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

Incident ID	NRM2035039644
District RP	
Facility ID	
Application ID	

# Closure

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

	A scaled site and sampling diagram as described in 19.15.29.1	11 NMAC
	Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office
	☐ Laboratory analyses of final sampling (Note: appropriate ODG	C District office must be notified 2 days prior to final sampling)
	Description of remediation activities	
i s i	and regulations all operators are required to report and/or file certai may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and rea human health or the environment. In addition, OCD acceptance of	ations. The responsible party acknowledges they must substantially anditions that existed prior to the release or their final land use in
ŀ	Printed Name: Chase Settle	Title: Rep Safety and Environmental Sr
5	Printed Name: Chase Settle Signature: Signature:	Date: 10/04/2021
	email: Chase_Settle@eogresources.com	Telephone: <u>575-748-1471</u>
9	OCD Only	
I	Received by: Robert Hamlet	Date: <u>2/28/2022</u>
ľ		of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible or regulations.
(	Closure Approved by: <u>Robert Hamlet</u>	Date: <u>2/28/2022</u>
I	Printed Name: Robert Hamlet	Title: Environmental Specialist - Advanced



EOG Resources, Inc. Artesia Division Office 104 S. 4<sup>th</sup> Street Artesia, N. M. 88210

October 4, 2021

NMOCD District II 811 S. First St. Artesia, NM 88210

Re:

Goat Roper LP #1 30-015-23059 P-30-17S-26E Eddy County, NM

Incident #NRM2035039644

EOG Resources, Inc. is submitting the enclosed Closure Report for the above referenced site. The report is being submitted in reference to the C-141 initial submitted on December 3, 2020. EOG Resources, Inc. has included a C-141 Final in this Closure Report, and hereby requests closure.

If you have any questions, feel free to call me at (575) 748-1471.

Respectfully,

Chase Settle

Received by OCD: 10/4/2021 4:48:12 PM

Rep Safety & Environmental Sr

EOG Resources, Inc.



Goat Roper LP #1

**Closure Report** 

30-015-23059

P-30-17S-26E

**Eddy County, NM** 

October 4, 2021

NRM2035039644



October 4, 2021

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Figure 1: Site Map with Sample Points

### **Photos**

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Appendix A: Soil Sample Laboratory Data

Appendix B: NMOSE Groundwater Data

Appendix C: GHD Soil Sampling Summary

Appendix D: Form C-141

Goat Roper LP #1 Closure Report #NRM2035039644



October 4, 2021

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#### I. Location

From the intersection of Fairgrounds Road and 13<sup>th</sup> Street, head west on Fairgrounds Road for 0.5 mile, then turn north on the lease road to the location.

## II. Background

During a site inspection, EOG personnel discovered a release from the condensate tank. EOG drained and removed the tank once discovered, then began excavating the impacted soils stockpiling the excavated soil within a lined, bermed holding cell. Initial sampling was conducted on January 7, 2021, with a notification sent to NMOCD on December 31, 2020. After removing the impacted soil to a depth of 25 feet below grade surface (bgs), EOG submitted a sampling notification to NMOCD on January 11, 2021, for sampling activities that occurred on January 13, 2021. Confirmation samples, vertical and horizontal, were collected at this event to verify that all impacted soil had been excavated. Approximately 200 cubic yards of impacted soil was stockpiled in the lined and bermed treatment cell on location.

Stockpiled soils, approximately 200 cubic yards, were treated with a microbial product (Liquid Remediact) to begin the bioremediation process. The bioremediation product was administered to the stockpiled material on February 1, 2021. This consisted of mixing 20 gallons of the product with 200 gallons of water and applying the mixture to the soil within the lined and bermed treatment cell. The impacted material is in approximately an 8 inch to 1 foot lift. In order to create greater contact with the mixture, the soil was turned immediately following application. Based on the treatment date, EOG performed the first confirmation sampling of the bioremediated soil on March 15, 2021. 5 point composite samples were collected with 1 sample representative of 25 cubic yards of soil. The treated soil had yet to reach guidelines for NMAC 19.15.29.13, therefore another treatment with Liquid Remediact was completed July 23, 2021, after approval of the Remediation Plan by NMOCD, following the same protocols as previously used.

### III. NMOCD Assessment Criteria

Based on information from the New Mexico Office of the State Engineer (NMOSE) regarding this location (Section 30, T17S-R26E), the closest wells within a half mile of the release site with data from the last 20 years have groundwater depths of 130 to 200 feet bgs. Watercourses in the area are dry except for infrequent flows in response to major precipitation events, with the nearest body of significant surface water being the Pecos River at 5.25 miles away. The site is not within a High or Critical Karst area, nor within a 100 year flood plain according to FEMA.

Depth to ground water > 100'
Wellhead Protection Area > 1000'
Distance to surface water body > 1000'

The Table 1 requirements are as follows:

 Benzene
 10 mg/kg

 BTEX
 50 mg/kg

 TPH
 2,500 mg/kg

 GRO + DRO
 1,000 mg/kg

 Chlorides
 20,000 mg/kg

Goat Roper LP #1 Closure Report #NRM2035039644



October 4, 2021

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## IV. Scope of Work Completed

Stockpiled soils received the second treatment of Liquid Remediact then were turned bi-weekly, however due to the number of precipitation events that occurred between the second treatment and final confirmation date, no additional application of water was required to rehydrate the microbes.

On September 14, 2021, GHD Services Inc. mobilized to the site to perform confirmation sampling of the bioremediated soils within the treatment cell, notification of this sampling event was provided to NMOCD through email on September 9, 2021. Confirmation sampling followed the protocol approved by NMOCD in the Remediation Plan, one 5-point composite sample collected per 25 cubic yards of bioremediated soil. GHD created a sampling summary document that is included as Appendix C.

Results of the confirmation sampling event conducted by GHD indicated that all soils had met the most stringent criteria of Table 1, and therefore also met the reclamation guidance of NMAC 19.15.29.13. There were only 2 samples with detectable values for any constituents, both being for DRO, and both being well below the 100 mg/kg requirement of the most stringent DRO threshold of Table 1.

After reviewing the results, EOG hired a dirt contractor to backfill the excavation, providing guidance to remove all liner material prior to installing the bioremediated soil into the excavation. The process began on October 1, 2021, but due to precipitation could not be completed until October 4, 2021.

Based on the analytical results and backfill of the bioremediated soils, EOG Resources, Inc. requests Closure of nRM2035039644, the C-141 Closure Form is included with this Closure Report as Appendix D.





# **Table 1**Soil Analytical Data

Goat Roper LP #1 Closure Report #NRM2035039644



October 4, 2021

					Soil Analytica	al Data						
Sample ID	Depth (ft. bgs)	Date	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	TPH (GRO)	TPH (DRO)	TPH EXT DRO	Total TPH	Chlorides
V1-20'	20	1/7/21	ND	ND	ND	2.6	2.6	290	2600	ND	2890	ND
V1-25'	25	1/7/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
V1C-25'	25	1/13/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HS 0-13'	0-13	1/13/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HS 13-25'	13-25	1/13/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HN 0-13'	0-13	1/13/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	170
HN 13-25'	13-25	1/13/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HE 0-13'	0-13	1/13/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	160
HE 13-25'	13-25	1/13/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HW 0-13'	0-13	1/13/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	95
HW 13-25'	13-25	1/13/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
					Confirmation F	Results						
C1	<1	3/15/21	ND	ND	ND	ND	ND	120	1200	ND	1320	63
C2	<1	3/15/21	ND	ND	ND	ND	ND	ND	300	ND	300	100
C3	<1	3/15/21	ND	ND	ND	ND	ND	5.7	110	ND	115.7	150
C4	<1	3/15/21	ND	ND	ND	ND	ND	37	850	ND	887	62
C5	<1	3/15/21	ND	ND	ND	ND	ND	89	660	ND	749	66
C6	<1	3/15/21	ND	ND	ND	ND	ND	31	420	ND	451	94
C7	<1	3/15/21	ND	ND	ND	ND	ND	32	1200	ND	1232	66
C8	<1	3/15/21	ND	ND	ND	ND	ND	ND	300	ND	300	84
					Final Confirmatio	n Results						
C1-B	<1	9/14/21	ND	ND	ND	ND	ND	ND	13	ND	13	ND
C2-B	<1	9/14/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
C3-B	<1	9/14/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
C4-B	<1	9/14/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
C5-B	<1	9/14/21	ND	ND	ND	ND	ND	ND	14	ND	14	ND
C6-B	<1	9/14/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
C7-B	<1	9/14/21	ND	ND	ND	ND	ND	ND	35	ND	35	ND
C8-B	<1	9/14/21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND



# Figure 1 **Site Map with Sample Points**

Goat Roper LP #1 Closure Report #NRM2035039644



October 4, 2021







# **Photos**

Goat Roper LP #1 Closure Report #NRM2035039644



October 4, 2021









# **Appendix A**Soil Sample Laboratory Data



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

September 23, 2021

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

**FAX** 

RE: Goat Roper LP 1

OrderNo.: 2109811

Dear Tom Larson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 9/16/2021 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 OC 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

Received by OCD: 10/4/2021 4:48:12 PM

Laboratory Manager

Indest

4901 Hawkins NE

Albuquerque, NM 87109

**Analytical Report** 

Lab Order 2109811

Date Reported: 9/23/2021

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD Midland

Project: Goat Roper LP 1

2109811-001 Lab ID:

Client Sample ID: C1-B

Collection Date: 9/14/2021 8:00:00 AM

Received Date: 9/16/2021 8:10:00 AM

Analyses	Result	RL	Qual 1	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: VP
Chloride	ND	60		mg/Kg	20	9/21/2021 7:06:22 PM	62712
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst	: JME
Diesel Range Organics (DRO)	13	9.5		mg/Kg	1	9/17/2021 7:20:20 PM	62629
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/17/2021 7:20:20 PM	62629
Surr: DNOP	103	70-130		%Rec	1	9/17/2021 7:20:20 PM	62629
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/18/2021 1:35:03 AM	62628
Surr: BFB	105	70-130		%Rec	1	9/18/2021 1:35:03 AM	62628
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.024		mg/Kg	1	9/18/2021 1:35:03 AM	62628
Toluene	ND	0.048		mg/Kg	1	9/18/2021 1:35:03 AM	62628
Ethylbenzene	ND	0.048		mg/Kg	1	9/18/2021 1:35:03 AM	62628
Xylenes, Total	ND	0.096		mg/Kg	1	9/18/2021 1:35:03 AM	62628
Surr: 4-Bromofluorobenzene	90.7	70-130		%Rec	1	9/18/2021 1:35:03 AM	62628

Matrix: SOIL

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

### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

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

Page 1 of 12

**Analytical Report** 

Date Reported: 9/23/2021

Lab Order 2109811

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD Midland

Goat Roper LP 1

Project:

Client Sample ID: C2-B

**Collection Date:** 9/14/2021 8:10:00 AM

Lab ID: 2109811-002 Matrix: SOIL Received Date: 9/16/2021 8:10:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	61	mg/Kg	20	9/21/2021 7:43:37 PM	62712
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	9/17/2021 7:30:10 PM	62629
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	9/17/2021 7:30:10 PM	62629
Surr: DNOP	87.8	70-130	%Rec	1	9/17/2021 7:30:10 PM	62629
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	9/18/2021 1:58:30 AM	62628
Surr: BFB	108	70-130	%Rec	1	9/18/2021 1:58:30 AM	62628
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	9/18/2021 1:58:30 AM	62628
Toluene	ND	0.049	mg/Kg	1	9/18/2021 1:58:30 AM	62628
Ethylbenzene	ND	0.049	mg/Kg	1	9/18/2021 1:58:30 AM	62628
Xylenes, Total	ND	0.098	mg/Kg	1	9/18/2021 1:58:30 AM	62628
Surr: 4-Bromofluorobenzene	95.6	70-130	%Rec	1	9/18/2021 1:58:30 AM	62628

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

Page 2 of 12

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**Analytical Report** 

Lab Order 2109811

Date Reported: 9/23/2021

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD Midland

Project: Goat Roper LP 1

Lab ID: 2109811-003

-003 Matrix: SOIL

Client Sample ID: C3-B

Collection Date: 9/14/2021 8:15:00 AM

Received Date: 9/16/2021 8:10:00 AM

Analyses	Result	RL	Qual U	Jnits	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: VP
Chloride	ND	60	n	ng/Kg	20	9/21/2021 8:45:41 PM	62712
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS					Analyst	JME
Diesel Range Organics (DRO)	ND	9.8	n	ng/Kg	1	9/17/2021 7:40:01 PM	62629
Motor Oil Range Organics (MRO)	ND	49	n	ng/Kg	1	9/17/2021 7:40:01 PM	62629
Surr: DNOP	101	70-130	9	%Rec	1	9/17/2021 7:40:01 PM	62629
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.7	n	ng/Kg	1	9/18/2021 2:21:59 AM	62628
Surr: BFB	106	70-130	9	%Rec	1	9/18/2021 2:21:59 AM	62628
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.024	r	ng/Kg	1	9/18/2021 2:21:59 AM	62628
Toluene	ND	0.047	r	ng/Kg	1	9/18/2021 2:21:59 AM	62628
Ethylbenzene	ND	0.047	r	ng/Kg	1	9/18/2021 2:21:59 AM	62628
Xylenes, Total	ND	0.095	r	ng/Kg	1	9/18/2021 2:21:59 AM	62628
Surr: 4-Bromofluorobenzene	92.1	70-130	Q	%Rec	1	9/18/2021 2:21:59 AM	62628

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

Page 3 of 12

**Analytical Report** 

Lab Order 2109811

Date Reported: 9/23/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland Client Sample ID: C4-B

 Project:
 Goat Roper LP 1
 Collection Date: 9/14/2021 8:20:00 AM

 Lab ID:
 2109811-004
 Matrix: SOIL
 Received Date: 9/16/2021 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: VP
Chloride	ND	61		mg/Kg	20	9/21/2021 8:58:06 PM	62712
EPA METHOD 8015M/D: DIESEL RANGE ORG	GANICS					Analyst	: JME
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/17/2021 7:49:55 PM	62629
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/17/2021 7:49:55 PM	62629
Surr: DNOP	100	70-130		%Rec	1	9/17/2021 7:49:55 PM	62629
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/18/2021 3:56:04 AM	62628
Surr: BFB	103	70-130		%Rec	1	9/18/2021 3:56:04 AM	62628
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.024		mg/Kg	1	9/18/2021 3:56:04 AM	62628
Toluene	ND	0.048		mg/Kg	1	9/18/2021 3:56:04 AM	62628
Ethylbenzene	ND	0.048		mg/Kg	1	9/18/2021 3:56:04 AM	62628
Xylenes, Total	ND	0.096		mg/Kg	1	9/18/2021 3:56:04 AM	62628
Surr: 4-Bromofluorobenzene	90.0	70-130		%Rec	1	9/18/2021 3:56:04 AM	62628

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

### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- D Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- 8 % 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

# -

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**Analytical Report** 

Lab Order 2109811

Date Reported: 9/23/2021

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** GHD Midland

Project: Goat Roper LP 1

**Lab ID:** 2109811-005

Client Sample ID: C5-B

Collection Date: 9/14/2021 8:50:00 AM

Received Date: 9/16/2021 8:10:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	60	mg/Kg	20	9/21/2021 9:10:31 PM	62712
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analys	: JME
Diesel Range Organics (DRO)	14	9.8	mg/Kg	1	9/17/2021 7:59:47 PM	62629
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	9/17/2021 7:59:47 PM	62629
Surr: DNOP	98.3	70-130	%Rec	1	9/17/2021 7:59:47 PM	62629
EPA METHOD 8015D: GASOLINE RANGE					Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	9/18/2021 4:19:45 AM	62628
Surr: BFB	103	70-130	%Rec	1	9/18/2021 4:19:45 AM	62628
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.024	mg/Kg	1	9/18/2021 4:19:45 AM	62628
Toluene	ND	0.049	mg/Kg	1	9/18/2021 4:19:45 AM	62628
Ethylbenzene	ND	0.049	mg/Kg	1	9/18/2021 4:19:45 AM	62628
Xylenes, Total	ND	0.097	mg/Kg	1	9/18/2021 4:19:45 AM	62628
Surr: 4-Bromofluorobenzene	90.0	70-130	%Rec	1	9/18/2021 4:19:45 AM	62628

Matrix: SOIL

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

# Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- D 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

Page 5 of 12

**Analytical Report** 

Lab Order 2109811

Date Reported: 9/23/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland Client Sample ID: C6-B

 Project:
 Goat Roper LP 1
 Collection Date: 9/14/2021 8:55:00 AM

 Lab ID:
 2109811-006
 Matrix: SOIL
 Received Date: 9/16/2021 8:10:00 AM

Analyses	Result	RL	Qual Uni	ts DI	F Date Analyzed	Bat	tch
EPA METHOD 300.0: ANIONS					Ana	alyst: <b>VP</b>	)
Chloride	ND	60	mg/	Kg 20	0 9/21/2021 9:22:57	PM 627	712
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Ana	alyst: <b>JM</b> I	ΙE
Diesel Range Organics (DRO)	ND	9.4	mg	Kg 1	9/17/2021 8:09:42	PM 626	629
Motor Oil Range Organics (MRO)	ND	47	mg	Kg 1	9/17/2021 8:09:42	PM 626	629
Surr: DNOP	98.9	70-130	%R	ec 1	9/17/2021 8:09:42	PM 626	629
EPA METHOD 8015D: GASOLINE RANGE					Ana	alyst: <b>NSI</b>	В
Gasoline Range Organics (GRO)	ND	4.7	mg	'Kg 1	9/18/2021 4:43:22	AM 626	628
Surr: BFB	107	70-130	%R	ec 1	9/18/2021 4:43:22	AM 626	628
EPA METHOD 8021B: VOLATILES					Ana	alyst: <b>NSI</b>	B
Benzene	ND	0.024	mg	Kg 1	9/18/2021 4:43:22	AM 626	628
Toluene	ND	0.047	mg	'Kg 1	9/18/2021 4:43:22	AM 626	628
Ethylbenzene	ND	0.047	mg	Kg 1	9/18/2021 4:43:22	AM 626	628
Xylenes, Total	ND	0.095	mg	'Kg 1	9/18/2021 4:43:22	AM 626	628
Surr: 4-Bromofluorobenzene	92.9	70-130	%R	ec 1	9/18/2021 4:43:22	AM 626	628

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

Page 6 of 12

**Analytical Report** 

Lab Order 2109811

Date Reported: 9/23/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland

Project: Goat Roper LP 1

Lab ID: 2109811-007

Client Sample ID: C7-B

**Collection Date:** 9/14/2021 9:10:00 AM

Received Date: 9/16/2021 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: VP
Chloride	ND	60		mg/Kg	20	9/21/2021 9:35:21 PM	62712
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst	: JME
Diesel Range Organics (DRO)	35	9.5		mg/Kg	1	9/17/2021 8:19:37 PM	62629
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/17/2021 8:19:37 PM	62629
Surr: DNOP	96.5	70-130		%Rec	1	9/17/2021 8:19:37 PM	62629
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/18/2021 5:06:57 AM	62628
Surr: BFB	104	70-130		%Rec	1	9/18/2021 5:06:57 AM	62628
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.024		mg/Kg	1	9/18/2021 5:06:57 AM	62628
Toluene	ND	0.048		mg/Kg	1	9/18/2021 5:06:57 AM	62628
Ethylbenzene	ND	0.048		mg/Kg	1	9/18/2021 5:06:57 AM	62628
Xylenes, Total	ND	0.097		mg/Kg	1	9/18/2021 5:06:57 AM	62628
Surr: 4-Bromofluorobenzene	89.4	70-130		%Rec	1	9/18/2021 5:06:57 AM	62628

Matrix: SOIL

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

Page 7 of 12

**Analytical Report** 

Lab Order 2109811

Date Reported: 9/23/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland Client Sample ID: C8-B

 Project:
 Goat Roper LP 1
 Collection Date: 9/14/2021 9:15:00 AM

 Lab ID:
 2109811-008
 Matrix: SOIL
 Received Date: 9/16/2021 8:10:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	60	mg/Kg	20	9/21/2021 9:47:45 PM	62712
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst	: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	9/17/2021 8:29:34 PM	62629
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	9/17/2021 8:29:34 PM	62629
Surr: DNOP	92.0	70-130	%Rec	1	9/17/2021 8:29:34 PM	62629
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	9/18/2021 5:30:33 AM	62628
Surr: BFB	107	70-130	%Rec	1	9/18/2021 5:30:33 AM	62628
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.025	mg/Kg	1	9/18/2021 5:30:33 AM	62628
Toluene	ND	0.050	mg/Kg	1	9/18/2021 5:30:33 AM	62628
Ethylbenzene	ND	0.050	mg/Kg	1	9/18/2021 5:30:33 AM	62628
Xylenes, Total	ND	0.10	mg/Kg	1	9/18/2021 5:30:33 AM	62628
Surr: 4-Bromofluorobenzene	90.2	70-130	%Rec	1	9/18/2021 5:30:33 AM	62628

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
- L Reporting Limit

Page 8 of 12

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#:

2109811

23-Sep-21

Client: Project: GHD Midland Goat Roper LP 1

Sample ID: MB-62712

Sample ID: LCS-62712

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: PBS

Batch ID: 62712

RunNo: 81415

HighLimit

Prep Date: 9/21/2021

Analysis Date: 9/21/2021

SeqNo: 2877567

Units: mg/Kg

**RPDLimit** 

Qual

Analyte Chloride

Result

SPK value SPK Ref Val %REC LowLimit

%RPD

%RPD

ND

Result

15

**PQL** 

1.5

SampType: LCS

SPK value SPK Ref Val

15.00

TestCode: EPA Method 300.0: Anions

%REC

98.0

RunNo: 81415

Prep Date: Analyte

Chloride

Client ID: LCSS 9/21/2021 Batch ID: 62712

Analysis Date: 9/21/2021

SeqNo: 2877568

Units: mg/Kg

**RPDLimit** Qual

LowLimit HighLimit 90

110

# Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

Reporting Limit

Page 9 of 12

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#:

2109811 23-Sep-21

Client:

GHD Midland

Project:

Goat Roper LP 1

Sample ID: MB-62629	SampT	уре: МВ	LK	Test	Code: EF	PA Method	8015M/D: Die	esel Range	o Organics	
Client ID: PBS	Batch	ID: <b>62</b> 6	329	R	tunNo: 8	1352				
Prep Date: 9/16/2021	Analysis D	ate: 9/	17/2021	S	eqNo: 28	873417	Units: mg/K	g		
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		106	70	130			

Sample ID: LCS-62629	Sampi	ype: LC	S	ies	(Code: E	PA Wethod	8019MI/D: DIG	esei Kangi	e Organics	
Client ID: LCSS	Batch	1D: <b>62</b>	629	F	RunNo: 8	1352				
Prep Date: 9/16/2021	Analysis D	ate: 9/	17/2021	\$	SeqNo: 2	873420	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.6	68.9	135			
Surr: DNOP	5.7		5.000		114	70	130			

### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Not Detected at the Reporting Limit
  Practical Quantitative Limit

- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Reporting Limit

Page 10 of 12

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#: 2109811 23-Sep-21

Client:

GHD Midland

Project:

Goat Roper LP 1

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS

Batch ID: 62628

RunNo: 81363

Prep Date: 9/16/2021

Analysis Date: 9/18/2021

SeqNo: 2874049

Units: mg/Kg

**PQL** Result

SPK value SPK Ref Val %REC LowLimit HighLimit

%RPD **RPDLimit** 

Qual

Gasoline Range Organics (GRO) Surr: BFB

ND 5.0 1100

1000

107

130

Sample ID: Ics-62628

SampType: LCS

TestCode: EPA Method 8015D: Gasoline Range

70

Client ID: LCSS

Batch ID: 62628

RunNo: 81363

HighLimit

Prep Date: 9/16/2021

Analysis Date: 9/17/2021

SeqNo: 2874050 %REC LowLimit Units: mg/Kg

%RPD

Gasoline Range Organics (GRO)

**PQL** SPK value SPK Ref Val Result 29 5.0 25.00 1200

116 115 78.6 70 **RPDLimit** Qual

Surr: BFB

1000

131 130

# Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

Reporting Limit

Page 11 of 12

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#:

2109811

23-Sep-21

Client: Project:

GHD Midland Goat Roper LP 1

Sample ID: mb-62628 Client ID: PBS	•	Type: <b>ME</b> h ID: <b>62</b> 0			tCode: <b>El</b> RunNo: <b>8</b>		8021B: Volat	iles		
Prep Date: 9/16/2021	Analysis E	Date: 9/	18/2021	S	SeqNo: 2	874132	Units: mg/K	g		
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	0.93		1.000		93.4	70	130			

Sample ID: LCS-62628	Samp	Гуре: <b>LC</b>	s	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batc	h ID: <b>62</b> 6	628	F	RunNo: 8	1363				
Prep Date: 9/16/2021	Analysis [	Date: 9/	17/2021	S	SeqNo: 2	874133	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.2	80	120			
Toluene	0.99	0.050	1.000	0	98.9	80	120			
Ethylbenzene	0.98	0.050	1.000	0	97.9	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.1	80	120			
Surr: 4-Bromofluorobenzene	0.93		1.000		92.8	70	130			

## Qualifiers:

Received by OCD: 10/4/2021 4:48:12 PM

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

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



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107

# Sample Log-In Check List

Released to Imaging: 2/28/2022 3:15:31 PM

	Website: clients.h	allenviron	mental.com	n		
Client Name: GHD Midland	Work Order Number	r: <b>21098</b>	11		RcptNo: 1	
Received By: Kasandra Payan	9/16/2021 8:10:00 AN	1		H/Z-	, yok	
Completed By: Sean Livingston	9/16/2021 8:52:37 AN	1		5/	er erken	
Reviewed By: 309/16/2)						
Chain of Custody						
1. Is Chain of Custody complete?		Yes 🛭		No 🗌	Not Present	
2. How was the sample delivered?		Courie	ŗ			
Log In		<b>-</b>			,	
3. Was an attempt made to cool the samples?		Yes 🔽		No 🗌	NA 🗌	
4. Were all samples received at a temperature of	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 🗌		
<ol><li>Are samples (except VOA and ONG) properly</li></ol>	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 🗹	
<ol><li>Were any sample containers received broken</li></ol>	?	Yes [	]	No 🗸	# of preserved	
11 5		r	a		bottles checked	
Does paperwork match bottle labels?     (Note discrepancies on chain of custody)		Yes 🗹	1	No 📙	for pH: (<2 or >12	unless noted)
2. Are matrices correctly identified on Chain of C	ustody?	Yes 🗸	]	No 🗌	Adjusted?	000 110100/
3. Is it clear what analyses were requested?	•	Yes 🗸	_	No 🗆	/ ,10	/ _ 1.
4. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗸		No 🗌	Checked by:	4 9/1t
Special Handling (if applicable)						<b>,</b>
15. Was client notified of all discrepancies with th	is order?	Yes [		No 🗌	NA 🗹	
Person Notified:	Date:			es temporary and character.		
By Whom:	Via: [	eMail	Phon	e  Fax	In Person	
Regarding:	Team Angelingstate, that Age Age completed in 1987 200 200 200 200 200 200 200 200 200 20				control many distinguishment and a some chandres ( 1014	
Client Instructions:	ed Lagradian kan karan kermenan seria seria seria seria seria seria kan kan seria seria kermenan seria seria k Seria seria se	CCCCCA da Marena da arriza cono	nie state gestig ist oplijnig god	independent versiers and ex	title till att frigtigget in gjegere av av ender og er ett frigt skyrteger	
16. Additional remarks:						
17. <u>Cooler Information</u>						

Seal Date

Cooler No Temp °C

5.9

Condition

Good

Good

Seal Intact | Seal No

	。 で こ つ	7	Chain-of-Custody Record	Turn-Around Time:	nd Time:						<i></i>	10						
Client:	GHD			-Standa	rd G					Z :		Ž	K	HALL ENVIRONMENTAL		F		
				Project Name:						Ž		Ŋ		ANALYSIS LABORATORY	2	0	R	
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324 V	/. Main S	St. Suite 10	324 W. Main St. Suite 108, Artesia NM 88210	Project #:			-T	2 T	אשרו האסק	Tel 606 246 2075		nbnar	erque	- Aibuquerque, NM 8/109	308			
Phone #:	).#;	(505)377-4218	7-4218		17501	1000		5	-000	) 	0	Applicate Populate	505-3	505-345-4107 Decinose	,			
email	email or Fax#;		Becky.Haskell@ghd.com	Project Manager	nager:	9		(										
aA/ac	QA/QC Package:			Becky Haskell	, les				S	S	OS .			sent 300	De Christian grant and a second	***************************************	***************************************	
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Accreditati	Accreditation:	□ Az Cor	☐ Az Compliance	Sampler:	NP	ino					NO <sub>2</sub> , I	. (7 -		// }\ juese				***************************************
	EDD (Type)			# of Coolers:	S: 7 Yes	NO □	/3							14) ı √				M201-16-de-paye-year
				Cooler Ten	(Including CF).	5.9 +0 -5.9 63+0+								noin (	·····			***************************************
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Date	E E	= -	Sample Name	Type and #	Type	1186012								2101	***************************************	~~~	~~~~	
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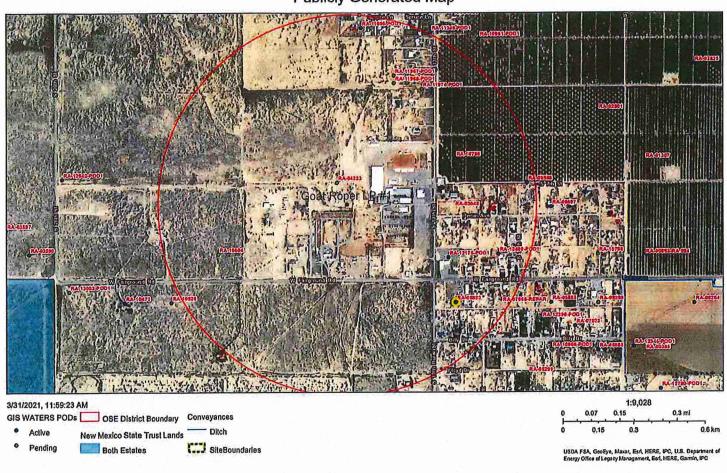
onmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.





# **Appendix B**NMOSE Groundwater Data

# **Publicly Generated Map**



OSE FOO Locations

New Marks Office of the State Engineer (OSE) provides this geographic data and any associated metadata "as is" without warranty of any kind, including but not limited to its completeness, finess for a particular use, or accuracy of its content, positional or otherwise. It is the sofereneous builty of the user to



# New Mexico Office of the State Engineer **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)

Q64Q16Q4 Sec Tws Rng 1 4 2 30 17S 26E (NAD83 UTM In moters) 554681 3630208

Drill Start Date: 05/02/2010

Driller Company: DELFORD W. MARTIN

X

Driller License: 1064

Driller Name: MARTIN, DELFORD

Plug Date:

Log File Date: 05/20/2010

Well Tag

**POD Number** 

RA 11605 POD1

**Drill Finish Date: PCW Rcv Date:** 

Source:

Pump Type:

Pipe Discharge Size:

05/05/2010

Shallow Estimated Yield: 15 GPM

Casing Size:

Depth Well:

240 feet

Depth Water:

148 feet

Water Bearing Stratifications:

Top Bottom Description

240 Sandstone/Gravel/Conglomerate

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

3/31/21 11:57 AM

POINT OF DIVERSION SUMMARY



(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)

**POD Number** 

Q64Q16Q4 Sec Tws Rng

X

RA 11349 POD1

2 30 17S 26E

554975 3630191

Driller License: 1400

Driller Company:

SOUTHEAST DRILLING COMPANY

**Driller Name:** HAMMOND, MARK

Drill Start Date: 06/17/2008

Drill Finish Date:

06/23/2008 Plug Date:

Shallow

Log File Date: 07/01/2008

**PCW Rcv Date:** Pipe Discharge Size: Source:

Estimated Yield: 20 GPM

Pump Type:

**Well Tag** 

Depth Well:

Depth Water:

Casing Size:

7.00

143 feet

Water Bearing Stratifications:

Top Bottom Description 5 Other/Unknown

240 feet

5 25

25 Shale/Mudstone/Siltstone 40 Sandstone/Gravel/Conglomerate

40 90 Shale/Mudstone/Siltstone 90

175 Shale/Mudstone/Siltstone 175 Sandstone/Gravel/Conglomerate 240 Sandstone/Gravel/Conglomerate

230

0

182

**Casing Perforations:** Top Bottom

The data is turnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warrantles, expressed or impfied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

3/31/21 11:58 AM

POINT OF DIVERSION SUMMARY



(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

**POD Number** RA 10755

Q64Q16Q4 Sec Tws Rng 3 1 3 29 17S 26E

X 555081 3629663'

Driller License: 1448

Driller Company: KENNARD DRILLING

Driller Name: KENNARD, DALE

Drill Start Date: 05/17/2005

**Drill Finish Date:** 

05/23/2005 Plug Date:

Source:

Log File Date: 06/02/2005

**PCW Rcv Date:** Pipe Discharge Size: Shallow

Pump Type:

287 feet

Estimated Yield: 30 GPM

Depth Well: Casing Size: 5.00

Depth Water:

130 feet

Water Bearing Stratifications:

**Top Bottom Description** 180 195

185 Limestone/Dolomite/Chalk 205 Limestone/Dolomite/Chalk

210

220 Limestone/Dolomite/Chalk 287 Limestone/Dolomite/Chalk

Casing Perforations:

Top Boltom

207

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warrantles, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

3/31/21 11:50 AM

POINT OF DIVERSION SUMMARY



(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM In meters)

Well Tag **POD Number**  Q64Q16Q4 Sec Tws Rng

X

RA 12175 POD1

3 3 3 29 17S 26E

555054 3629244

Driller License: 1632

Driller Company: HOPPER PUMP & DRILLING, INC.

Driller Name: CURRY, CALEB

Drill Start Date: 10/01/2014

**Drill Finish Date:** 

10/08/2014

Plug Date:

Source: Shallow

Pump Type:

Log File Date: 10/23/2014

PCW Rcv Date:

Estimated Yield: 60 GPM

5.00

Pipe Discharge Size:

200 feet

Casing Size:

Depth Well:

260 feet

Depth Water:

Water Bearing Stratifications:

**Top Bottom Description** 200

220 Sandstone/Gravel/Conglomerate

220

230 Sandstone/Gravel/Conglomerate 260 Sandstone/Gravel/Conglomerate

230

**Casing Perforations:** 

Top Bottom 200 260

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

3/31/21 11:50 AM

POINT OF DIVERSION SUMMARY



(quarters are 1=NW 2=NE 3=SW 4=SE) (NAD83 UTM In meters) (quarters are smallest to largest) **POD Number** Q64Q16Q4 Sec Tws Rng X RA 12480 POD1 4 3 3 29 17S 26E 555266 3629260 HOPPER PUMP & DRILLING, INC. Driller License: 1632 Driller Name: CURRY, CALEB Drill Finish Date: 06/23/2017 Plug Date: Drill Start Date: 06/21/2017 Log File Date: 07/05/2017 PCW Rcv Date: Source: Shallow Pump Type: Pipe Discharge Size: Estimated Yield: 50 GPM Depth Well: Depth Water: 142 feet Casing Size: 5.00 260 feet Water Bearing Stratifications: **Top Bottom Description** 190 Sandstone/Gravel/Conglomerate 60 260 Sandstone/Gravel/Conglomerate 200

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

Top Bottom 200 260

**Casing Perforations:** 

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POINT OF DIVERSION SUMMARY



(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)

(NAD83 UTM In meters)

**POD Number** RA 10528

Q64Q16Q4 Sec Tws Rng 1 2 1 31 17S 26E X

553878 3629049\*

Driller License: 1229

**Driller Company:** 

CARTER'S WELL DRILLING

**Driller Name:** 

Drill Start Date: 06/25/2004

Log File Date: 08/12/2004

Drill Finish Date: PCW Rcv Date:

07/01/2004

331 feet

Plug Date:

Shallow

Pump Type:

SUBMER

Pipe Discharge Size:

Source: Estimated Yield: 30 GPM

Casing Size:

Depth Well:

Depth Water:

150 feet

Water Bearing Stratifications:

**Top Bottom Description** 

210 Sandstone/Gravel/Conglomerate

**Casing Perforations:** 

Top Bottom 100

'UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

3/31/21 11:50 AM

POINT OF DIVERSION SUMMARY



# Appendix C GHD Soil Sampling Summary

eog resources





Our ref: 12562026

September 30, 2021

Chase Settle EOG Resources 105 S. 4<sup>th</sup> Street Artesia, NM 88210

Goat Roper LP #1: Stockpile Confirmation Sampling Summary

On September 14, 2021, GHD Services Inc., on behalf of EOG Resources, collected eight (8) composite samples within the lined stockpile at the site. Soil samples (C1-B through C8-B) were collected from surface to the top of the liner, approximately one (1) foot below the surface of the stockpile lifts. Soil samples were collected by GHD personnel utilizing clean/decontaminated equipment. Equipment was decontaminated between soil samples utilizing an environmental detergent (e.g., Alconox) and deionized water. Personnel wore nitrile gloves at all times, along with changing gloves between samples to avoid cross contamination. Soil samples collected were put into laboratory provided containers, logged on a laboratory chain of custody form, and placed on ice in an insulated cooler to maintain a temperature of approximately 40° F (4°-6° C). GHD concluded work after all soil samples were sealed and taken to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico for analytical testing of BTEX by EPA method 8021B, TPH by Method 8015B Modified and Chloride by EPA Method 300 by Hall Environmental Analysis Laboratory in Albuquerque, New Mexico.

Please contact us at (432) 686-0086 if you require further information or clarification.

Sincerely,

GHD

Becky Haskell Senior Project Manager

CC: Tom Larson / Zach Comino

Rebecca Haskell



# Appendix D Form C-141

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	NRM2035039644
District RP	
Facility ID	
Application ID	

# **Release Notification**

# **Responsible Party**

Responsible Party EOG	Resources, Inc	>.		OGRID 73	77			
Contact Name Chase S	Settle			Contact Te	lephone 575-7	<sup>7</sup> 48-1471		
Contact email Chase_		sources.com		Incident#	(assigned by OCD)	NRM2035039644		
Contact mailing address	104 S. 4th Str	eet, Artesia, N	VM 882	210				
		Location			ource			
Latitude 32.80201			I	ongitude -	104.41693			
		(NAD 83 in de	cimal degr	ees to 5 decim	al places)			
Site Name Goat Rope	r LP #1			Site Type B	attery			
Date Release Discovered	12/01/2020				<sup>licable)</sup> 30-015	-23059		
Unit Letter Section	on Township Range				ty			
P 30 17S 26E Eddy								
Surface Owner: State	Surface Owner: State Federal Tribal Private (Name:)							
		Nature and	d Volu	ıme of F	Release			
Materia	l(s) Released (Select al	I that apply and attach	ı calculatio	ns or specific i	justification for the	volumes provided below)		
Crude Oil	Volume Release			•	Volume Reco			
Produced Water	Volume Release	d (bbls)			Volume Recovered (bbls)			
Is the concentration of dissolved chloride is produced water >10,000 mg/l?				in the Yes No				
	Volume Release	d (bbls) 19		Volume Recovered (bbls) 0				
☐ Natural Gas	Volume Release	d (Mcf)			Volume Reco	vered (Mcf)		
Other (describe) Volume/Weight Released (provide units)					Volume/Weig	ht Recovered (provide units)		
Li Outer (deported)	1 101111101 11 2-0	research (pro	,	ı	10	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Other (describe) Volume/ weight Released (provide units) Volume/ weight Recovered (provide units)								

Cause of Release

A pinhole was discovered approximately 8 inches up from the bottom of the tank. The tank had previously been gauged so the lost volume was 16 inches of the tank capacity which calculates to 1.16 barrels per inch, making the total volume lost to be just under 19 barrels of condensate.

Incident ID	NRM2035039644
District RP	
Facility ID	
Application ID	

release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the re	esponsible party consider this a major release?						
Yes No								
If YES, was immediate no	otice given to the OCD? By whom? T	To whom? When and by what means (phone, email, etc)?						
	Initia	l Response						
The responsible j	party must undertake the following actions imme	ediately 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	d above have <u>not</u> been undertaken, exp	lain why:						
has begun, please attach	a narrative of actions to date. If reme	nce remediation immediately after discovery of a release. If remediation edial efforts have been successfully completed or if the release occurred aC), please attach all information needed for closure evaluation.						
I hereby certify that the info	rmation given above is true and complete t	o the best of my knowledge and understand that pursuant to OCD rules and						
public health or the environr	nent. The acceptance of a C-141 report by	e notifications and perform corrective actions for releases which may endanger the OCD does not relieve the operator of liability should their operations have						
failed to adequately investig addition, OCD acceptance o	ate and remediate contamination that pose f a C-141 report does not relieve the operated.	a threat to groundwater, surface water, human health or the environment. In tor of responsibility for compliance with any other federal, state, or local laws						
and/or regulations.								
Printed Name: Chase		Title: Rep Safety & Environmental II						
Signature: Chan 5	ettle	Date: 12/03/2020						
email: Chase_Settle	@eogresources.com	Telephone: 575-748-1471						
OCD Only								
		Date:						

Incident ID	NRM2035039644
District RP	
Facility ID	
Application ID	

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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?	130 (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 <b>not</b> 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.

<u>Ch</u>	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.		
$\square$	Field data		
$\square$	Data table of soil contaminant concentration data		
	Depth to water determination		
$\square$	Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release		
$\bigvee$	Boring or excavation logs		

✓ Photographs including date and GIS information
 ✓ Topographic/Aerial maps
 ✓ Laboratory data including chain of custody

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

19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Incident ID	NRM2035039644
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.

and of regulations.	
Printed Name: Chase Settle	Title: Rep Safety & Environmental Sr
Signature: Chau Settle	Date: 3/29/2021
email: Chase_Settle@eogresources.com	Telephone: 575-748-1471
OCD Only	
Received by:	Date:

Incident ID	NRM2035039644
District RP	
Facility ID	
Application ID	

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# **Remediation Plan**

Remediation Plan Checklist: Each of the following items must be	e included in the plan.	
<ul> <li>☑ Detailed description of proposed remediation technique</li> <li>☑ Scaled sitemap with GPS coordinates showing delineation poin</li> <li>☑ Estimated volume of material to be remediated</li> <li>☑ Closure criteria is to Table 1 specifications subject to 19.15.29.</li> <li>☑ Proposed schedule for remediation (note if remediation plan tin</li> </ul>	12(C)(4) NMAC	
<u>Deferral Requests Only</u> : Each of the following items must be con	nfirmed 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	n, 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: Chas Settle	Date: 3/29/2021	
email: Chase_Settle@eogresources.com	Telephone: 575-748-1471	
OCD Only		
Received by:	Date:	
Approved Approved with Attached Conditions of	Approval	
Signature:	Date:	

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

Incident ID	NRM2035039644
District RP	
Facility ID	
Application ID	

# Closure

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

✓ A scaled site and sampling diagram as described in 19.1.	5.29.11 NMAC
Photographs of the remediated site prior to backfill or p must be notified 2 days prior to liner inspection)	photos of the liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate	e ODC District office must be notified 2 days prior to final sampling)
Description of remediation activities	
and regulations all operators are required to report and/or file may endanger public health or the environment. The acceptar should their operations have failed to adequately investigate an human health or the environment. In addition, OCD acceptance compliance with any other federal, state, or local laws and/or restore, reclaim, and re-vegetate the impacted surface area to the accordance with 19.15.29.13 NMAC including notification to	
Printed Name: Chase Settle Signature: Signature:	10/04/2021
email: Chase_Settle@eogresources.com	
email:	Telephone:
OCD Only	
Received by:	Date:
Closure approval by the OCD does not relieve the responsible remediate contamination that poses a threat to groundwater, surparty of compliance with any other federal, state, or local laws	party of liability should their operations have failed to adequately investigate and rface water, human health, or the environment nor does not relieve the responsible s and/or regulations.
Closure Approved by:	Date:
Printed Name:	Title:

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

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 53912

### **CONDITIONS**

Operator:	OGRID:
EOG RESOURCES INC	7377
P.O. Box 2267	Action Number:
Midland, TX 79702	53912
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By	Condition	Condition Date
rhamlet We have received your closure report and final C-141 for Incident #NRM2035039644 GOAT ROPER LP #1, thank you. This closure is approved. Please be advised that bioremediation projects will need to be preapproved by the OCD and sampling of bioremediated soil will require a more stringent sampling protocol in the future.		2/28/2022