



303 Veterans Airpark Lane Midland, TX 79705

## **Remediation Plan**

November 18, 2020

Re: Eugene Wood Lease  
Case # NRM2024530079

### **Background:**

On 08/25/2020 a release occurred due to a failed phase arrestor. The release (GPS: 32.38021, -103.14785) is located south of Eunice, NM in unit letter G section 22 township 22S range 37E. A groundwater survey was conducted utilizing the NMOSE and USGS wells of record. The 3 nearest wells of record suggest groundwater is greater than 50 feet with the shallowest well 75 feet to groundwater.

On 11/4/2020 vertical delineation was conducted utilizing a hand auger. Samples were collected in one-foot intervals. SP 1 was advanced to a depth of 2 foot. All samples collected were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. On 11/4/2020 surface horizontal 5-point composite samples not to exceed 200 square feet were collected and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX.

### **Remediation Plan:**

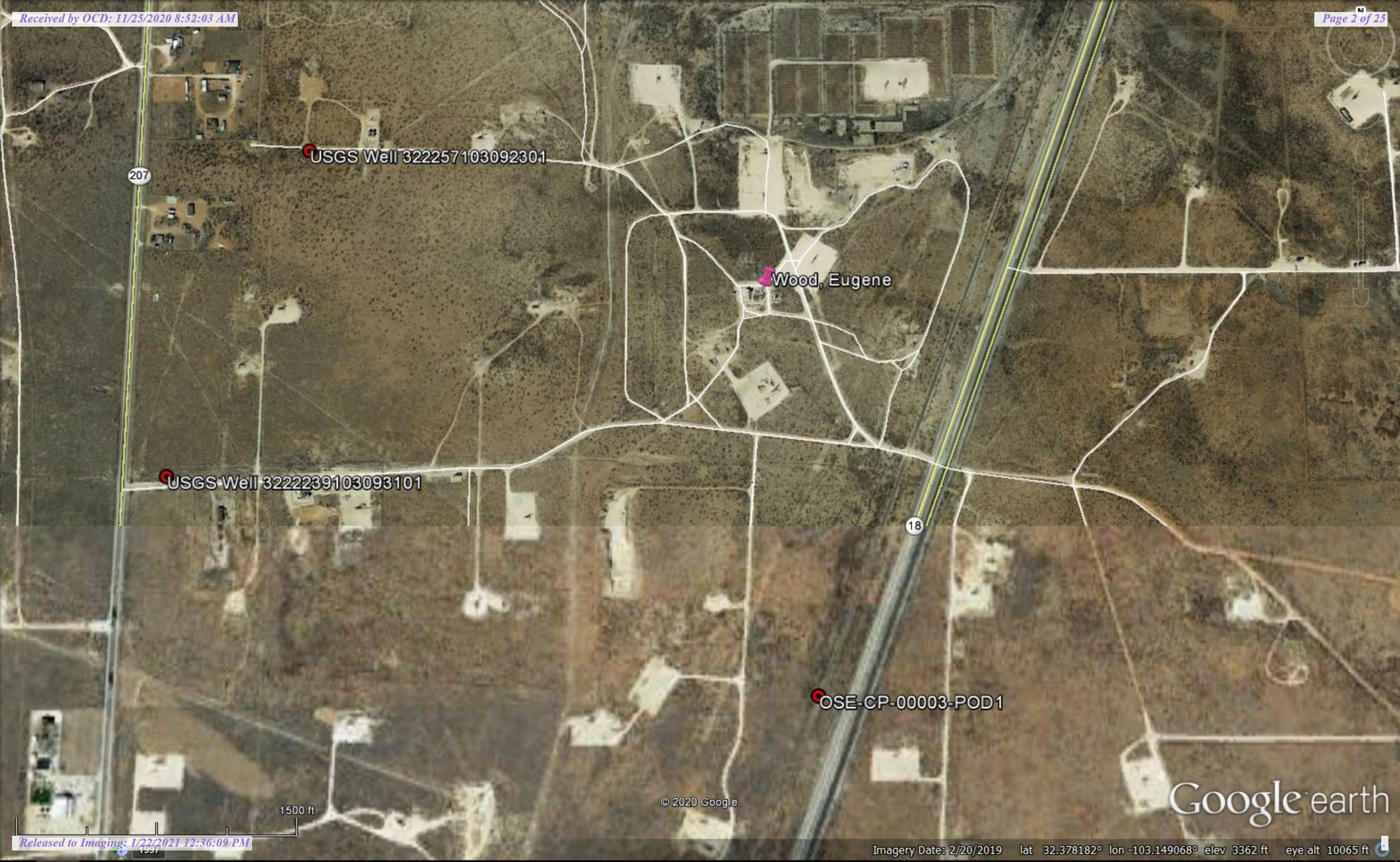
Apache Corporation proposes that the release area (130 cubic yards) surface is loosened and micro-blaze be applied to the release area. 5-point bottom composite samples will be collected not to exceed 500 square feet and submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. If table one standards cannot be achieved after 90 days, the elevated levels will be excavated and hauled to an NMOCD approved facility and backfilled with clean imported caliche.

Enclosed: C-141, Groundwater data, Maps, Sample Data, Laboratory Results, and Field Notes

Submitted by;

*Bruce Baker*

**Environmental Technician**  
larry.baker@apachecorp.com  
**Cell# 432-631-6982**



USGS Well 322257103092301

Wood, Eugene

USGS Well 3222239103093101

OSE-CP-00003-POD1

207

18

1500 ft

© 2020 Google

Google earth

Incident ID	NRM2024530079
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?	<u>75'</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	NRM2024530079
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: Larry Baker Title: Senior Environmental Technician  
 Signature: *Larry Baker* Date: 11/25/2020  
 email: larry.baker@apachecorp.com Telephone: 432-631-6982

**OCD Only**

Received by: Cristina Eads Date: 11/25/2020

Incident ID	NRM2024530079
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: Larry Baker Title: Senior Environmental Technician  
 Signature: *Larry Baker* Date: 11/25/2020  
 email: larry.baker@apachecorp.com Telephone: 432-631-6982

**OCD Only**

Received by: Cristina Eads Date: 11/25/2020

- Approved     Approved with Attached Conditions of Approval     Denied     Deferral Approved

Signature: *Cristina Eads* Date: 01/22/2021



# 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
	CP 00003 POD1			4	22	22S	37E	674372	3583367*

**Driller License:****Driller Company:****Driller Name:** E.BURKE**Drill Start Date:****Drill Finish Date:****Plug Date:****Log File Date:****PCW Rcv Date:** 07/13/1942**Source:** Shallow**Pump Type:** TURBIN**Pipe Discharge Size:****Estimated Yield:** 30 GPM**Casing Size:** 8.00**Depth Well:** 142 feet**Depth Water:** 110 feet

\*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.

11/18/20 2:13 PM

POINT OF DIVERSION SUMMARY

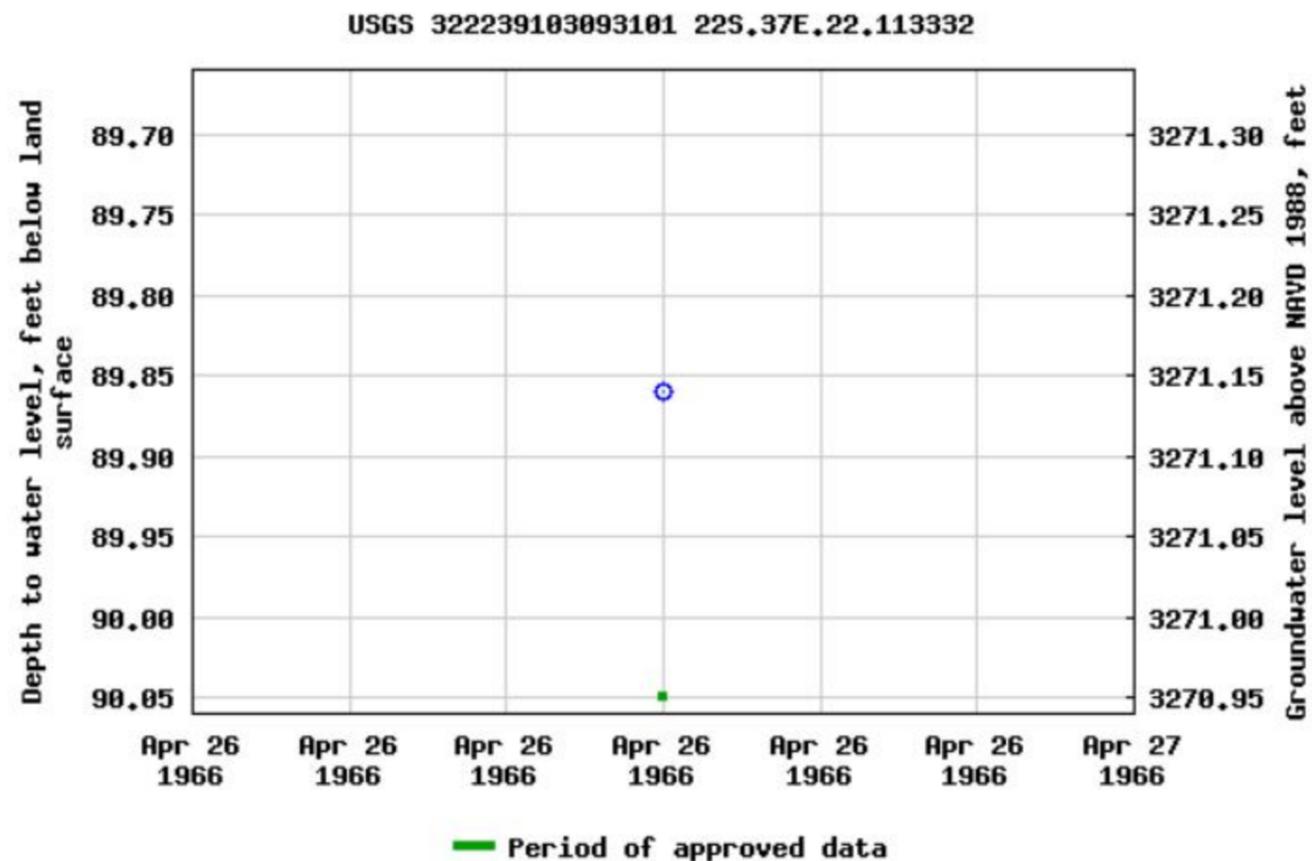
# USGS 322239103093101 22S.37E.22.113332

Available data for this site Groundwater: Field measurements

Lea County, New Mexico  
 Hydrologic Unit Code 13070007  
 Latitude 32°22'39", Longitude 103°09'31" NAD27  
 Land-surface elevation 3,361 feet above NAVD88  
 The depth of the well is 150 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.

[Download a presentation-quality graph](#)

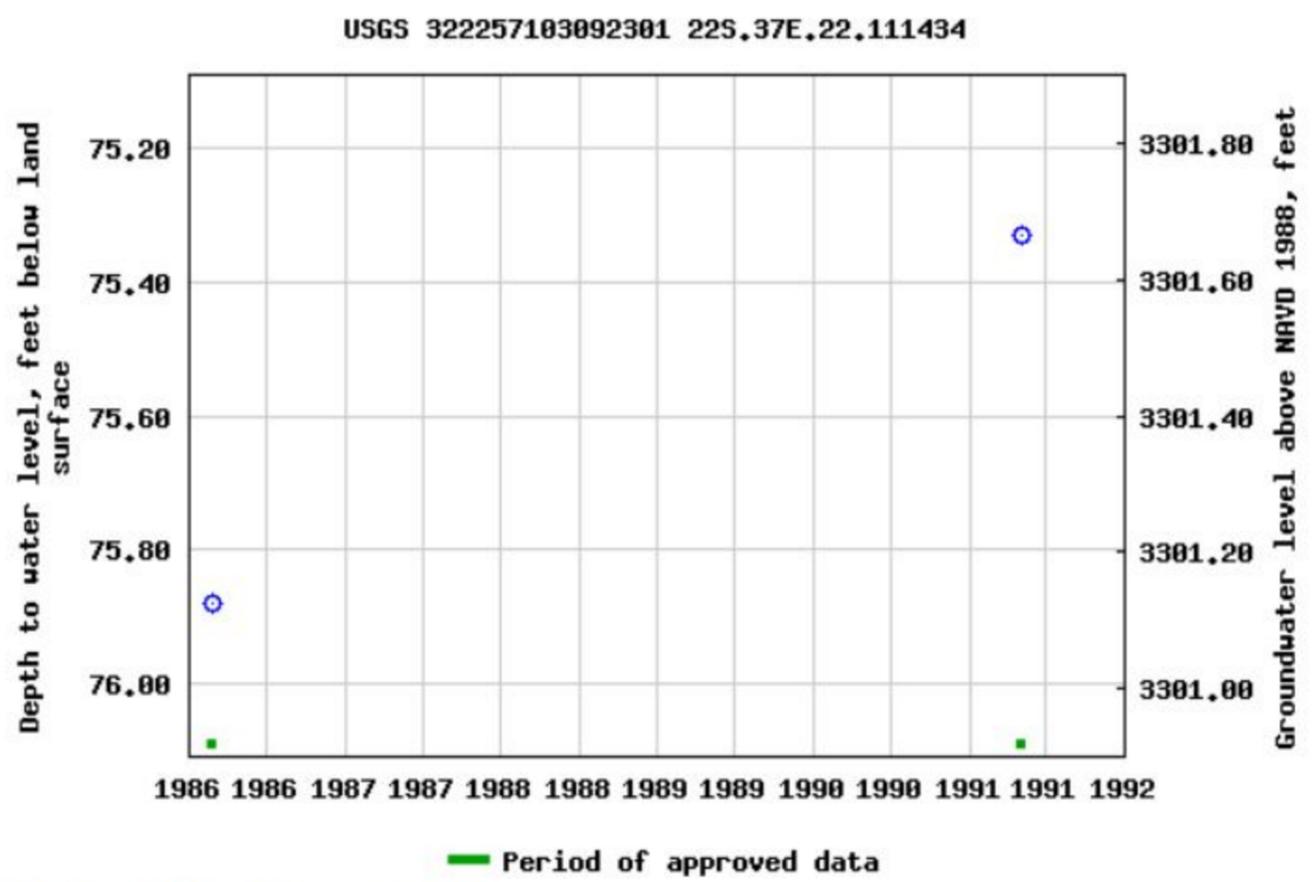
## USGS 322257103092301 22S.37E.22.111434

Available data for this site

Lea County, New Mexico  
Hydrologic Unit Code 13070007  
Latitude 32°22'57", Longitude 103°09'23" NAD27  
Land-surface elevation 3,377 feet above NAVD88  
The depth of the well is 320 feet below land surface.  
This well is completed in the Chinle Formation (231CHNL) local aquifer.

### Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>



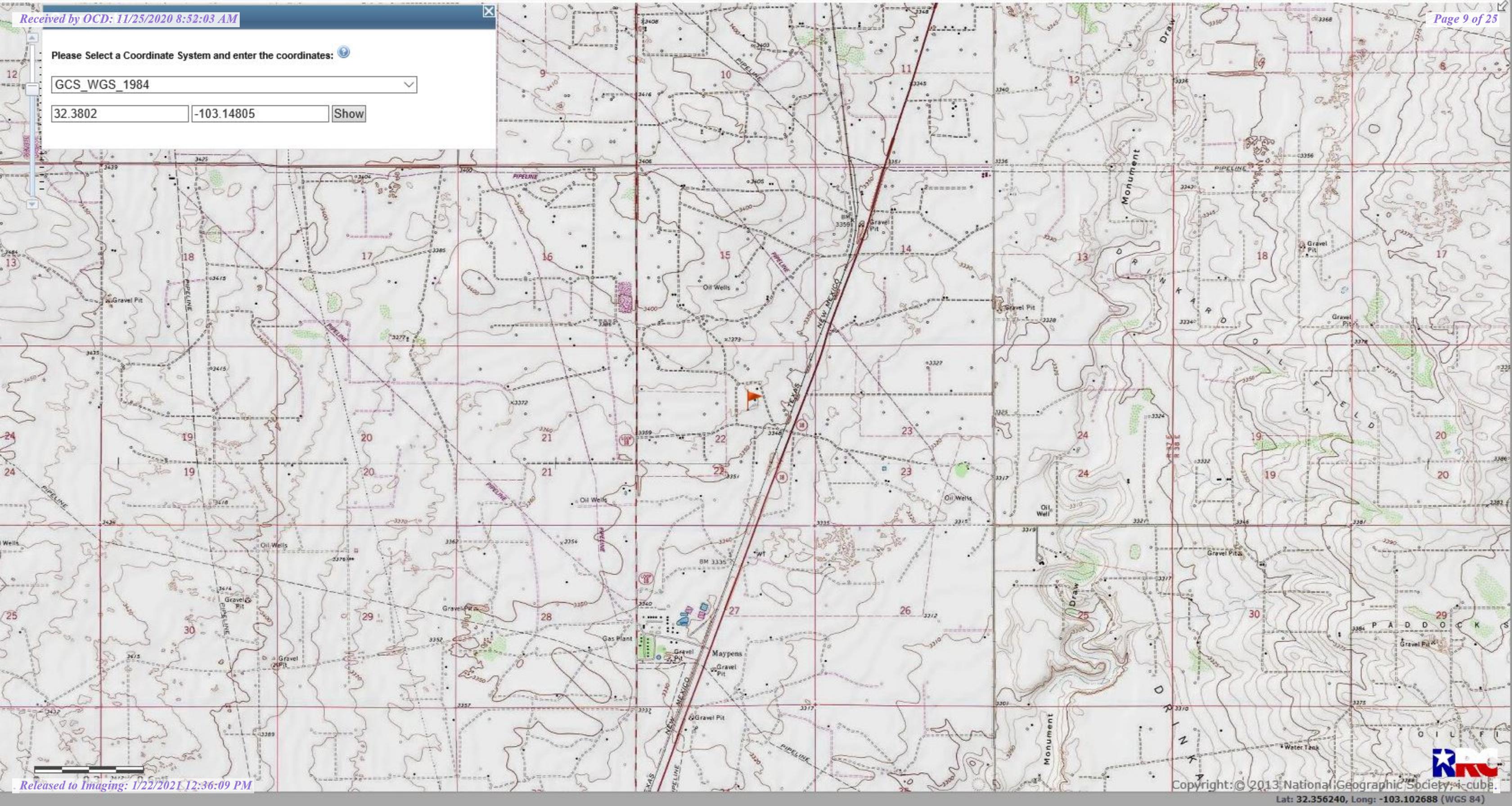
Breaks in the plot represent a gap of at least one year between field measurements.

[Download a presentation-quality graph](#)

Please Select a Coordinate System and enter the coordinates:

GCS\_WGS\_1984

32.3802 -103.14805 Show





© 2020 Google

Google earth

100 ft

**NEDU Injection Line**

Complete List

Sample Date	Sample ID	Depth	Field Chloride	Chloride	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
<u>Delineation and Horizontal Sampling</u>													
11/4/2020	SP1 @ Surface	Surface	1,161	1060	<0.050	<0.050	<0.050	0.430	0.48	165	37100	9440	32.38032 -103.14805
11/4/2020	SP1 @ 1'	1'	744	848	<0.050	<0.050	<0.050	<0.150	<0.300	14.1	1630	555	
11/4/2020	SP1 @ 2'	2'	525	400	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	237	166	
11/4/2020	H1	Surface	149	96	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.380365 -103.148070
11/4/2020	H2	Surface	148	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.380308 -103.147896
11/4/2020	H3	Surface	151	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.380270 -103.148094



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

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November 09, 2020

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EL WOOD

Enclosed are the results of analyses for samples received by the laboratory on 11/04/20 14:06.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received:	11/04/2020	Sampling Date:	11/04/2020
Reported:	11/09/2020	Sampling Type:	Soil
Project Name:	EL WOOD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: H 1 (H002926-01)**

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	11/05/2020	ND	1.93	96.3	2.00	5.05	
Toluene*	<0.050	0.050	11/05/2020	ND	1.87	93.7	2.00	5.48	
Ethylbenzene*	<0.050	0.050	11/05/2020	ND	1.86	93.0	2.00	4.69	
Total Xylenes*	<0.150	0.150	11/05/2020	ND	5.40	90.0	6.00	4.74	
Total BTEX	<0.300	0.300	11/05/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	11/05/2020	ND	416	104	400	3.77	

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	11/06/2020	ND	241	120	200	1.93	
DRO >C10-C28*	<10.0	10.0	11/06/2020	ND	226	113	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	11/06/2020	ND					

Surrogate: 1-Chlorooctane 95.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.0 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received:	11/04/2020	Sampling Date:	11/04/2020
Reported:	11/09/2020	Sampling Type:	Soil
Project Name:	EL WOOD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: H 2 (H002926-02)**

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	11/05/2020	ND	1.93	96.3	2.00	5.05	
Toluene*	<0.050	0.050	11/05/2020	ND	1.87	93.7	2.00	5.48	
Ethylbenzene*	<0.050	0.050	11/05/2020	ND	1.86	93.0	2.00	4.69	
Total Xylenes*	<0.150	0.150	11/05/2020	ND	5.40	90.0	6.00	4.74	
Total BTEX	<0.300	0.300	11/05/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	11/05/2020	ND	416	104	400	3.77	

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	11/06/2020	ND	241	120	200	1.93	
DRO >C10-C28*	<10.0	10.0	11/06/2020	ND	226	113	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	11/06/2020	ND					

Surrogate: 1-Chlorooctane 95.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.4 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received:	11/04/2020	Sampling Date:	11/04/2020
Reported:	11/09/2020	Sampling Type:	Soil
Project Name:	EL WOOD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: H 3 (H002926-03)**

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	11/05/2020	ND	1.93	96.3	2.00	5.05	
Toluene*	<0.050	0.050	11/05/2020	ND	1.87	93.7	2.00	5.48	
Ethylbenzene*	<0.050	0.050	11/05/2020	ND	1.86	93.0	2.00	4.69	
Total Xylenes*	<0.150	0.150	11/05/2020	ND	5.40	90.0	6.00	4.74	
Total BTEX	<0.300	0.300	11/05/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	11/05/2020	ND	416	104	400	3.77	

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	11/06/2020	ND	241	120	200	1.93	
DRO >C10-C28*	<10.0	10.0	11/06/2020	ND	226	113	200	3.41	
EXT DRO >C28-C36	<10.0	10.0	11/06/2020	ND					

Surrogate: 1-Chlorooctane 96.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.5 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Cardinal Laboratories

\*=Accredited Analyte

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

**BILL TO**

**ANALYSIS REQUEST**

Company Name: *Grade Corporation*  
 Project Manager: *Bruce Baker*  
 Address:  
 City: State: Zip:  
 Phone #: Fax #:  
 Project #: Project Owner:  
 Project Name: *EL WOOD*  
 Project Location: *EL WOOD*  
 Sampler Name: *Jeff Brown*  
 P.O. #:  
 Company:  
 Attn:  
 Address:  
 City: State: Zip:  
 Phone #: Fax #:

FOR LAB USE ONLY	Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	PRESERV.	SAMPLING	DATE	TIME	CL-	BTEX	EXT. TPH
	<i>H002924</i>				SOIL			<i>11/4/20</i>	<i>1120</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		<i>1 H1</i>	<i>G</i>		SOIL			<i>11/4/20</i>	<i>1125</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		<i>2 H2</i>	<i>G</i>		SOIL			<i>11/4/20</i>	<i>1130</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		<i>3 H3</i>	<i>G</i>		SOIL							

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Relinquished By: *Jeff Brown*  
 Date: *11/4/20*  
 Time: *1406*  
 Received By: *[Signature]*  
 Date: *11/4/20*  
 Time: *1130*

Delivered By: (Circle One) Observed Temp. °C *4.4*  
 Sampler - UPS - Bus - Other: Corrected Temp. °C  
 Sample Condition:  Cool  Intact  
 Checked By: *VP*  
 Turnaround Time:  Standard  Rush  
 Thermometer ID # *113* *70*  
 Correction Factor *+0.4*  
 Bacteria (only)  Cool  Intact  
 Sample Condition:  Yes  No  
 Observed Temp. °C  
 Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



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

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November 09, 2020

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EL WOOD

Enclosed are the results of analyses for samples received by the laboratory on 11/04/20 14:06.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received:	11/04/2020	Sampling Date:	11/04/2020
Reported:	11/09/2020	Sampling Type:	Soil
Project Name:	EL WOOD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: SP 1 @ SURFACE (H002927-01)**

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/05/2020	ND	1.93	96.3	2.00	5.05	
Toluene*	<0.050	0.050	11/05/2020	ND	1.87	93.7	2.00	5.48	
Ethylbenzene*	<b>0.050</b>	0.050	11/05/2020	ND	1.86	93.0	2.00	4.69	
<b>Total Xylenes*</b>	<b>0.430</b>	0.150	11/05/2020	ND	5.40	90.0	6.00	4.74	
<b>Total BTEX</b>	<b>0.480</b>	0.300	11/05/2020	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 131 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1060</b>	16.0	11/05/2020	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>165</b>	100	11/06/2020	ND	241	120	200	1.93	
<b>DRO &gt;C10-C28*</b>	<b>37100</b>	100	11/06/2020	ND	226	113	200	3.41	
<b>EXT DRO &gt;C28-C36</b>	<b>9440</b>	100	11/06/2020	ND					

Surrogate: 1-Chlorooctane 141 % 44.3-144

Surrogate: 1-Chlorooctadecane 1160 % 42.2-156

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received:	11/04/2020	Sampling Date:	11/04/2020
Reported:	11/09/2020	Sampling Type:	Soil
Project Name:	EL WOOD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: SP 1 @ 1' (H002927-02)**

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	11/05/2020	ND	1.93	96.3	2.00	5.05	
Toluene*	<0.050	0.050	11/05/2020	ND	1.87	93.7	2.00	5.48	
Ethylbenzene*	<0.050	0.050	11/05/2020	ND	1.86	93.0	2.00	4.69	
Total Xylenes*	<0.150	0.150	11/05/2020	ND	5.40	90.0	6.00	4.74	
Total BTEX	<0.300	0.300	11/05/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>848</b>	16.0	11/05/2020	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>14.1</b>	10.0	11/06/2020	ND	241	120	200	1.93	
<b>DRO &gt;C10-C28*</b>	<b>1630</b>	10.0	11/06/2020	ND	226	113	200	3.41	
<b>EXT DRO &gt;C28-C36</b>	<b>555</b>	10.0	11/06/2020	ND					

Surrogate: 1-Chlorooctane 105 % 44.3-144

Surrogate: 1-Chlorooctadecane 147 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

APACHE CORP - HOBBS  
 BRUCE BAKER  
 2350 W. MARLAND BLVD.  
 HOBBS NM, 88240  
 Fax To: (575) 393-2432

Received:	11/04/2020	Sampling Date:	11/04/2020
Reported:	11/09/2020	Sampling Type:	Soil
Project Name:	EL WOOD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: SP 1 @ 2' (H002927-03)**

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	11/05/2020	ND	1.93	96.3	2.00	5.05	
Toluene*	<0.050	0.050	11/05/2020	ND	1.87	93.7	2.00	5.48	
Ethylbenzene*	<0.050	0.050	11/05/2020	ND	1.86	93.0	2.00	4.69	
Total Xylenes*	<0.150	0.150	11/05/2020	ND	5.40	90.0	6.00	4.74	
Total BTEX	<0.300	0.300	11/05/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>400</b>	16.0	11/05/2020	ND	416	104	400	3.77	

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	11/06/2020	ND	241	120	200	1.93	
<b>DRO &gt;C10-C28*</b>	<b>237</b>	10.0	11/06/2020	ND	226	113	200	3.41	
<b>EXT DRO &gt;C28-C36</b>	<b>166</b>	10.0	11/06/2020	ND					

Surrogate: 1-Chlorooctane 94.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 128 % 42.2-156

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- GC-NC1 8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
- 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

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240  
 (575) 393-2326 FAX (575) 393-2476

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Apache Corporation P.O. #:  
 Project Manager: Bruce Baker Company:  
 Address: Attn:  
 City: State: Zip: Address:  
 Phone #: Fax #: City: Address:  
 Project #: Project Owner: City: State: Zip:  
 Project Name: EL WOOD State: Zip:  
 Project Location: EL WOOD Phone #:  
 Sampler Name: Jeff Brum Fax #:  
 FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	CL-	BTX	EXT. TPH	
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:						ICE / COOL
<u>H003937</u>	<u>1 SPI @ Surface</u>	<u>G</u>	<u>6</u>			<u>✓</u>						<u>11/4/20</u>	<u>0955</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>
	<u>2 SPI @ 1'</u>	<u>G</u>	<u>6</u>			<u>✓</u>						<u>11/4/20</u>	<u>1000</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>
	<u>3 SPI @ 2'</u>	<u>G</u>	<u>6</u>			<u>✓</u>						<u>11/4/20</u>	<u>1005</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>

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Relinquished By: Jeff Brum Date: 11/4/20 Received By: [Signature] Date: 11/4/20  
 Relinquished By: [Signature] Date: 11/4/20 Received By: [Signature] Date: 11/4/20

Delivered By: (Circle One) Observed Temp. °C 4.4 Sample Condition Cool  Intact   
 Sampler - UPS - Bus - Other: Corrected Temp. °C 4.4 CHECKED BY: [Signature]  
 Turnaround Time: 11/13/20 Standard  Bacteria (only) Sample Condition Cool  Intact   
 Thermometer ID # 92 # 11/13/20 11/14/20 Correction Factor 0.0 Add'l Phone #:  
 All Results are emailed. Please provide Email address:

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinalabsmm.com

EL WOOD LEASE Delineation 11/4/20

SP 1 @ Surface - 32.38032, -103.14805

$10.1 / 30.1 = 2.98 = .39 = 1,161$

SP 1 @ 1'

$10.1 / 30.1 = 2.98 = .25 = 744$

SP 1 @ 2' (Refer at this depth)

$10.3 / 30.1 = 2.92 = .18 = 525$

H1 - 32.380365, -103.148070

$10.0 / 30.0 = 3 = .05 = 149$

H2 - 32.380308, -103.147896

$10.1 / 30.0 = 2.97 = .05 = 148$

H3 - 32.380270, -103.148094

$10.0 / 30.3 = 3.03 = .05 = 151$

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**  
 811 S. First St., Artesia, NM 88210  
 Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 11337

**CONDITIONS OF APPROVAL**

Operator: #1000 APACHE CORPORATION Midland, TX79705	303 Veterans Airpark Ln	OGRID: 873	Action Number: 11337	Action Type: C-141
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OCD Reviewer	Condition
ceads	Should excavation be necessary, confirmation samples of the excavated area will need to be taken.