Co. NM 32.85807 -103.93198

HOLE DESIGNATION: TP-#1
DATE COMPLETED: 22 July 2021
TEST PIT METHOD: Air Rotary
FIELD PERSONNEL: Lee M./Zach C.

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE mS/cm	SAMPLE NaCl
	Start strat log @ 20ft						
20	SAND, fine/medium, red and brown, dry	20.00					
	CLAYEY SAND, red and brown, with caliche interbedded, slightly moist	22.50	20-25'			980	
25	SAND, fine/medium, red and brown, dry	25.00					
	- bed of caliche at 27.00ft BGS		25-30'			1120	
30	- slightly moist at 32.50ft BGS		30-35'			960	
35			35-40'			620	
	CLAYEY SAND, red and brown, slightly moist	37.50					
40	SAND, fine/medium, red and brown, dry	40.00	40-45'			490	
45			45-50'			400	396
50			50-55'			300	356
55			55-60'			920	875
60			60-65'			500	
65			65-70'			260	268
70			70-75'			420	396
75	END OF BOREHOLE @ 75.00ft BGS	75.00					

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

CHEMICAL ANALYSIS (20-25')

Note: mS/cm and NaCl data is field screening data

File: \\GHDNET\GHD\US\MIDLAND\PROJECTS\562\11228312\FIELD NOTES\GINT LOGS\11228312 LOGS.GPJ Library File: 11228312 GHD_ENVIRO_V04.GLB Report: OVERBURDEN LOG Date: 26/7/21

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 02, 2021

Tom Larson
GHD
6121 Indian School Road, NE #200
Albuquerque, NM 87110
TEL: (505) 884-0672
FAX

RE: Jackson B 17 Wellhead OrderNo.: 2105A89

Dear Tom Larson:

Hall Environmental Analysis Laboratory received 10 sample(s) on 5/26/2021 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order: **2105A89**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2105A89
Project: Jackson B 17 Wellhead

Lab ID: 2105A89-001 **Collection Date:** 5/24/2021 10:45:00 AM
Client Sample ID: TP1-8 **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	850	60		mg/Kg	20	6/1/2021 3:37:04 PM	60357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	3200	440		mg/Kg	50	5/28/2021 11:33:14 AM	60287
Motor Oil Range Organics (MRO)	4400	2200		mg/Kg	50	5/28/2021 11:33:14 AM	60287
Surr: DNOP	0	70-130	S	%Rec	50	5/28/2021 11:33:14 AM	60287
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	1600	250		mg/Kg	50	5/28/2021 4:07:25 AM	60281
Surr: BFB	153	70-130	S	%Rec	50	5/28/2021 4:07:25 AM	60281
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	11	1.2		mg/Kg	50	5/28/2021 4:07:25 AM	60281
Toluene	58	2.5		mg/Kg	50	5/28/2021 4:07:25 AM	60281
Ethylbenzene	63	2.5		mg/Kg	50	5/28/2021 4:07:25 AM	60281
Xylenes, Total	76	5.0		mg/Kg	50	5/28/2021 4:07:25 AM	60281
Surr: 4-Bromofluorobenzene	112	70-130		%Rec	50	5/28/2021 4:07:25 AM	60281

Lab ID: 2105A89-002 **Collection Date:** 5/24/2021 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	61		mg/Kg	20	6/1/2021 3:49:28 PM	60357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	8.5		mg/Kg	1	5/28/2021 2:58:15 PM	60297
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	5/28/2021 2:58:15 PM	60297
Surr: DNOP	115	70-130		%Rec	1	5/28/2021 2:58:15 PM	60297
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/27/2021 6:32:00 PM	60288
Surr: BFB	87.0	70-130		%Rec	1	5/27/2021 6:32:00 PM	60288
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.025		mg/Kg	1	5/27/2021 6:32:00 PM	60288
Toluene	ND	0.049		mg/Kg	1	5/27/2021 6:32:00 PM	60288
Ethylbenzene	ND	0.049		mg/Kg	1	5/27/2021 6:32:00 PM	60288
Xylenes, Total	ND	0.098		mg/Kg	1	5/27/2021 6:32:00 PM	60288
Surr: 4-Bromofluorobenzene	81.7	70-130		%Rec	1	5/27/2021 6:32:00 PM	60288

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order: **2105A89**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2105A89
Project: Jackson B 17 Wellhead

Lab ID: 2105A89-003 **Collection Date:** 5/24/2021 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	6/1/2021 4:01:53 PM	60357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	5/28/2021 2:13:50 PM	60297
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	5/28/2021 2:13:50 PM	60297
Surr: DNOP	98.5	70-130		%Rec	1	5/28/2021 2:13:50 PM	60297
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/27/2021 7:31:00 PM	60288
Surr: BFB	86.2	70-130		%Rec	1	5/27/2021 7:31:00 PM	60288
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.025		mg/Kg	1	5/27/2021 7:31:00 PM	60288
Toluene	ND	0.049		mg/Kg	1	5/27/2021 7:31:00 PM	60288
Ethylbenzene	ND	0.049		mg/Kg	1	5/27/2021 7:31:00 PM	60288
Xylenes, Total	ND	0.098		mg/Kg	1	5/27/2021 7:31:00 PM	60288
Surr: 4-Bromofluorobenzene	83.1	70-130		%Rec	1	5/27/2021 7:31:00 PM	60288

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

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 Quanitative 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

Analytical Report
Lab Order: **2105A89**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2105A89
Project: Jackson B 17 Wellhead

Lab ID: 2105A89-004 **Collection Date:** 5/24/2021 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	240	60		mg/Kg	20	6/1/2021 4:14:18 PM	60357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	5/29/2021 3:47:23 PM	60297
Motor Oil Range Organics (MRO)	100	43		mg/Kg	1	5/29/2021 3:47:23 PM	60297
Surr: DNOP	85.1	70-130		%Rec	1	5/29/2021 3:47:23 PM	60297
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/27/2021 8:31:00 PM	60288
Surr: BFB	85.0	70-130		%Rec	1	5/27/2021 8:31:00 PM	60288
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.025		mg/Kg	1	5/27/2021 8:31:00 PM	60288
Toluene	ND	0.050		mg/Kg	1	5/27/2021 8:31:00 PM	60288
Ethylbenzene	ND	0.050		mg/Kg	1	5/27/2021 8:31:00 PM	60288
Xylenes, Total	ND	0.10		mg/Kg	1	5/27/2021 8:31:00 PM	60288
Surr: 4-Bromofluorobenzene	82.9	70-130		%Rec	1	5/27/2021 8:31:00 PM	60288

Lab ID: 2105A89-005 **Collection Date:** 5/24/2021 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	610	60		mg/Kg	20	6/1/2021 4:26:42 PM	60357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/28/2021 3:28:18 PM	60297
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/28/2021 3:28:18 PM	60297
Surr: DNOP	99.0	70-130		%Rec	1	5/28/2021 3:28:18 PM	60297
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/27/2021 8:51:00 PM	60288
Surr: BFB	87.4	70-130		%Rec	1	5/27/2021 8:51:00 PM	60288
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	5/27/2021 8:51:00 PM	60288
Toluene	ND	0.048		mg/Kg	1	5/27/2021 8:51:00 PM	60288
Ethylbenzene	ND	0.048		mg/Kg	1	5/27/2021 8:51:00 PM	60288
Xylenes, Total	ND	0.095		mg/Kg	1	5/27/2021 8:51:00 PM	60288
Surr: 4-Bromofluorobenzene	81.8	70-130		%Rec	1	5/27/2021 8:51:00 PM	60288

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

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 Quanitative 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

Analytical Report
Lab Order: **2105A89**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2105A89
Project: Jackson B 17 Wellhead

Lab ID: 2105A89-006 **Collection Date:** 5/24/2021 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	6/1/2021 4:39:07 PM	60357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	5/28/2021 3:38:14 PM	60297
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/28/2021 3:38:14 PM	60297
Surr: DNOP	101	70-130		%Rec	1	5/28/2021 3:38:14 PM	60297
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/27/2021 9:11:00 PM	60288
Surr: BFB	83.1	70-130		%Rec	1	5/27/2021 9:11:00 PM	60288
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	5/27/2021 9:11:00 PM	60288
Toluene	ND	0.049		mg/Kg	1	5/27/2021 9:11:00 PM	60288
Ethylbenzene	ND	0.049		mg/Kg	1	5/27/2021 9:11:00 PM	60288
Xylenes, Total	ND	0.097		mg/Kg	1	5/27/2021 9:11:00 PM	60288
Surr: 4-Bromofluorobenzene	81.8	70-130		%Rec	1	5/27/2021 9:11:00 PM	60288

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order: **2105A89**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2105A89
Project: Jackson B 17 Wellhead

Lab ID: 2105A89-007 **Collection Date:** 5/24/2021 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	6/1/2021 4:51:31 PM	60357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/28/2021 3:48:10 PM	60297
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/28/2021 3:48:10 PM	60297
Surr: DNOP	114	70-130		%Rec	1	5/28/2021 3:48:10 PM	60297
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/27/2021 9:31:00 PM	60288
Surr: BFB	87.4	70-130		%Rec	1	5/27/2021 9:31:00 PM	60288
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.025		mg/Kg	1	5/27/2021 9:31:00 PM	60288
Toluene	ND	0.050		mg/Kg	1	5/27/2021 9:31:00 PM	60288
Ethylbenzene	ND	0.050		mg/Kg	1	5/27/2021 9:31:00 PM	60288
Xylenes, Total	ND	0.10		mg/Kg	1	5/27/2021 9:31:00 PM	60288
Surr: 4-Bromofluorobenzene	83.0	70-130		%Rec	1	5/27/2021 9:31:00 PM	60288

Lab ID: 2105A89-008 **Collection Date:** 5/24/2021 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	110	60		mg/Kg	20	6/1/2021 5:03:56 PM	60357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	170	9.5		mg/Kg	1	5/28/2021 2:41:02 PM	60297
Motor Oil Range Organics (MRO)	230	47		mg/Kg	1	5/28/2021 2:41:02 PM	60297
Surr: DNOP	80.3	70-130		%Rec	1	5/28/2021 2:41:02 PM	60297
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/27/2021 9:51:00 PM	60288
Surr: BFB	84.9	70-130		%Rec	1	5/27/2021 9:51:00 PM	60288
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	5/27/2021 9:51:00 PM	60288
Toluene	ND	0.048		mg/Kg	1	5/27/2021 9:51:00 PM	60288
Ethylbenzene	ND	0.048		mg/Kg	1	5/27/2021 9:51:00 PM	60288
Xylenes, Total	ND	0.096		mg/Kg	1	5/27/2021 9:51:00 PM	60288
Surr: 4-Bromofluorobenzene	80.3	70-130		%Rec	1	5/27/2021 9:51:00 PM	60288

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order: **2105A89**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2105A89
Project: Jackson B 17 Wellhead

Lab ID: 2105A89-009 **Collection Date:** 5/24/2021 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	93	60		mg/Kg	20	6/1/2021 5:16:21 PM	60357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/28/2021 3:58:05 PM	60297
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/28/2021 3:58:05 PM	60297
Surr: DNOP	109	70-130		%Rec	1	5/28/2021 3:58:05 PM	60297
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/27/2021 10:10:00 PM	60288
Surr: BFB	84.4	70-130		%Rec	1	5/27/2021 10:10:00 PM	60288
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	5/27/2021 10:10:00 PM	60288
Toluene	ND	0.047		mg/Kg	1	5/27/2021 10:10:00 PM	60288
Ethylbenzene	ND	0.047		mg/Kg	1	5/27/2021 10:10:00 PM	60288
Xylenes, Total	ND	0.094		mg/Kg	1	5/27/2021 10:10:00 PM	60288
Surr: 4-Bromofluorobenzene	81.3	70-130		%Rec	1	5/27/2021 10:10:00 PM	60288

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order: **2105A89**
Date Reported: **6/2/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2105A89
Project: Jackson B 17 Wellhead

Lab ID: 2105A89-010 **Collection Date:** 5/25/2021 10:45:00 AM
Client Sample ID: TP1-20 **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	560	60		mg/Kg	20	6/1/2021 5:53:35 PM	60357
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	3500	440		mg/Kg	50	5/28/2021 2:00:01 PM	60297
Motor Oil Range Organics (MRO)	2500	2200		mg/Kg	50	5/28/2021 2:00:01 PM	60297
Surr: DNOP	0	70-130	S	%Rec	50	5/28/2021 2:00:01 PM	60297
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	570	23		mg/Kg	5	5/27/2021 10:30:00 PM	60288
Surr: BFB	213	70-130	S	%Rec	5	5/27/2021 10:30:00 PM	60288
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	0.87	0.12		mg/Kg	5	5/27/2021 10:30:00 PM	60288
Toluene	0.38	0.23		mg/Kg	5	5/27/2021 10:30:00 PM	60288
Ethylbenzene	10	0.23		mg/Kg	5	5/27/2021 10:30:00 PM	60288
Xylenes, Total	9.2	0.47		mg/Kg	5	5/27/2021 10:30:00 PM	60288
Surr: 4-Bromofluorobenzene	143	70-130	S	%Rec	5	5/27/2021 10:30:00 PM	60288

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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2105A89**
02-Jun-21

Client: GHD
Project: Jackson B 17 Wellhead

Sample ID: **MB-60357**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **60357**	RunNo: **78785**							
Prep Date: **6/1/2021**	Analysis Date: **6/1/2021**	SeqNo: **2762658**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-60357**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **60357**	RunNo: **78785**							
Prep Date: **6/1/2021**	Analysis Date: **6/1/2021**	SeqNo: **2762659**	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.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative 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#: **2105A89**
02-Jun-21

Client: GHD
Project: Jackson B 17 Wellhead

Sample ID: **MB-60287** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **60287** RunNo: **77689**
Prep Date: **5/26/2021** Analysis Date: **5/27/2021** SeqNo: **2758381** 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		111	70	130			

Sample ID: **LCS-60287** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **60287** RunNo: **77689**
Prep Date: **5/26/2021** Analysis Date: **5/27/2021** SeqNo: **2758383** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	59	10	50.00	0	118	68.9	141			
Surr: DNOP	6.0		5.000		121	70	130			

Sample ID: **LCS-60304** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **60304** RunNo: **77729**
Prep Date: **5/27/2021** Analysis Date: **5/28/2021** SeqNo: **2759335** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.8		5.000		115	70	130			

Sample ID: **MB-60304** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **60304** RunNo: **77729**
Prep Date: **5/27/2021** Analysis Date: **5/28/2021** SeqNo: **2759336** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	13		10.00		127	70	130			

Sample ID: **2105A89-002AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **TP2-S** Batch ID: **60297** RunNo: **77729**
Prep Date: **5/27/2021** Analysis Date: **5/28/2021** SeqNo: **2759627** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	8.4	41.91	0	104	15	184			
Surr: DNOP	4.3		4.191		103	70	130			

Sample ID: **LCS-60297** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **60297** RunNo: **77729**
Prep Date: **5/27/2021** Analysis Date: **5/28/2021** SeqNo: **2759631** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	10	50.00	0	116	68.9	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 Quanitative 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#: **2105A89**
02-Jun-21

Client: GHD
Project: Jackson B 17 Wellhead

Sample ID: **LCS-60297**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **60297**	RunNo: **77729**
Prep Date: **5/27/2021**	Analysis Date: **5/28/2021**	SeqNo: **2759631** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.4		5.000		109	70	130			

Sample ID: **MB-60297**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **60297**	RunNo: **77729**
Prep Date: **5/27/2021**	Analysis Date: **5/28/2021**	SeqNo: **2759632** 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			

Sample ID: **2105A89-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **TP2-S**	Batch ID: **60297**	RunNo: **77729**
Prep Date: **5/27/2021**	Analysis Date: **5/28/2021**	SeqNo: **2760890** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.0	45.13	0	95.5	15	184	0.988	23.9	
Surr: DNOP	4.5		4.513		99.8	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 Quanitative 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#: **2105A89**
02-Jun-21

Client: GHD
Project: Jackson B 17 Wellhead

Sample ID: **mb-60281**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **60281**	RunNo: **77699**							
Prep Date: **5/26/2021**	Analysis Date: **5/27/2021**	SeqNo: **2758755**	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: **lcs-60281**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **60281**	RunNo: **77699**							
Prep Date: **5/26/2021**	Analysis Date: **5/27/2021**	SeqNo: **2758756**	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	1100		1000		112	70	130			

Sample ID: **LCS-60288**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **60288**	RunNo: **77731**							
Prep Date: **5/26/2021**	Analysis Date: **5/27/2021**	SeqNo: **2759007**	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	88.8	78.6	131			
Surr: BFB	970		1000		96.5	70	130			

Sample ID: **MB-60288**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **60288**	RunNo: **77731**							
Prep Date: **5/26/2021**	Analysis Date: **5/27/2021**	SeqNo: **2759008**	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	830		1000		83.2	70	130			

Sample ID: **2105A89-002ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **TP2-S**	Batch ID: **60288**	RunNo: **77731**							
Prep Date: **5/26/2021**	Analysis Date: **5/27/2021**	SeqNo: **2759010**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.9	24.37	0	101	61.3	114			
Surr: BFB	960		974.7		98.6	70	130			

Sample ID: **2105A89-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **TP2-S**	Batch ID: **60288**	RunNo: **77731**							
Prep Date: **5/26/2021**	Analysis Date: **5/27/2021**	SeqNo: **2759011**	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 Quanitative 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#: **2105A89**
02-Jun-21

Client: GHD
Project: Jackson B 17 Wellhead

Sample ID: **2105A89-002amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **TP2-S** Batch ID: **60288** RunNo: **77731**
Prep Date: **5/26/2021** Analysis Date: **5/27/2021** SeqNo: **2759011** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.9	24.58	0	98.3	61.3	114	2.09	20	
Surr: BFB	970		983.3		98.9	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 Quanitative 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#: **2105A89**
02-Jun-21

Client: GHD
Project: Jackson B 17 Wellhead

Sample ID: **mb-60281**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **60281**	RunNo: **77699**
Prep Date: **5/26/2021**	Analysis Date: **5/27/2021**	SeqNo: **2758801** 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		103	70	130			

Sample ID: **LCS-60281**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **60281**	RunNo: **77699**
Prep Date: **5/26/2021**	Analysis Date: **5/27/2021**	SeqNo: **2758802** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	101	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	3.0	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		105	70	130			

Sample ID: **LCS-60288**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **60288**	RunNo: **77731**
Prep Date: **5/26/2021**	Analysis Date: **5/27/2021**	SeqNo: **2759025** 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	90.6	80	120			
Toluene	0.89	0.050	1.000	0	89.3	80	120			
Ethylbenzene	0.91	0.050	1.000	0	91.3	80	120			
Xylenes, Total	2.7	0.10	3.000	0	89.2	80	120			
Surr: 4-Bromofluorobenzene	0.84		1.000		83.8	70	130			

Sample ID: **MB-60288**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **60288**	RunNo: **77731**
Prep Date: **5/26/2021**	Analysis Date: **5/27/2021**	SeqNo: **2759026** 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	0.80		1.000		80.2	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 Quanitative 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#: **2105A89**
02-Jun-21

Client: GHD
Project: Jackson B 17 Wellhead

Sample ID: **2105A89-003ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **TP2-2** Batch ID: **60288** RunNo: **77731**
Prep Date: **5/26/2021** Analysis Date: **5/27/2021** SeqNo: **2759029** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.024	0.9634	0	98.0	76.3	120			
Toluene	0.93	0.048	0.9634	0	96.5	78.5	120			
Ethylbenzene	0.96	0.048	0.9634	0	100	78.1	124			
Xylenes, Total	2.8	0.096	2.890	0	97.4	79.3	125			
Surr: 4-Bromofluorobenzene	0.80		0.9634		83.4	70	130			

Sample ID: **2105A89-003amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **TP2-2** Batch ID: **60288** RunNo: **77731**
Prep Date: **5/26/2021** Analysis Date: **5/27/2021** SeqNo: **2759030** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	0.9911	0	95.6	76.3	120	0.425	20	
Toluene	0.94	0.050	0.9911	0	94.9	78.5	120	1.21	20	
Ethylbenzene	0.97	0.050	0.9911	0	97.6	78.1	124	0.466	20	
Xylenes, Total	2.8	0.099	2.973	0	95.3	79.3	125	0.671	20	
Surr: 4-Bromofluorobenzene	0.83		0.9911		83.6	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 Quanitative 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

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: 2105A89 | RcptNo: 1

Received By: Juan Rojas 5/26/2021 7:30:00 AM

Completed By: Cheyenne Cason 5/26/2021 8:02:09 AM

Reviewed By: SPA 5.26.21

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° 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 ☐	# of preserved bottles checked for pH: IO 5.26.21 (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
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 ☐	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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.4	Good				

Chain-of-Custody Record

Client: GHD

Mailing Address: 324 W. Main St Suite 108, Artesia NM 88210

Phone #: (505) 377-4218

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

QA/QC Package: Chase_Settle@eogresources.com Tom.Larson@GHD.com

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush 5 Day

Project Name: Jackson B #17 Wellhead

Project #: 11228313

Project Manager: Becky Haskell, Tom Larson

Sampler: Zach Comino

On Ice: ☒ Yes ☐ No

# of Coolers: 1 3C 5/26/21

Cooler Temp(including CF): 5.1-0.1=5.0 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2105A89	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chloride Method 300.0
05/24/21	1045		TP1-8			001											
	1100		TP2-S			002											
	1105		TP2-2			003											
	1110		TP3-S			004											
	1115		TP3-2			005											
	1120		TP4-S			006											
	1125		TP4-2			007											
	1130		TP5-S			008											
	1135		TP5-2			009											
05/25/21	1045		TP1-20			010											

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
05/26/21	0900	Zach Comino			5/25/21	0900
5/25/21	1900					

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
					5/26/21	7:30

Remarks: Please email zach.comino@GHD.com along with others listed above

Direct bill to EOG Chase Settle

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

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

July 30, 2021

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

RE: Jackson B 17 Well Head OrderNo.: 2107C47

Dear Tom Larson:

Hall Environmental Analysis Laboratory received 11 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2107C47**
Date Reported: **7/30/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland **Client Sample ID:** TP1-25
Project: Jackson B 17 Well Head **Collection Date:** 7/22/2021 8:20:00 AM
Lab ID: 2107C47-001 **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	430	60		mg/Kg	20	7/30/2021 3:06:05 AM	61662
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/27/2021 4:20:14 PM	61572
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/27/2021 4:20:14 PM	61572
Surr: DNOP	138	70-130	S	%Rec	1	7/27/2021 4:20:14 PM	61572
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/29/2021 5:48:47 AM	61570
Surr: BFB	106	70-130		%Rec	1	7/29/2021 5:48:47 AM	61570
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	7/29/2021 5:48:47 AM	61570
Toluene	ND	0.048		mg/Kg	1	7/29/2021 5:48:47 AM	61570
Ethylbenzene	ND	0.048		mg/Kg	1	7/29/2021 5:48:47 AM	61570
Xylenes, Total	ND	0.097		mg/Kg	1	7/29/2021 5:48:47 AM	61570
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	7/29/2021 5:48:47 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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2107C47**
Date Reported: **7/30/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: TP1-30
Project: Jackson B 17 Well Head
Collection Date: 7/22/2021 8:40:00 AM
Lab ID: 2107C47-002 **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	380	59		mg/Kg	20	7/30/2021 3:43:19 AM	61662
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/27/2021 4:30:08 PM	61572
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/27/2021 4:30:08 PM	61572
Surr: DNOP	151	70-130	S	%Rec	1	7/27/2021 4:30:08 PM	61572
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/29/2021 6:12:13 AM	61570
Surr: BFB	106	70-130		%Rec	1	7/29/2021 6:12:13 AM	61570
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	7/29/2021 6:12:13 AM	61570
Toluene	ND	0.048		mg/Kg	1	7/29/2021 6:12:13 AM	61570
Ethylbenzene	ND	0.048		mg/Kg	1	7/29/2021 6:12:13 AM	61570
Xylenes, Total	ND	0.097		mg/Kg	1	7/29/2021 6:12:13 AM	61570
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	7/29/2021 6:12:13 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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2107C47**
Date Reported: **7/30/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: TP1-35
Project: Jackson B 17 Well Head
Collection Date: 7/22/2021 8:50:00 AM
Lab ID: 2107C47-003 **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	598	59.6		mg/Kg	20	7/30/2021 3:55:44 AM	61662
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/27/2021 4:39:59 PM	61572
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/27/2021 4:39:59 PM	61572
Surr: DNOP	148	70-130	S	%Rec	1	7/27/2021 4:39:59 PM	61572
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/29/2021 6:35:48 AM	61570
Surr: BFB	106	70-130		%Rec	1	7/29/2021 6:35:48 AM	61570
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.025		mg/Kg	1	7/29/2021 6:35:48 AM	61570
Toluene	ND	0.050		mg/Kg	1	7/29/2021 6:35:48 AM	61570
Ethylbenzene	ND	0.050		mg/Kg	1	7/29/2021 6:35:48 AM	61570
Xylenes, Total	ND	0.099		mg/Kg	1	7/29/2021 6:35:48 AM	61570
Surr: 4-Bromofluorobenzene	99.3	70-130		%Rec	1	7/29/2021 6:35:48 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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2107C47**

30-Jul-21

Client: GHD Midland

Project: Jackson B 17 Well Head

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 Quanitative 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#: **2107C47**
30-Jul-21

Client: GHD Midland
Project: Jackson B 17 Well Head

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			

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 Quanitative 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#: **2107C47**
30-Jul-21

Client: GHD Midland
Project: Jackson B 17 Well Head

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 Quanitative 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#: **2107C47**

30-Jul-21

Client: GHD Midland

Project: Jackson B 17 Well Head

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 Quanitative 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

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: 2107C47 | RcptNo: 1

Received By: Cheyenne Cason 7/24/2021 7:48:00 AM

Completed By: Cheyenne Cason 7/24/2021 8:04:30 AM

Reviewed By: SPA 7.24.21

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° 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 ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
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 ☐	Checked by: CC 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				

Chain-of-Custody Record

Client: GHD

Mailing Address: 324 W. Main St. Suite 108, Artesia NM 88210

Phone #: (505)377-4218

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 Wellhead

Project #: 1228313

Project Manager: Becky Haskell, Tom Larson

Sampler: Zach Comino

On Ice: X Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 2.6 - 0.2 = 2.4

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2107C47	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chloride Method 300	Run only if sample listed above tested
07/22/21	0820	S	TP1-25	Jar		001	X	X									X	
	0840		TP1-30			002												
	0850		TP1-35			003												
	0900		TP1-40			004											X	
	0920		TP1-45			005												
	0940		TP1-50			006												
	1000		TP1-55			007												
	1010		TP1-60			008												
	1050		TP1-65			009												
	1100		TP1-70			~~010~~ 011 (11/24/21)												
	1105		TP1-75			011												

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
072321	0800	Zach Comino	[illegible]		7/23/21	800
Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
			[illegible]		7/24/21	0748

Remarks: Please email: Chase_Settle@eogresources.com; Tom.Larson@ghd.com; Zach.Comino@ghd.com Matthew.Laughlin@ghd.com: Along with Becky Haskell listed above.
Direct Bill to EOG Chase Settle

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	nAPP211104488
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: Chase Settle Title: Rep Safety & Environmental Sr

Signature: Chase Settle Date: 08/31/2021

email: Chase_Settle@eogresources.com Telephone: 575-748-1471

OCD Only

Received by: Robert Hamlet Date: 1/24/2022

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

Signature: Robert Hamlet Date: 1/24/2022

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 45809

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 45809
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. All contaminated soil must be reclaimed and removed down to 4 feet below surface or until it meets strictest closure criteria. In the pasture area, 4 feet below the ground surface, floor sample soil contamination limits revert back to Table 1 standards of 2,500 mg/kg (GRO+DRO+MRO) or 1,000 mg/kg (GRO+DRO) and chlorides to 20,000 mg/kg. Vertical delineation does not constitute confirmation samples. Confirmation floor samples will need to be taken before any closure report is approved. Sidewall samples should be delineated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. Please collect confirmation samples, representing no more than 200 ft2. The remediation will need to be performed 90 days after the work plan has been approved. If additional time is needed, please request an extension.	1/24/2022