



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

EOG Y Resources, Inc.

Characterization Plan

Kleeman PD & Platt PA Battery

30-015-00253

Section 26, T18S-R26E

Eddy County, New Mexico

October 31, 2017

2RP-4422

I. Location

Take US 285 south for 9 miles and turn east onto E Kincaid Ranch Road and drive 2.1 miles, location will be on the left.

II. Background

On September 28, 2017, EOG Y Resources, Inc. submitted to the NMOCD District II office a Form C-141 for the release of 27 B/O and 110 B/PW with 1 B/O and 0 B/PW recovered. The affected area is 40 feet by 20 feet around the tanks and extending north effecting an area of 50 feet by 6 feet. The release was caused by a hole in the bottom of the production tank.

III. Surface and Ground Water

Area surface geology is Paleozoic Permian. Based on information from the New Mexico Office of the State Engineer (NMOSE) database and United States Geological Survey National Water Information System (USGS) regarding this location (Section 26, T18S-R26E), depth to groundwater is approximately 58' feet. Watercourses in the area are dry except for infrequent flows in response to major precipitation events, with the nearest body of surface water being the Pecos River at 3 miles away.

IV. NMOCD Ranking Criteria

The ranking for this site is ten (10) based on the following:

Depth to ground water	> 50-99'
Wellhead Protection Area	> 1000'
Distance to surface water body	> 1000'

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

Benzene	10 ppm
BTEX	50 ppm
TPH	1,000 ppm
Chlorides	No established RRAL

V. Sampling Procedure

Vertical delineation samples will be collected at 5 sample points (S1-S5) within the release area. Samples will be collected at 1', 2', 3', and 4' below grade surface (bgs). Due to the nature of the release (produced water) and 1-2' feet of impacted soil already removed with the initial response activities, the first set of vertical delineation hole soil samples (1' and 2' bgs) will be analyzed for Benzene, BTEX, TPH extended, and chlorides. If these samples are below RRALs for Benzene, BTEX, and TPH extended, no further sampling for these constituents will occur, only chloride will be analyzed with any further soil sampling if the initial sample analyses warrant further delineation. All samples will be sent to a NMOCD approved laboratory for analysis. Based on those results, additional vertical samples may be collected at the same sample points until the RRAL for a site ranking 10 has been met.

Horizontal delineation samples will be collected at 8 sample points (H1-H8) at what is believed to be the outer edge of the release area. Samples will be collected at 1' bgs and analysis will be run for the identified constituents determined from vertical delineation sampling to have caused impaction to the soil at the site. If a sample point is determined to be impacted by the release, a new sample will be collected moving out further until an area without impaction is located. Once located, samples will be taken to collaborate the impaction path to the next sample point in the sequence.

As a baseline for all sampling analytical data, background samples will be collected from a point northeast of release which remains on the production pad in an area that has no known release impaction. This creates less damage to the landowner's private surface by keeping the activities on the production pad and reduces the vegetative damage that would otherwise be created by moving off of location to collect background samples in the adjoining pasture.

Figure 1

Site Map

Kleeman PB Battery

2RP-4422

Legend

Release Outline

32.71539, -104.35735

32.71539, -104.35732

32.71526, -104.35724

32.71523, -104.35730

32.71526, -104.35731

32.71523, -104.35734

32.71515, -104.35729

32.71514, -104.35723

Google Earth

60 ft

N

Figure 2

Vertical Sample Points

Kleeman PB Battery
2RP-4422

Legend

- Release Outline
- Vertical Sample Points



Figure 3

Horizontal Sample Points

Kleeman PB Battery
2RP-4422

Legend
Horizontal Sample Points
Release Outline



Figure 4

Background Sample Point

Kleeman Battery
2RP-4422

Legend
★ Background Sample

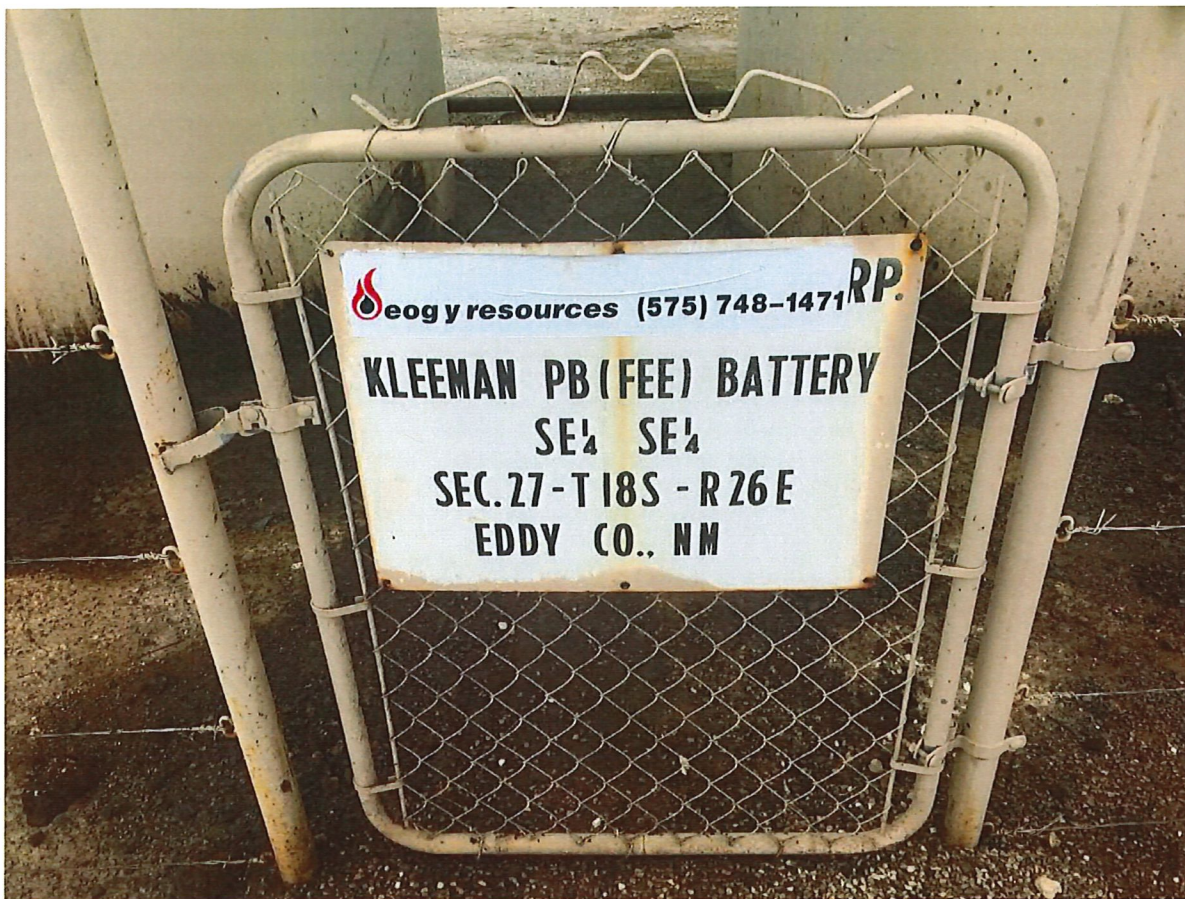
★ Background Sample

Google Earth

100 ft



Photos









Appendix A

NMOSE Well Log



New Mexico Office of the State Engineer

Wells with Well Log Information

(A CLW#### in the
POD suffix indicates the
POD has been replaced &
no longer serves a water
right

(R=POD has
been replaced,
O=orphaned,
C=the file is
closed)

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

(NAD83 UTM in meters)

(in feet)

POD Number	Code	Subbasin	County	Source	64	16	4	Sec	Tw	Rs	Rng	X	Y	Distance	Start Date	Finish Date	Log File Date	Depth Well	Depth Water	Driller	License Number
RA 04022			CH	Artesian	2	1	35	18S	26E			560465	3619281*	661			07/22/1960	520		CAMPBELL	289
RA 07242-EXPL			ED	Shallow	3	4	26	18S	26E			560863	3619682*	667	09/20/1983	10/30/1983	11/08/1983	102	55	KUGHES DRILLING COMPANY	749
RA 07242 EXP			ED	Shallow	3	4	26	18S	26E			560863	3619682*	667	09/20/1983	10/30/1983	11/08/1983	102	55		749
RA 07243-EXPL			ED	Shallow	3	4	26	18S	26E			560863	3619682*	667	07/01/1984	07/25/1984	07/27/1984	110	50	HUGHES DRILLING COMPANY	749
RA 07243 EXP			ED	Shallow	3	4	26	18S	26E			560863	3619682*	667	07/01/1984	07/25/1984	07/27/1984	110	50		749
RA 07243 EXPL			ED	Shallow	3	4	26	18S	26E			560863	3619682*	667	07/01/1984	07/25/1984	07/27/1984	110	50		749

Record Count: 6

UTM NAD83 Radius Search (in meters):

Eastings (X): 560232

Northing (Y): 3619899.76

Radius: 750

*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.

10/23/17 11:03 AM

WELLS WITH WELL LOG INFORMATION

Appendix B

USGS Groundwater Level Information



National Water Information System: Web Interface

USGS Water Resources

Data Category: Geographic Area:

Click to hideNews Bulletins

- [Please see news on new formats](#)
- [Full News](#)

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs

site_no list =
• 324249104220601

Minimum number of levels = 1

Date range = 07/01/1993 . 10/23/2017

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

USGS 324249104220601 18S.26E.27.433333

Eddy County, New Mexico

Latitude 32°42'49", Longitude 104°22'06" NAD27

Land-surface elevation 3,351 feet above NAVD88

The depth of the well is 744 feet below land surface.

This well is completed in the Grayburg Formation (313GRBG) 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
1993-07-01			D 104.67				2		S		U A
1993-08-02			D 105.03				2		S		U A
1993-09-01			D 110.27				2		S		U A
1994-02-08			D 44.65				2		S		U A
1999-01-07			D 51.70				2		S		S A
2003-01-23			D 57.61				2		S	USGS	S A
2004-01-30			D 58.10				2		S	USGS	A A
2005-01-26	10:49 MST	m	50.72				2		S	NM001	R A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
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	S	Steel-tape measurement.
Measuring agency		Not determined
Measuring agency	NM001	New Mexico State Engineers Office
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	A	Reported by another government agency (do not use "A" if reported by owner, use "O").
Source of measurement	R	Reported by person other than the owner, driller, or another government agency.
Source of measurement	S	Measured by personnel of reporting agency.
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

[Questions about sites/data?](#)

[Feedback on this web site](#)

[Automated retrievals](#)

[Help](#)

Appedix C

Form C-141 Initial

NM OIL CONSERVATION

ARTESIA DISTRICT

SEP 28 2017

Form C-141
Revised April 3, 2017

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

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

RECEIVED
Submit Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action OPERATOR

NAB1727254031

☒ Initial Report ☐ Final Report

Name of Company EOG Y Resources, Inc.	Contact Chase Settle
Address 104 S. 4 th Street Artesia NM 88210	Telephone No. 575-748-1471
Facility Name Kleeman PD & Platt PA Battery	Facility Type Battery

Surface Owner Private	Mineral Owner Private	API No. 30-015-00253
--------------------------	--------------------------	-------------------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	26	18S	26E	1950	South	990	West	Eddy

Latitude 32.71563 Longitude -104.35731 NAD83

NATURE OF RELEASE

Type of Release Crude Oil/Produced Water	Volume of Release 27 B/O, 110 B/PW	Volume Recovered 1 B/O, 0 B/PW
Source of Release Tank	Date and Hour of Occurrence 9/12/2017; 7:42 AM	Date and Hour of Discovery 9/12/2017; 7:42 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher and Crystal Weaver	
By Whom? Robert Asher	Date and Hour September 12, 2017, 1:40 PM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.* N/A


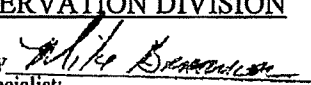
Describe Cause of Problem and Remedial Action Taken.*

The cause of the release was determined to be from a hole in the bottom of the production tank.

Describe Area Affected and Cleanup Action Taken.*

The release occurred within the battery berm the exact area impacted will be reported when the characterization plan is submitted to NMOCD. Vertical and horizontal delineation samples will be taken and analysis ran for TPH & BTEX (chlorides for documentation). If initial analytical results for TPH & BTEX are under RRAL's (site ranking is 10) a Final Report, C-141 will be submitted to the OCD requesting closure. If the analytical results are above the RRAL's a work plan will be submitted to the OCD. Depth to Ground Water: >50 -99' (58', Section 26, T18S, R26E, per NMOSE & USGS), Wellhead Protection Area: No, Distance to Surface Water Body: >1000', SITE RANKING IS 10.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Chase Settle	Signed By  Approved by Environmental Specialist:	
Title: Rep Safety & Environmental II	Approval Date: 9/29/17	Expiration Date: N/A
E-mail Address: chase.settle@egoresources.com	Conditions of Approval:	
Date: September 28, 2017	See Attached	Attached ARP-4422
Phone: 575-748-4171		

* Attach Additional Sheets If Necessary