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

January 17, 2020

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

Re: Boyd X State #10 Battery
O-16-19S-25E
Eddy County, NM
2RP-

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

EOG Resources Inc. requests closure.

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

Respectfully,

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

EOG Resources, Inc.

Boyd X State #10 Battery

Closure Report

O-16-19S-25E

Eddy County, NM

January 17, 2020

2RP-

Table of Contents

I. Location

From the intersection of Hwy 285 and Rocking R Red Road (CR 21), head west for 5.9 miles, then take the lease road north and follow main lease road for 1,742 feet, then follow the lease road southeast for 1,881 feet to the location.

II. Background

On November 22, 2019, EOG Resources, Inc. submitted to the NMOCD District II office a Form C-141 for the release of 15 B/PW with 12 B/PW recovered, which occurred on November 11, 2019. This release was caused by the failure of a valve on the produced water transfer line. The affected area impacted by the release is approximately 50 feet by 50 feet on the battery pad. A vacuum truck was called to recover the standing fluid and a backhoe crew was contracted to excavate visually impacted soils. Excavated soils were sent to a NMOCD approved disposal facility during the initial excavation activities. Initial soil sampling was conducted November 18, 2019, after providing notice of sampling to NMOCD and SLO on November 14, 2019. Initial sampling was conducted at four (4) feet below grade surface (bgs), the depth of the release area after the initial excavation process. Horizontal sampling occurred on December 3, 2019, after providing notice of sampling to NMOCD and SLO on November 27, 2019. Laboratory results determined more excavation was needed on the west sidewall. After further excavation of the west sidewall was completed, sampling was again performed on December 11, 2019, with notification sent to NMOCD and SLO on December 9, 2019. All soil samples were sent to a third party laboratory for analysis and laboratory reports are included as Appendix D.

III. Surface and Ground Water

Area geology is Cenozoic Quaternary. Based on information from the New Mexico Office of the State Engineer and the United States Geological Survey National Water Information System (USGS) regarding this location (Section 16, T19S-R25E), depth to groundwater was determined to be 112 feet with the nearest water wells being approximately 0.8 mile to the northeast and 0.88 mile to the southeast. The site sits between the 2 water well sites, with the northeast well lying north of the draw and having a groundwater depth of 95 feet. The southeast well lying south of the draw, same as the release site, has a groundwater depth of 130 feet. Besides the aquifer trend of groundwater being deeper moving south across the draw, elevation for the site and water wells was also evaluated. The release site has an elevation of 3,501 feet above sea level, the water well to the northeast of the site has an elevation of 3,485 feet above sea level, and the water well to the southeast of the site has an elevation of 3,477 feet above sea level. The release site has the highest elevation point of the three, and the southeast water well is the lowest in elevation, but also has groundwater 35 feet deeper than the northeast water well. The elevation differences and trend for groundwater to be found deeper in depth to the south, leads to the determination of approximately 112 feet to groundwater beneath the release site.

Watercourses in the area are dry except for infrequent flows in response to major precipitation events, with the nearest body of surface water being Brantley Lake at approximately 6.7 miles away. The site is located outside of critical karst areas and outside of the 100-year floodplain.

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 Reagan-Upton, with 0-8% slopes.

VII. Remediation Work

Initial excavation of the site began on November 11, 2019. Activities included the removal of saturated and visibly impacted soils from the surface to a depth of four (4) feet bgs. Once the site was excavated to a depth of four (4) feet and horizontal edges were presumed to be found, sampling activities were conducted. Horizontal sampling activities determined that further excavation was needed along the west sidewall of the excavation. The west sidewall was excavated another two feet horizontally to a depth of four feet, and then sampling activities were conducted again with results confirming that the sidewall was now below the 600 mg/kg standard set forth in 19.15.29.13 NMAC. With the excavation at four feet bgs, soil sample laboratory results confirmed that all vertical sample results had achieved the Table 1 standards, and horizontal sample results confirmed that all sidewalls were within the guidelines for 19.15.29.13. All horizontal samples were collected by way of 5-point composite samples, and no sample representing more than 200 square feet.

All excavated soils were hauled to an NMOCD approved facility for disposal and the backfill for the site will consist of locally sourced, clean, non-contaminated soils of a similar type as was removed. The impacted portion of the pad will be downsized and reclaimed with the seed mix consisting of Bouteloua curtipendula (5 lbs/pls/ac), Bouteloua gracilis (3 lbs/pls/ac), Leptochoa dubia (2 lbs/pls/ac), and Setaria leucopila (1 lb/pls/ac), reseeding will occur the next available planting season in July of 2020.

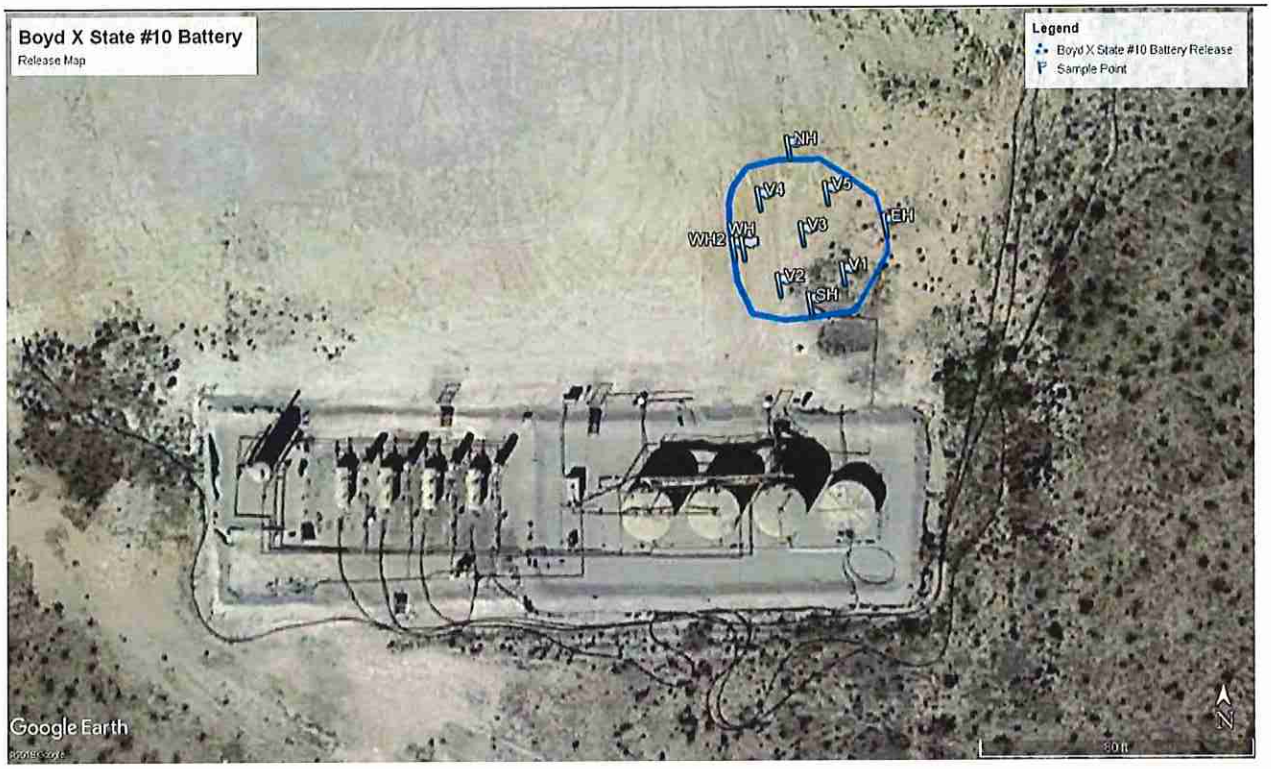
The C-141 Final is included with this closure report, EOG Resources, Inc. requests closure.

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	11/18/19	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	3800
V2-4'	4	11/18/19	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	19900
V3-4'	4	11/18/19	0.091	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	10400
V4-4'	4	11/18/19	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	16000
V5-4'	4	11/18/19	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	1230
NH	0-4	12/3/19	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	592
EH	0-4	12/3/19	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	80
SH	0-4	12/3/19	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	256
WH	0-4	12/3/19	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	37.4	<10.0	37.4	2640
WH2	0-4	12/11/19	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	336

Figure 1
Site Map with Sample Points



Photos

Appendix A

Depth to Groundwater Information

OSE POD Locations Points of Diversion visible at 1:19,000 with 1,000 features per view

Water Rights Look Up

Measurement

Measurement Result

Clear

Press CTRL to enable snapping

1:18055

0.3mi

-104.483 32.650 Degrees

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) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	RA 05900	2	2	16	19S	25E		548442	3614424*

Driller License: 460 **Driller Company:** JENKINS BROTHERS DRILLING
Driller Name:

Drill Start Date: 03/18/1974 **Drill Finish Date:** 03/19/1974 **Plug Date:**
Log File Date: 03/25/1974 **PCW Rcv Date:** **Source:** Shallow
Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 30 GPM
Casing Size: 7.00 **Depth Well:** 185 feet **Depth Water:** 95 feet

Water Bearing Stratifications:	Top	Bottom	Description
	118	122	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	108	158

*UTM location was derived from PLSS - see Help

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	RA 02909	1	3		22	19S	25E	548864	3611989*

Driller License: **Driller Company:**

Driller Name: A.F. SMITH

Drill Start Date:	06/26/1952	**Drill Finish Date:**	07/05/1952	**Plug Date:**	
Log File Date:	08/11/1952	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	8.63	**Depth Well:**	188 feet	**Depth Water:**	130 feet

Water Bearing Stratifications:	Top	Bottom	Description
	120	130	Sandstone/Gravel/Conglomerate

*UTM location was derived from PLSS - see Help

USGS
science for a changing world

National Water Information System: Map View

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Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 323948104302801

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

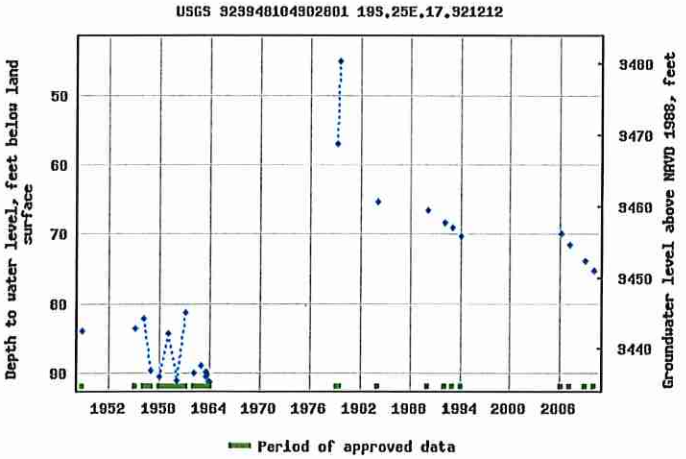
USGS 323948104302801 19S.25E.17.321212

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°39'48", Longitude 104°30'28" NAD27
Land-surface elevation 3,526 feet above NAVD88
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
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Automated retrievals
Help
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Explanation of terms
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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

site_no list =

- 324004104285801

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

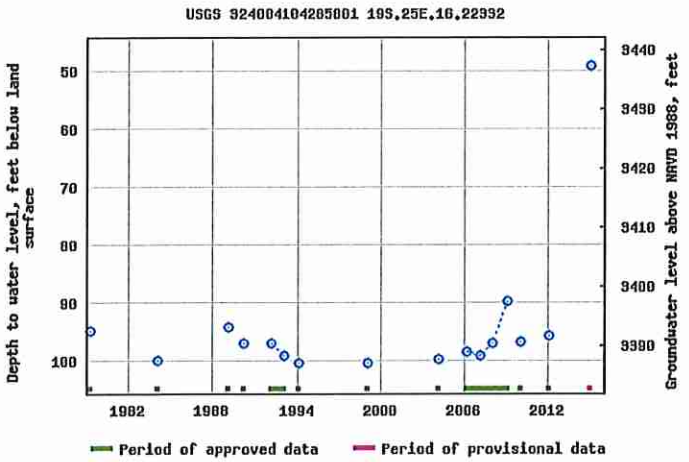
USGS 324004104285801 19S.25E.16.22332

Available data for this site: Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°40'04", Longitude 104°28'58" NAD27
Land-surface elevation 3,487 feet above NAVD88
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

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



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Search Results -- 1 sites found

site_no list =

- 323841104303201

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

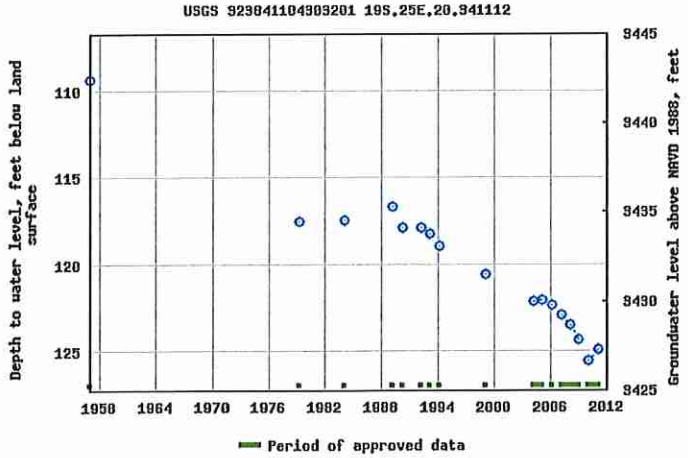
USGS 323841104303201 19S.25E.20.341112

Available data for this site: Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°38'41", Longitude 104°30'32" NAD27
Land-surface elevation 3,552 feet above NAVD88
The depth of the well is 130 feet below land surface.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

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



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Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 323842104283501

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

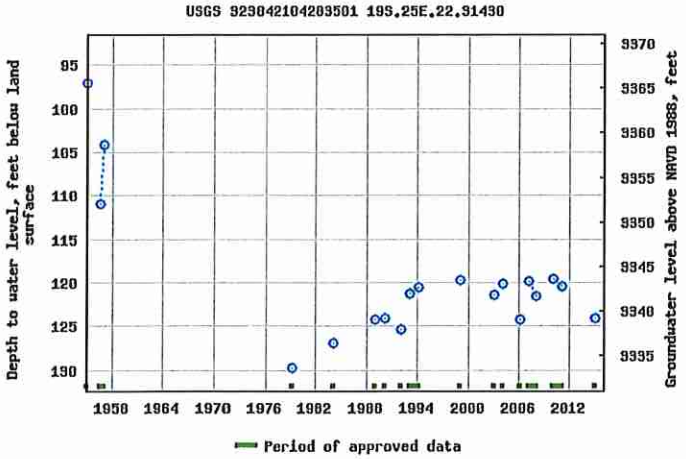
USGS 323842104283501 19S.25E.22.31430

Available data for this site: Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°38'42", Longitude 104°28'35" NAD27
Land-surface elevation 3,463 feet above NAVD88
The depth of the well is 180 feet below land surface.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

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



Breaks in the plot represent a gap of at least one year between field measurements.
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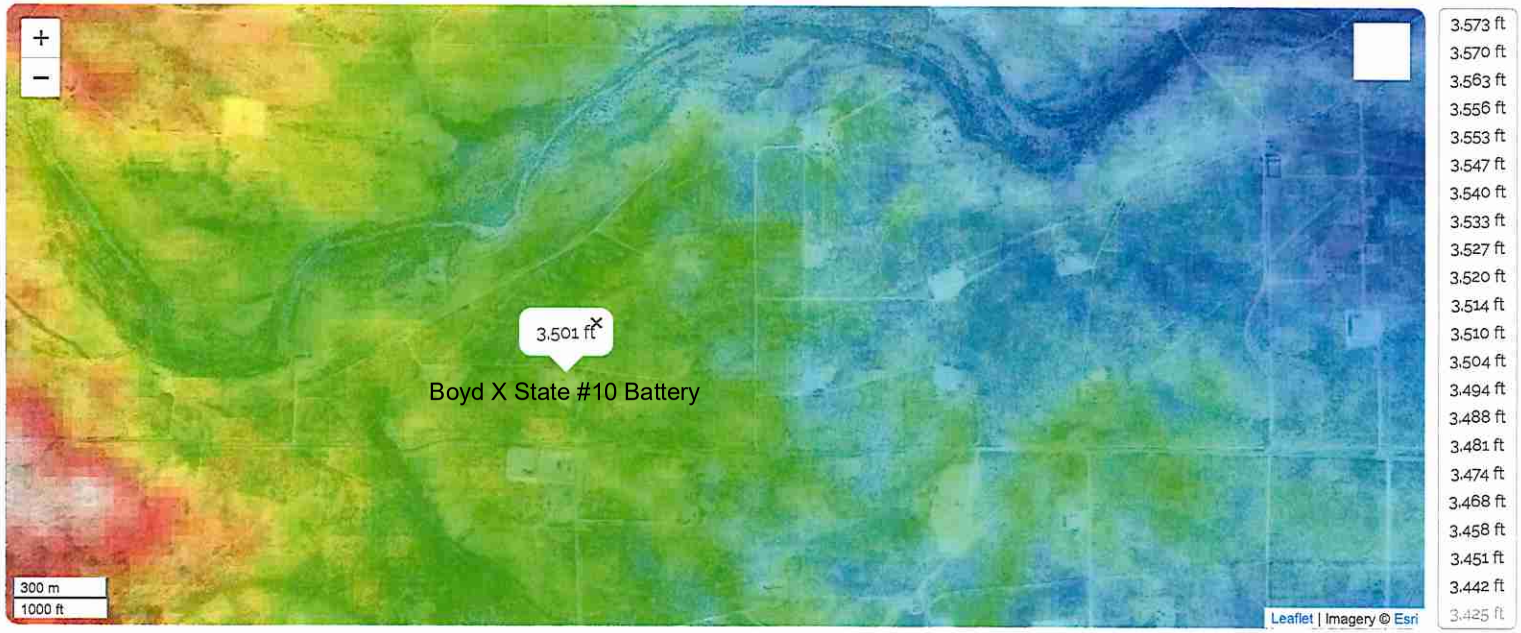
Search for a topographic map

New Mexico

Topographic maps > United States of America > New Mexico > New Mexico

Click on the map to display elevation.



New Mexico, United States of America (34.57082 -105.99301)

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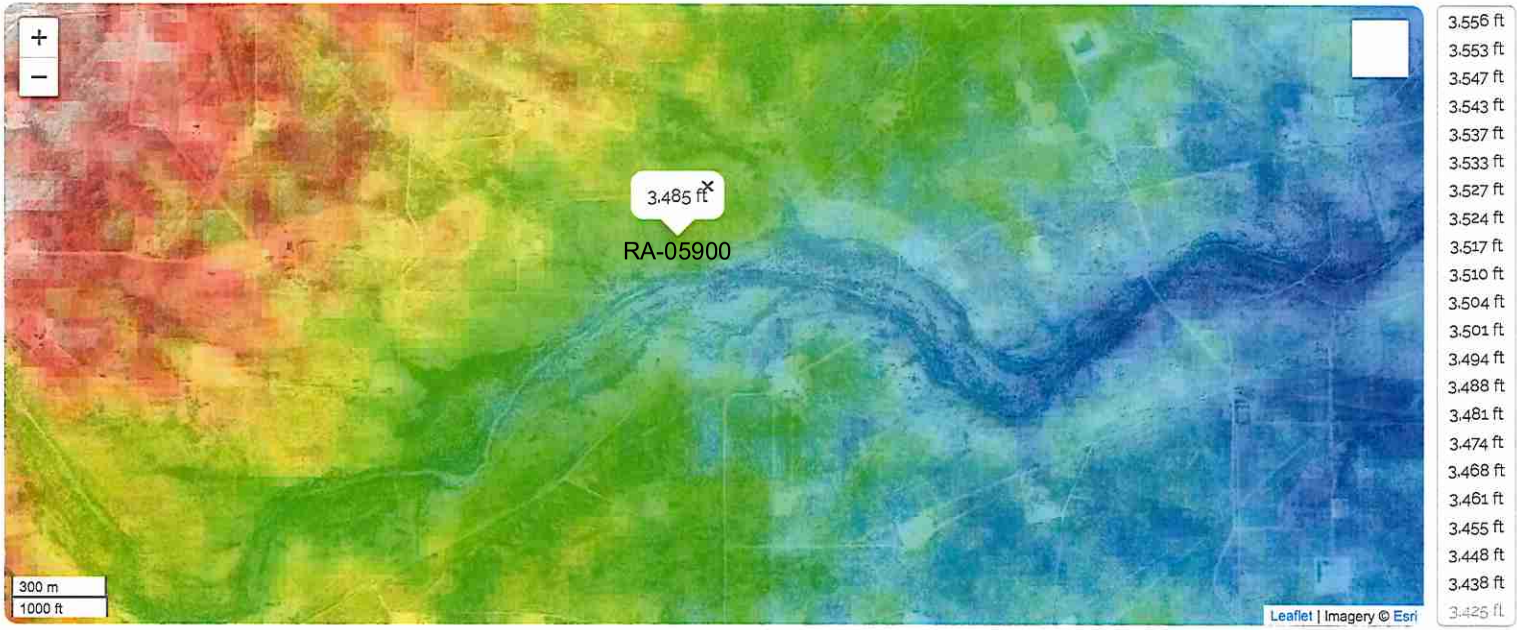
Click on the map to display elevation.



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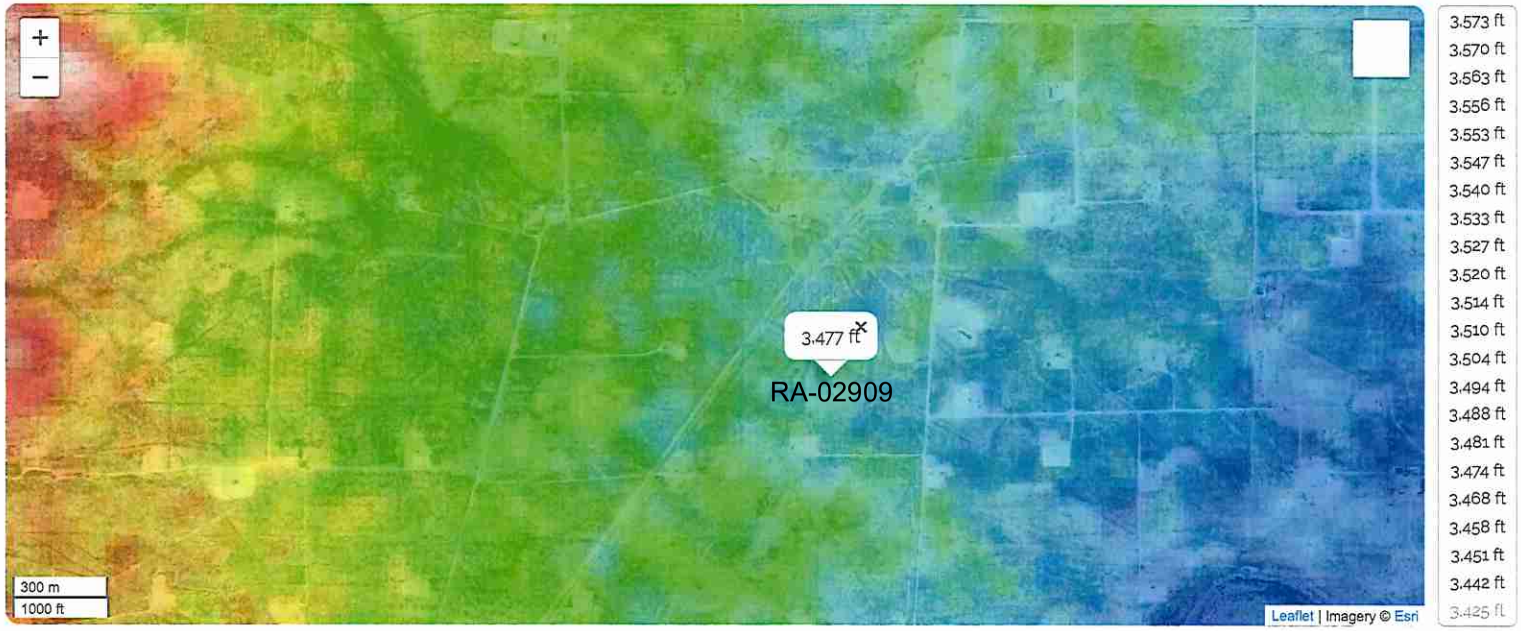
Click on the map to display elevation.



New Mexico, United States of America (34.57082 -105.99301)

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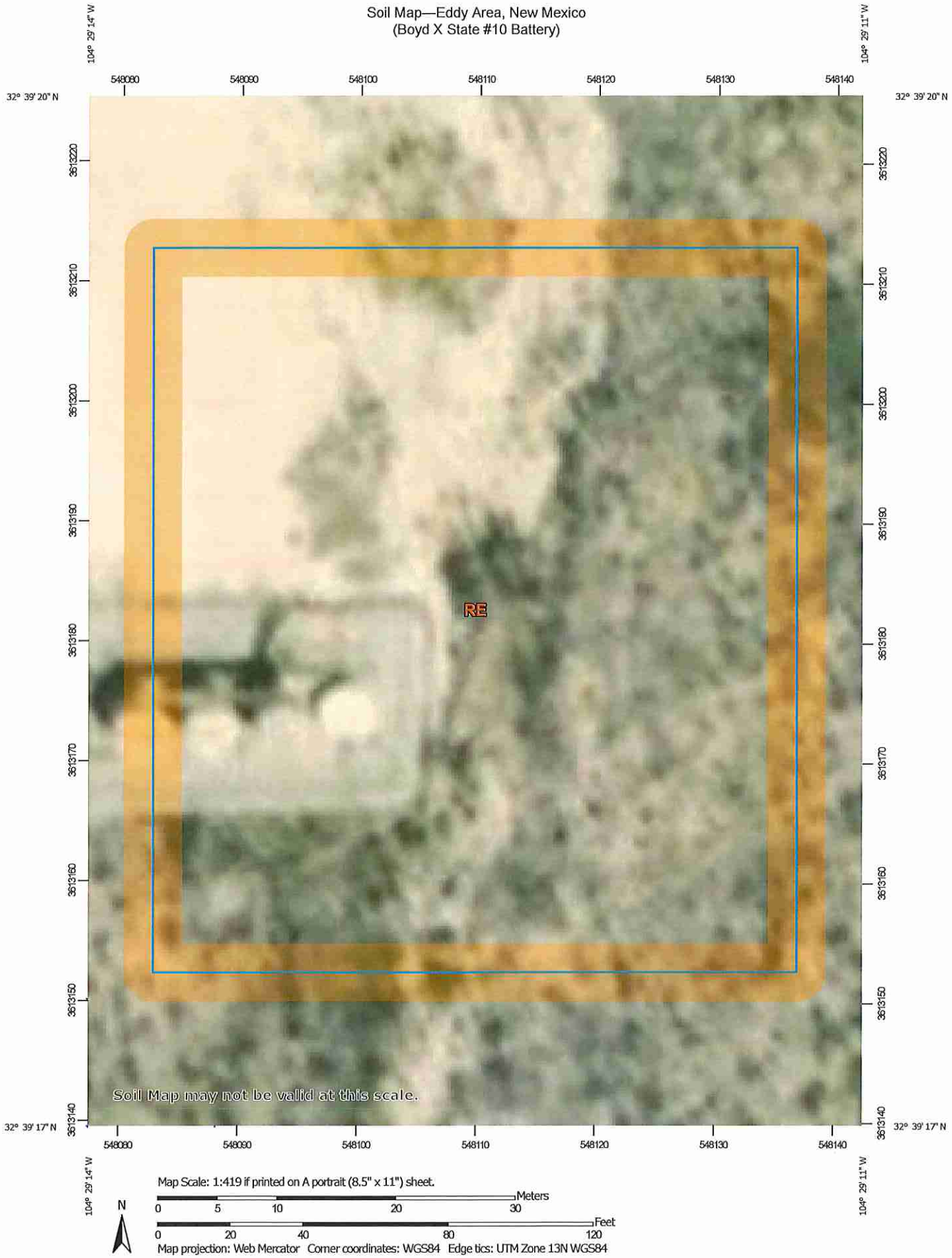
Appendix B
NRCS Soil Classification

Soil Map—Eddy Area, New Mexico
(Boyd X State #10 Battery)



Map Scale: 1:419 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 5 10 20 30

Feet: 0 20 40 80 120

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

Soil Map—Eddy Area, New Mexico
(Boyd X State #10 Battery)

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other

Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

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 Data: Version 15, Sep 15, 2019

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

Date(s) aerial images were photographed: Nov 30, 2015—Dec 15, 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
RE	Reagan-Upton association, 0 to 9 percent slopes	0.8	100.0%
Totals for Area of Interest		**0.8**	**100.0%**

Appendix C
100 Year Floodplain Map

FEMA (//www.fema.gov/)

FEMA Flood Map Service Center: Search By Address

Navigation

Search

Languages

MSC Home (/portal/)
MSC Search by Address (/portal/search)
MSC Search All Products (/portal/advanceSearch)
MSC Products and Tools (/portal/resources/productsandtools)
Hazus (/portal/resources/hazus)
LOMC Batch Files (/portal/resources/lomc)
Product Availability (/portal/productAvailability)
MSC Frequently Asked Questions (FAQs) (/portal/resources/faq)
MSC Email Subscriptions (/portal/subscriptionHome)
Contact MSC Help (/portal/resources/contact)

Enter an address, place, or coordinates:

Eddy County New Mexico Search

Users are experiencing problems downloading some products. Users may want to try the view option rather than download or try downloading during non-peak hours if they experience problems.

Whether you are in a high risk zone or not, you may need flood insurance (https://www.fema.gov/national-flood-insurance-program) because most homeowners insurance doesn't cover flood damage. If you live in an area with low or moderate flood risk, you are 5 times more likely to experience flood than a fire in your home over the next 30 years. For many, a National Flood Insurance Program's flood insurance policy could cost less than $400 per year. Call your insurance agent today and protect what you've built.

Learn more about steps you can take (https://www.fema.gov/what-mitigation) to reduce flood risk damage.

Search Results—Products for EDDY COUNTY UNINCORPORATED AREAS

Show ALL Products » (https://msc.fema.gov/portal/availabilitySearch?addcommunity=350120&communityName=EDDY COUNTY UNINCORPORATED AREAS#searchresultsanchor)

The flood map for the selected area is number **35015C0550D**, effective on **06/04/2010**

DYNAMIC MAP

MAP IMAGE

(https://msc.fema.gov/portal/downloadProduct?filepath=/35/P/Firm/35015C0550D.tif&productTypeID=FINAL_PRODUCT&productSubTypeID=FIRM_PANEL&productID=35015C0550D)

Changes to this FIRM

Revisions (0)
Amendments (0)
Revalidations (0)

You can choose a new flood map or move the location pin by selecting a different location on the locator map below or by entering a new location in the search field above. It may take a minute or more during peak hours to generate a dynamic FIRMette. If you are a person with a disability, are blind, or have low vision, and need assistance, please contact a map specialist (https://msc.fema.gov/portal/resources/contact).

Go To NFHL Viewer » (https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd&extent=-104.44770912548 9,32.65989293525

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OIG HOTLINE Report Fraud, Waste & Abuse (https://www.oig.dhs.gov/hotline)

Official website of the Department of Homeland Security

Appendix D
Laboratory Soil Data

CARDINAL Laboratories

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

November 25, 2019

CHASE SETTLE

EOG Y RESOURCES, INC

105 SOUTH 4TH STREET

ARTESIA, NM 88210

RE: BOYD X STATE #10 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 11/18/19 13:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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 accreditated 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,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/18/2019	Sampling Date:	11/18/2019
Reported:	11/25/2019	Sampling Type:	Soil
Project Name:	BOYD X STATE #10 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: V 1 - 4' (H903914-01)

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	11/20/2019	ND	1.79	89.3	2.00	7.20	
Toluene*	<0.050	0.050	11/20/2019	ND	1.77	88.7	2.00	7.07	
Ethylbenzene*	<0.050	0.050	11/20/2019	ND	1.80	90.2	2.00	7.55	
Total Xylenes*	<0.150	0.150	11/20/2019	ND	5.44	90.6	6.00	7.98	
Total BTEX	<0.300	0.300	11/20/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL *100 %* *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	**3800**	16.0	11/22/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/20/2019	ND	199	99.7	200	1.53	
DRO >C10-C28*	<10.0	10.0	11/20/2019	ND	198	98.9	200	2.26	
EXT DRO >C28-C36	<10.0	10.0	11/20/2019	ND					

Surrogate: 1-Chlorooctane *96.4 %* *41-142*

Surrogate: 1-Chlorooctadecane *101 %* *37.6-147*

Cardinal Laboratories

*=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/18/2019	Sampling Date:	11/18/2019
Reported:	11/25/2019	Sampling Type:	Soil
Project Name:	BOYD X STATE #10 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: V 2 - 4' (H903914-02)

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	11/20/2019	ND	1.79	89.3	2.00	7.20	
Toluene*	<0.050	0.050	11/20/2019	ND	1.77	88.7	2.00	7.07	
Ethylbenzene*	<0.050	0.050	11/20/2019	ND	1.80	90.2	2.00	7.55	
Total Xylenes*	<0.150	0.150	11/20/2019	ND	5.44	90.6	6.00	7.98	
Total BTEX	<0.300	0.300	11/20/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL *99.6 %* *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	**19900**	16.0	11/22/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/20/2019	ND	199	99.7	200	1.53	
DRO >C10-C28*	<10.0	10.0	11/20/2019	ND	198	98.9	200	2.26	
EXT DRO >C28-C36	<10.0	10.0	11/20/2019	ND					

Surrogate: 1-Chlorooctane *109 %* *41-142*

Surrogate: 1-Chlorooctadecane *115 %* *37.6-147*

Cardinal Laboratories

*=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/18/2019	Sampling Date:	11/18/2019
Reported:	11/25/2019	Sampling Type:	Soil
Project Name:	BOYD X STATE #10 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: V 3 - 4' (H903914-03)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	**0.091**	0.050	11/20/2019	ND	1.79	89.3	2.00	7.20	
Toluene*	<0.050	0.050	11/20/2019	ND	1.77	88.7	2.00	7.07	
Ethylbenzene*	<0.050	0.050	11/20/2019	ND	1.80	90.2	2.00	7.55	
Total Xylenes*	<0.150	0.150	11/20/2019	ND	5.44	90.6	6.00	7.98	
Total BTEX	<0.300	0.300	11/20/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.9 %* *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	**10400**	16.0	11/22/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/20/2019	ND	199	99.7	200	1.53	
DRO >C10-C28*	<10.0	10.0	11/20/2019	ND	198	98.9	200	2.26	
EXT DRO >C28-C36	<10.0	10.0	11/20/2019	ND					

Surrogate: 1-Chlorooctane *116 %* *41-142*

Surrogate: 1-Chlorooctadecane *122 %* *37.6-147*

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/18/2019	Sampling Date:	11/18/2019
Reported:	11/25/2019	Sampling Type:	Soil
Project Name:	BOYD X STATE #10 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: V 4 - 4' (H903914-04)

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	11/20/2019	ND	1.79	89.3	2.00	7.20	
Toluene*	<0.050	0.050	11/20/2019	ND	1.77	88.7	2.00	7.07	
Ethylbenzene*	<0.050	0.050	11/20/2019	ND	1.80	90.2	2.00	7.55	
Total Xylenes*	<0.150	0.150	11/20/2019	ND	5.44	90.6	6.00	7.98	
Total BTEX	<0.300	0.300	11/20/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL *101 %* *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	**16000**	16.0	11/22/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/20/2019	ND	199	99.7	200	1.53	
DRO >C10-C28*	<10.0	10.0	11/20/2019	ND	198	98.9	200	2.26	
EXT DRO >C28-C36	<10.0	10.0	11/20/2019	ND					

Surrogate: 1-Chlorooctane *103 %* *41-142*

Surrogate: 1-Chlorooctadecane *107 %* *37.6-147*

Cardinal Laboratories

*=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	11/18/2019	Sampling Date:	11/18/2019
Reported:	11/25/2019	Sampling Type:	Soil
Project Name:	BOYD X STATE #10 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: V 5 - 4' (H903914-05)

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	11/20/2019	ND	1.79	89.3	2.00	7.20	
Toluene*	<0.050	0.050	11/20/2019	ND	1.77	88.7	2.00	7.07	
Ethylbenzene*	<0.050	0.050	11/20/2019	ND	1.80	90.2	2.00	7.55	
Total Xylenes*	<0.150	0.150	11/20/2019	ND	5.44	90.6	6.00	7.98	
Total BTEX	<0.300	0.300	11/20/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL *100 %* *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	**1230**	16.0	11/22/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/19/2019	ND	207	103	200	1.56	
DRO >C10-C28*	<10.0	10.0	11/19/2019	ND	201	101	200	4.46	
EXT DRO >C28-C36	<10.0	10.0	11/19/2019	ND					

Surrogate: 1-Chlorooctane *86.2 %* *41-142*

Surrogate: 1-Chlorooctadecane *79.5 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

ARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240 (505) 393-2326 FAX (505) 393-2476

Project Manager: Chase Settle
Company Name: EOG Y Resources Inc.
Company Address: 104 South 4th Street
City/State/Zip: Artesia, NM 88210
Telephone No: 575-748-1471 Fax No:
Sampler Signature:

Project Name: Boyd X State #10 Battery
Project #:
Project Loc: Boyd X State #10 Battery
PO #: 205-0750
Report Format: [x] Standard [ ] TRRP [ ] NPDES
e-mail: Chase_Settle@eogresources.com

(lab use only)
ORDER #: H903914

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 8015B	TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	TOTAL: BTEX: 8021B	RCI	N.O.R.M.	Chlorides	SAR		RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
1	V1-4'			11/18/2019	8:03 AM		1	X								S	X									X			X				X
2	V2-4'			11/18/2019	8:05 AM		1	X								S	X									X			X				X
3	V3-4'			11/18/2019	8:07 AM		1	X								S	X									X			X				X
4	V4-4'			11/18/2019	8:09 AM		1	X								S	X									X			X				X
5	V5-4'			11/18/2019	8:11 AM		1	X								S	X									X			X				X

Special Instructions: TPH EXTENDED needed.

Relinquished by:	Date	Time	Received by:	Date	Time
	11-18-19	11:30		11-18-19	1345
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt: 3.4°C °C
#97 T.C. Corrected 3.8°C

CARDINAL Laboratories

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

December 06, 2019

CHASE SETTLE

EOG Y RESOURCES, INC

105 SOUTH 4TH STREET

ARTESIA, NM 88210

RE: BOYD X STATE #10 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 12/04/19 14:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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 accreditated 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,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/04/2019	Sampling Date:	12/03/2019
Reported:	12/06/2019	Sampling Type:	Soil
Project Name:	BOYD X STATE #10 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	BOYD X STATE #10 BATTERY		

Sample ID: NH (H904055-01)

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	12/04/2019	ND	1.90	94.8	2.00	0.329	
Toluene*	<0.050	0.050	12/04/2019	ND	1.85	92.5	2.00	0.540	
Ethylbenzene*	<0.050	0.050	12/04/2019	ND	1.88	94.0	2.00	0.557	
Total Xylenes*	<0.150	0.150	12/04/2019	ND	5.68	94.7	6.00	0.463	
Total BTEX	<0.300	0.300	12/04/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *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	**592**	16.0	12/05/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2019	ND	198	99.2	200	3.17	
DRO >C10-C28*	<10.0	10.0	12/04/2019	ND	203	101	200	0.148	
EXT DRO >C28-C36	<10.0	10.0	12/04/2019	ND					

Surrogate: 1-Chlorooctane *96.3 %* *41-142*

Surrogate: 1-Chlorooctadecane *100 %* *37.6-147*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/04/2019	Sampling Date:	12/03/2019
Reported:	12/06/2019	Sampling Type:	Soil
Project Name:	BOYD X STATE #10 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	BOYD X STATE #10 BATTERY		

Sample ID: EH (H904055-02)

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	12/04/2019	ND	1.90	94.8	2.00	0.329	
Toluene*	<0.050	0.050	12/04/2019	ND	1.85	92.5	2.00	0.540	
Ethylbenzene*	<0.050	0.050	12/04/2019	ND	1.88	94.0	2.00	0.557	
Total Xylenes*	<0.150	0.150	12/04/2019	ND	5.68	94.7	6.00	0.463	
Total BTEX	<0.300	0.300	12/04/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *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	**80.0**	16.0	12/05/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2019	ND	198	99.2	200	3.17	
DRO >C10-C28*	<10.0	10.0	12/04/2019	ND	203	101	200	0.148	
EXT DRO >C28-C36	<10.0	10.0	12/04/2019	ND					

Surrogate: 1-Chlorooctane *104 %* *41-142*

Surrogate: 1-Chlorooctadecane *109 %* *37.6-147*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/04/2019	Sampling Date:	12/03/2019
Reported:	12/06/2019	Sampling Type:	Soil
Project Name:	BOYD X STATE #10 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	BOYD X STATE #10 BATTERY		

Sample ID: SH (H904055-03)

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	12/04/2019	ND	1.90	94.8	2.00	0.329	
Toluene*	<0.050	0.050	12/04/2019	ND	1.85	92.5	2.00	0.540	
Ethylbenzene*	<0.050	0.050	12/04/2019	ND	1.88	94.0	2.00	0.557	
Total Xylenes*	<0.150	0.150	12/04/2019	ND	5.68	94.7	6.00	0.463	
Total BTEX	<0.300	0.300	12/04/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL *100 %* *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	**256**	16.0	12/05/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2019	ND	198	99.2	200	3.17	
DRO >C10-C28*	<10.0	10.0	12/04/2019	ND	203	101	200	0.148	
EXT DRO >C28-C36	<10.0	10.0	12/04/2019	ND					

Surrogate: 1-Chlorooctane *99.9 %* *41-142*

Surrogate: 1-Chlorooctadecane *105 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/04/2019	Sampling Date:	12/03/2019
Reported:	12/06/2019	Sampling Type:	Soil
Project Name:	BOYD X STATE #10 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	BOYD X STATE #10 BATTERY		

Sample ID: WH (H904055-04)

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	12/04/2019	ND	1.90	94.8	2.00	0.329	
Toluene*	<0.050	0.050	12/04/2019	ND	1.85	92.5	2.00	0.540	
Ethylbenzene*	<0.050	0.050	12/04/2019	ND	1.88	94.0	2.00	0.557	
Total Xylenes*	<0.150	0.150	12/04/2019	ND	5.68	94.7	6.00	0.463	
Total BTEX	<0.300	0.300	12/04/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL *100 %* *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	**2640**	16.0	12/05/2019	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2019	ND	198	99.2	200	3.17	
DRO >C10-C28*	**37.4**	10.0	12/04/2019	ND	203	101	200	0.148	
EXT DRO >C28-C36	<10.0	10.0	12/04/2019	ND					

Surrogate: 1-Chlorooctane *105 %* *41-142*

Surrogate: 1-Chlorooctadecane *112 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Celey D. Keene, Lab Director/Quality Manager

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

ARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

Project Manager: Chase Settle
Company Name: EOG Y Resources Inc.
Company Address: 104 South 4th Street
City/State/Zip: Artesia, NM 88210
Telephone No: 575-748-1471 Fax No:
Sampler Signature:
e-mail: Chase_Settle@eogresources.com

Project Name: Boyd X State #10 Battery
Project #:
Project Loc: Boyd X State #10 Battery
PO #: 205-0750
Report Format: [x] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: H904055

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TOTAL: TPH: 8015B	TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX: 8021B	RCI	N.O.R.M.	Chlorides	SAR	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
1	NH			12/3/2019	8:00 AM		1	X								S	X									X			X			X
2	EH			12/3/2019	8:03 AM		1	X								S	X									X			X			X
3	SH			12/3/2019	8:05 AM		1	X								S	X									X			X			X
4	WH			12/3/2019	8:07 AM		1	X								S	X									X			X			X

Special Instructions: TPH EXTENDED needed.

Relinquished by:	Date	Time	Received by:	Date	Time
	12/4/19	11:30	Jodi Henson	12/4/19	14:20
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered by Sampler/Client Rep. ?	Y	N

by Courier? UPS DHL FedEx Lone Star
+.4 correction
Temperature Upon Receipt: 3.4°C / 3.8°C 3.8 12/4
#99

CARDINAL Laboratories

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

December 17, 2019

CHASE SETTLE

EOG Y RESOURCES, INC

105 SOUTH 4TH STREET

ARTESIA, NM 88210

RE: BOYD X STATE #10 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 12/11/19 15:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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 accreditated 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,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	12/11/2019	Sampling Date:	12/11/2019
Reported:	12/17/2019	Sampling Type:	Soil
Project Name:	BOYD X STATE #10 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	BOYD X STATE #10 BATTERY		

Sample ID: WH 2 (H904148-01)

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	12/12/2019	ND	2.07	103	2.00	1.27	
Toluene*	<0.050	0.050	12/12/2019	ND	2.09	105	2.00	0.239	
Ethylbenzene*	<0.050	0.050	12/12/2019	ND	2.03	101	2.00	0.648	
Total Xylenes*	<0.150	0.150	12/12/2019	ND	5.87	97.9	6.00	0.636	
Total BTEX	<0.300	0.300	12/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL *99.8 %* *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	**336**	16.0	12/12/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/12/2019	ND	164	82.1	200	13.7	
DRO >C10-C28*	<10.0	10.0	12/12/2019	ND	174	87.2	200	17.9	
EXT DRO >C28-C36	<10.0	10.0	12/12/2019	ND					

Surrogate: 1-Chlorooctane *89.0 %* *41-142*

Surrogate: 1-Chlorooctadecane *89.2 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
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

Celey D. Keene, Lab Director/Quality Manager

ARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Chase Settle
Company Name: EOG Y Resources Inc.
Company Address: 104 South 4th Street
City/State/Zip: Artesia, NM 88210
Telephone No: 575-748-1471 Fax No:
Sampler Signature: e-mail: Chase_Settle@eogresources.com

Project Name: Boyd X State #10 Battery
Project #:
Project Loc: Boyd X State #10 Battery
PO #: 205-0750
Report Format: [x] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: H904148-

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TPH: 8015B	TPH: TX 1005	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX: 8021B	RCI	N.O.R.M.	Chlorides	SAR	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	WH2			12/11/2019	8:00 AM		1	X								S	X								X			X			X

Special Instructions: TPH EXTENDED needed.

Relinquished by:	Date	Time	Received by:	Date	Time
	12-11-19	11:30		12/11/19	15:00
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt: 4.3 °C
#97 4.7 corrected

Appendix E
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	
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 4th Street, Artesia, NM 88210		

Location of Release Source

Latitude 32.65530 Longitude -104.48707
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Boyd X State #10 Battery	Site Type	Battery
Date Release Discovered	11/11/2019	API# *(if applicable)*	

Unit Letter	Section	Township	Range	County
O	16	19S	25E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 15	Volume Recovered (bbls) 12
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
Valve failure occurred on a produced water transfer line causing the release.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

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

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

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

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

Printed Name: Chase Settle Title: Safety and Environmental Rep II

Signature: Chase Settle Date: 11/21/2019

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

OCD Only

Received by: _____ Date: _____

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	112 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: Chase Settle Title: Rep Safety and Environmental II

Signature: Chase Settle Date: 01/15/2020

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

OCD Only

Received by: _____ Date: _____

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	nCS2002754182
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.

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: Chase Settle Date: 01/15/2020

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

OCD Only

Received by: Cristina Eads Date: 03/02/2020

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: Denied Date: 03/02/2020

Printed Name: Cristina Eads Title: Environmental Specialist