March 4, 2022 Vertex Project #: 21E-03819-01

Spill Closure Report: Patterson EL #1 (Section 31, Township 17 South, Range 26 East)
API: 30-015-21606
County: Eddy
Incident Report: nAPP2131355991

Prepared For: **EOG Resources, Inc.**
104 South Fourth Street
Artesia, New Mexico 88220

New Mexico Oil Conservation Division - District 2
811 South 1st Street
Artesia, New Mexico 88210

EOG Resources, Inc. retained Vertex Resource Services Inc. (Vertex) to conduct a Spill Assessment for historical releases around the compressor at the Patterson EL #1, API 30-015-21606, Incident nAPP2131355991 (hereafter referred to as "Patterson"). A copy of the C-141 can be found in Attachment 1. This letter provides a description of the Spill Assessment and includes a request for spill closure. The spill area is located at N 32.78679, W -104.42783.

Background

The site is located approximately 2.40 miles northwest of Atoka, New Mexico. The legal location for the site is Section 31, Township 17 South and Range 26 East in Eddy County, New Mexico. The spill area is located on private property. An aerial photograph and site schematic are included in Figure 1 (Attachment 2).

The Geological Map of New Mexico (New Mexico Bureau of Geology and Mineral Resources, 2014 – 2017) indicates the site's surface geology is comprised primarily of Qp -- Piedmont alluvial deposits (Holocene to lower Pleistocene), and is characterized as Residuum weathered from limestone. Predominant soil texture on the site is Upton gravelly loam. Ecological settings of the area include vegetation dominated by black grama and subdominated by short-lived perennial C4 bunchgrasses. Mesquite, whitethorn, and creosotebush can be invaders of this site. Lovegrass, Russian thistle, kochia, and other nonnative annuals may initially invade following extended disturbance.

The surrounding landscape is associated with ridges and fans typical of elevations between 1,100 to 4,400 feet above sea level. The climate is semi-arid with an average annual precipitation ranging between 7 to 15 inches. The soil tends to be well drained with high runoff with a very low available water supply (United States Department of Agriculture, Natural Resource Conservation Service, 2020).

There is no surface water located on-site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 of the New Mexico Administrative Code (NMAC), is the Pecos River, located approximately 5.72 miles east of the site (United States Fish and Wildlife Service, 2020). There are no continuously flowing watercourses, lakebeds, sinkholes, play lakes, or other critical water or community features at Patterson, as outline in Paragraph (4) of Subsection C of

19.15.29.12 NMAC.

Incident Description

The spill was discovered on November 8, 2021 and was reported on November 9, 2021. An unknown amount of crude oil had leaked over an unknown period of time on the well pad where the compressor was located. A total of 60 yards of contaminated soil was removed from the contaminated area. Approximately zero bbl. of free fluid was removed during initial spill clean-up. The New Mexico Oil Conservation Division (NMOCD) C-141 Report: nAPP2131355991 is included in Attachment 1. The Daily Field Reports (DFRs) and site photographs are included in Attachment 3.

Closure Criteria Determination

The depth to groundwater was determined using information from Oil and Gas Drilling records and the New Mexico Office of the State Engineer Water Column/Average Depth to Water report, and United States Geological Survey, National Water Information System. A 0.5-mile search radius was used to determine groundwater depth. The closest recorded depth to groundwater was determined to be 190 feet below ground surface (bgs) and 0.23 miles from the site. Documentation used in Closure Criteria Determination research is included in Attachment 4.

Closure Criteria Worksheet			
Site Name: Patterson EL #1			
Spill Coordinates:		**X: 32.787060**	**Y: -104.427983**
Site Specific Conditions		**Value**	**Unit**
1	Depth to Groundwater	**190**	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	30,185	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	36,762	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	1,130	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, **or**	1,222	feet
	ii) Within 1000 feet of any fresh water well or spring	1,222	feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	1,775	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
10	Within a 100-year Floodplain	500	year
11	Soil Type	Upton gravelly loam	
12	Ecological Classification	Shallow	
13	Geology	Qp	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	>100'	<50' 51-100' >100'

The closure criteria determined for the site are associated with the following constituent concentration limits as presented in Table 1.

Table 1. Closure Criteria for Soils Impacted by a Release

Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Limit
> 100 feet	Chloride	20,000 mg/kg
	TPH (GRO+DRO+MRO)	2,500 mg/kg
	GRO+DRO	1,000 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

Remedial Actions Taken

An initial site inspection of the spill area was completed on October 25, 2021, which identified the area of the spill specified in the initial C-141 Report, estimated the approximate volume of the spill and white lined the area required for the 811 One Call request. The impacted area was determined to be approximately 31 feet long and 24 feet wide; the total affected area was determined to be 497 square feet. The DFR associated with the site inspection is included in Attachment 3, laboratory results from initial characterization are presented in Table 2 (Attachment 5) and the laboratory data report is included in Attachment 7.

Remediation efforts began on November 8, 2021 and were completed on November 9, 2021. Vertex personnel supervised the excavation of impacted soils. Field screening consisted of analysis using a photo ionization detector (volatile hydrocarbons), Dexsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons) and EC meter (chlorides). Field screening results were used to identify areas requiring further remediation from those areas showing concentrations below determined closure criteria levels. Soils were removed to a depth of 1 to 3 feet bgs. Impacted soil was transported by a licensed waste hauler and disposed of at an approved waste management facility. Field screening results are presented in the DFRs in Attachment 3.

A GeoExplorer 7000 Series Trimble global positioning system (GPS) unit, or equivalent, was used to map the approximate center of each of the five-point composite samples. The confirmatory schematic is shown on Figure 2 (Attachment 2).

Notification that confirmatory samples had been collected was provided to the NMOCD on December 1, 2021 and is included in Attachment 6. NMOCD was notified of the missed sampling notification and a variance to the 48-hour notification requirement for final confirmatory sampling events was requested. A variance was granted and is included in Attachment 6. Confirmatory composite samples were collected from the base and walls of the excavation in 200 square foot increments. A total of eight samples (four wall and four base) were collected on November 16, 2021, for laboratory analysis following NMOCD soil sampling procedures. Samples were submitted to Envirotech, Inc. under chain-of-custody (COC) protocols and analyzed for benzene, toluene, ethylbenzene and xylenes (EPA Method 8021B), total petroleum hydrocarbons (GRO, DRO, MRO – EPA Method 8015D) and total chlorides (EPA Method 300.0).

Laboratory results are presented in Table 3 in Attachment 5 and the laboratory data report is included in Attachment 7. All analyzed parameters from confirmatory samples collected were below closure criteria for the site.

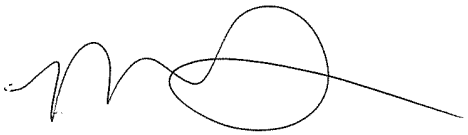
Additional remediation efforts were completed on February 24, 2022 to assess the area where BS22-03 and BS22-04 were located. An additional foot was excavated to meet the strictest criteria since the area is considered pastureland and original sampling did not meet strictest criteria of the top four feet. Daily field activities can be found in Attachment 3.

Notification for additional sampling was submitted by EOG on February 23, 2022. Confirmatory composite samples were collected on February 25, 2022. Notification of the confirmatory sampling event can be found in Attachment 6. The two additional samples were field screened and sent for laboratory analysis. Laboratory results are presented in Table 3 in Attachment 5 and the laboratory report is also included in Attachment 7.

Closure Request

The spill area was fully delineated and remediated by February 25, 2022. Backfill will take place after approval of closure from NMOCD. The Confirmatory Sample Notification email is presented in Attachment 6. Confirmatory samples were analyzed by the laboratory and found to be below allowable concentrations as per the NMAC Closure Criteria for Soils Impacted by a Release at locations “greater than 100 feet to groundwater”. Based on these findings, EOG Resources, Inc. requests that this spill be closed.

Should you have any questions or concerns, please do not hesitate to contact the undersigned at 575.361.9880 or mpeppin@vertex.ca.



March 4, 2022

Monica Peppin
SR. ENVIRONMENTAL TECHNICIAN, REPORTING

Date

March 4, 2022

Dhugal Hanton B.Sc., P.Ag., SR/WA, P. Biol.
VICE PRESIDENT, REPORT REVIEW

Date

Attachments

References

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Limitations

This report has been prepared for the sole benefit of EOG Resources, Inc. This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation Division, without the express written consent of Vertex Resource Services Inc. (Vertex) and EOG Resources, Inc. Any use of this report by a third party, or any reliance on decisions made based on it, or damages suffered as a result of the use of this report are the sole responsibility of the user.

The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted scientific practices current at the time the work was performed. The conclusions and recommendations presented represent the best judgement of Vertex based on the data collected during the assessment. Due to the nature of the assessment and the data available, Vertex cannot warrant against undiscovered environmental liabilities. Conclusions and recommendations presented in this report should not be considered legal advice.

ATTACHMENT 1

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	nAPP2131355991
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party EOG Resources, Inc.	OGRID 7377
Contact Name Robert Asher	Contact Telephone 575-748-4217
Contact email bob_asher@eogresources.com	Incident # *(assigned by OCD)*
Contact mailing address 104 South Fourth Street, Artesia, NM 88210	

Location of Release Source

Latitude 32.78679 Longitude -104.42783
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Patterson EL #1	Site Type: Battery
Date Release Discovered: 11/8/2021	API# 30-015-21606

Unit Letter	Section	Township	Range	County
M	31	17S	26E	Eddy

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*John Palomo Liv Trust*)

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 (Unknown)	Volume Recovered (Unknown)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	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)
☐	Volume/Weight Released	Volume/Weight Recovered

Cause of Release
After the Patterson EL #1 was plugged and abandoned during a check for reclamation work, historical contamination (hydrocarbons) was discovered in an area in and around the well pad where a compressor was located, (approximate area, 185' X 325').

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2131355991
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: Robert Asher Title: Environmental Supervisor

Signature:  Date: 11/9/2021

email: bob_asher@eogresources.com Telephone: 575-748-4217

OCD Only

Received by: Ramona Marcus Date: 11/12/2021

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2131355991
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?	>100 (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
- ☒ N/A 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	nAPP2131355991
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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: Robert Asher Title: Environmental Supervisor

Signature: _____ Date: _____

email: bob_asher@eogresources.com Telephone: 575-748-4217

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2131355991
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: Robert Asher Title: Environmental Supervisor

Signature: Date: 3/8/2022

email: bob_asher@eogresources.com Telephone: 575-748-4217

OCD Only

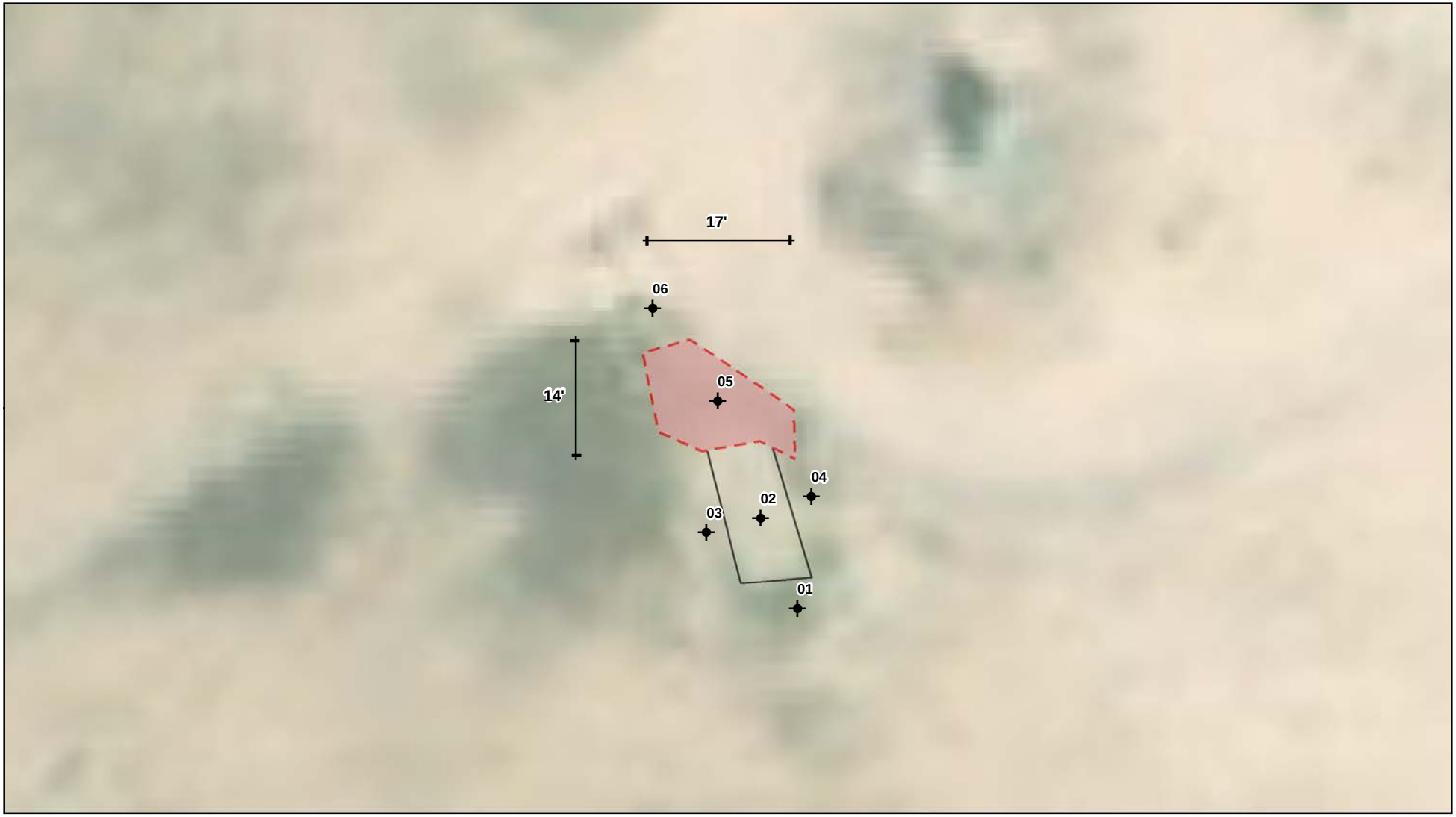
Received by: Date:

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

Closure Approved by: Jennifer Nobui Date: 03/15/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A

ATTACHMENT 2



Borehole (Prefixed by "BH21-")

Compressor

Visible Staining (153 sq. ft.)

VERTEX

0 5 10 20 ft

Map Center:
Lat/Long: 32.787075, -104.427969

NAD 1983 UTM Zone 13N

Date: Nov 03/21

N

Initial Characterization
Patterson EL #1

FIGURE:
1

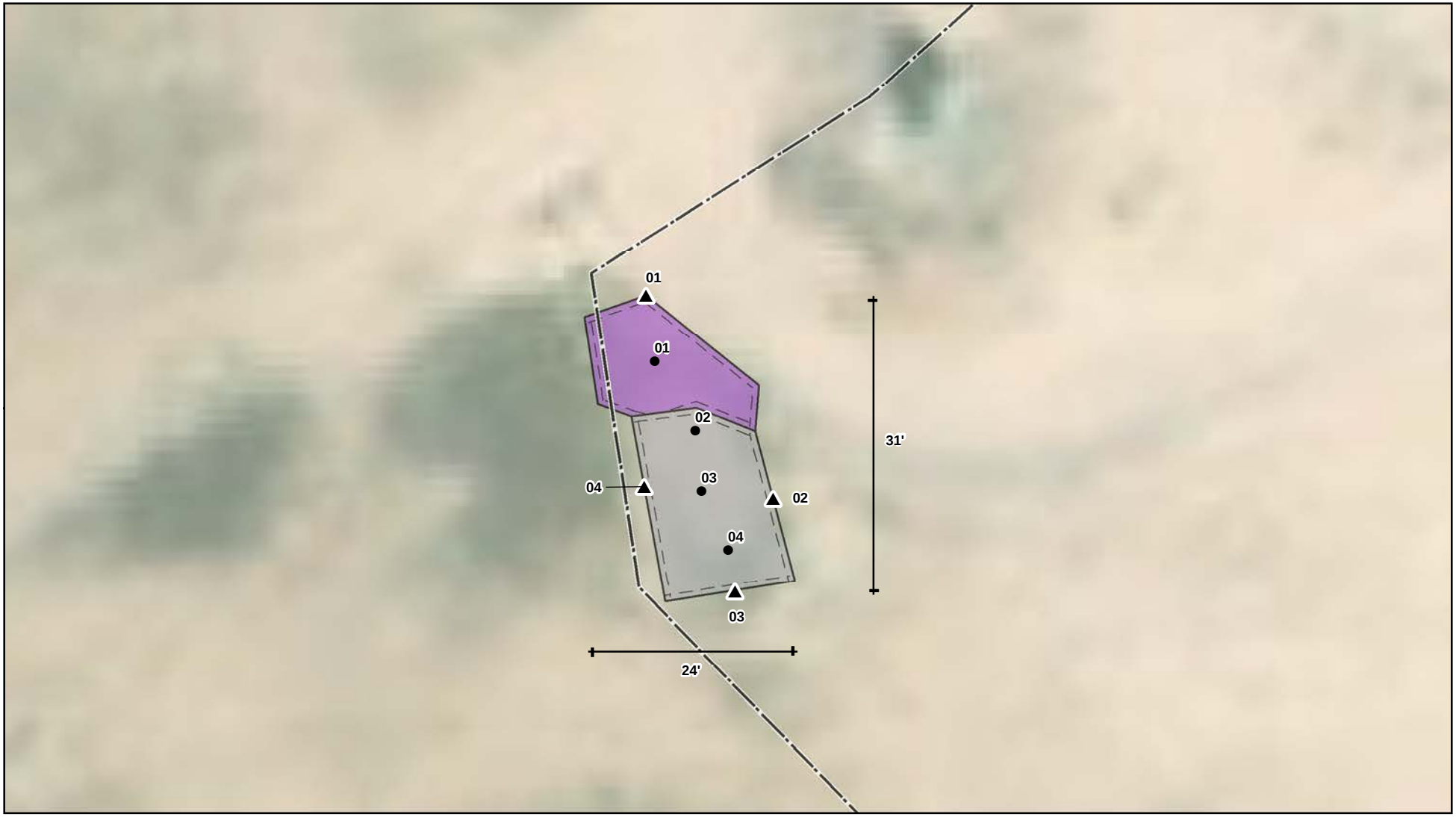
eog resources

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Imagery from ESRI, 2020. Borehole locations from GPS, Vertex Professional Services, Ltd., 2021.

VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\EOG Resources Inc\21E-03819\001 - Patterson EL #1\Figure 1 Initial Characterization Patterson EL #1.mxd



● Base Sample (Prefixed by "BS21-")

▲ Wall Sample (Prefixed by "WS21-")

Approximate Lease Extent

Exacvation Extent - to 3' (301 sq. ft.)

Excavation Extent - to 3' (196 sq. ft.)

0 5 10 20 ft

Map Center:
Lat/Long: 32.787065, -104.427950

NAD 1983 UTM Zone 13N

Date: Nov 18/21

N

Confirmatory Schematic
Patterson EL #1

FIGURE:
2

eog resources

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Imagery from ESRI, 2020. Borehole locations from GPS, Vertex Professional Services, Ltd., 2021.

Document Path: G:\1-Projects_US PROJECTS\EOG Resources Inc\21E-03819\001 - Patterson EL #1\Figure 2 Confirmatory Schematic Patterson EL #1a.mxd

ATTACHMENT 3

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	10/18/2021
Site Location Name:	Patterson EL #1	Report Run Date:	10/18/2021 8:14 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	10/18/2021 10:04 AM
Departed Site	10/18/2021 10:28 AM

Field Notes

10:05 Visual staining is visible where compressor was located. Completion of 811 directions for line locators to distinguish where lines are before digging

10:10 Lucid flags in place already from previous white line. Vegetation around area of concern is very lush. Only equipment on site is pipeline riser and underground line

10:15 Vegetation around site is coming in. No visual stains located anywhere else around site

Next Steps & Recommendations

1. Characterization of contamination
2. Laboratory analysis
3. Remediation
4. Summary report

Daily Site Visit Report

Site Photos

Viewing Direction: South	**Viewing Direction**: West
	
Area of concern where compressor was located	Roadway that goes by location of compressor
Viewing Direction: East	**Viewing Direction**: East
	
Staining on northern edge of area	White line area

Daily Site Visit Report

Viewing Direction: North	**Viewing Direction**: Northwest
	
White line area	Compressor location

Viewing Direction: West	**Viewing Direction**: Northeast
	
Staining	Equipment on pipeline near compressor

Daily Site Visit Report

Viewing Direction: West	**Viewing Direction**: East
	
Equipment near area to be sampled	Roadway coming into location

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Monica Peppin

Signature:

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	10/25/2021
Site Location Name:	Patterson EL #1	Report Run Date:	10/25/2021 9:06 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	10/25/2021 8:25 AM
Departed Site	10/25/2021 1:30 PM

Field Notes

8:26 Delineation of site to determine extent of cleanup

12:16 Only sample to have any odor is bh5. Seems that I will have a higher reading for MRO over anything else. Stained area is very apparent. Clean up should consist of removing the stained area

12:40 Chlorides are not a large issue. Only sample with anything close to being high is around bh6 which could be due to being so close to a pipeline riser

Next Steps & Recommendations

1 Send samples for lab analysis

2 Schedule clean up

Daily Site Visit Report

Site Photos

Viewing Direction: Southwest	**Viewing Direction**: Southeast
	
Stained area	Stained area
Viewing Direction: West	**Viewing Direction**: Southwest
	
Bh6	Bh2 and BH3

Daily Site Visit Report

Viewing Direction: Northeast

Bh4

Viewing Direction: South

Bh1

Viewing Direction: Northwest

Sample area

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Monica Peppin

Signature:

Daily Soil Sampling

Client: Client: EOG Resources Inc.

Location: Site: Patterson EL #1

Date: (SD: 10/25/21)

Sampling											
		Field Screening							Data Collection		
		Hydrocarbon		Chloride							
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BH21-01	0.0	0		0.06	20.8	0		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-01	1.0	0	77	0.08	20.9	21		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-02	0.0	0		0.11	20.7	73		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-02	1.0	0	26	0.15	20.6	135		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-03	0.0	0		0.08	20.8	25		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-03	1.0	0	98	0.20	20.7	203		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-04	0.0	0		0.08	20.8	25		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-04	1.0	0	66	0.10	21.2	37		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-05	0.0	9		0.06	21.2	0		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	

Daily Soil Sampling

BH21-05	1.0	5	595	0.12	21.4	57		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-05	2.0	1	74	0.20	21.6	164		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-06	0.0	0		0.30	21.7	304		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BH21-06	1.0	0	24	0.35	21.3	393		BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	11/8/2021
Site Location Name:	Patterson EL #1	Report Run Date:	11/8/2021 9:00 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	11/8/2021 8:06 AM
Departed Site	11/8/2021 1:55 PM

Field Notes

7:37 Excavation of known contamination around area where compressor was located. Visual staining will be removed and guide with field screening to clean the area

8:38 Scraping area to the east south and west 0.5’ to remove contamination and excavating the north area where staining is very noticeable

10:56 Area dug down to 3 ft where BH21-05 is located and screened. Wall area taken out further due to field screen coming back high

11:19 Areas excavated to 0.5’ each have a base sample collected to represent the areas

12:28 During the removal of the middle area that was clean contamination was found underneath to the north and is being taken out to clean the area. Considering the release reportable after speaking with Bob on the phone

13:43 Cleaning gravel out of middle area and field screening so that area will be ready for confirmation sampling

Next Steps & Recommendations

1 Complete excavation

2 Schedule confirmation sampling

Daily Site Visit Report

Site Photos

Viewing Direction: Southeast	**Viewing Direction**: North
	
Excavation area	3 ft excavation
Viewing Direction: South	**Viewing Direction**: East
	
West wall area	South area

Daily Site Visit Report

Viewing Direction: North

East wall

Viewing Direction: South

Excavation area

Viewing Direction: East

Caliche gravel being removed

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Monica Peppin

Signature: 
Signature

Daily Soil Sampling

Client: Client: EOG Resources Inc.

Location: Site: Patterson EL #1

Date: (SD: 11/8/21)

Sampling											
		Field Screening							Data Collection		
		Hydrocarbon		Chloride							
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES21-01	2.5	14	846	0.12	22.7	1				✓	
BES21-01	3.0	1	67	0.12	24.6	0				✓	
BES21-02	0.5	12	664	0.11	22.5	0				✓	
BES21-03	0.5	1	657	0.08	23.6	0				✓	
BES21-04	0.5	1	150	0.09	27.9	0				✓	
WES21-01	2.5	2	142	0.10	22.3	0				✓	
WES21-01	3.0	1	3500	0.10	23.2	0				✓	
WES21-01	3.0	1	36	0.11	22.1	12				✓	

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	11/9/2021
Site Location Name:	Patterson EL #1	Report Run Date:	11/9/2021 9:48 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	11/9/2021 8:00 AM
Departed Site	11/9/2021 2:15 PM

Field Notes

11:18 Continuance of excavation where compressor was located to meet strictest criteria

11:20 Considering release reportable. Total loads hauled off of site is 3 loads for a total of around 50 yards of contaminated soil

11:22 Samples first collected showed contamination still present. Base excavated down to 2 ft and sloped down to the 3 ft section towards the northern end. Walls taken out some in order to find clean samples

Next Steps & Recommendations

1. 48 hour notification
2. Confirmation sampling
3. Backfill
4. Closure report

Daily Site Visit Report

Site Photos

Viewing Direction: South	**Viewing Direction**: Southeast
	
Excavation area	Excavation area
Viewing Direction: East	**Viewing Direction**: North
	
Excavation area	Excavation area

Daily Site Visit Report

Viewing Direction: East	**Viewing Direction**: Northwest
	
Contaminated pile being removed	Excavated area
Viewing Direction: West	**Viewing Direction**: South
	
Excavation area	Excavation area

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Monica Peppin

Signature: 

Daily Soil Sampling

Client: Client: EOG Resources Inc.

Location: Site: Patterson EL #1

Date: (SD: 11/9/21)

Sampling											
		Field Screening							Data Collection		
		Hydrocarbon		Chloride							
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES21-02	1.5	0	1098	0.11	21.9	21				✓	
BES21-02	2.0	0	64	0.12	20.2	109				✓	
BES21-03	1.0	0	24	0.15	21.1	113				✓	
BES21-04	1.0	0	320	0.17	20.7	160				✓	
BES21-04	2.0	0	20	0.13	20.6	106				✓	
WES21-02	1.0	0	652	0.14	20.7	116				✓	
WES21-02	2.0	0	19	0.11	20.5	82				✓	
WES21-03	2.0	0	110	0.15	20.5	139				✓	
WES21-04	1.0	0	123	0.10	20.2	80				✓	
WES21-04	2.0	0	65	0.11	20.1	99				✓	

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	11/16/2021
Site Location Name:	Patterson EL #1	Report Run Date:	11/30/2021 3:18 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	11/16/2021 12:38 PM
Departed Site	11/16/2021 2:00 PM

Field Notes

8:06 Confirmation sampling of excavated area. Excavation was aimed to be cleaned to strictest criteria due to site going to reclamation depending on lab results but closure criteria determination ranks the site for dtgw greater than 100 ft. No high potential for karst or within any parameters that would drop the site ranking.

13:30 Backfill has been stockpiled on location

13:44 All samples collected are five point composite. Four wall samples and four base samples collected.

Next Steps & Recommendations

1. Wait for lab results
2. Backfill
3. Closure report

Daily Site Visit Report

Site Photos

Viewing Direction: North	**Viewing Direction**: West
	
Excavation area	Excavation
Viewing Direction: South	**Viewing Direction**: East
	
Excavation	Excavation

Daily Site Visit Report

Viewing Direction: Northeast	**Viewing Direction**: East
	
Excavation	South wall
Viewing Direction: North	**Viewing Direction**: North
	
West wall	East wall

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Monica Peppin

Signature:

Daily Soil Sampling

Client: Client: EOG Resources Inc.

Location: Site: Patterson EL #1

Date: (SD: 11/16/21)

Sampling											
		Field Screening							Data Collection		
		Hydrocarbon		Chloride							
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES21-01	3.0	0	23	0.12	19	161		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-02	2.0	0	2	0.11	19	147		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-03	2.0	0	20	0.10	19.3	119		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
BES21-04	2.0	0	16	0.10	19.2	124		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-01	3.0	0	32	0.09	19.2	109		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-02	2.0	0	30	0.11	19.4	129		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	

Daily Soil Sampling

WES21-03	2.0	0	82	0.09	19.3	105		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	
WES21-04	2.0	0	78	0.11	19.2	138		Benzene (EPA SW-846 Method 8021B/8260B), BTEX (EPA SW-846 Method 8021B/8260B), Chloride (EPA 300.0), TPH (EPA SW-846 Method 8015M)	√	√	

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	2/24/2022
Site Location Name:	Patterson EL #1	Report Run Date:	2/24/2022 10:44 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	2/24/2022 9:15 AM
Departed Site	2/24/2022 1:15 PM

Field Notes

10:10 Safety meeting complete, beginning excavation

12:10 1 truckload sent to landfill

Next Steps & Recommendations

1 Continue with confirmation sampling tomorrow

2 Backfill once lab results come in

Daily Site Visit Report

Site Photos

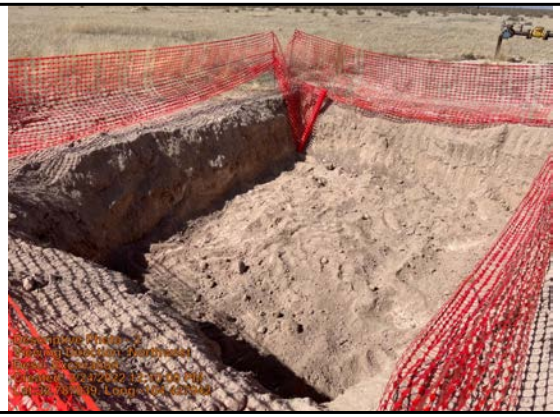
Viewing Direction: South

Breaking ground

Viewing Direction: Southeast

Excavation down to 3', cleaning up corners before sampling

Viewing Direction: Northwest

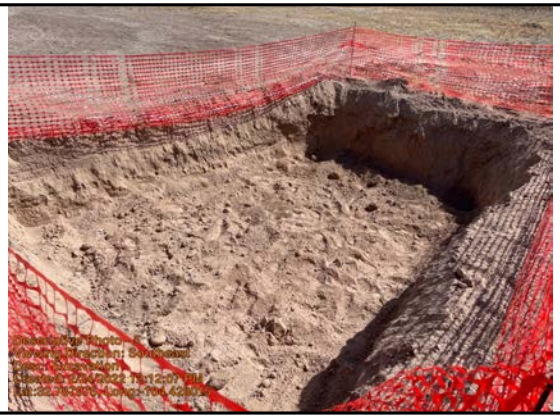


Excavation

Viewing Direction: Southwest

Top foot of clean topsoil preserved to prevent need for additional truckloads

Daily Site Visit Report

Viewing Direction: Southeast

Excavation

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 

Daily Site Visit Report

Client:	EOG Resources Inc.	Inspection Date:	2/25/2022
Site Location Name:	Patterson EL #1	Report Run Date:	2/25/2022 6:07 PM
Client Contact Name:	Chase Settle	API #:	
Client Contact Phone #:	575-703-6537		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	2/25/2022 9:00 AM
Departed Site	2/25/2022 11:15 AM

Field Notes

9:41 Samples collected, running field screens

10:02 Rancher stopped by to see what I was doing, drove through the pasture to get to site

10:39 Completing field screen paperwork

Next Steps & Recommendations

1 Backfill after labs come back clean

Daily Site Visit Report

Site Photos

Viewing Direction: Northwest

Excavation

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Sally Carttar

Signature: 

Daily Soil Sampling

Client: Client: EOG Resources Inc.

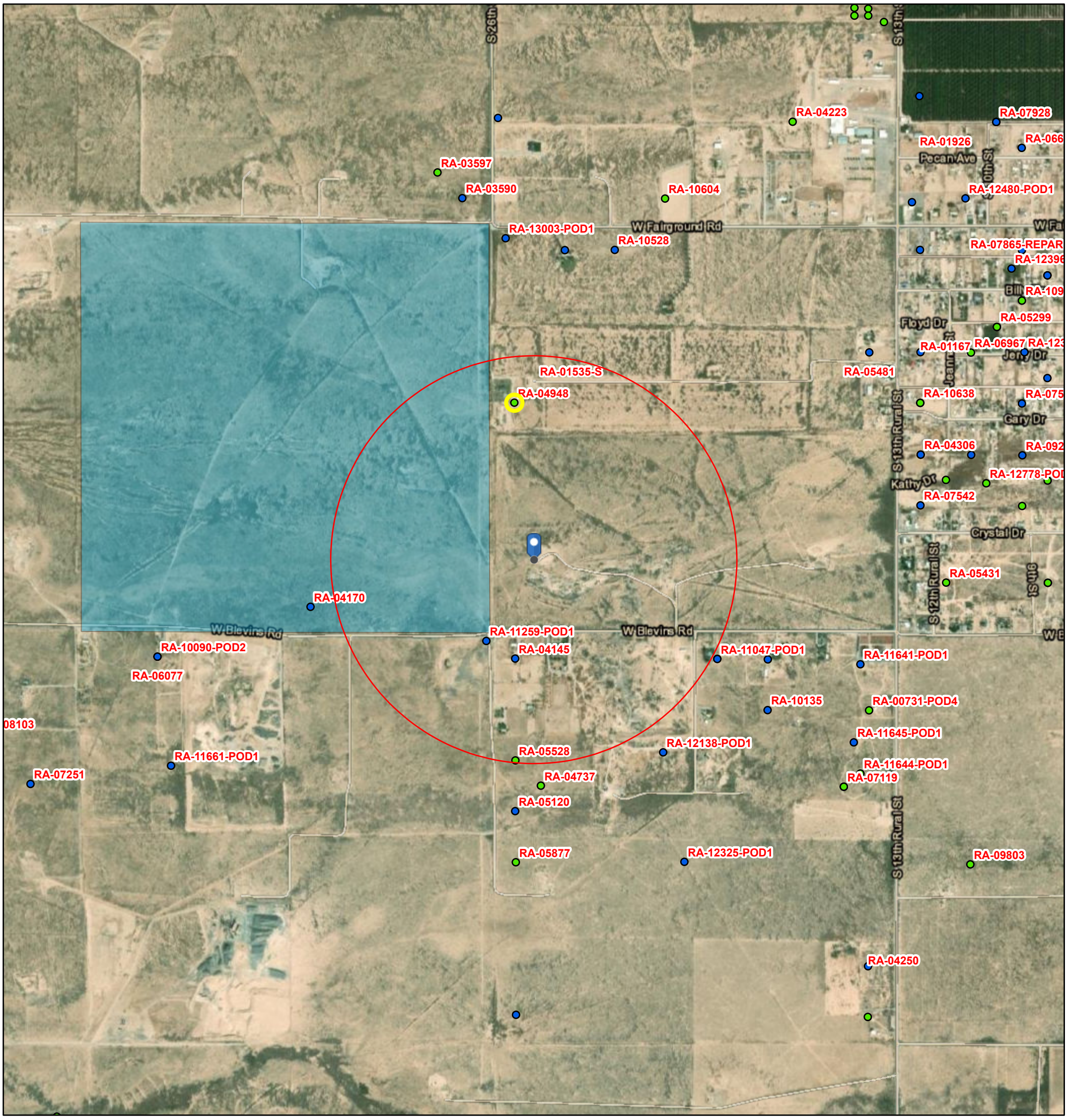
Location: Site: Patterson EL #1

Date: (SD: 2/25/22)

Sampling											
		Field Screening							Data Collection		
		Hydrocarbon		Chloride							
Sample ID	Depth (ft)	VOC (PID)	TPH (ppm)	EC Reading (mS/cm)	Temp (°C)	EC Chloride (ppm)	Chloride Titration (ppm)	Lab Analysis	Photo Taken	Marked on Sketch	Refusal Depth (ft)
BES22-03	3.0	0	10	0.11	18.6	164			✓	✓	
BES22-04	3.0	0	26	0.12	20.2	109			✓	✓	

ATTACHMENT 4

Patterson EL #1



10/18/2021, 11:55:29 AM

GIS WATERS PODs

- Active
- Pending
- OSE District Boundary

New Mexico State Trust Lands

- Both Estates
- SiteBoundaries

1:18,056

0 0.17 0.35 0.7 mi

0 0.28 0.55 1.1 km

Esri, HERE, iPC, U.S. Department of Energy Office of Legacy Management, Esri, HERE, Garmin, iPC, Maxar

Printed from Public Web Map
Unofficial Map from OSE POD Locations Web Application

Patterson EL #1

10/18/2021, 12:29:30 PM

GIS WATERS PODs

- Active

OSE District Boundary

New Mexico State Trust Lands

- Both Estates
- SiteBoundaries

1:2,257

0 0.02 0.04 0.08 mi

0 0.04 0.07 0.14 km

Maxar, Microsoft, Esri, HERE, iPC, U.S. Department of Energy Office of Legacy Management, Esri, HERE, Garmin, iPC

Printed from Public Web Map
Unofficial Map from OSE POD Locations Web Application

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
	RA 11259 POD1	2	2	2	01	18S	25E	553377	3627503

Driller License: 1400 **Driller Company:** SOUTHEAST DRILLING COMPANY

Driller Name: HAMMOND, MARK

Drill Start Date: 07/01/2008 **Drill Finish Date:** 07/05/2008 **Plug Date:**

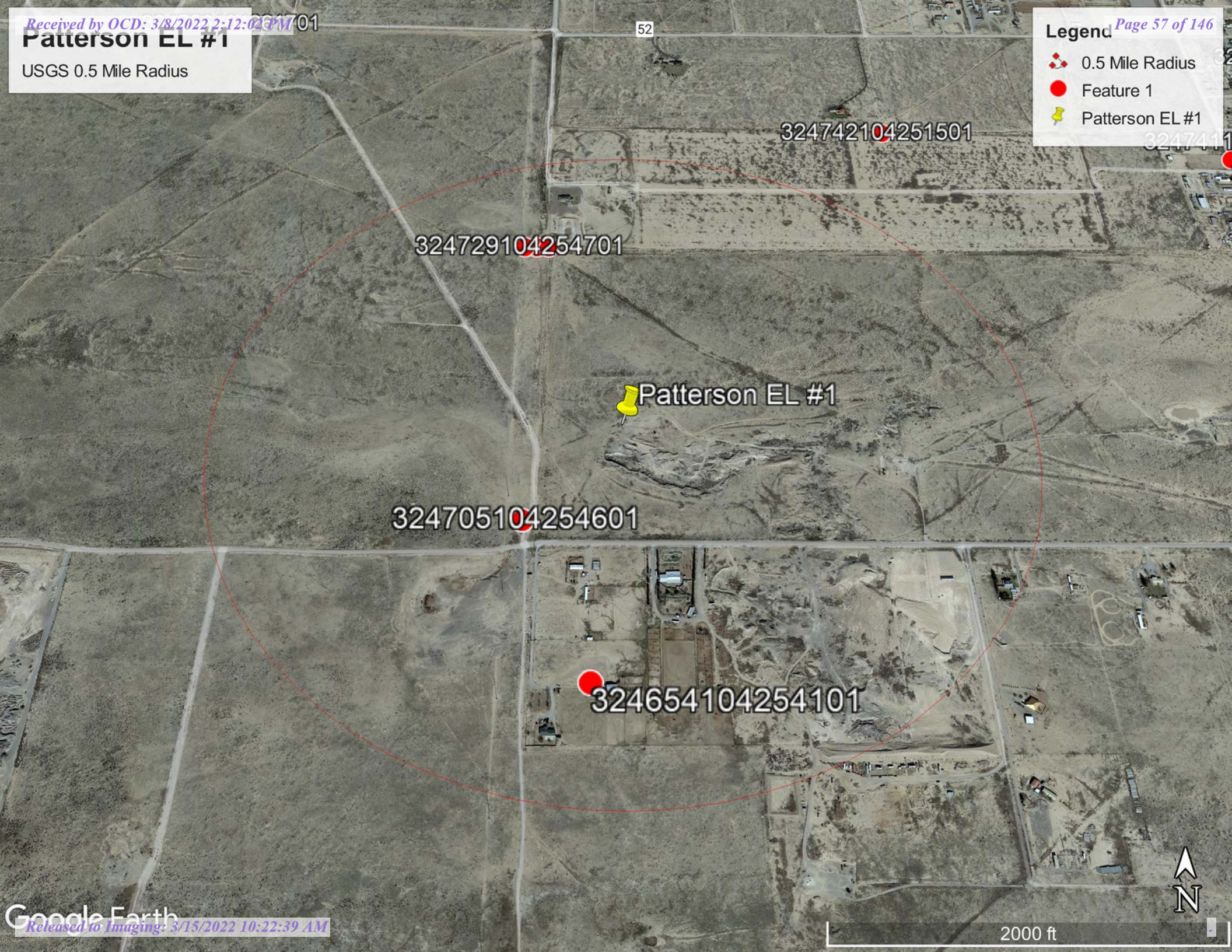
Log File Date: 03/08/2010 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 24 GPM

Casing Size: 6.63 **Depth Well:** 237 feet **Depth Water:** 190 feet

Water Bearing Stratifications:	Top	Bottom	Description
	190	196	Sandstone/Gravel/Conglomerate
	215	230	Sandstone/Gravel/Conglomerate

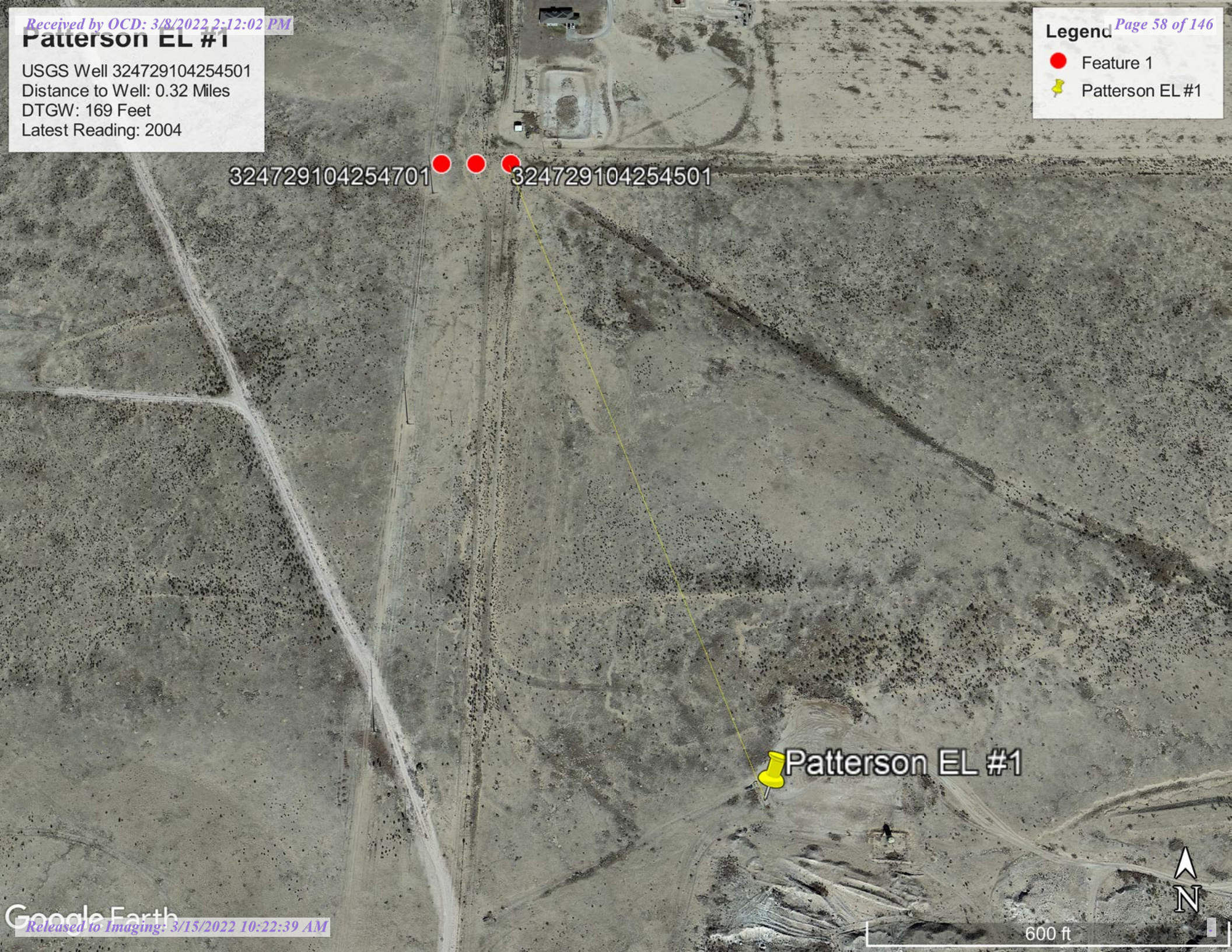
Casing Perforations:	Top	Bottom
	177	237


Patterson EL #1
USGS 0.5 Mile Radius
Legend
0.5 Mile Radius
Feature 1
Patterson EL #1
52
324742104251501
324729104254701
Patterson EL #1
324705104254601
324654104254101
N
2000 ft
Google Earth

Patterson EL #1

USGS Well 324729104254501
Distance to Well: 0.32 Miles
DTGW: 169 Feet
Latest Reading: 2004

Legend
Feature 1
Patterson EL #1



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National Water Information System: Web Interface

USGS Water Resources

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

Click to hideNews Bulletins

- Explore the *NEW* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

site_no list =

- 324729104254501

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

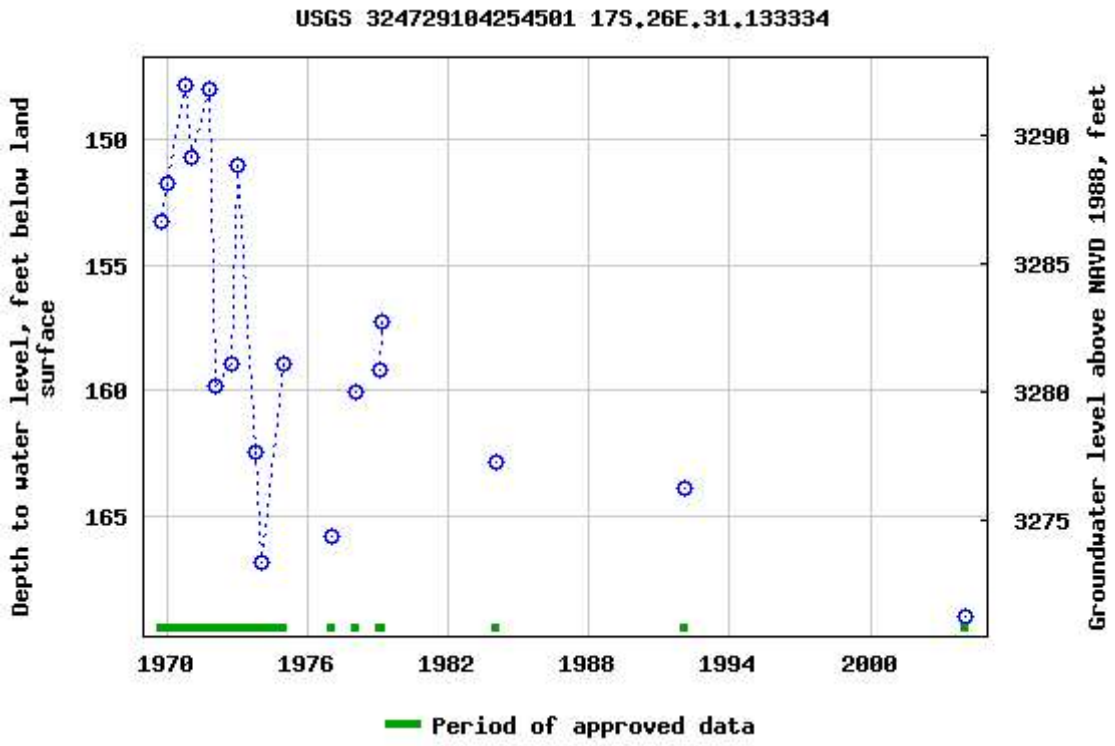
USGS 324729104254501 17S.26E.31.133334

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

Eddy County, New Mexico
Hydrologic Unit Code 13060007
Latitude 32°47'29", Longitude 104°25'45" NAD27
Land-surface elevation 3,440 feet above NAVD88
The depth of the well is 230 feet below land surface.
This well is completed in the Roswell Basin aquifer system (S400RSWLBS) national aquifer.
This well is completed in the San Andres Limestone (313SADR) 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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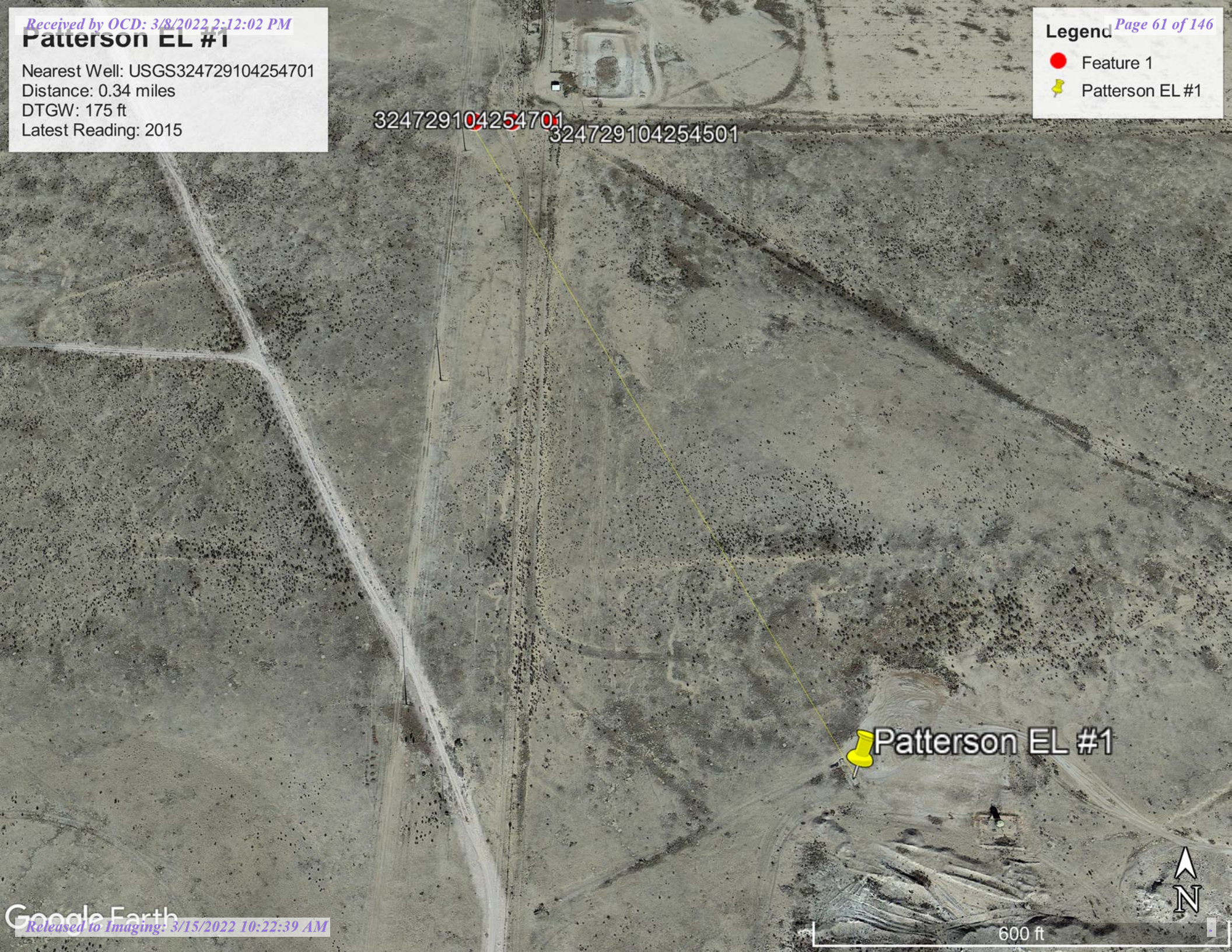
Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2021-10-18 13:53:42 EDT
0.58 0.51 nadww01

Patterson EL #1

Nearest Well: USGS324729104254701
Distance: 0.34 miles
DTGW: 175 ft
Latest Reading: 2015



National Water Information System: Web Interface

USGS Water Resources

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

Click to hideNews Bulletins

- Explore the *NEW* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

site_no list =

- 324729104254701

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

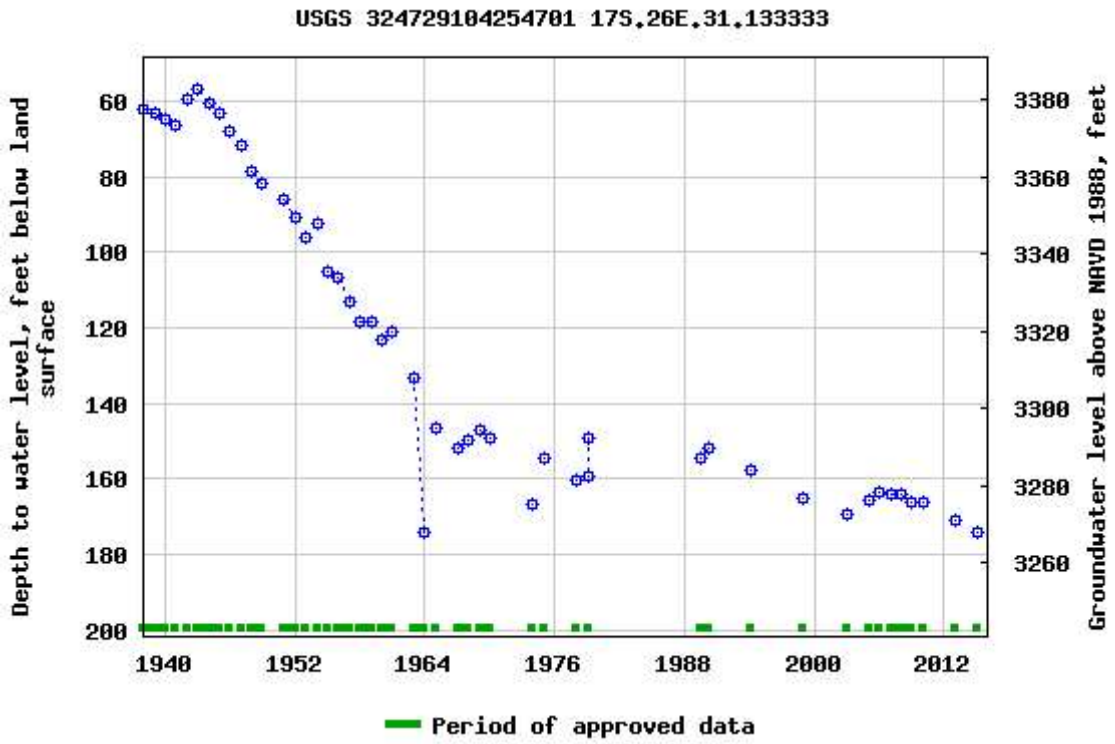
USGS 324729104254701 17S.26E.31.133333

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

Eddy County, New Mexico
Hydrologic Unit Code 13060007
Latitude 32°47'29", Longitude 104°25'47" NAD27
Land-surface elevation 3,441 feet above NAVD88
The depth of the well is 219 feet below land surface.
This well is completed in the Roswell Basin aquifer system (S400RSWLBS) national aquifer.
This well is completed in the San Andres Limestone (313SADR) 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

Questions about sites/data?
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Automated retrievals
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Data Tips
Explanation of terms
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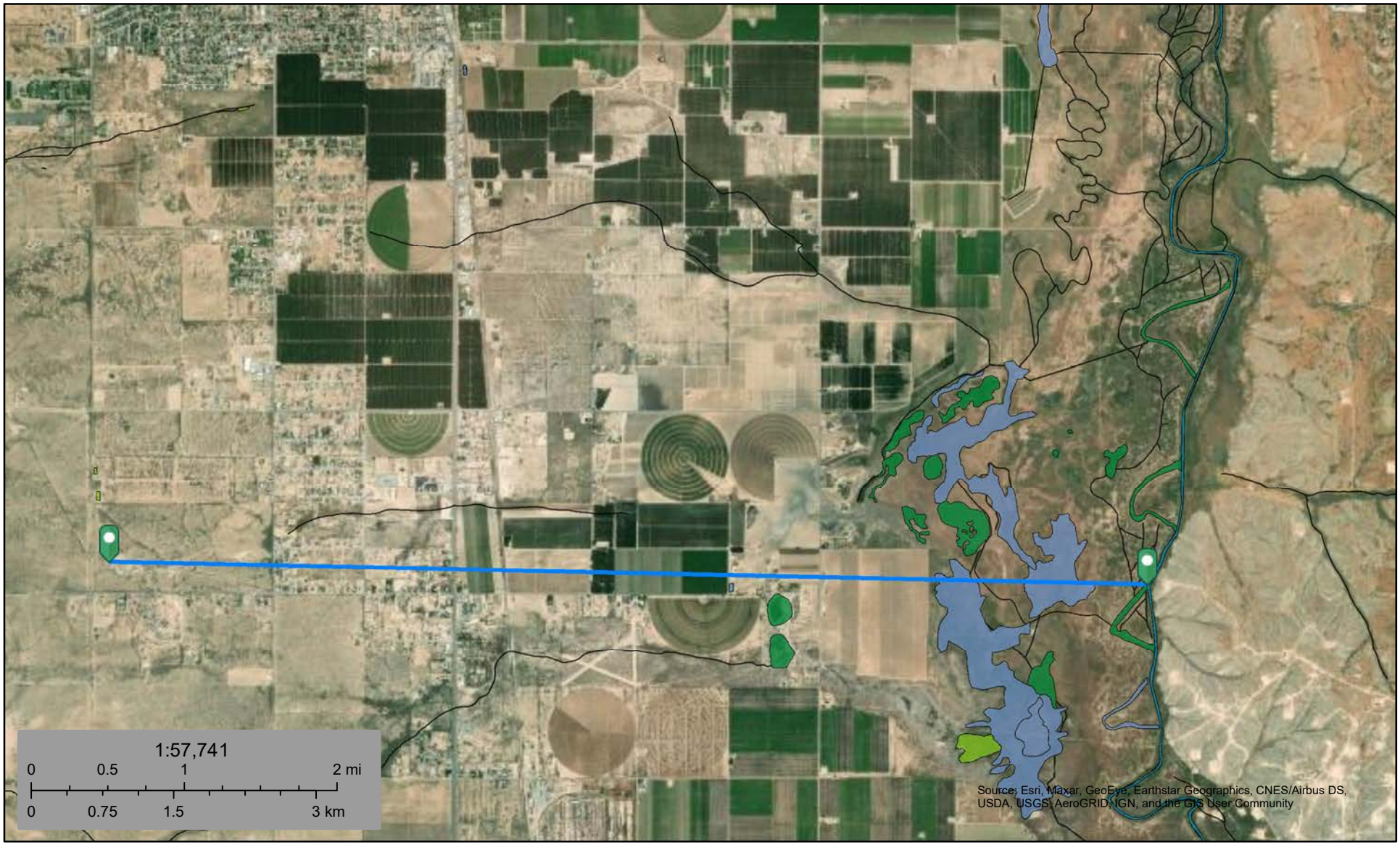
U.S. Department of the Interior | U.S. Geological Survey
Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2021-10-18 13:58:14 EDT
0.6 0.52 nadww01

U.S. Fish and Wildlife Service

National Wetlands Inventory

Patterson EL #1



October 18, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

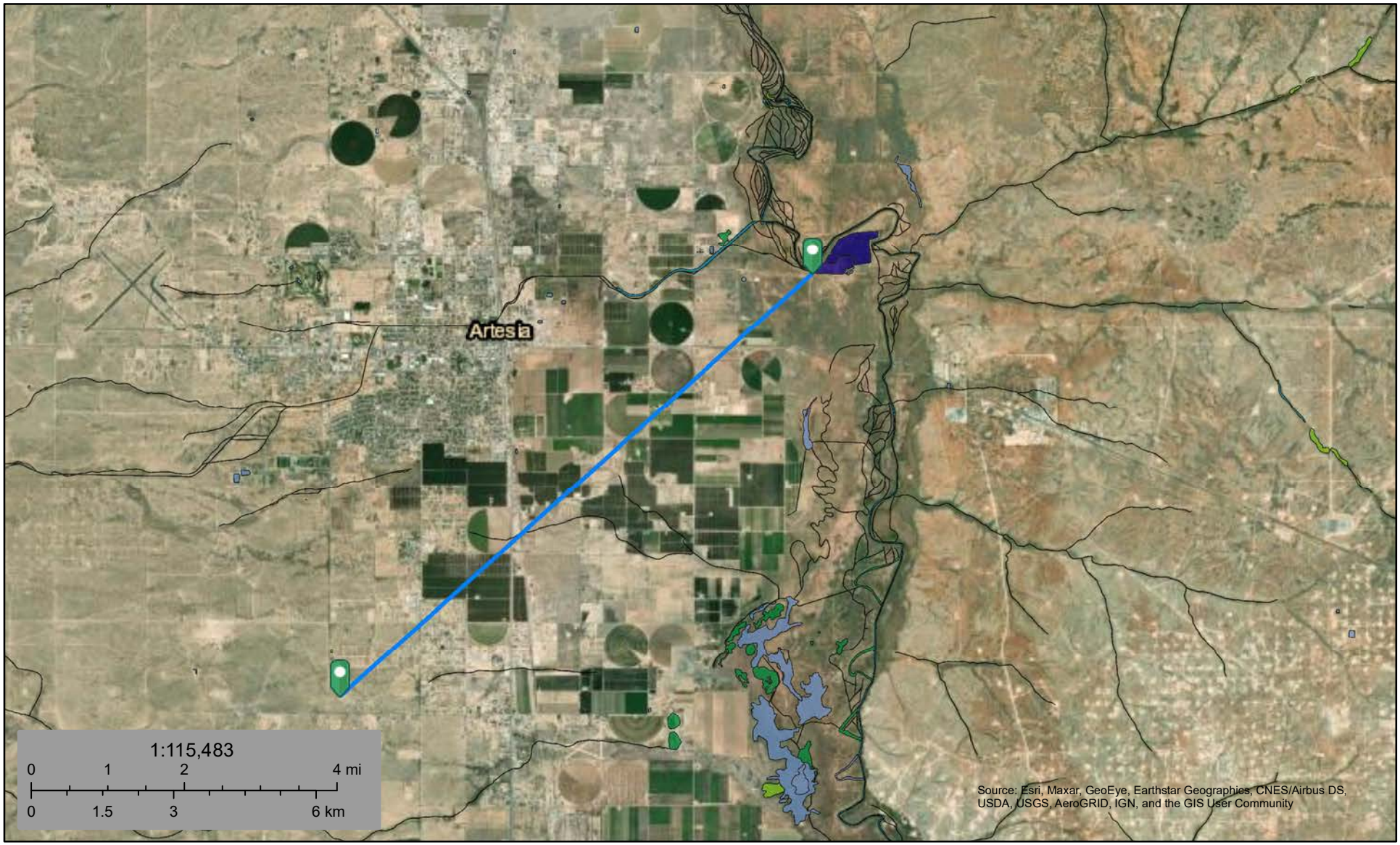
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

U.S. Fish and Wildlife Service

National Wetlands Inventory

Patterson EL #1



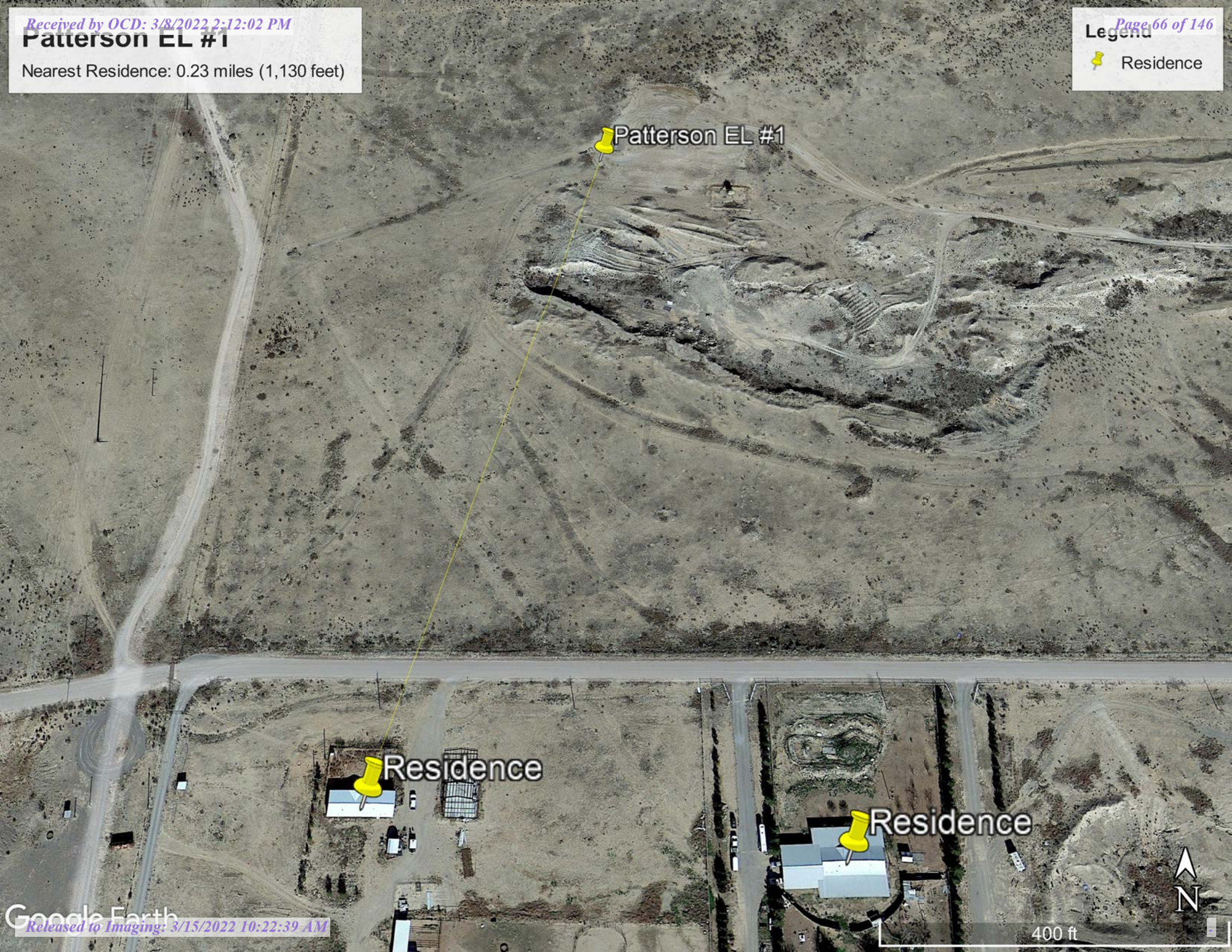
October 18, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper


Patterson EL #1
Nearest Residence: 0.23 miles (1,130 feet)
Legend
Residence
Patterson EL #1
Residence
Residence
N
400 ft
Google Earth

Patterson EL #1 Livestock Well

10/18/2021, 2:06:12 PM

GIS WATERS PODs

Active

OSE District Boundary

New Mexico State Trust Lands

Both Estates

SiteBoundaries

1:2,257

0 0.02 0.04 0.08 mi

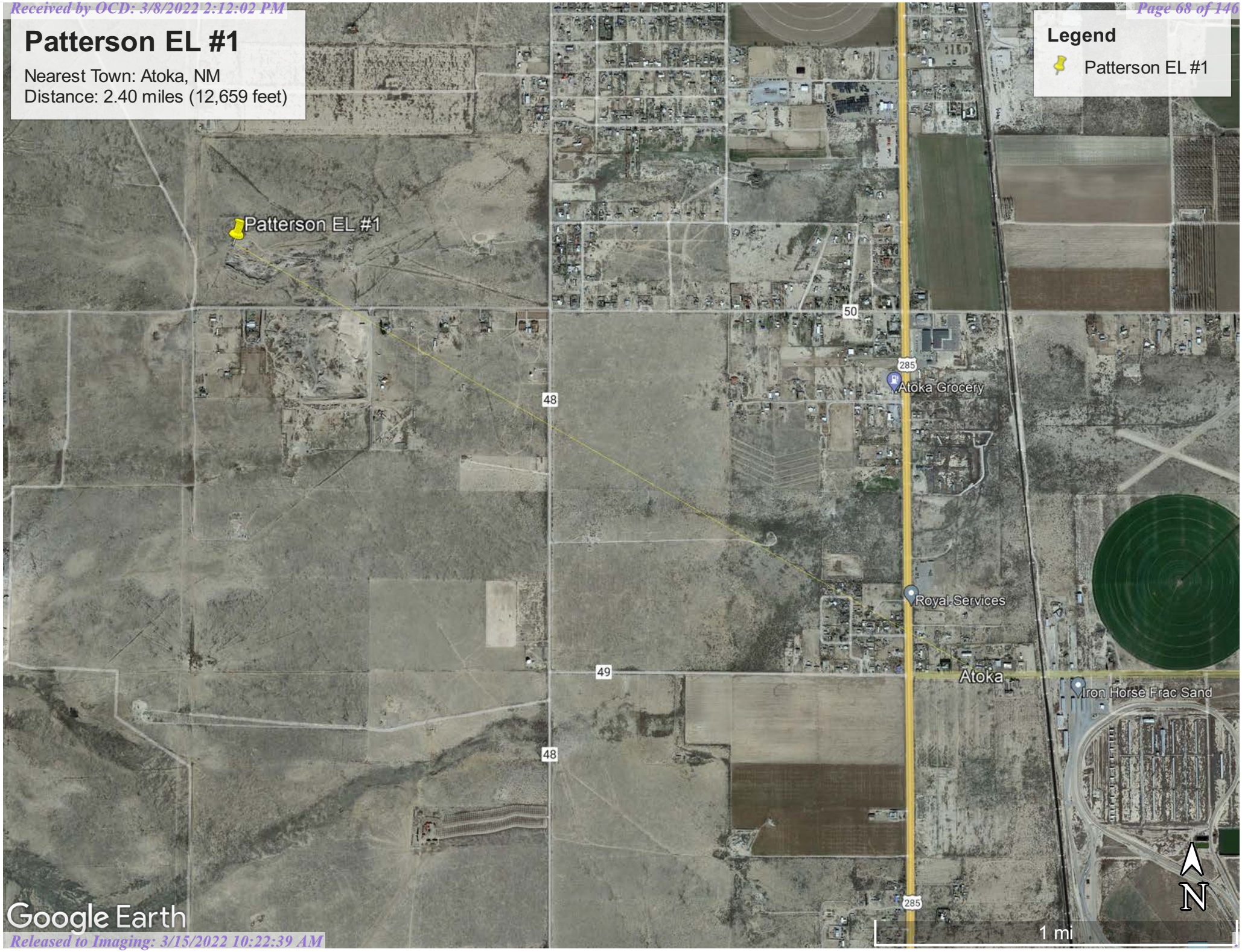
0 0.04 0.07 0.14 km

Maxar, Microsoft, Esri, HERE, iPC, U.S. Department of Energy Office of Legacy Management, Esri, HERE, Garmin, iPC

Printed from Public Web Map
Unofficial Map from OSE POD Locations Web Application

Patterson EL #1

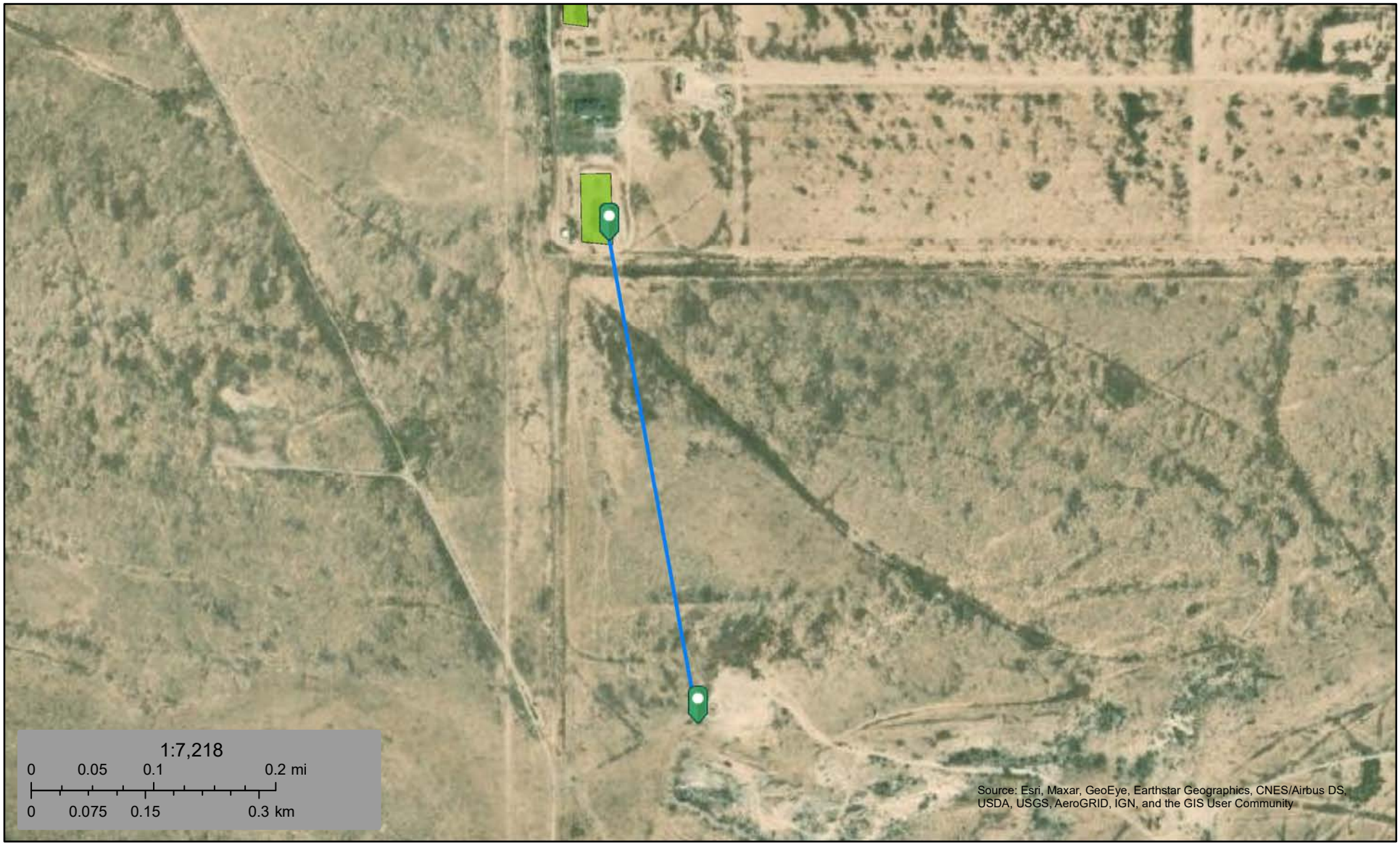
Nearest Town: Atoka, NM
Distance: 2.40 miles (12,659 feet)



U.S. Fish and Wildlife Service

National Wetlands Inventory

Patterson EL #1



October 18, 2021

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National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Patterson EL #1

11/15/2021, 1:04:03 PM

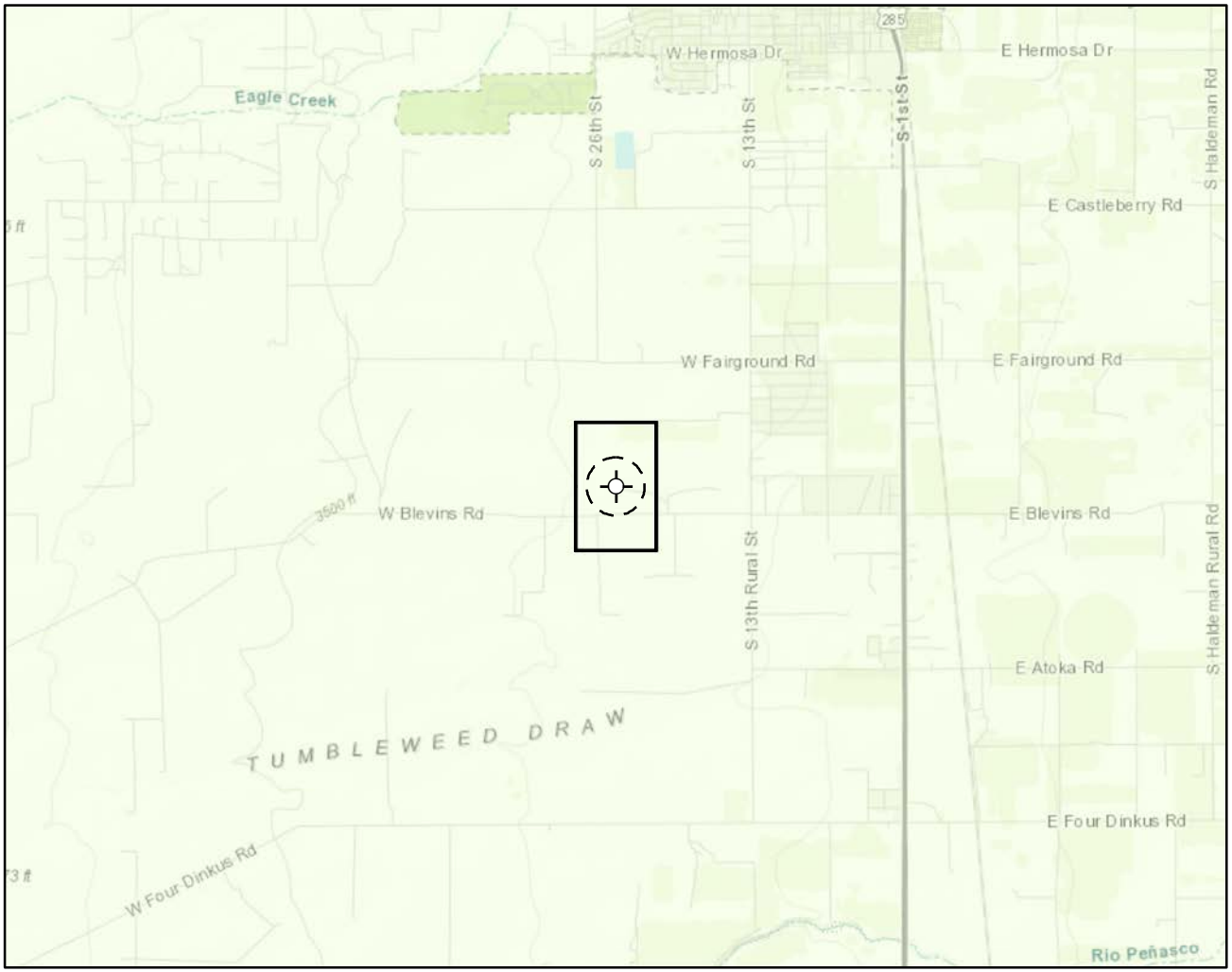
1:18,056

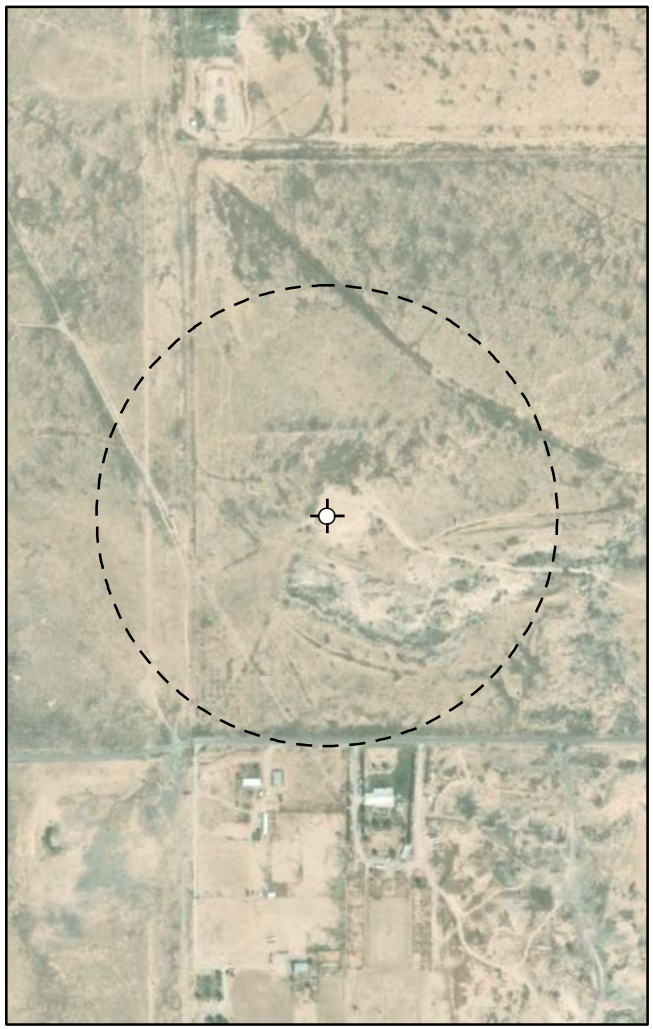
0 0.13 0.25 0.5 mi

0 0.2 0.4 0.8 km

Esri Community Maps Contributors, New Mexico State University, Texas Parks & Wildlife, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Maxar

EMNRD MMD GIS Coordinator





Karst Potential

- Critical
- High
- Medium
- Low

Site Location

Site Buffer (1,000 ft.)

Overview Map

0 0.25 0.5 1 mi

Detail Map

0 150 300 600 ft.

VERTEX

Map Center:
Lat/Long: 32.787221, -104.427750

NAD 1983 UTM Zone 13N
Date: Nov 03/21

N

Karst Potential
Patterson EL #1

FIGURE:

X

eog resources

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Inset Map, ESRI 20XX; Overview Map: ESRI World Topographic

VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\EOG Resources Inc\21E-03189\001 - Patterson EL #1\Fig X Karst Potential Patterson EL #1.mxd

National Flood Hazard Layer FIRMette

FEMA

104°25'59"W 32°47'29"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

104°25'22"W 32°46'58"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

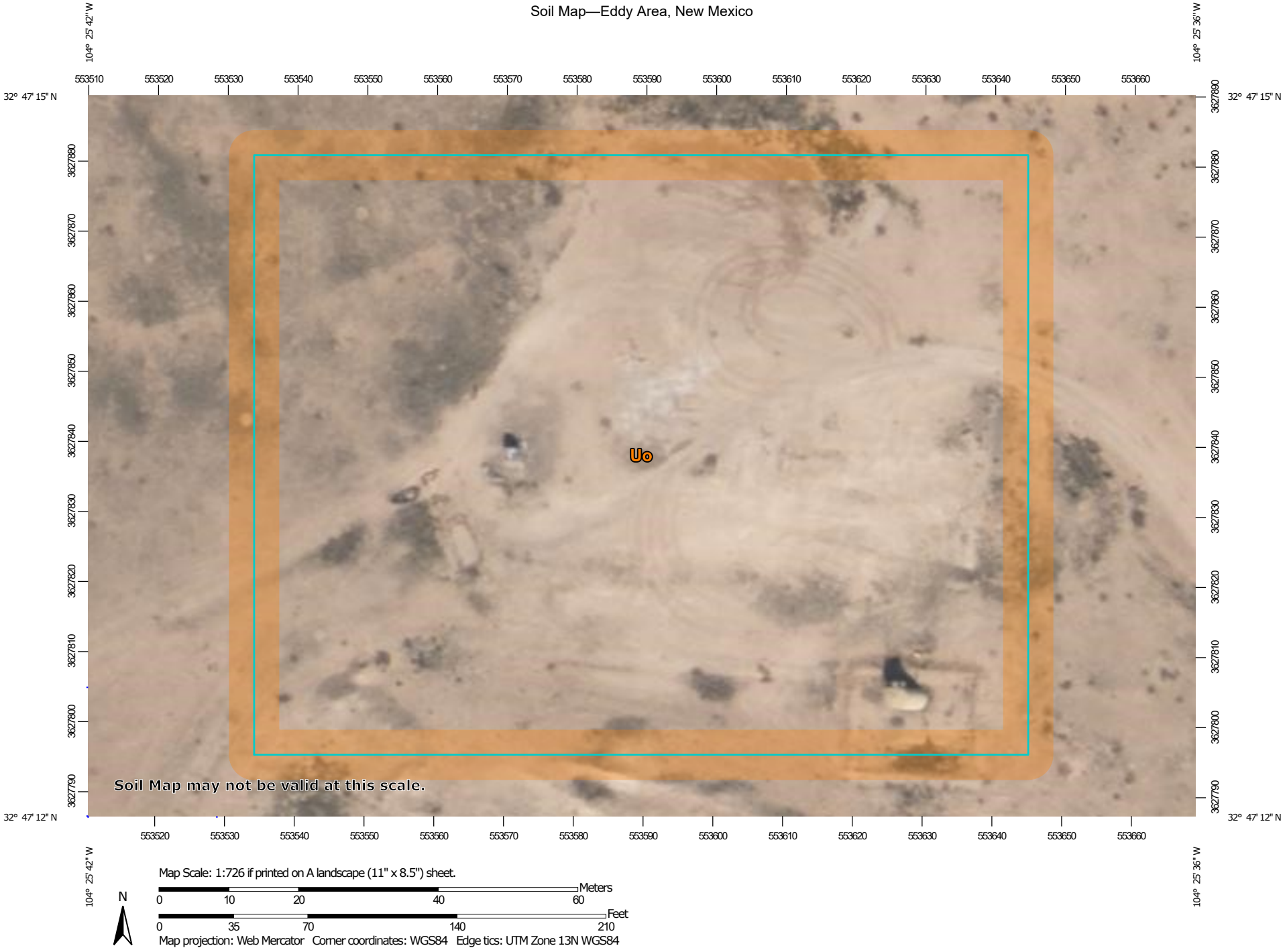
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/18/2021 at 4:12 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Soil Map—Eddy Area, New Mexico



Map Scale: 1:726 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 10 20 40 60

Feet: 0 35 70 140 210

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

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 17, Sep 12, 2021

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

Date(s) aerial images were photographed: Feb 27, 2020—Feb 28, 2020

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
Uo	Upton gravelly loam, 0 to 9 percent slopes	2.4	100.0%
Totals for Area of Interest		**2.4**	**100.0%**

Eddy Area, New Mexico

Uo—Upton gravelly loam, 0 to 9 percent slopes

Map Unit Setting

National map unit symbol: 1w67
Elevation: 1,100 to 4,400 feet
Mean annual precipitation: 7 to 15 inches
Mean annual air temperature: 60 to 70 degrees F
Frost-free period: 200 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Upton and similar soils: 96 percent
Minor components: 4 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Upton

Setting

Landform: Ridges, fans
Landform position (three-dimensional): Side slope, rise
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone

Typical profile

H1 - 0 to 9 inches: gravelly loam
H2 - 9 to 13 inches: gravelly loam
H3 - 13 to 21 inches: cemented
H4 - 21 to 60 inches: very gravelly loam

Properties and qualities

Slope: 0 to 9 percent
Depth to restrictive feature: 7 to 20 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.01 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 75 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D
Ecological site: R042XC025NM - Shallow
Hydric soil rating: No

Minor Components

Atoka
Percent of map unit: 1 percent
Ecological site: R042XC007NM - Loamy
Hydric soil rating: No

Upton
Percent of map unit: 1 percent
Ecological site: R042XC025NM - Shallow
Hydric soil rating: No

Atoka
Percent of map unit: 1 percent
Ecological site: R042XC007NM - Loamy
Hydric soil rating: No

Reagan
Percent of map unit: 1 percent
Ecological site: R042XC007NM - Loamy
Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 17, Sep 12, 2021

Ecological Reference Worksheet

Author(s) / participant(s): John Tunberg, Garth Grizzle

Contact for lead author : 505-761-4488 **Reference site used? Yes/No** No

Date: 2/17/2010 **MLRA:** 42.3 **Ecological Site:** Shallow This *must* be verified based on soils and climate (see Ecological Site Description). Current plant community *cannot* be used to identify the ecological site.

Indicators: For each indicator, describe the potential for the site. Where possible, **(1)** use numbers, **(2)** include expected range of values for above and below average years for **each** community within the reference state, when appropriate & **(3)** site data. Continue description on separate sheet.

1. Number and extent of rills There should not be any rills on this site at 5% or less slope. Few on slopes from 5 to 15% After wildfires, or abnormally high human or herbivore impacts or extended drought or combinations of these disturbances rills may double in number on steeper slopes at the margins of this site after high-intensity summer thunderstorms. Any rills formed should not be long lived or interconnected and should heal rapidly.

2. Presence of water flow patterns: Large storms can produce short, less than 1 meter flow patterns across the bare patches.

None or few on less than 5% slopes. Few to several on slopes ranging from 5% to 15%. Flow pattern length of 6 to 8 feet on steeper slopes. Water flow patterns should only be present following intense storm events on upper slope limits at the margins of this site. Numerous obstructions alter flow paths. Flow pattern length and numbers may double after wildfires, or abnormally high human or herbivore impacts or extended drought or combinations of these disturbances.

3. Number and height of erosional pedestals or terracettes: There should not be any pedestals and terracettes should be rare.

If present plant or rock pedestals and terracettes are almost always in flow patterns. Wind caused pedestals are rare and only would be on the site following after wildfires, or abnormally high human or herbivore impacts or extended drought or combinations of these disturbances. These would show signs of healing within 1 year after event.

4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground) :

Bare ground can range from 40 to 60% with bare patches less than 8 inches in size. Discontinuous. Cobble and stones up to 25%.

5. Number of gullies and erosion associated with gullies: There should not be any gullies or erosion associated with gullies on this site at slopes less than 8%.

Slopes over 8% may have limited gully erosion. Natural drainages with little to no active cutting are common on this site. There should not be any accelerated erosion. After high-intensity summer thunderstorms or after wildfire, or abnormally high human or herbivore impacts or extended drought or combinations of these disturbances then gully formation would be accelerated for a year or two. Evidence of healing within 1 year of event and continuing after that.

6. Extent of wind scoured, blowouts and/or depositional area

Wind scoured , blowouts and/or depositional areas should be rare and associated with disturbances (e.g. small mammal burrows, resting areas). Wind erosion is minimal when the site is in a well vegetated condition. Significant wind erosion would only be present following high-intensity summer thunderstorms, after wildfire, or abnormally high human or herbivore impacts or extended drought or combinations of these disturbances. After rain events, exposed soil surfaces form physical crusts that tend to reduce wind erosion. Deposition from off site sources can be common on this site and is in fact a primary soil forming process. This site is succeptable to wind erosion when vegetation is removed or significantly decreased.

7. Amount of litter movement (describe size and distance expected to travel) :

The size of the litter (grass litter) should be small and its movement should be less than 1 meter across bare patches.

8. Soil surface (top few mm) resistance to erosion (stability) values are averages - most sites will show a range of values for both plant canopy and interspaces, if different) :

Stability values are estimated to be 5 to 6 in plant canopy at surface and subsurface. 4 to 5 valus will be in interspaces at surface and subsurface.

9. Soil surface structures and SOM content (include type and strength of structure, and A-horizon color and thickness for both plant canopy and interspaces, if different) :

Surface layer is brown 0 to 3 " thick. Color is dark grey brown, brown and grey brown. Soil loss from human and high herbivor impact or extended drought will result in the loss of a portion of the surface horizon. Physical crust will occure on "baked" soils. Textures are loam and gravelly loam.

10. Effect of plant community composition (relative proportion of different functional groups) & spatial distribution on infiltration & runoff:

In a grassland with uniformly distributed grass patches on coarse-textured soils, runoff should be low to nil. Most water infiltrates at the plant bases as well as in the interspaces.

11. Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction): There should not be any compaction layers on this site.

There are soil profile features in the top 9 inches of the soil profile that would be mistaken for a management induced soil compaction layer. Management induced compaction layers will be more difficult to penetrate than clay lenses.

12. Functional/Structural Groups (list in order of descending dominance by above-ground weight using symbols: indicate much

greater than (>>) , greater than (>) , and equal to (=) :

Dominants: Black grama > Subdominants: Short-lived perennial C4 bunchgrasses [blue grama and sideoats grama] > Long-lived perennial C4 midgrasses > shrubs > forbs

13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence) :

Short-lived perennial component can exhibit significant mortality in drought, black grama tends to exhibit mortality only when exposed to drought in addition to other stressors. Shrubs/yucca should exhibit low mortality rates.

14. Average percent litter cover (_____ %) and depth (_____ inches).

5 to 8% litter cover on this site. Well distributed. Depth of 1/2 inch.

15. Expected annual production (this is TOTAL above-ground production, not just forage production):

(Low Production 251 lbs./ac.) (Average RV Production 525 lbs./ac.) (High Production 800 lbs./ac.) After wildfires, high herbivore impacts, extended drought, or combinations of these disturbances, can cause production to be significantly reduced (100-200 lbs per ac. the first growing season following a wildfire) and recover slowly under below average precipitation regimes.

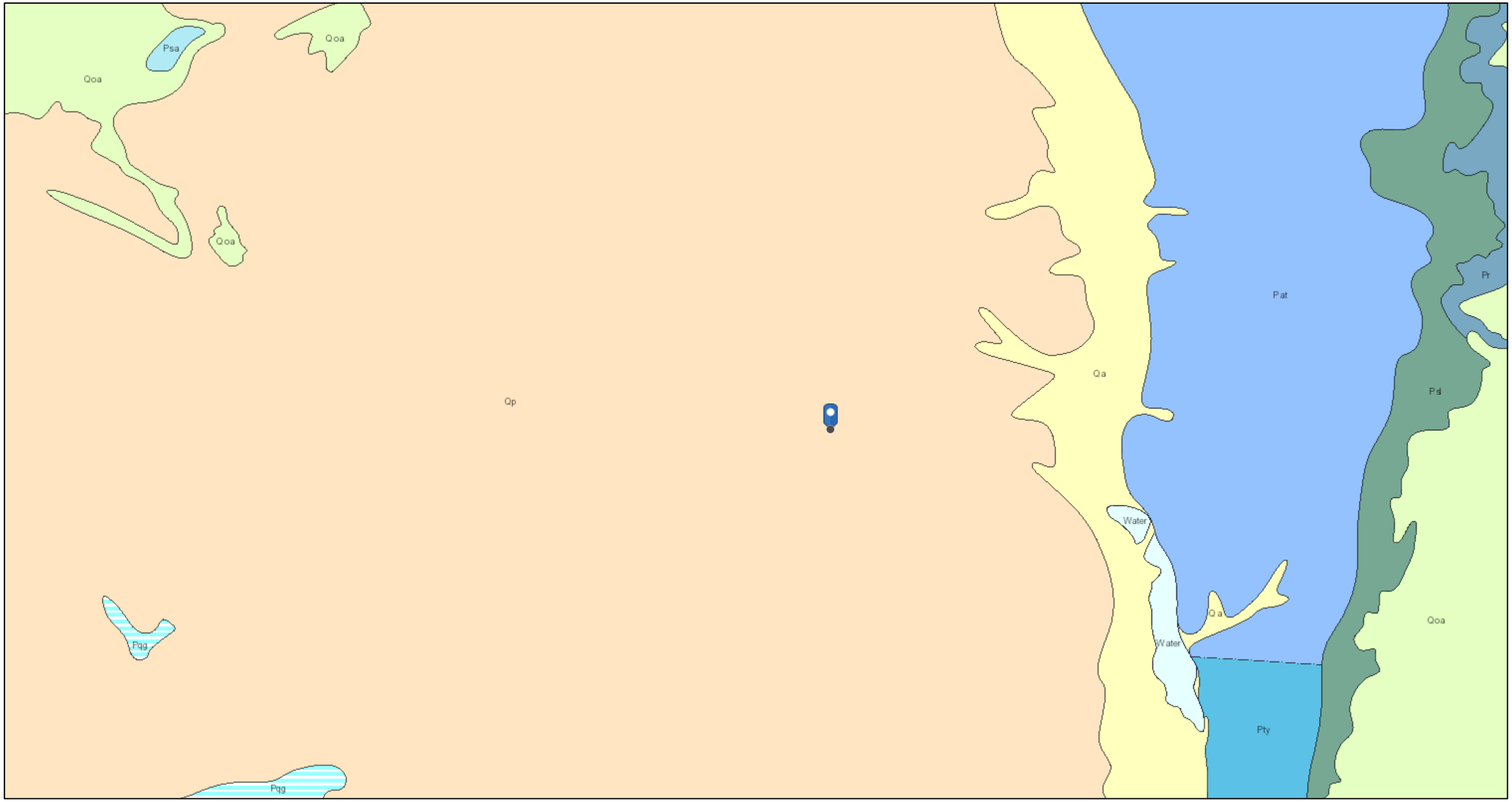
16. Potential invasive (including noxious) species (native and non-native). List species which characterize degraded states and which, after a threshold is crossed, "can, and often do , continue to increase regardless of the management of the site and may eventually dominate

Mesquite, whitethorn and creosotebush (where gravel content high) can be invaders of this site. Invasive plants should not occur in reference plant community. However, lovegrass, Russian thistle, kochia, and other nonnative annuals may initialy invade following extended disturbance. Mesquite and whitethorn and creosote and lovegrass are the greatest threat to dominate this site in the long term after disturbance (primarily following wildfire exclusion but also includes high human or herbivore impacts and extended drought). Mesquite and whitethorn and creosote and lovegrass are most likely to retain dominance if allowed to alter natural fire regime (this alteration may require poor land management combined with years of wet winter-spring; dry summer-fall conditions). Any of these invaded communities represent a departure from the reference state.

17. Perennial plant reproductive capability :

Black grama reproduces by seed sporadically and reproduction by tiller and stolon can be common. The dropseeds should have high reproductive potential and rapidly recover from drought in the absence of additional stresses (grazing).

Patterson EL #1



11/15/2021, 1:23:06 PM

1:144,448

0 1.5 3 6 mi

0 2.25 4.5 9 km

Lithologic Contacts

- Contact, Exposed
- Contact, Gradational
- Nomenclature change
- Map Boundary

Faults

- Fault, Exposed
- Fault, Intermittent
- Fault, Concealed
- Shere Zone

Dikes

- <all other values>
- Dike
- Dike intruding fault

Volcanic Vents

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, NMBGMR

ATTACHMENT 5

Client Name: EOG Y Resources, Inc.
Site Name: Patterson EL #1
NM OCD Tracking #: nAPP21335591
Project #: 21E-03819-01
Lab Report: E110138

Table 2. Initial Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater 51-100 feet bgs

Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic
						Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH21-01	0	10/25/2021	0	-	0	ND	ND	ND	26.3	**114**	26.3	**140.3**	ND
BH21-01	1	10/25/2021	0	77	21	ND	ND	ND	ND	ND	ND	ND	ND
BH21-02	0	10/25/2021	0	-	73	ND	ND	ND	ND	ND	ND	ND	ND
BH21-02	1	10/25/2021	0	26	135	ND	ND	ND	ND	ND	ND	ND	ND
BH21-03	0	10/25/2021	0	-	25	ND	ND	ND	ND	**169**	ND	**169**	ND
BH21-03	1	10/25/2021	0	98	203	ND	ND	ND	ND	65.3	ND	65.3	ND
BH21-04	0	10/25/2021	0	-	25	ND	ND	ND	**793**	**3240**	**793**	**4033**	ND
BH21-04	1	10/25/2021	0	66	37	ND	ND	ND	ND	ND	ND	ND	ND
BH21-05	0	10/25/2021	9	-	0	ND	ND	ND	**8480**	**29600**	**8480**	**38080**	ND
BH21-05	1	10/25/2021	5	595	57	ND	ND	ND	**228**	**768**	**228**	**996**	ND
BH21-05	2	10/25/2021	1	74	164	ND	ND	ND	62.3	**231**	62.3	**293.3**	ND
BH21-06	0	10/25/2021	2	-	304	ND	ND	ND	ND	ND	ND	ND	21
BH21-06	1	10/25/2021	0	24	393	ND	ND	ND	ND	ND	ND	ND	41.1

"ND" Not Detected at the Reporting Limit
"-" indicates not analyzed/assessed
Bold and grey shaded indicates exceedance outside of NM OCD Closure Criteria (on-pad)
Bold and green shaded indicates exceedance outside of NM OCD Reclamation Criteria (off-pad)

Client Name: EOG Y Resources, Inc.
Site Name: Patterson EL #1
NMOCD Tracking #: nAPP213355991
Project #: 21E-03819-01
Lab Reports: E111121 , E203002

Table 3. Confirmatory Sample Field Screen and Laboratory Results - Depth to Groundwater >100 feet bgs

Sample Description			Field Screening			Petroleum Hydrocarbons						Inorganic
						Volatile		Extractable				
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BS21-01	3	11/16/2021	0	23	161	ND	ND	ND	ND	ND	ND	ND
BS21-02	2	11/16/2021	0	2	147	ND	ND	ND	ND	ND	ND	ND
BS21-03	2	11/16/2021	0	20	119	ND	ND	ND	36.7	138	174.7	ND
BS22-03	3	2/25/2022	0	10	164	ND	ND	ND	ND	ND	ND	23.3
BS21-04	2	11/16/2021	0	16	124	ND	ND	ND	121	349	470	ND
BS22-04	3	2/25/2022	0	26	109	ND	ND	ND	ND	ND	ND	ND
WS21-01	0-3	11/16/2021	0	32	109	ND	ND	ND	ND	ND	ND	ND
WS21-02	0-2	11/16/2021	0	30	129	ND	ND	ND	ND	ND	ND	456
WS21-03	0-2	11/16/2021	0	82	105	ND	ND	ND	ND	ND	ND	ND
WS21-04	0-2	11/16/2021	0	78	138	ND	ND	ND	ND	ND	ND	ND

"ND" Not Detected at the Reporting Limit
"-" indicates not analyzed/assessed
Bold and grey shaded indicates exceedance outside of NMOCD Closure Criteria (on-pad)
Bold and green shaded indicates samples recollected and below criteria (on-pad)

ATTACHMENT 6

From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Sent: Wednesday, December 1, 2021 8:57 AM
To: Bob Asher <Bob_Asher@eogresources.com>
Subject: RE: [EXTERNAL] Patterson EL #1 Sample Results

Bob,

In the future, make sure the OCD receives all sampling notifications at least 48 hours prior. Please, include sampling results in closure report.

Robert Hamlet ● Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Bob Asher <Bob_Asher@eogresources.com>
Sent: Wednesday, December 1, 2021 8:34 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Subject: [EXTERNAL] Patterson EL #1 Sample Results
Importance: High

Rob,

Good morning, attached are sample results from historical contamination discovered after the above well was plugged/equipment removed. The 'Confirmation Table' was a final sampling, but we did not submit a 48 Hour Notification to you before the samples were collected.

EOG would like to request if you would accept the confirmation table results with a submitted Closure Request?

Please let me know if this will be acceptable.

Thank you,

Robert Asher
Environmental Supervisor, S & E Department, EOG Resources, Inc. Artesia Division,104 South Fourth Street, Artesia, NM 88210, 575-748-4217 (Office), 575-365-4021 (Cell)

EOG Safety Begins with YOUR Safety

eogresources

Monica Peppin

From: Bob Asher <Bob_Asher@eogresources.com>
Sent: Wednesday, February 23, 2022 8:20 AM
To: Monica Peppin
Cc: Dennis Williams; Michael Moffitt
Subject: FW: Patterson EL 1 (nAPP2131355991) Sampling Notification

Importance: High

Sampling notification sent.

Thank you,

Robert Asher
Environmental Supervisor, S & E Department, EOG Resources, Inc. Artesia Division, 104 South Fourth Street, Artesia, NM 88210, 575-748-4217 (Office), 575-365-4021 (Cell)

EOG Safety Begins with YOUR Safety

eog resources

From: Tina Huerta <Tina_Huerta@eogresources.com>
Sent: Wednesday, February 23, 2022 8:18 AM
To: Robert.Hamlet@state.nm.us
Cc: Artesia Regulatory <Artesia_Regulatory@eogresources.com>; Bob Asher <Bob_Asher@eogresources.com>; Chase Settle <Chase_Settle@eogresources.com>; Katie Jamison <Katie_Jamison@eogresources.com>; Yvette Moore <Yvette_Moore@eogresources.com>
Subject: Patterson EL 1 (nAPP2131355991) Sampling Notification

Good Morning,

EOG Resources, Inc. respectfully submits notification of sampling activities to be conducted at the below site.

Patterson EL 1
Section 31-17S-R26E
Eddy County, NM
nAPP2131355991

Sampling will begin at 9:00 a.m. on Friday, February 25, 2022.

Thank you,

Tina Huerta
Regulatory Specialist
Direct: 575.748.4168
Cell: 575.703.3121
Email: tina_huerta@eogresources.com

eog resources

Artesia Division

ATTACHMENT 7

Report to:

Dennis Williams

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

EOG Resources Inc. - Carlsbad

Project Name:	Patterson EL #1
Work Order:	E110138
Job Number:	19034-0001
Received:	10/27/2021

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/2/21

Date Reported: 11/2/21

Dennis Williams
104 South 4th Street
Artesia, NM 88210

Project Name: Patterson EL #1
Workorder: E110138
Date Received: 10/27/2021 10:30:00AM

Dennis Williams,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/27/2021 10:30:00AM, under the Project Name: Patterson EL #1.

The analytical test results summarized in this report with the Project Name: Patterson EL #1 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area
Lynn Jarboe
Technical Representative/Client Services
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

West Texas Midland/Odessa Area
Rayny Hagan
Technical Representative
Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Sample Summary

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	**Reported:**
104 South 4th Street	Project Number:	19034-0001	
Artesia NM, 88210	Project Manager:	Dennis Williams	11/02/21 15:35

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH21-01 0'	E110138-01A	Soil	10/25/21	10/27/21	Glass Jar, 4 oz.
BH21-01 1'	E110138-02A	Soil	10/25/21	10/27/21	Glass Jar, 4 oz.
BH21-02 0'	E110138-03A	Soil	10/25/21	10/27/21	Glass Jar, 4 oz.
BH21-02 1'	E110138-04A	Soil	10/25/21	10/27/21	Glass Jar, 4 oz.
BH21-03 0'	E110138-05A	Soil	10/25/21	10/27/21	Glass Jar, 4 oz.
BH21-03 1'	E110138-06A	Soil	10/25/21	10/27/21	Glass Jar, 4 oz.
BH21-04 0'	E110138-07A	Soil	10/25/21	10/27/21	Glass Jar, 4 oz.
BH21-04 1'	E110138-08A	Soil	10/25/21	10/27/21	Glass Jar, 4 oz.
BH21-05 0'	E110138-09A	Soil	10/25/21	10/27/21	Glass Jar, 4 oz.
BH21-05 1'	E110138-10A	Soil	10/25/21	10/27/21	Glass Jar, 4 oz.
BH21-05 2'	E110138-11A	Soil	10/25/21	10/27/21	Glass Jar, 4 oz.
BH21-06 0	E110138-12A	Soil	10/25/21	10/27/21	Glass Jar, 4 oz.
BH21-06 1'	E110138-13A	Soil	10/25/21	10/27/21	Glass Jar, 4 oz.

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/2/2021 3:35:32PM

BH21-01 0'

E110138-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Benzene	ND	0.0250	1	10/28/21	10/30/21	
Ethylbenzene	ND	0.0250	1	10/28/21	10/30/21	
Toluene	ND	0.0250	1	10/28/21	10/30/21	
o-Xylene	ND	0.0250	1	10/28/21	10/30/21	
p,m-Xylene	ND	0.0500	1	10/28/21	10/30/21	
Total Xylenes	ND	0.0250	1	10/28/21	10/30/21	
Surrogate: 4-Bromochlorobenzene-PID		*100 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/21	10/30/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*109 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2144062
Diesel Range Organics (C10-C28)	**26.3**	25.0	1	10/28/21	10/29/21	
Oil Range Organics (C28-C36)	**114**	50.0	1	10/28/21	10/29/21	
Surrogate: n-Nonane		*109 %*	*50-200*	*10/28/21*	*10/29/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2144055
Chloride	ND	20.0	1	10/28/21	11/01/21	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/2/2021 3:35:32PM

BH21-01 1'

E110138-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Benzene	ND	0.0250	1	10/28/21	10/30/21	
Ethylbenzene	ND	0.0250	1	10/28/21	10/30/21	
Toluene	ND	0.0250	1	10/28/21	10/30/21	
o-Xylene	ND	0.0250	1	10/28/21	10/30/21	
p,m-Xylene	ND	0.0500	1	10/28/21	10/30/21	
Total Xylenes	ND	0.0250	1	10/28/21	10/30/21	
Surrogate: 4-Bromochlorobenzene-PID		*99.6 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/21	10/30/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*109 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2144062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/21	10/29/21	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/21	10/29/21	
Surrogate: n-Nonane		*87.4 %*	*50-200*	*10/28/21*	*10/29/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2144055
Chloride	ND	20.0	1	10/28/21	11/01/21	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/2/2021 3:35:32PM

BH21-02 0'

E110138-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Benzene	ND	0.0250	1	10/28/21	10/30/21	
Ethylbenzene	ND	0.0250	1	10/28/21	10/30/21	
Toluene	ND	0.0250	1	10/28/21	10/30/21	
o-Xylene	ND	0.0250	1	10/28/21	10/30/21	
p,m-Xylene	ND	0.0500	1	10/28/21	10/30/21	
Total Xylenes	ND	0.0250	1	10/28/21	10/30/21	
Surrogate: 4-Bromochlorobenzene-PID		*99.2 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/21	10/30/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*110 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2144062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/21	10/29/21	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/21	10/29/21	
Surrogate: n-Nonane		*86.8 %*	*50-200*	*10/28/21*	*10/29/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2144055
Chloride	ND	20.0	1	10/28/21	11/01/21	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/2/2021 3:35:32PM

BH21-02 1'

E110138-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Benzene	ND	0.0250	1	10/28/21	10/30/21	
Ethylbenzene	ND	0.0250	1	10/28/21	10/30/21	
Toluene	ND	0.0250	1	10/28/21	10/30/21	
o-Xylene	ND	0.0250	1	10/28/21	10/30/21	
p,m-Xylene	ND	0.0500	1	10/28/21	10/30/21	
Total Xylenes	ND	0.0250	1	10/28/21	10/30/21	
Surrogate: 4-Bromochlorobenzene-PID		*98.4 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/21	10/30/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*109 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2144062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/21	10/30/21	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/21	10/30/21	
Surrogate: n-Nonane		*82.0 %*	*50-200*	*10/28/21*	*10/30/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2144055
Chloride	ND	20.0	1	10/28/21	11/01/21	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/2/2021 3:35:32PM

BH21-03 0'

E110138-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Benzene	ND	0.0250	1	10/28/21	10/30/21	
Ethylbenzene	ND	0.0250	1	10/28/21	10/30/21	
Toluene	ND	0.0250	1	10/28/21	10/30/21	
o-Xylene	ND	0.0250	1	10/28/21	10/30/21	
p,m-Xylene	ND	0.0500	1	10/28/21	10/30/21	
Total Xylenes	ND	0.0250	1	10/28/21	10/30/21	
Surrogate: 4-Bromochlorobenzene-PID		*96.9 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/21	10/30/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*109 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2144062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/21	10/30/21	
Oil Range Organics (C28-C36)	**169**	50.0	1	10/28/21	10/30/21	
Surrogate: n-Nonane		*125 %*	*50-200*	*10/28/21*	*10/30/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2144055
Chloride	ND	20.0	1	10/28/21	11/01/21	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/2/2021 3:35:32PM

BH21-03 1'

E110138-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Benzene	ND	0.0250	1	10/28/21	10/30/21	
Ethylbenzene	ND	0.0250	1	10/28/21	10/30/21	
Toluene	ND	0.0250	1	10/28/21	10/30/21	
o-Xylene	ND	0.0250	1	10/28/21	10/30/21	
p,m-Xylene	ND	0.0500	1	10/28/21	10/30/21	
Total Xylenes	ND	0.0250	1	10/28/21	10/30/21	
Surrogate: 4-Bromochlorobenzene-PID		*97.8 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/21	10/30/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*106 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2144062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/21	10/30/21	
Oil Range Organics (C28-C36)	**65.3**	50.0	1	10/28/21	10/30/21	
Surrogate: n-Nonane		*126 %*	*50-200*	*10/28/21*	*10/30/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2144055
Chloride	ND	20.0	1	10/28/21	11/01/21	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/2/2021 3:35:32PM

BH21-04 0'

E110138-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Benzene	ND	0.0250	1	10/28/21	10/30/21	
Ethylbenzene	ND	0.0250	1	10/28/21	10/30/21	
Toluene	ND	0.0250	1	10/28/21	10/30/21	
o-Xylene	ND	0.0250	1	10/28/21	10/30/21	
p,m-Xylene	ND	0.0500	1	10/28/21	10/30/21	
Total Xylenes	ND	0.0250	1	10/28/21	10/30/21	
Surrogate: 4-Bromochlorobenzene-PID		*98.8 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/21	10/30/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*104 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2144062
Diesel Range Organics (C10-C28)	**793**	25.0	1	10/28/21	10/30/21	
Oil Range Organics (C28-C36)	**3240**	50.0	1	10/28/21	10/30/21	
Surrogate: n-Nonane		*114 %*	*50-200*	*10/28/21*	*10/30/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2144055
Chloride	ND	20.0	1	10/28/21	11/01/21	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/2/2021 3:35:32PM

BH21-04 1'

E110138-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Benzene	ND	0.0250	1	10/28/21	10/30/21	
Ethylbenzene	ND	0.0250	1	10/28/21	10/30/21	
Toluene	ND	0.0250	1	10/28/21	10/30/21	
o-Xylene	ND	0.0250	1	10/28/21	10/30/21	
p,m-Xylene	ND	0.0500	1	10/28/21	10/30/21	
Total Xylenes	ND	0.0250	1	10/28/21	10/30/21	
Surrogate: 4-Bromochlorobenzene-PID		*100 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/21	10/30/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*102 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2144062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/21	11/01/21	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/21	11/01/21	
Surrogate: n-Nonane		*116 %*	*50-200*	*10/28/21*	*11/01/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2144055
Chloride	ND	20.0	1	10/28/21	11/01/21	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/2/2021 3:35:32PM

BH21-05 0'

E110138-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Benzene	ND	0.0250	1	10/28/21	10/30/21	
Ethylbenzene	ND	0.0250	1	10/28/21	10/30/21	
Toluene	ND	0.0250	1	10/28/21	10/30/21	
o-Xylene	ND	0.0250	1	10/28/21	10/30/21	
p,m-Xylene	ND	0.0500	1	10/28/21	10/30/21	
Total Xylenes	ND	0.0250	1	10/28/21	10/30/21	
Surrogate: 4-Bromochlorobenzene-PID		*98.7 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/21	10/30/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*101 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2144062
Diesel Range Organics (C10-C28)	**8480**	2500	100	10/28/21	11/01/21	
Oil Range Organics (C28-C36)	**29600**	5000	100	10/28/21	11/01/21	
Surrogate: n-Nonane		*142 %*	*50-200*	*10/28/21*	*11/01/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2144055
Chloride	ND	20.0	1	10/28/21	11/01/21	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/2/2021 3:35:32PM

BH21-05 1'

E110138-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Benzene	ND	0.0250	1	10/28/21	10/30/21	
Ethylbenzene	ND	0.0250	1	10/28/21	10/30/21	
Toluene	ND	0.0250	1	10/28/21	10/30/21	
o-Xylene	ND	0.0250	1	10/28/21	10/30/21	
p,m-Xylene	ND	0.0500	1	10/28/21	10/30/21	
Total Xylenes	ND	0.0250	1	10/28/21	10/30/21	
Surrogate: 4-Bromochlorobenzene-PID		*98.4 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/21	10/30/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*101 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2144062
Diesel Range Organics (C10-C28)	**228**	25.0	1	10/28/21	10/30/21	
Oil Range Organics (C28-C36)	**768**	50.0	1	10/28/21	10/30/21	
Surrogate: n-Nonane		*117 %*	*50-200*	*10/28/21*	*10/30/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2144055
Chloride	ND	20.0	1	10/28/21	11/01/21	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/2/2021 3:35:32PM

BH21-05 2'

E110138-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Benzene	ND	0.0250	1	10/28/21	10/30/21	
Ethylbenzene	ND	0.0250	1	10/28/21	10/30/21	
Toluene	ND	0.0250	1	10/28/21	10/30/21	
o-Xylene	ND	0.0250	1	10/28/21	10/30/21	
p,m-Xylene	ND	0.0500	1	10/28/21	10/30/21	
Total Xylenes	ND	0.0250	1	10/28/21	10/30/21	
Surrogate: 4-Bromochlorobenzene-PID		*100 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/21	10/30/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*102 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2144062
Diesel Range Organics (C10-C28)	**62.3**	25.0	1	10/28/21	11/01/21	
Oil Range Organics (C28-C36)	**231**	50.0	1	10/28/21	11/01/21	
Surrogate: n-Nonane		*105 %*	*50-200*	*10/28/21*	*11/01/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2144055
Chloride	ND	20.0	1	10/28/21	11/01/21	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/2/2021 3:35:32PM

BH21-06 0

E110138-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Benzene	ND	0.0250	1	10/28/21	10/30/21	
Ethylbenzene	ND	0.0250	1	10/28/21	10/30/21	
Toluene	ND	0.0250	1	10/28/21	10/30/21	
o-Xylene	ND	0.0250	1	10/28/21	10/30/21	
p,m-Xylene	ND	0.0500	1	10/28/21	10/30/21	
Total Xylenes	ND	0.0250	1	10/28/21	10/30/21	
Surrogate: 4-Bromochlorobenzene-PID		*102 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/21	10/30/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*102 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2144062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/21	10/30/21	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/21	10/30/21	
Surrogate: n-Nonane		*120 %*	*50-200*	*10/28/21*	*10/30/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2144055
Chloride	**21.0**	20.0	1	10/28/21	11/01/21	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/2/2021 3:35:32PM

BH21-06 1'

E110138-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Benzene	ND	0.0250	1	10/28/21	10/30/21	
Ethylbenzene	ND	0.0250	1	10/28/21	10/30/21	
Toluene	ND	0.0250	1	10/28/21	10/30/21	
o-Xylene	ND	0.0250	1	10/28/21	10/30/21	
p,m-Xylene	ND	0.0500	1	10/28/21	10/30/21	
Total Xylenes	ND	0.0250	1	10/28/21	10/30/21	
Surrogate: 4-Bromochlorobenzene-PID		*102 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2144052
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/28/21	10/30/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*103 %*	*70-130*	*10/28/21*	*10/30/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2144062
Diesel Range Organics (C10-C28)	ND	25.0	1	10/28/21	10/30/21	
Oil Range Organics (C28-C36)	ND	50.0	1	10/28/21	10/30/21	
Surrogate: n-Nonane		*54.3 %*	*50-200*	*10/28/21*	*10/30/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2144055
Chloride	**41.1**	20.0	1	10/28/21	11/01/21	

QC Summary Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	**Reported:**
104 South 4th Street	Project Number:	19034-0001	
Artesia NM, 88210	Project Manager:	Dennis Williams	11/2/2021 3:35:32PM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2144052-BLK1)									Prepared: 10/28/21 Analyzed: 10/30/21
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.89*		*8.00*		*98.6*	*70-130*			
LCS (2144052-BS1)									Prepared: 10/28/21 Analyzed: 10/30/21
Benzene	4.45	0.0250	5.00		89.1	70-130			
Ethylbenzene	4.82	0.0250	5.00		96.5	70-130			
Toluene	4.89	0.0250	5.00		97.8	70-130			
o-Xylene	4.77	0.0250	5.00		95.4	70-130			
p,m-Xylene	9.80	0.0500	10.0		98.0	70-130			
Total Xylenes	14.6	0.0250	15.0		97.2	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*8.02*		*8.00*		*100*	*70-130*			
LCS Dup (2144052-BSD1)									Prepared: 10/28/21 Analyzed: 10/30/21
Benzene	4.56	0.0250	5.00		91.1	70-130	2.30	20	
Ethylbenzene	4.92	0.0250	5.00		98.5	70-130	2.03	20	
Toluene	5.00	0.0250	5.00		100	70-130	2.20	20	
o-Xylene	4.86	0.0250	5.00		97.2	70-130	1.86	20	
p,m-Xylene	10.0	0.0500	10.0		100	70-130	2.03	20	
Total Xylenes	14.9	0.0250	15.0		99.1	70-130	1.97	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.95*		*8.00*		*99.4*	*70-130*			

QC Summary Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	**Reported:**
104 South 4th Street	Project Number:	19034-0001	
Artesia NM, 88210	Project Manager:	Dennis Williams	11/2/2021 3:35:32PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2144052-BLK1)									Prepared: 10/28/21 Analyzed: 10/30/21
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.34*		*8.00*		*104*	*70-130*			
LCS (2144052-BS2)									Prepared: 10/28/21 Analyzed: 10/30/21
Gasoline Range Organics (C6-C10)	54.5	20.0	50.0		109	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.56*		*8.00*		*107*	*70-130*			
LCS Dup (2144052-BSD2)									Prepared: 10/28/21 Analyzed: 10/30/21
Gasoline Range Organics (C6-C10)	53.6	20.0	50.0		107	70-130	1.58	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.66*		*8.00*		*108*	*70-130*			

QC Summary Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	**Reported:**
104 South 4th Street	Project Number:	19034-0001	
Artesia NM, 88210	Project Manager:	Dennis Williams	11/2/2021 3:35:32PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2144062-BLK1)									Prepared: 10/28/21 Analyzed: 10/29/21
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*57.6*		*50.0*		*115*	*50-200*			
LCS (2144062-BS1)									Prepared: 10/28/21 Analyzed: 10/29/21
Diesel Range Organics (C10-C28)	520	25.0	500		104	38-132			
Surrogate: n-Nonane	*56.6*		*50.0*		*113*	*50-200*			
Matrix Spike (2144062-MS1)				**Source: E110138-01**					Prepared: 10/28/21 Analyzed: 10/29/21
Diesel Range Organics (C10-C28)	539	25.0	500	26.3	103	38-132			
Surrogate: n-Nonane	*55.6*		*50.0*		*111*	*50-200*			
Matrix Spike Dup (2144062-MSD1)				**Source: E110138-01**					Prepared: 10/28/21 Analyzed: 10/29/21
Diesel Range Organics (C10-C28)	565	25.0	500	26.3	108	38-132	4.63	20	
Surrogate: n-Nonane	*62.0*		*50.0*		*124*	*50-200*			

QC Summary Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	**Reported:**
104 South 4th Street	Project Number:	19034-0001	
Artesia NM, 88210	Project Manager:	Dennis Williams	11/2/2021 3:35:32PM

Anions by EPA 300.0/9056A

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2144055-BLK1)									Prepared: 10/28/21 Analyzed: 11/01/21
Chloride	ND	20.0							
LCS (2144055-BS1)									Prepared: 10/28/21 Analyzed: 11/01/21
Chloride	246	20.0	250		98.5	90-110			
LCS Dup (2144055-BSD1)									Prepared: 10/28/21 Analyzed: 11/01/21
Chloride	248	20.0	250		99.0	90-110	0.522	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/02/21 15:35

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

3 Day

Client: EOG Bob Asher
Project: Patterson EL #1
Sampler: MJP
Phone: on file
Email(s): on file
Project Manager: Dennis Williams

RUSH? ☐ 1d ☐ 3d

Page 1 of 2 251082

Lab Use Only	
Lab WO#	E110138
Job Number	19034-0001

Sample ID		Sample Date	Sample Time	Matrix	Containers QTY - Vol/TYPE/Preservative	GRO/DRO by 8015	BTEX by 8021	TPH by 418.1	Chloride by 300.0	TPH 8015D	CI					Lab Number	Correct Cont/Prsrv (s) Y/N
BH21-01	0'	10/25	8:00	Soil	4oz											1	
BH21-02	1'		8:10													2	
BH21-02	0'		8:15													3	
BH21-02	1'		8:25													4	
BH21-03	0'		8:30													5	
BH21-03	1'		8:40													6	
BH21-04	0'		8:45													7	
BH21-04	1'		8:55													8	
BH21-05	0'		9:00													9	
BH21-05	1'		9:10													10	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	10/26	11:00		10.26.21	1100
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	10.26.21	1650		10.27.21	10:30

Lab Use Only
**Received on Ice Y / N
T1____ T2____ T3____
AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other _____
Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

**Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

☐ Sample(s) dropped off after hours to a secure drop off area.

Chain of Custody

Notes/Billing info:
Mpuppin final report

envirotech Analytical Laboratory
5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com laboratory@envirotech-inc.com

5 Day

Client: EOG Bob Asher
Project: Patterson EL #1
Sampler: MP
Phone: on file
Email(s): on file
Project Manager: Dennis Williams

RUSH? 1d 3d

Page 2 of 2

Lab Use Only	
Lab WO#	PE110138
Job Number	19034-0001

Sample ID	Sample Date	Sample Time	Matrix	Containers QTY - Vol/TYPE/Preservative	GRO/DRO by 8015	BTEX by 8021	TPH by 418.1	Chloride by 300.0	TPH 8015D	Cl				Lab Number	Correct Cont/Prsrv (s) Y/N
BH21-05 0'	10/25	9:20	soil	4oz										11	
BH21-06 0	"	9:25	"	"										12	
BH21-06 1'	"	9:35	"	"										13	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	10/26	11:00		10.26.21	1100
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	10.26.21	1650		10/27/21	10:30

Lab Use Only
**Received on Ice Y / N
T1____ T2____ T3____
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA
**Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

☐ Sample(s) dropped off after hours to a secure drop off area.

Chain of Custody

Notes/Billing info: mpupp.n Final Report

envirotech Analytical Laboratory
5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com laboratory@envirotech-inc.com

Envirotech Analytical Laboratory

Printed: 10/27/2021 4:59:21PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	EOG Resources Inc. - Carlsbad	Date Received:	10/27/21 10:30	Work Order ID:	E110138
Phone:	(575) 748-4217	Date Logged In:	10/27/21 16:46	Logged In By:	Alexa Michaels
Email:	dwilliams@vertex.ca	Due Date:	11/02/21 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Fed Ex
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Dennis Williams

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

EOG Resources Inc. - Carlsbad

Project Name:	Patterson EL #1
Work Order:	E111121
Job Number:	19034-0001
Received:	11/18/2021

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/23/21

Date Reported: 11/23/21

Dennis Williams
104 South 4th Street
Artesia, NM 88210

Project Name: Patterson EL #1
Workorder: E111121
Date Received: 11/18/2021 10:34:00AM

Dennis Williams,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/18/2021 10:34:00AM, under the Project Name: Patterson EL #1.

The analytical test results summarized in this report with the Project Name: Patterson EL #1 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

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Rayny Hagan
Technical Representative
Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	**Reported:**
104 South 4th Street	Project Number:	19034-0001	
Artesia NM, 88210	Project Manager:	Dennis Williams	11/23/21 13:17

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BS21-01 3'	E111121-01A	Soil	11/16/21	11/18/21	Glass Jar, 4 oz.
BS21-02 2'	E111121-02A	Soil	11/16/21	11/18/21	Glass Jar, 4 oz.
BS21-03 2'	E111121-03A	Soil	11/16/21	11/18/21	Glass Jar, 4 oz.
BS21-04 2'	E111121-04A	Soil	11/16/21	11/18/21	Glass Jar, 4 oz.
WS21-01 0-3'	E111121-05A	Soil	11/16/21	11/18/21	Glass Jar, 4 oz.
WS21-02 0-2'	E111121-06A	Soil	11/16/21	11/18/21	Glass Jar, 4 oz.
WS21-03 0-2'	E111121-07A	Soil	11/16/21	11/18/21	Glass Jar, 4 oz.
WS21-04 0-2'	E111121-08A	Soil	11/16/21	11/18/21	Glass Jar, 4 oz.

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/23/2021 1:17:14PM

BS21-01 3'

E111121-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: IY			Batch: 2147035
Benzene	ND	0.0500	2	11/18/21	11/18/21	
Ethylbenzene	ND	0.0500	2	11/18/21	11/18/21	
Toluene	ND	0.0500	2	11/18/21	11/18/21	
o-Xylene	ND	0.0500	2	11/18/21	11/18/21	
p,m-Xylene	ND	0.100	2	11/18/21	11/18/21	
Total Xylenes	ND	0.0500	2	11/18/21	11/18/21	
Surrogate: 4-Bromochlorobenzene-PID		*95.2 %*	*70-130*	*11/18/21*	*11/18/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2147035
Gasoline Range Organics (C6-C10)	ND	40.0	2	11/18/21	11/18/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*105 %*	*70-130*	*11/18/21*	*11/18/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2147036
Diesel Range Organics (C10-C28)	ND	25.0	1	11/18/21	11/18/21	
Oil Range Organics (C28-C36)	ND	50.0	1	11/18/21	11/18/21	
Surrogate: n-Nonane		*107 %*	*50-200*	*11/18/21*	*11/18/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2147037
Chloride	ND	20.0	1	11/18/21	11/23/21	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/23/2021 1:17:14PM

BS21-02 2'

E111121-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: IY			Batch: 2147035
Benzene	ND	0.0500	2	11/18/21	11/18/21	
Ethylbenzene	ND	0.0500	2	11/18/21	11/18/21	
Toluene	ND	0.0500	2	11/18/21	11/18/21	
o-Xylene	ND	0.0500	2	11/18/21	11/18/21	
p,m-Xylene	ND	0.100	2	11/18/21	11/18/21	
Total Xylenes	ND	0.0500	2	11/18/21	11/18/21	
Surrogate: 4-Bromochlorobenzene-PID		*95.8 %*	*70-130*	*11/18/21*	*11/18/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2147035
Gasoline Range Organics (C6-C10)	ND	40.0	2	11/18/21	11/18/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*106 %*	*70-130*	*11/18/21*	*11/18/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2147036
Diesel Range Organics (C10-C28)	ND	25.0	1	11/18/21	11/18/21	
Oil Range Organics (C28-C36)	ND	50.0	1	11/18/21	11/18/21	
Surrogate: n-Nonane		*116 %*	*50-200*	*11/18/21*	*11/18/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2147037
Chloride	ND	20.0	1	11/18/21	11/22/21	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/23/2021 1:17:14PM

BS21-03 2'

E111121-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: IY			Batch: 2147035
Benzene	ND	0.0500	2	11/18/21	11/18/21	
Ethylbenzene	ND	0.0500	2	11/18/21	11/18/21	
Toluene	ND	0.0500	2	11/18/21	11/18/21	
o-Xylene	ND	0.0500	2	11/18/21	11/18/21	
p,m-Xylene	ND	0.100	2	11/18/21	11/18/21	
Total Xylenes	ND	0.0500	2	11/18/21	11/18/21	
Surrogate: 4-Bromochlorobenzene-PID		*95.5 %*	*70-130*	*11/18/21*	*11/18/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2147035
Gasoline Range Organics (C6-C10)	ND	40.0	2	11/18/21	11/18/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*108 %*	*70-130*	*11/18/21*	*11/18/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2147036
Diesel Range Organics (C10-C28)	**36.7**	25.0	1	11/18/21	11/18/21	
Oil Range Organics (C28-C36)	**138**	50.0	1	11/18/21	11/18/21	
Surrogate: n-Nonane		*113 %*	*50-200*	*11/18/21*	*11/18/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2147037
Chloride	ND	20.0	1	11/18/21	11/22/21	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/23/2021 1:17:14PM

BS21-04 2'

E111121-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: IY			Batch: 2147035
Benzene	ND	0.0250	1	11/18/21	11/18/21	
Ethylbenzene	ND	0.0250	1	11/18/21	11/18/21	
Toluene	ND	0.0250	1	11/18/21	11/18/21	
o-Xylene	ND	0.0250	1	11/18/21	11/18/21	
p,m-Xylene	ND	0.0500	1	11/18/21	11/18/21	
Total Xylenes	ND	0.0250	1	11/18/21	11/18/21	
Surrogate: 4-Bromochlorobenzene-PID		*96.0 %*	*70-130*	*11/18/21*	*11/18/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2147035
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/18/21	11/18/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*107 %*	*70-130*	*11/18/21*	*11/18/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2147036
Diesel Range Organics (C10-C28)	**121**	25.0	1	11/18/21	11/18/21	
Oil Range Organics (C28-C36)	**349**	50.0	1	11/18/21	11/18/21	
Surrogate: n-Nonane		*111 %*	*50-200*	*11/18/21*	*11/18/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2147037
Chloride	ND	20.0	1	11/18/21	11/22/21	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/23/2021 1:17:14PM

WS21-01 0-3'

E111121-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: IY			Batch: 2147035
Benzene	ND	0.0250	1	11/18/21	11/18/21	
Ethylbenzene	ND	0.0250	1	11/18/21	11/18/21	
Toluene	ND	0.0250	1	11/18/21	11/18/21	
o-Xylene	ND	0.0250	1	11/18/21	11/18/21	
p,m-Xylene	ND	0.0500	1	11/18/21	11/18/21	
Total Xylenes	ND	0.0250	1	11/18/21	11/18/21	
Surrogate: 4-Bromochlorobenzene-PID		*96.6 %*	*70-130*	*11/18/21*	*11/18/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2147035
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/18/21	11/18/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*106 %*	*70-130*	*11/18/21*	*11/18/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2147036
Diesel Range Organics (C10-C28)	ND	25.0	1	11/18/21	11/18/21	
Oil Range Organics (C28-C36)	ND	50.0	1	11/18/21	11/18/21	
Surrogate: n-Nonane		*111 %*	*50-200*	*11/18/21*	*11/18/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2147037
Chloride	ND	20.0	1	11/18/21	11/22/21	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/23/2021 1:17:14PM

WS21-02 0-2'

E111121-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: IY			Batch: 2147035
Benzene	ND	0.0250	1	11/18/21	11/18/21	
Ethylbenzene	ND	0.0250	1	11/18/21	11/18/21	
Toluene	ND	0.0250	1	11/18/21	11/18/21	
o-Xylene	ND	0.0250	1	11/18/21	11/18/21	
p,m-Xylene	ND	0.0500	1	11/18/21	11/18/21	
Total Xylenes	ND	0.0250	1	11/18/21	11/18/21	
Surrogate: 4-Bromochlorobenzene-PID		*96.5 %*	*70-130*	*11/18/21*	*11/18/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2147035
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/18/21	11/18/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*106 %*	*70-130*	*11/18/21*	*11/18/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2147036
Diesel Range Organics (C10-C28)	ND	25.0	1	11/18/21	11/18/21	
Oil Range Organics (C28-C36)	ND	50.0	1	11/18/21	11/18/21	
Surrogate: n-Nonane		*111 %*	*50-200*	*11/18/21*	*11/18/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2147037
Chloride	**456**	20.0	1	11/18/21	11/22/21	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/23/2021 1:17:14PM

WS21-03 0-2'

E111121-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: IY			Batch: 2147035
Benzene	ND	0.0250	1	11/18/21	11/18/21	
Ethylbenzene	ND	0.0250	1	11/18/21	11/18/21	
Toluene	ND	0.0250	1	11/18/21	11/18/21	
o-Xylene	ND	0.0250	1	11/18/21	11/18/21	
p,m-Xylene	ND	0.0500	1	11/18/21	11/18/21	
Total Xylenes	ND	0.0250	1	11/18/21	11/18/21	
Surrogate: 4-Bromochlorobenzene-PID		*96.4 %*	*70-130*	*11/18/21*	*11/18/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2147035
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/18/21	11/18/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*106 %*	*70-130*	*11/18/21*	*11/18/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2147036
Diesel Range Organics (C10-C28)	ND	25.0	1	11/18/21	11/18/21	
Oil Range Organics (C28-C36)	ND	50.0	1	11/18/21	11/18/21	
Surrogate: n-Nonane		*115 %*	*50-200*	*11/18/21*	*11/18/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2147037
Chloride	ND	20.0	1	11/18/21	11/22/21	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/23/2021 1:17:14PM

WS21-04 0-2'

E111121-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: IY			Batch: 2147035
Benzene	ND	0.0500	2	11/18/21	11/18/21	
Ethylbenzene	ND	0.0500	2	11/18/21	11/18/21	
Toluene	ND	0.0500	2	11/18/21	11/18/21	
o-Xylene	ND	0.0500	2	11/18/21	11/18/21	
p,m-Xylene	ND	0.100	2	11/18/21	11/18/21	
Total Xylenes	ND	0.0500	2	11/18/21	11/18/21	
Surrogate: 4-Bromochlorobenzene-PID		*96.1 %*	*70-130*	*11/18/21*	*11/18/21*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2147035
Gasoline Range Organics (C6-C10)	ND	40.0	2	11/18/21	11/18/21	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*107 %*	*70-130*	*11/18/21*	*11/18/21*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2147036
Diesel Range Organics (C10-C28)	ND	25.0	1	11/18/21	11/19/21	
Oil Range Organics (C28-C36)	ND	50.0	1	11/18/21	11/19/21	
Surrogate: n-Nonane		*104 %*	*50-200*	*11/18/21*	*11/19/21*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY			Batch: 2147037
Chloride	ND	20.0	1	11/18/21	11/22/21	

QC Summary Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	**Reported:**
104 South 4th Street	Project Number:	19034-0001	
Artesia NM, 88210	Project Manager:	Dennis Williams	11/23/2021 1:17:14PM

Volatile Organics by EPA 8021B

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2147035-BLK1)									Prepared: 11/18/21 Analyzed: 11/18/21
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.57*		*8.00*		*94.7*	*70-130*			
LCS (2147035-BS1)									Prepared: 11/18/21 Analyzed: 11/19/21
Benzene	4.87	0.0250	5.00		97.3	70-130			
Ethylbenzene	4.85	0.0250	5.00		97.1	70-130			
Toluene	5.08	0.0250	5.00		102	70-130			
o-Xylene	4.80	0.0250	5.00		96.0	70-130			
p,m-Xylene	9.82	0.0500	10.0		98.2	70-130			
Total Xylenes	14.6	0.0250	15.0		97.5	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.60*		*8.00*		*95.0*	*70-130*			
LCS Dup (2147035-BSD1)									Prepared: 11/18/21 Analyzed: 11/19/21
Benzene	4.77	0.0250	5.00		95.4	70-130	1.96	20	
Ethylbenzene	4.79	0.0250	5.00		95.9	70-130	1.26	20	
Toluene	5.01	0.0250	5.00		100	70-130	1.33	20	
o-Xylene	4.74	0.0250	5.00		94.7	70-130	1.36	20	
p,m-Xylene	9.71	0.0500	10.0		97.1	70-130	1.16	20	
Total Xylenes	14.4	0.0250	15.0		96.3	70-130	1.23	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.56*		*8.00*		*94.5*	*70-130*			

QC Summary Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	**Reported:**
104 South 4th Street	Project Number:	19034-0001	
Artesia NM, 88210	Project Manager:	Dennis Williams	11/23/2021 1:17:14PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2147035-BLK1)									Prepared: 11/18/21 Analyzed: 11/18/21
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.52*		*8.00*		*107*	*70-130*			
LCS (2147035-BS2)									Prepared: 11/18/21 Analyzed: 11/19/21
Gasoline Range Organics (C6-C10)	47.6	20.0	50.0		95.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.64*		*8.00*		*108*	*70-130*			
LCS Dup (2147035-BSD2)									Prepared: 11/18/21 Analyzed: 11/19/21
Gasoline Range Organics (C6-C10)	46.4	20.0	50.0		92.8	70-130	2.58	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*8.53*		*8.00*		*107*	*70-130*			

QC Summary Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	**Reported:**
104 South 4th Street	Project Number:	19034-0001	
Artesia NM, 88210	Project Manager:	Dennis Williams	11/23/2021 1:17:14PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2147036-BLK1)									Prepared: 11/18/21 Analyzed: 11/18/21
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*60.5*		*50.0*		*121*	*50-200*			
LCS (2147036-BS1)									Prepared: 11/18/21 Analyzed: 11/18/21
Diesel Range Organics (C10-C28)	554	25.0	500		111	38-132			
Surrogate: n-Nonane	*57.9*		*50.0*		*116*	*50-200*			
Matrix Spike (2147036-MS1)				**Source: E111121-06**					Prepared: 11/18/21 Analyzed: 11/18/21
Diesel Range Organics (C10-C28)	558	25.0	500	ND	112	38-132			
Surrogate: n-Nonane	*59.1*		*50.0*		*118*	*50-200*			
Matrix Spike Dup (2147036-MSD1)				**Source: E111121-06**					Prepared: 11/18/21 Analyzed: 11/18/21
Diesel Range Organics (C10-C28)	573	25.0	500	ND	115	38-132	2.62	20	
Surrogate: n-Nonane	*60.3*		*50.0*		*121*	*50-200*			

QC Summary Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	**Reported:**
104 South 4th Street	Project Number:	19034-0001	
Artesia NM, 88210	Project Manager:	Dennis Williams	11/23/2021 1:17:14PM

Anions by EPA 300.0/9056A

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2147037-BLK1)									Prepared: 11/18/21 Analyzed: 11/22/21
Chloride	ND	20.0							
LCS (2147037-BS1)									Prepared: 11/18/21 Analyzed: 11/22/21
Chloride	251	20.0	250		101	90-110			
Matrix Spike (2147037-MS1)				**Source: E111121-01**					Prepared: 11/18/21 Analyzed: 11/22/21
Chloride	334	20.0	250	ND	134	80-120			M1
Matrix Spike Dup (2147037-MSD1)				**Source: E111121-01**					Prepared: 11/18/21 Analyzed: 11/22/21
Chloride	262	20.0	250	ND	105	80-120	24.3	20	R3

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

EOG Resources Inc. - Carlsbad	Project Name:	Patterson EL #1	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Dennis Williams	11/23/21 13:17

M1	Matrix spike recovery was above acceptance limits. The associated LCS spike recovery was acceptable.
R3	The RPD exceeded the acceptance limit. LCS spike recovery met acceptance criteria.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Client: EOG / Vertex
Project: Patterson EL #1
Sampler: MJP
Phone: 575-361-9880 575-361-1137
Email(s): mpeppin@vertex.ca dwilliams@vertex.ca
Project Manager: Dennis Williams

RUSH? 1d 3d

Page 1 of 1

Lab Use Only	Analysis and Method										lab Only	
Lab WO#	GRO/DRO by 8015	BTEX by 8021	TPH by 418.1	Chloride by 300.0	TPH 8015D						Lab Number	Correct Cont/Prsrv (s) Y/N
E111121												
Job Number 19034-0001												
BS21-01 3'											1	
BS21-02 2'											2	
BS21-03 2'											3	
BS21-04 2'											4	
WS21-01 0-3'											5	
WS21-02 0-2'											6	
WS21-03 0-2'											7	
WS21-04 0-2'											8	
											9	
											10	

Sample ID	Sample Date	Sample Time	Matrix	Containers QTY - Vol/TYPE/Preservative
BS21-01 3'	11/16	12:30	Soil	4 oz
BS21-02 2'		12:35		
BS21-03 2'		12:40		
BS21-04 2'		12:45		
WS21-01 0-3'		12:50		
WS21-02 0-2'		12:55		
WS21-03 0-2'		1:00		
WS21-04 0-2'		1:05		

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	11/17	2:00		11.17.21	1400
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	11.17.21	1630		11.18.21	10:34

Lab Use Only
**Received on Ice (Y) / N
T1_____ T2_____ T3_____
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

**Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

☐ Sample(s) dropped off after hours to a secure drop off area.

Chain of Custody

Notes/Billing info:
CC: MPeppin Final Report

envirotech Analytical Laboratory
5796 US Highway 64, Farmington, NM 87401
Three Springs Ph (505) 632-0615 Fx (505) 632-1865
Ph (970) 259-0615 Fx (800) 362-1879

Envirotech Analytical Laboratory

Printed: 11/18/2021 11:20:10AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	EOG Resources Inc. - Carlsbad	Date Received:	11/18/21 10:34	Work Order ID:	E111121
Phone:	(575) 748-4217	Date Logged In:	11/18/21 11:14	Logged In By:	Jessica Liesse
Email:	dwilliams@vertex.ca	Due Date:	11/24/21 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Fed Ex
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	No	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	No	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Report to:

Monica Peppin

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

EOG Resources Inc. - Carlsbad

Project Name:	Patterson
Work Order:	E203002
Job Number:	19034-0001
Received:	3/2/2022

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
3/4/22

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.
Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 3/4/22

Monica Peppin
104 South 4th Street
Artesia, NM 88210

Project Name: Patterson
Workorder: E203002
Date Received: 3/2/2022 10:15:00AM

Monica Peppin,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 3/2/2022 10:15:00AM, under the Project Name: Patterson.

The analytical test results summarized in this report with the Project Name: Patterson apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area
Lynn Jarboe
Technical Representative/Client Services
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

West Texas Midland/Odessa Area
Rayny Hagan
Technical Representative
Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Sample Summary

EOG Resources Inc. - Carlsbad	Project Name:	Patterson	**Reported:**
104 South 4th Street	Project Number:	19034-0001	
Artesia NM, 88210	Project Manager:	Monica Peppin	03/04/22 10:34

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BS22 - 03 3'	E203002-01A	Soil	02/25/22	03/02/22	Glass Jar, 4 oz.
BS22 - 04 3'	E203002-02A	Soil	02/25/22	03/02/22	Glass Jar, 4 oz.

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Monica Peppin	3/4/2022 10:34:17AM

BS22 - 03 3'

E203002-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2210035
Benzene	ND	0.0250	1	03/02/22	03/02/22	
Ethylbenzene	ND	0.0250	1	03/02/22	03/02/22	
Toluene	ND	0.0250	1	03/02/22	03/02/22	
o-Xylene	ND	0.0250	1	03/02/22	03/02/22	
p,m-Xylene	ND	0.0500	1	03/02/22	03/02/22	
Total Xylenes	ND	0.0250	1	03/02/22	03/02/22	
Surrogate: 4-Bromochlorobenzene-PID		*96.1 %*	*70-130*	*03/02/22*	*03/02/22*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2210035
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/02/22	03/02/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*93.2 %*	*70-130*	*03/02/22*	*03/02/22*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2210030
Diesel Range Organics (C10-C28)	ND	25.0	1	03/02/22	03/02/22	
Oil Range Organics (C28-C36)	ND	50.0	1	03/02/22	03/02/22	
Surrogate: n-Nonane		*96.4 %*	*50-200*	*03/02/22*	*03/02/22*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: KL			Batch: 2210037
Chloride	**23.3**	20.0	1	03/02/22	03/02/22	

Sample Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Monica Peppin	3/4/2022 10:34:17AM

BS22 - 04 3'

E203002-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: RKS			Batch: 2210035
Benzene	ND	0.0250	1	03/02/22	03/02/22	
Ethylbenzene	ND	0.0250	1	03/02/22	03/02/22	
Toluene	ND	0.0250	1	03/02/22	03/02/22	
o-Xylene	ND	0.0250	1	03/02/22	03/02/22	
p,m-Xylene	ND	0.0500	1	03/02/22	03/02/22	
Total Xylenes	ND	0.0250	1	03/02/22	03/02/22	
Surrogate: 4-Bromochlorobenzene-PID		*95.5 %*	*70-130*	*03/02/22*	*03/02/22*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS			Batch: 2210035
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/02/22	03/02/22	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*93.0 %*	*70-130*	*03/02/22*	*03/02/22*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2210030
Diesel Range Organics (C10-C28)	ND	25.0	1	03/02/22	03/02/22	
Oil Range Organics (C28-C36)	ND	50.0	1	03/02/22	03/02/22	
Surrogate: n-Nonane		*107 %*	*50-200*	*03/02/22*	*03/02/22*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: KL			Batch: 2210037
Chloride	ND	20.0	1	03/02/22	03/02/22	

QC Summary Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson	**Reported:**
104 South 4th Street	Project Number:	19034-0001	
Artesia NM, 88210	Project Manager:	Monica Peppin	3/4/2022 10:34:17AM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2210035-BLK1)									Prepared: 03/02/22 Analyzed: 03/02/22
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.43*		*8.00*		*92.9*	*70-130*			
LCS (2210035-BS1)									Prepared: 03/02/22 Analyzed: 03/02/22
Benzene	5.18	0.0250	5.00		104	70-130			
Ethylbenzene	5.49	0.0250	5.00		110	70-130			
Toluene	5.72	0.0250	5.00		114	70-130			
o-Xylene	5.42	0.0250	5.00		108	70-130			
p,m-Xylene	11.1	0.0500	10.0		111	70-130			
Total Xylenes	16.5	0.0250	15.0		110	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.48*		*8.00*		*93.4*	*70-130*			
Matrix Spike (2210035-MS1)				**Source: E203002-02**					Prepared: 03/02/22 Analyzed: 03/02/22
Benzene	4.98	0.0250	5.00	ND	99.6	54-133			
Ethylbenzene	5.29	0.0250	5.00	ND	106	61-133			
Toluene	5.50	0.0250	5.00	ND	110	61-130			
o-Xylene	5.22	0.0250	5.00	ND	104	63-131			
p,m-Xylene	10.7	0.0500	10.0	ND	107	63-131			
Total Xylenes	15.9	0.0250	15.0	ND	106	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.53*		*8.00*		*94.1*	*70-130*			
Matrix Spike Dup (2210035-MSD1)				**Source: E203002-02**					Prepared: 03/02/22 Analyzed: 03/02/22
Benzene	4.98	0.0250	5.00	ND	99.6	54-133	0.0432	20	
Ethylbenzene	5.31	0.0250	5.00	ND	106	61-133	0.425	20	
Toluene	5.52	0.0250	5.00	ND	110	61-130	0.191	20	
o-Xylene	5.26	0.0250	5.00	ND	105	63-131	0.784	20	
p,m-Xylene	10.8	0.0500	10.0	ND	108	63-131	0.448	20	
Total Xylenes	16.0	0.0250	15.0	ND	107	63-131	0.558	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.63*		*8.00*		*95.4*	*70-130*			

QC Summary Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson	**Reported:**
104 South 4th Street	Project Number:	19034-0001	
Artesia NM, 88210	Project Manager:	Monica Peppin	3/4/2022 10:34:17AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2210035-BLK1)									Prepared: 03/02/22 Analyzed: 03/02/22
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.42*		*8.00*		*92.8*	*70-130*			
LCS (2210035-BS2)									Prepared: 03/02/22 Analyzed: 03/02/22
Gasoline Range Organics (C6-C10)	47.9	20.0	50.0		95.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.44*		*8.00*		*93.0*	*70-130*			
Matrix Spike (2210035-MS2)				**Source: E203002-02**					Prepared: 03/02/22 Analyzed: 03/02/22
Gasoline Range Organics (C6-C10)	45.7	20.0	50.0	ND	91.4	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.35*		*8.00*		*91.9*	*70-130*			
Matrix Spike Dup (2210035-MSD2)				**Source: E203002-02**					Prepared: 03/02/22 Analyzed: 03/02/22
Gasoline Range Organics (C6-C10)	45.8	20.0	50.0	ND	91.5	70-130	0.0959	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.57*		*8.00*		*94.6*	*70-130*			

QC Summary Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson	**Reported:**
104 South 4th Street	Project Number:	19034-0001	
Artesia NM, 88210	Project Manager:	Monica Peppin	3/4/2022 10:34:17AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2210030-BLK1)									Prepared: 03/02/22 Analyzed: 03/02/22
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*50.8*		*50.0*		*102*	*50-200*			
LCS (2210030-BS1)									Prepared: 03/02/22 Analyzed: 03/02/22
Diesel Range Organics (C10-C28)	601	25.0	500		120	38-132			
Surrogate: n-Nonane	*52.4*		*50.0*		*105*	*50-200*			
Matrix Spike (2210030-MS1)				**Source: E203011-03**					Prepared: 03/02/22 Analyzed: 03/02/22
Diesel Range Organics (C10-C28)	21000	250	500	21600	NR	38-132			M4
Surrogate: n-Nonane	*293*		*50.0*		*585*	*50-200*			*S5*
Matrix Spike Dup (2210030-MSD1)				**Source: E203011-03**					Prepared: 03/02/22 Analyzed: 03/02/22
Diesel Range Organics (C10-C28)	21900	250	500	21600	50.0	38-132	4.06	20	
Surrogate: n-Nonane	*288*		*50.0*		*576*	*50-200*			*S5*

QC Summary Data

EOG Resources Inc. - Carlsbad	Project Name:	Patterson	**Reported:**
104 South 4th Street	Project Number:	19034-0001	
Artesia NM, 88210	Project Manager:	Monica Peppin	3/4/2022 10:34:17AM

Anions by EPA 300.0/9056A

Analyst: KL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2210037-BLK1)									Prepared: 03/02/22 Analyzed: 03/02/22
Chloride	ND	20.0							
LCS (2210037-BS1)									Prepared: 03/02/22 Analyzed: 03/02/22
Chloride	245	20.0	250		98.0	90-110			
Matrix Spike (2210037-MS1)				**Source: E203002-01**					Prepared: 03/02/22 Analyzed: 03/02/22
Chloride	271	20.0	250	23.3	99.1	80-120			
Matrix Spike Dup (2210037-MSD1)				**Source: E203002-01**					Prepared: 03/02/22 Analyzed: 03/02/22
Chloride	273	20.0	250	23.3	99.9	80-120	0.713	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

EOG Resources Inc. - Carlsbad	Project Name:	Patterson	
104 South 4th Street	Project Number:	19034-0001	**Reported:**
Artesia NM, 88210	Project Manager:	Monica Peppin	03/04/22 10:34

M4	Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.
S5	Surrogate spike recovery exceeded acceptance limits due to interfering target and/or non-target analytes.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Client: EOG
Project: Patterson
Sampler: S Carthar
Phone: 575 361 9880
Email(s): mpeppin@vertex.ca
Project Manager: M Peppin

RUSH? 1d 3d

Page 1 of 1

Lab Use Only	
Lab WO#	PE203002
Job Number	19034-0001

Sample ID	Sample Date	Sample Time	Matrix	Containers QTY - Vol/TYPE/Preservative	GRO/DRO by 8015	BTEX by 8021	TPH by 8015D	Chloride by 300.0	Lab Number	Correct Cont/Prsrv (s) Y/N
BS22-03 3'	2/25	9:30	soil	4oz jar / ice	✓	✓	✓	✓	1	
BS22-04 3'	2/25	9:30	soil	"	✓	✓	✓	✓	2	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	2/28/22	13:37		2.28.22	1337
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	3.1.22	1645	Caitlin Christian	3/2/22	10:15

Lab Use Only
**Received on Ice (Y) / N
T1____ T2____ T3____
AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other _____
Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, v - VOA

**Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

☐ Sample(s) dropped off after hours to a secure drop off area.

Chain of Custody

Notes/Billing info:

envirotech Analytical Laboratory
5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81303 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com laboratory@envirotech-inc.com

Envirotech Analytical Laboratory

Printed: 3/2/2022 3:30:10PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	EOG Resources Inc. - Carlsbad	Date Received:	03/02/22 10:15	Work Order ID:	E203002
Phone:	(575) 748-4217	Date Logged In:	03/01/22 10:18	Logged In By:	Caitlin Christian
Email:	mpeppin@vertex.ca	Due Date:	03/07/22 17:00 (3 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: UPS
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	No	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: na

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

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

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 88276
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	None	3/15/2022