



*EOG Resources, Inc.
Artesia Division Office
104 S. 4th Street
Artesia, N. M. 88210*

September 18, 2019

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

Re: Jackson B Federal #51
30-015-40139
M-1-17S-30E
Eddy County, NM
2RP-5547

EOG Y Resources, Inc. is submitting the enclosed Closure Report for the above referenced site. The report is being submitted accompanying the C-141 Final.

EOG Y Resources Inc. requests closure.

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

Respectfully,

A handwritten signature in black ink, appearing to read "Chase Settle", written over a horizontal line.

Chase Settle
Rep Safety & Environmental II
EOG Y Resources, Inc.

EOG Y Resources, Inc.

Jackson B Federal #51

Closure Report

30-015-40139

M-1-17S-30E

Eddy County, NM

September 18, 2019

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I. Location

From the intersection of Hwy 82 and Square Lakes Road (CR 220), head north for 3.2 miles, the release point is the flow line on the west side of CR220.

II. Background

On July 8, 2019, EOG Resources, Inc. submitted to the NMOCD District II office a Form C-141 for the release of 2 B/O and 13 B/PW with 2 B/O and 13 B/PW recovered. The affected area impacted by the release is approximately 20 feet by 20 feet where the poly line was cut for repairs. A vacuum truck was onsite during repairs to recover the standing fluid and a backhoe crew was contracted to excavate visually impacted soils, approximately four (4) feet was excavated in the release area where the pooling occurred. Excavated soils were sent to a NMOCD approved disposal facility during the initial excavation activities. Initial soil sampling was conducted August 27, 2019, after providing notice of sampling to NMOCD and BLM on August 22, 2019. Results of initial sampling (03/29/2019, results enclosed), indicated all areas below Table 1 standards for the site.

III. Surface and Ground Water

Area geology is Cenozoic Quaternary. Based on information from the United States Geological Survey National Water Information System (USGS) regarding this location (Section 1, T17S-R30E), shallowest depth to groundwater is approximately 361 feet with the nearest water well being further than a mile to the west. Watercourses in the area are dry except for infrequent flows in response to major precipitation events, with the nearest body of surface water being Dimmitt Lake at approximately 2 miles away.

IV. NMOCD Assessment Criteria

The site assessment criteria is as follows:

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

Based on the assessment criteria, the NMOCD established RRALs for this site are:

Benzene	10 mg/kg
BTEX	50 mg/kg
TPH	2,500 mg/kg
GRO + DRO	1,000 mg/kg
Chlorides	20,000 mg/kg

V. Soils

USDA Natural Resources Conservation Service (NRCS) classifies soil in the area as Kermit-Berino fine sands, with 0-3% slopes, and very rapid permeability.

VII. Work Completed

EOG Resources, Inc. excavated to an initial depth of four (4) feet bgs prior to sampling activities conducted on August 27, 2019 (results enclosed). Analytical data from that sampling activity displayed results to be below Table 1 standards. All samples represented less than 200 square feet. Notification for sampling activities was sent to NMOCD and BLM, August 22, 2019. All

excavated soil was hauled to a NMOCD approved facility for disposal, then the excavated area was backfilled to grade with locally sourced soil of similar type. The site was then reseeded with BLM LPC mixture. A C-141 Final Report is hereby submitted to NMOCD requesting closure of the site.

Table 1

Soil Analytical Data

Soil Analytical Data

Sample ID	Depth (ft. bgs)	Date	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	TPH (GRO)	TPH (DRO)	TPH EXT DRO	Total TPH	Chlorides
V1-4'	4	8/27/19	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48
H1	0-4	8/27/19	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32
H2	0-4	8/27/19	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	176
H3	0-4	8/27/19	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	192
H4	0-4	8/27/19	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	19.8	<10.0	19.8	288

Figure 1

Site Map with Sample Points



Photos



Appendix A

USGS Groundwater Information



National Water Information System: Map View

Sites

Map Layers

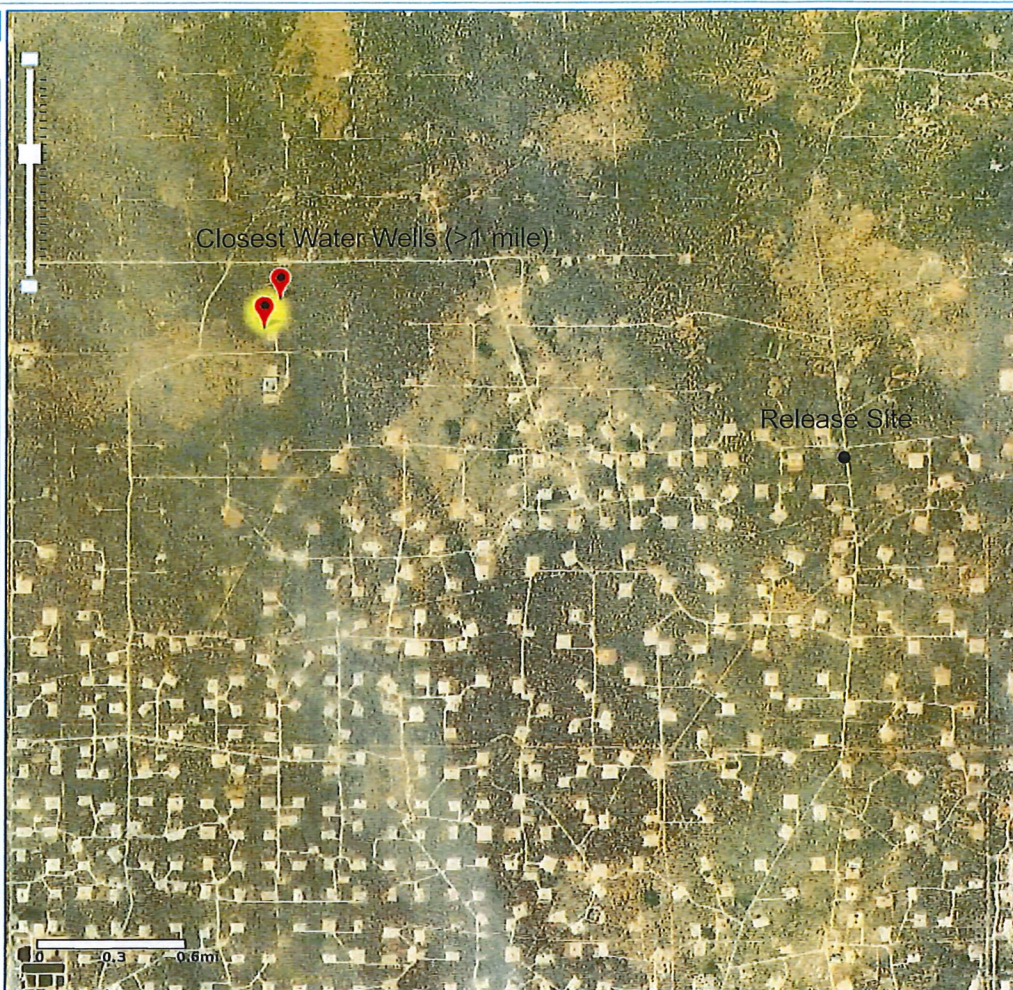
Search Results

Export Sites

Site Number	Site Name
3252101035801 01	16S.30E.33.44233
3252161035757 01	16S.30E.33.42443

Search Parameters

Explanation of Symbols





National Water Information System: Web Interface

USGS Water Resources

Data Category: **Groundwater** Geographic Area: **United States** **GO**

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =
• 325216103575701

Minimum number of levels = 1
[Save file of selected sites](#) to local disk for future upload

USGS 325216103575701 16S.30E.33.42443

Eddy County, New Mexico
Latitude 32°52'16", Longitude 103°57'57" NAD27
Land-surface elevation 3,729 feet above NAVD88
The depth of the well is 385 feet below land surface.
This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water- level date- time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water- level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water- level approval status
1986-04-25		D	362.44			2		U		U	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)
Title: Groundwater for USA: Water Levels
URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>





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Contact USGS
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National Water Information System: Web Interface

USGS Water Resources

Data Category: **Groundwater** Geographic Area: **United States** **GO**

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs

site_no list =
• 325210103580101

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 325210103580101 16S.30E.33.44233

Eddy County, New Mexico

Latitude 32°52'10", Longitude 103°58'01" NAD27

Land-surface elevation 3,725 feet above NAVD88

The depth of the well is 433 feet below land surface.

This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1986-04-25			D	361.26		2		U		U	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>

Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2018-12-19 11:58:58 EST

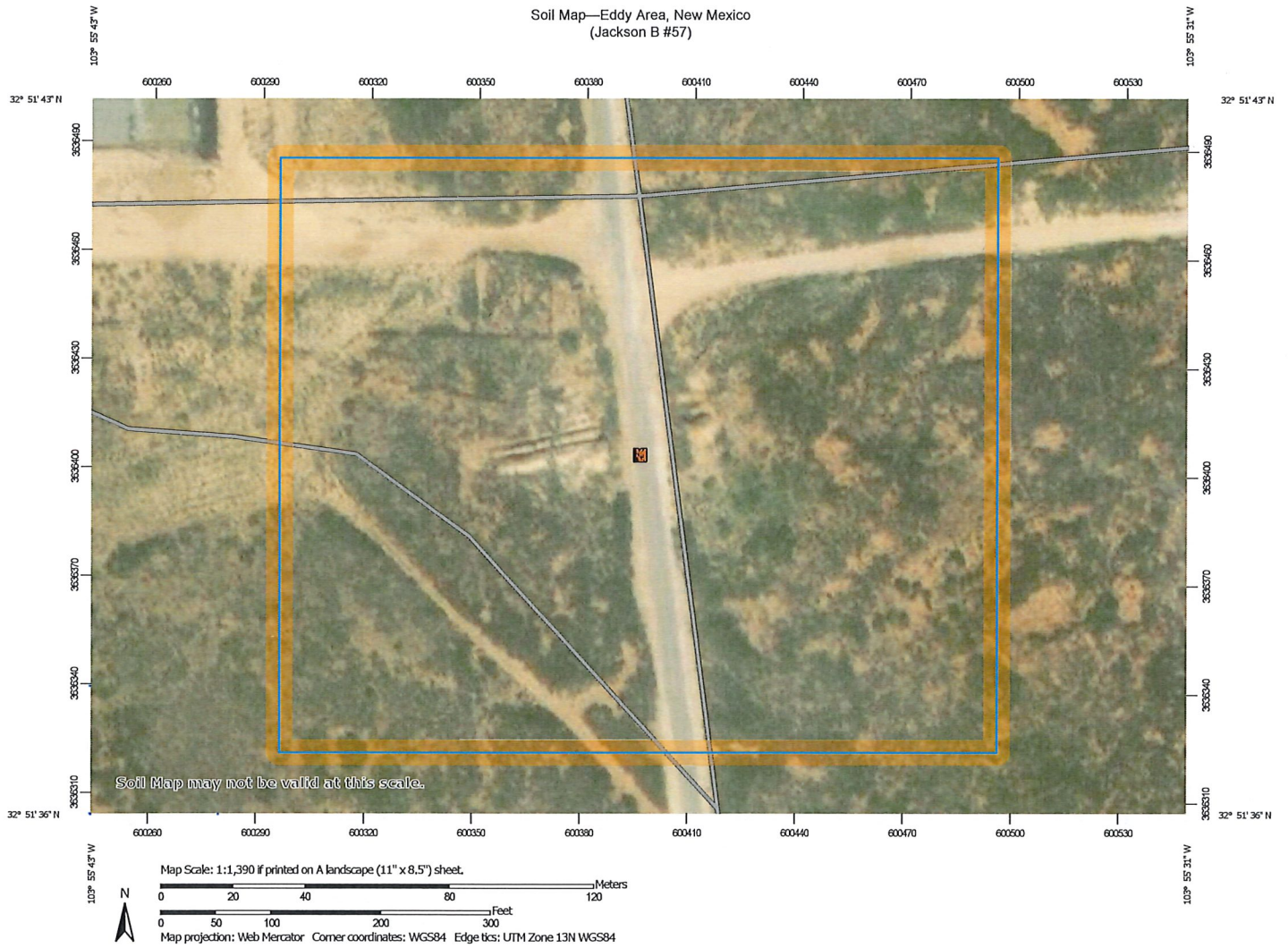
0.51 0.43 nadvv01



Appendix B

NRCS Soil Classification

Soil Map—Eddy Area, New Mexico
(Jackson B #57)



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

2/27/2019
Page 1 of 3

Soil Map—Eddy Area, New Mexico
(Jackson B #57)

MAP LEGEND

Area of Interest (AOI)		Spoil Area
Area of Interest (AOI)		Stony Spot
Soils		Very Stony Spot
Soil Map Unit Polygons		Wet Spot
Soil Map Unit Lines		Other
Soil Map Unit Points		Special Line Features
Special Point Features		Water Features
Blowout		Streams and Canals
Borrow Pit		Transportation
Clay Spot		Rails
Closed Depression		Interstate Highways
Gravel Pit		US Routes
Gravelly Spot		Major Roads
Landfill		Local Roads
Lava Flow		Background
Marsh or swamp		Aerial Photography
Mine or Quarry		
Miscellaneous Water		
Perennial Water		
Rock Outcrop		
Saline Spot		
Sandy Spot		
Severely Eroded Spot		
Sinkhole		
Slide or Slip		
Sodic Spot		

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eddy Area, New Mexico
Survey Area Date: Version 14, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 18, 2016—Nov 20, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KM	Kermit-Berino fine sands, 0 to 3 percent slopes	8.1	100.0%
Totals for Area of Interest		8.1	100.0%

Appendix C

Laboratory Soil Data



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

August 29, 2019

CHASE SETTLE

EOG Y RESOURCES, INC

105 SOUTH 4TH STREET

ARTESIA, NM 88210

RE: JACKSON B FEDERAL #51

Enclosed are the results of analyses for samples received by the laboratory on 08/28/19 12:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 EOG Y RESOURCES, INC
 CHASE SETTLE
 105 SOUTH 4TH STREET
 ARTESIA NM, 88210
 Fax To: (575) 748-4131

 Received: 08/28/2019
 Reported: 08/29/2019
 Project Name: JACKSON B FEDERAL #51
 Project Number: 2RP-5547
 Project Location: JACKSON B FEDERAL #51

 Sampling Date: 08/27/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: V 1 - 4' (H902977-01)

BTEX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2019	ND	1.62	80.8	2.00	1.77	
Toluene*	<0.050	0.050	08/28/2019	ND	1.85	92.7	2.00	2.27	
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.3	2.00	3.64	
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.82	97.0	6.00	4.81	
Total BTEX	<0.300	0.300	08/28/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 107 % 73.3-129

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	08/29/2019	ND	432	108	400	0.00	

TPH 8015M			mg/kg		Analyzed By: CK				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/28/2019	ND	204	102	200	2.18	
DRO >C10-C28*	<10.0	10.0	08/28/2019	ND	201	101	200	2.90	
EXT DRO >C28-C36	<10.0	10.0	08/28/2019	ND					

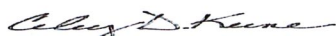
Surrogate: 1-Chlorooctane 116 % 41-142

Surrogate: 1-Chlorooctadecane 125 % 37.6-147

Cardinal Laboratories

*—Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

EOG Y RESOURCES, INC
CHASE SETTLE
105 SOUTH 4TH STREET
ARTESIA NM, 88210
Fax To: (575) 748-4131

Received: 08/28/2019
Reported: 08/29/2019
Project Name: JACKSON B FEDERAL #51
Project Number: 2RP-5547
Project Location: JACKSON B FEDERAL #51

Sampling Date: 08/27/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: H1 (H902977-02)

BTEX 8021B			mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/28/2019	ND	1.62	80.8	2.00	1.77		
Toluene*	<0.050	0.050	08/28/2019	ND	1.85	92.7	2.00	2.27		
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.3	2.00	3.64		
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.82	97.0	6.00	4.81		
Total BTEX	<0.300	0.300	08/28/2019	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 107 % 73.3-129

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AC	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	32.0	16.0	08/29/2019	ND	432	108	400	0.00			

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/28/2019	ND	204	102	200	2.18		
DRO >C10-C28*	<10.0	10.0	08/28/2019	ND	201	101	200	2.90		
EXT DRO >C28-C36	<10.0	10.0	08/28/2019	ND						

Surrogate: 1-Chlorooctane 125 % 41-142

Surrogate: 1-Chlorooctadecane 134 % 37.6-147

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 EOG Y RESOURCES, INC
 CHASE SETTLE
 105 SOUTH 4TH STREET
 ARTESIA NM, 88210
 Fax To: (575) 748-4131

 Received: 08/28/2019
 Reported: 08/29/2019
 Project Name: JACKSON B FEDERAL #51
 Project Number: 2RP-5547
 Project Location: JACKSON B FEDERAL #51

 Sampling Date: 08/27/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: H2 (H902977-03)

BTEX 8021B			mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/28/2019	ND	1.62	80.8	2.00	1.77		
Toluene*	<0.050	0.050	08/28/2019	ND	1.85	92.7	2.00	2.27		
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.3	2.00	3.64		
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.82	97.0	6.00	4.81		
Total BTEX	<0.300	0.300	08/28/2019	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 105 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	08/29/2019	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/28/2019	ND	204	102	200	2.18		
DRO >C10-C28*	<10.0	10.0	08/28/2019	ND	201	101	200	2.90		
EXT DRO >C28-C36	<10.0	10.0	08/28/2019	ND						


Surrogate: 1-Chlorooctane 125 % 41-142

Surrogate: 1-Chlorooctadecane 133 % 37.6-147

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 EOG Y RESOURCES, INC
 CHASE SETTLE
 105 SOUTH 4TH STREET
 ARTESIA NM, 88210
 Fax To: (575) 748-4131

 Received: 08/28/2019
 Reported: 08/29/2019
 Project Name: JACKSON B FEDERAL #51
 Project Number: 2RP-5547
 Project Location: JACKSON B FEDERAL #51

 Sampling Date: 08/27/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: H3 (H902977-04)

BTEX 8021B			mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/28/2019	ND	1.62	80.8	2.00	1.77		
Toluene*	<0.050	0.050	08/28/2019	ND	1.85	92.7	2.00	2.27		
Ethylbenzene*	<0.050	0.050	08/28/2019	ND	1.91	95.3	2.00	3.64		
Total Xylenes*	<0.150	0.150	08/28/2019	ND	5.82	97.0	6.00	4.81		
Total BTEX	<0.300	0.300	08/28/2019	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 105 % 73.3-129

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AC	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	192	16.0	08/29/2019	ND	432	108	400	0.00			

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/28/2019	ND	204	102	200	2.18		
DRO >C10-C28*	<10.0	10.0	08/28/2019	ND	201	101	200	2.90		
EXT DRO >C28-C36	<10.0	10.0	08/28/2019	ND						

Surrogate: 1-Chlorooctane 118 % 41-142

Surrogate: 1-Chlorooctadecane 127 % 37.6-147

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*—Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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 CHASE SETTLE
 105 SOUTH 4TH STREET
 ARTESIA NM, 88210
 Fax To: (575) 748-4131

 Received: 08/28/2019
 Reported: 08/29/2019
 Project Name: JACKSON B FEDERAL #51
 Project Number: 2RP-5547
 Project Location: JACKSON B FEDERAL #51

 Sampling Date: 08/27/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: H4 (H902977-05)

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/29/2019	ND	1.62	80.8	2.00	1.77	
Toluene*	<0.050	0.050	08/29/2019	ND	1.85	92.7	2.00	2.27	
Ethylbenzene*	<0.050	0.050	08/29/2019	ND	1.91	95.3	2.00	3.64	
Total Xylenes*	<0.150	0.150	08/29/2019	ND	5.82	97.0	6.00	4.81	
Total BTEX	<0.300	0.300	08/29/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 107 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	08/29/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/28/2019	ND	204	102	200	2.18	
DRO >C10-C28*	19.8	10.0	08/28/2019	ND	201	101	200	2.90	
EXT DRO >C28-C36	<10.0	10.0	08/28/2019	ND					


Surrogate: 1-Chlorooctane 118 % 41-142

Surrogate: 1-Chlorooctadecane 126 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

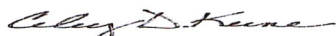
Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

(505) 393-2326 FAX (505) 393-2476

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Name: Jackson B Federal #51

Project #: 2RP-5547

Project Loc: Jackson B Federal #51

PO #: 205-0750

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Chase.Settle@geogresources.com

ORDER #: H902977

Analyze For:

[illegible]

Appendix D

Form C-141

(Initial and Closure)

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	
District RP	2RP-5547
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 South Fourth Street, Artesia, NM 88210		

Location of Release Source

Latitude 32.86128 Longitude -103.92722
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Jackson B Federal #51	Site Type	Flowline
Date Release Discovered	06-26-2019	API# (if applicable)	30-015-40139

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

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

Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) <u>2</u>	Volume Recovered (bbls) <u>2</u>
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) <u>13</u>	Volume Recovered (bbls) <u>13</u>
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

A line strike occurred during other activities damaging 2 flow lines. It was thought that both flow lines had been punctured releasing all pressured up fluids, however the Jackson B Federal #51 flowline had not been fully penetrated. When that line was cut, the 15 barrels of fluid remaining in the line after the well was shut in was able to be released.

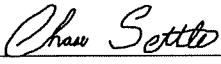
State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: <u>Chase Settle</u> Title: <u>Rep Safety and Environmental II</u> Signature: <u></u> Date: <u>07-08-2019</u> email: <u>Chase_Settle@eogresources.com</u> Telephone: <u>575-748-1471</u>
<u>OCD Only</u> Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5547
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?	>300 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5547
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 and Environmental II

Signature: *Chase Settle* Date: 9/18/2019

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

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5547
Facility ID	
Application ID	

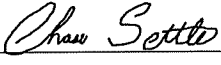
Closure

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

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Chase Settle Title: Rep Safety and Environmental II
 Signature:  Date: 9/18/2019
 email: Chase_Settle@eogresources.com Telephone: 575-748-1471

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Appendix E

BLM Sundry

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

SUNDRY NOTICES AND REPORTS ON WELLS
***Do not use this form for proposals to drill or to re-enter an
abandoned well. Use Form 3160-3 (APD) for such proposals.***

5. Lease Serial No.
NMNM2747

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE – Other instructions on page 2.

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
Jackson B #51

2. Name of Operator
EOG Resources, Inc.

9. API Well No.
30-015-40139

3a. Address
104 S. 4th St., Artesia, NM 88210

3b. Phone No. (include area code)
575-748-1471

10. Field and Pool or Exploratory Area
Cedar Lake; Glorieta Yeso

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1-17S-30E SWSW 990 FSL & 330 FWL

11. County or Parish, State
Eddy County, New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION				
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off	
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Clean up actions to</u>	
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<u>be taken.</u>	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal		

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Poly flow line developed a leak on 6/26/2019 releasing 2 B/O and 13 B/PW with 2 B/O and 13 B/PW recovered. Release affected approximately 20' X 20' area around the flow line. Release area was excavated and impacted soils hauled to disposal facility.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)
Chase Settle

Title Rep Safety & Environmental II

Signature

Chase Settle

Date 09/18/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.