

INFORMATION ONLY



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

EOG Y Resources, Inc.

Characterization Plan

Judson AUU State Com #2

30-025-36886

Section 26, T10S-R34E

Lea County, New Mexico

November 7, 2017

1RP-4826

V. Sampling Procedure

Vertical delineation samples will be collected at a central sample point within the release area. Samples will be collected at 1', 2', 3', and 4' below grade surface (bgs) or when auger refusal is encountered. Due to the nature of the release (oil), the vertical delineation soil samples will be analyzed for Benzene, BTEX, TPH extended. All samples will be sent to a NMOCD approved laboratory for analysis.

Horizontal delineation samples will be collected at the 4 cardinal point (CP1-CP4) at what is believed to be the outer edge of the release/excavation area. Samples will be collected at 18" 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. Due to the nature of the release (oil), the vertical delineation soil samples will be analyzed for Benzene, BTEX, TPH extended. All samples will be sent to a NMOCD approved laboratory for analysis.

Stockpile delineation samples will be collected from 3 points with in the stockpiled materials at various depth to determine if in-place remediation will be conducted on stockpiled soils to be utilized for backfill of the excavation. Due to the nature of the release (oil), the vertical delineation soil samples will be analyzed for Benzene, BTEX, TPH extended. All samples will be sent to a NMOCD approved laboratory for analysis.

As a baseline for all sampling analytical data, background sample(s) will be collected up gradient from the release to the southeast. The point 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

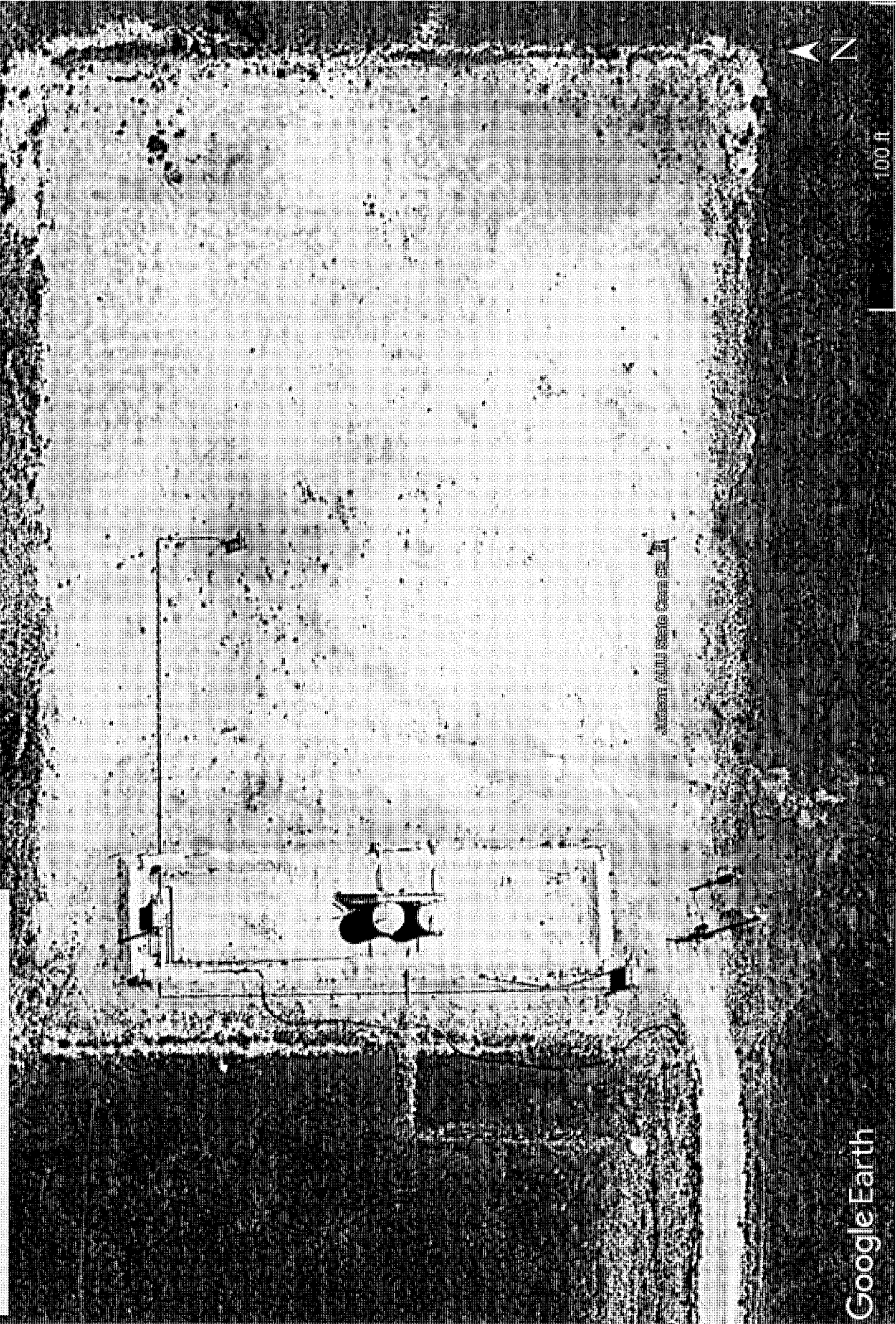
Site Map

Judson AUU State Com #2

Section 26, T10 S-R34E
Lea County, New Mexico

Legend

 Judson AUU State Com #2



Judson AUU State Com #2

Section 26, T10 S-R34E
Lea County, New Mexico
Area of Release/Excavation Corner Points

Legend

↗ Excavation Corners

NW Excavation Corner (33.412638 & -103.432877) ↗ NE Excavation Corner (33.412639 & -103.432804)

SW Excavation Corner (33.412584 & -103.432876) ↗ SE Excavation Corner (33.412584 & -103.432805)



Figure 2

Vertical Sample Point(s)

Judson AUU State Com #2

Section 26, T10S-R34E
Lea County, New Mexico
Vertical, Horizontal & Stock Pile Sample Point(s)

Legend

- CP (Cardinal Point Samples)
- S-1 (Vertical Sample Point)
- S-2 (Stock Pile Sample Points)



Figure 3

Horizontal Sample Point(s)

Judson AUU State Com #2

Section 26, T10S-R34E
Lea County, New Mexico
Vertical, Horizontal & Stock Pile Sample Point(s)

Legend

- CP (Cardinal Point Samples)
- S-1 (Vertical Sample Point)
- S-2 (Stock Pile Sample Points)

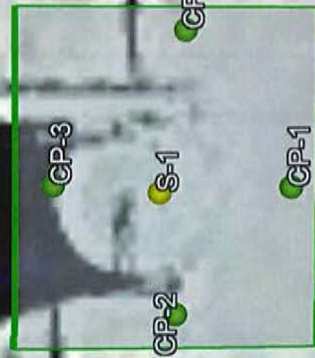


Figure 4

Stockpile Sample Point(s)

Judson AUU State Com #2

Section 26, T10S-R34E
Lea County, New Mexico
Vertical, Horizontal & Stock Pile Sample Point(s)

Legend

- CP (Cardinal Point Samples)
- S-1 (Vertical Sample Point)
- S-2 (Stock Pile Sample Points)



Figure 5

Background Sample Point(s)

Judson AUU State Com #2

Section 26, T10S-R34E

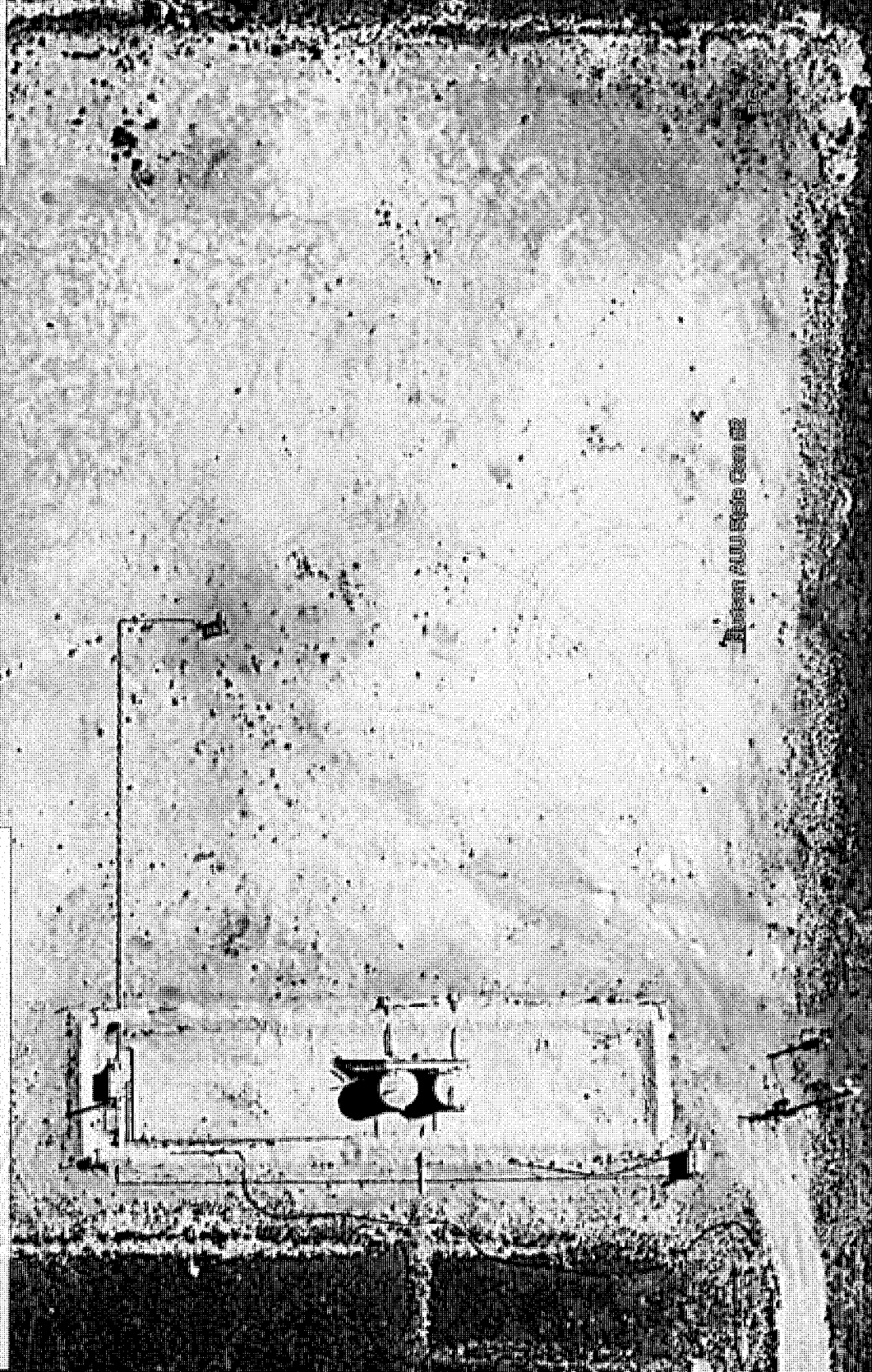
Lea County, New Mexico

Background Sample Point(s)

Legend

● BG-1

📍 Judson AUU State Com #2



Judson AUU State Com #2



100 ft

Photos

 **geog y resources (575) 748-1471**

JUDSON "AUU" State Com. #2
660' FSL & 1980' FEL - Unit 0
Sec. 26 - T 10 S - R 34 E
Lea Co. New Mexico
Lse. # VA - 2112

AFE # 04-450-0

09/21/2017











09/21/2017

Appendix A

NMOSE Well Log

Judson AUU State Com #2

Section 26, T10S-R34E
Lea County, New Mexico

Water Well DataSite Ranking is Zero (0). Depth to Ground Water >100'
(Approximately 101', per USGS & NMOSE Groundwater Levels).

Legend

-  Judson AUU State Com #2
-  USGS & NMOSE Water Wells

USGS #332852103234601 (DTGW @ 104')

USGS #332500103270701 (DTGW @ 55')

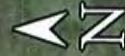
Judson AUU State Com #2

USGS #332332103600001 (DTGW @ 156')

NMOSE - L 14107 POD1 (DTGW @ 90')

Google Earth

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4 mi



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	Tws	Rng	X	Y
L 14107	POD1	3 4 4	18	10S	35E	658821	3701464

Driller License: 1611

Driller Company: GOERTZEN DRILLING

Driller Name: GOERTZEN, JOHN

Drill Start Date: 04/27/2016

Drill Finish Date: 04/28/2016

Plug Date:

Log File Date: 05/18/2016

PCW Rcv Date:

Source: Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Casing Size: 6.00

Depth Well: 117 feet

Depth Water: 90 feet

Water Bearing Stratifications:

Top	Bottom	Description
58	105	Sandstone/Gravel/Conglomerate
105	112	Other/Unknown
112	117	Other/Unknown

Casing Perforations:

Top	Bottom
0	117

Appendix B

USGS Groundwater Level Information

Judson AUU State Com #2

Section 26, T10S-R34E
Lea County, New Mexico

Water Well DataSite Ranking is Zero (0). Depth to Ground Water >100'
(Approximately 101', per USGS & NMOSE Groundwater Levels).

Legend

-  Judson AUU State Com #2
-  USGS & NMOSE Water Wells

USGS #332852103234601 (DTGW @ 104')

USGS #332500103270701 (DTGW @ 55')

Judson AUU State Com #2

USGS #332332103600001 (DTGW @ 156')

NMOSE - L 14107 POD1 (DTGW @ 90')



4 mi

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Site Information ▼

Geographic Area:

United States ▼

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USGS 332852103234601 10S.35E.06.211134

Available data for this site

SUMMARY OF ALL AVAILABLE DATA ▼

GO

Well Site

DESCRIPTION:

Latitude 33°28'58", Longitude 103°23'58" NAD27

Lea County, New Mexico, Hydrologic Unit 12080006

Well depth: not determined.

Land surface altitude: 4,159.00 feet above NGVD29.

Well completed in "Cretaceous System" (210CRCS) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1981-04-10	1996-01-30	4

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center

Email questions about this site to [New Mexico Water Science Center Water-Data Inquiries](#)

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Title: NWIS Site Information for USA: Site Inventory

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



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

Page Last Modified: 2017-10-24 08:46:14 EDT

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 332852103234601

Minimum number of levels = 1

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USGS 332852103234601 10S.35E.06.211134

Lea County, New Mexico

Latitude 33°28'58", Longitude 103°23'58" NAD27

Land-surface elevation 4,159.00 feet above NGVD29

This well is completed in the Cretaceous System (210CRCS) 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 measurment
1981-04-10		D	105.95				2		U	
1986-04-22		D	105.10				2		U	
1991-01-25		D	104.36				2		U	
1996-01-30		D	103.83				2		Z	

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.
Method of measurement	Z	Other.
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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Groundwater levels for the Nation

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Agency code = usgs

site_no list =

- 332332103260001

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload**USGS 332332103260001 11S.35E.05.132222**

Lea County, New Mexico

Latitude 33°23'32", Longitude 103°26'00" NAD27

Land-surface elevation 4,153 feet above NAVD88

This well is completed in the Ogallala Formation (121OGLL) 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
1981-02-17		D	105.98				2		U	
1986-05-05		D	153.44				2		U	
1990-12-06		D	155.51				2		U	

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?>



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Minimum number of levels = 1

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USGS 332332103260001 11S.35E.05.132222

Available data for this site

Groundwater: Field measurements

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Lea County, New Mexico

Hydrologic Unit Code --

Latitude 33°23'32", Longitude 103°26'00" NAD27

Land-surface elevation 4,153 feet above NAVD88

This well is completed in the Ogallala Formation (121OGLL) local aquifer.

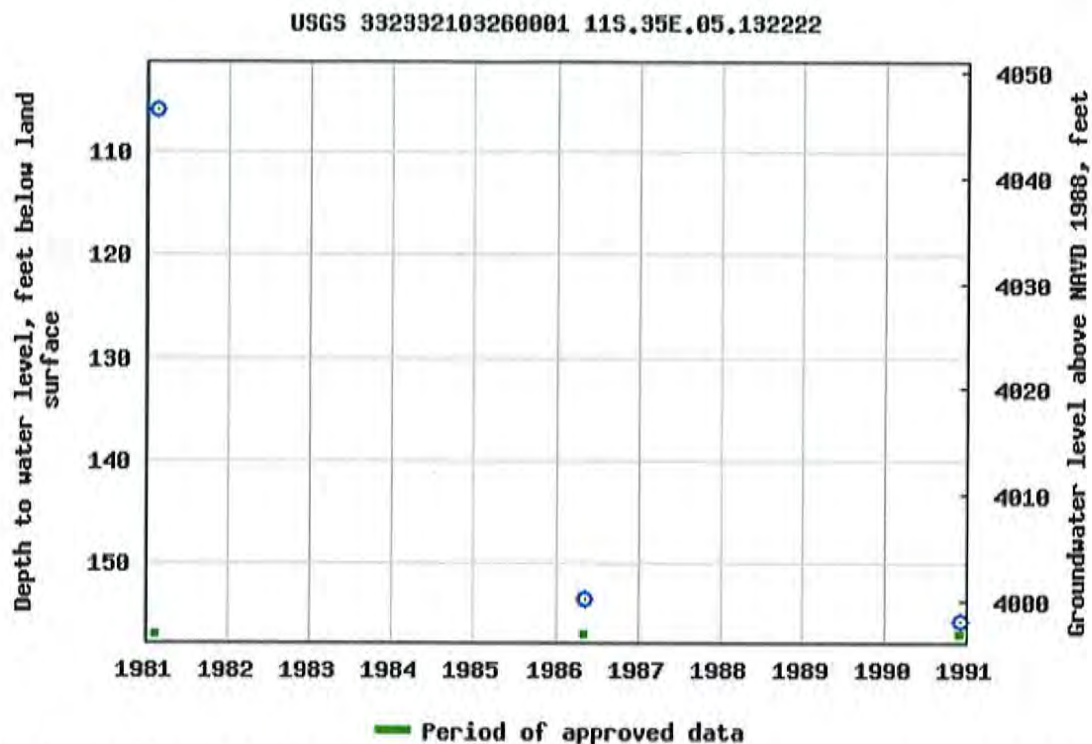
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Breaks in the plot represent a gap of at least one year between field measurements.

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- 332500103270701

Minimum number of levels = 1

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USGS 332500103270701 10S.34E.27.14210

Available data for this site

Groundwater: Field measurements ▼

GO

Lea County, New Mexico

Hydrologic Unit Code 12080001

Latitude 33°25'16", Longitude 103°27'11" NAD27

Land-surface elevation 4,190.00 feet above NGVD29

This well is completed in the Cretaceous System (210CRCS) local aquifer.

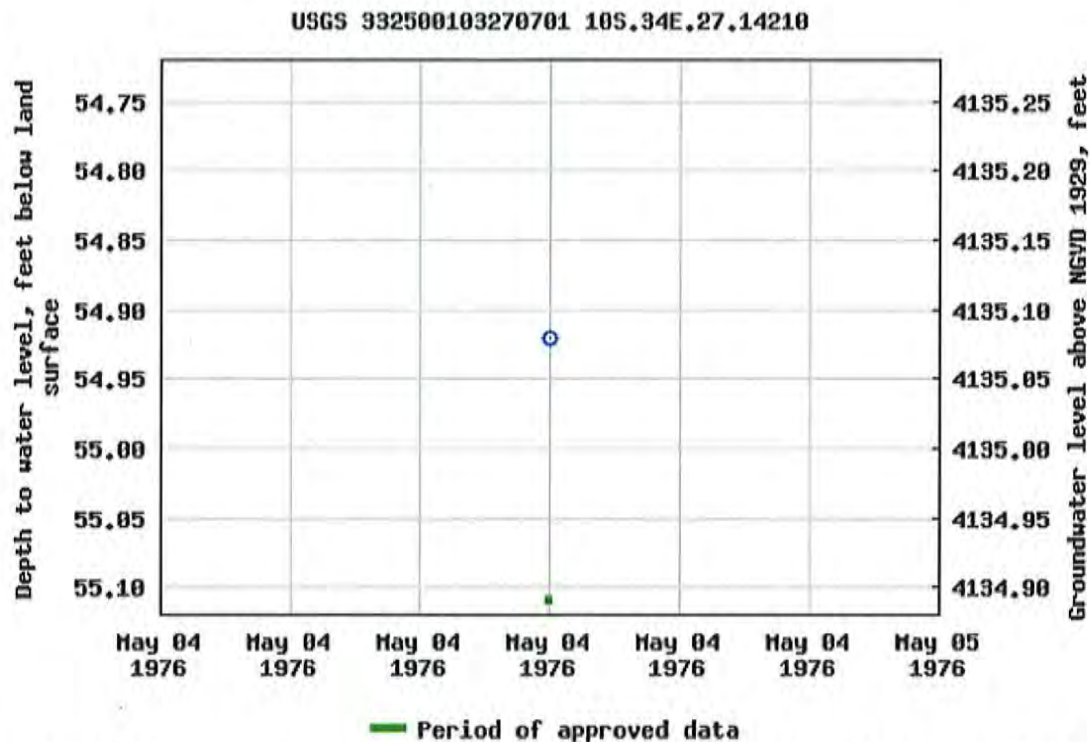
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Title: Groundwater for USA: Water Levels

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Minimum number of levels = 1

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USGS 332500103270701 10S.34E.27.14210

Lea County, New Mexico

Latitude 33°25'16", Longitude 103°27'11" NAD27

Land-surface elevation 4,190.00 feet above NGVD29

This well is completed in the Cretaceous System (210CRCS) 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
1976-05-04		D	54.92			2		U		

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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0.48 0.4 nadww01

Appedix C

Form C-141 Initial

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company EOG Y Resources, Inc.	OGRID Number 25575	Contact Robert Asher
Address 104 S. 4 th Street		Telephone No. 575-748-1471
Facility Name Judson AUU State Com #2		Facility Type Battery

Surface Owner Fee	Mineral Owner State	API No. 30-025-36886
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LOCATION OF RELEASE

Unit Letter O	Section 26	Township 10S	Range 34E	Feet from the 660	North/South Line South	Feet from the 1980	East/West Line East	County Lea
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Latitude 32.41272 Longitude 103.43251

NATURE OF RELEASE

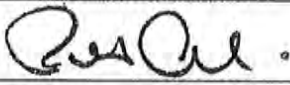
Type of Release Condensate	Volume of Release 26 B/C	Volume Recovered 0 B/C
Source of Release Production Tank	Date and Hour of Occurrence 9/7/2017; PM	Date and Hour of Discovery 9/7/2017; PM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Olivia Yu/NMOCD I	
By Whom? Robert Asher/ EOG Y Resources	Date and Hour 9/8/2017; AM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Hole discovered in tank bottom, causing the release. Tank removed.

Describe Area Affected and Cleanup Action Taken.*
An approximate area of 20'X 20'. The well and valves were closed. The impacted soils under removed tank were excavated and placed on bermed plastic, if applicable in-place remediation will be conducted. Vertical and horizontal delineation samples will be collected and analysis ran for TPH & BTEX. If initial analytical results for TPH & BTEX are under RRAL's 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' (approximately 36', per USGS Groundwater Levels), Wellhead Protection Area: No, Distance to Surface Water Body: >1000', SITE RANKING IS 20.

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: Robert Asher	Approved by Environmental Specialist: 	
Title: Environmental Supervisor	Approval Date: 9/27/2017	Expiration Date:
E-mail Address: Robert_Asher@cogresources.com	Conditions of Approval: see attached directive	Attached ☒
Date: September 22, 2017	Phone: 575-748-4217	

* Attach Additional Sheets If Necessary

1RP-4826

nOY1727031593

pOY1727031945