

# Release Closure Report



## Strait BLN State Com #5

API #30-025-38169

Unit L, Section 20, T10S, R34E

Lea County, New Mexico

NMOCD ID #nAPP2214536837



Original Submitted June 29, 2022

Revised August 29, 2022

Project #19034-0014

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## Introduction

Envirotech, Inc. (Envirotech) of Farmington, New Mexico, was contracted by EOG Resources (EOG) to assist with the closure of a remediation excavation at the Strait BLN State Com #5 well site (API: 30-025-38169). The site is located within Unit L, Section 20, Township 10 South, Range 34 East, Lea County, New Mexico; see **Figure 1, Vicinity Map**.

Surface staining was discovered by EOG personnel during plugging and abandonment (P&A) activities at the subject well site. The staining was observed within the footprint of the former aboveground storage tank (AST) battery in proximity to the middle tank. No staining was observed in the north tank footprint, and a liner was in place within the south tank footprint.

## Regulatory Standards

The Strait BLN State Com #5 (site) is located 0.43 miles from a livestock pond equipped with a windmill identified as L-13072-POD1 and 1,178.6 feet from a playa lake. The site is located at an elevation of 4,235 ft above mean sea level (amsl) and the windmill is located at an elevation of 4,230 feet amsl with a depth to water of 70 feet. The depth to groundwater at the site was assessed as being 50-100 feet. Siting criteria documentation for the subject well site is provided in **Appendix A, Siting Documentation**.

However, the subject remediation excavation was completed in the upper 4 feet of the surface; therefore, the closure criteria for the site were based on the most stringent, reclamation standards (19.15.29.13 NMAC):

Constituent	Method	Limit
Chloride	EPA 300.0	600 mg/kg
Total Petroleum Hydrocarbons (TPH)	EPA Method 8015D	100 mg/kg
Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA Method 8021B	50 mg/kg
Benzene	EPA Method 8021B	10 mg/kg

## Site Assessment and Remediation Excavation

On May 23 and 24, 2022, Envirotech personnel and EOG's earth work contractor arrived on-site to conduct the site assessment to determine if the staining comprised a reportable release. Prior to field work, a Job Safety Analysis (JSA) was completed.

Utilizing a backhoe, the vertical and horizontal extents of the visibly stained soil within the middle tank footprint were assessed. Excavation refusal was met at approximately 2.5 feet below ground surface (bgs). According to the USDA Web Soil Survey, a petrocalcic restrictive feature exists, across the site and surrounding vicinity, at a depth of 4 to 18 inches; see



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enclosed **Appendix B, Web Soil Survey**.

### **Field Screening Analysis**

Field screening was utilized to guide the assessment, and the remediation excavation was completed concurrently with assessment activities. The earth work activities were guided by field screening for volatile organic compounds (VOCs), which was conducted with a photo-ionization detector (PID) organic vapor meter (OVM). Prior to performing field screening activities, the PID-OVM was first calibrated with 100 parts per million (ppm) isobutylene gas. The soil samples were also screened in the field for TPH per United States Environmental Protection Agency (EPA) Method 418.1 using an Infracal Total Oil and Grease (TOG)/ TPH Analyzer. A three-point calibration was completed prior to conducting soil screening. Field screening protocol followed the manufacture's operating procedures. The sample was also field screened for chlorides using a Hach Chloride Test Kit. Field screening activities are documented in **Appendix C, Field Notes**.

The final extents of the remediation excavation measured approximately 24 feet by 15 feet by 2.5 feet bgs. Based on the size of the excavation, it was determined that a reportable release had occurred. EOG submitted a Form C-141 to the NMOCD which was approved on May 25, 2022, and assigned Incident ID #nAPP2214536837. Excavation activities are documented in **Appendix D, Site Photography** and copies of the NMOCD correspondence are included in **Appendix E, Regulatory Correspondence**.

### **Confirmation Sampling Activities**

Once field screening results indicated all contaminants of concern were below closure criteria in the side walls, a NMOCD sampling notification was submitted. Confirmation samples were collected on May 31, 2022. A total of three (3) five-point composite soil samples were collected from the excavation for laboratory analysis. Samples collected were representative of the walls and base of the excavation. All samples collected were representative of 200 square feet (ft<sup>2</sup>) or less. The soil samples were placed into an individual laboratory provided 4-ounce jars, capped head space free, and transported on ice to Envirotech Analytical Laboratory under strict chain of custody. The soil samples were analyzed per analytical methods referenced in 19.15.29.13 NMAC. The notifications are included in **Appendix E** and soil sample locations are illustrated in **Figure 2, Site Map**.

### **Laboratory Analytical Results**

Laboratory results indicate soils are contaminated above applicable regulatory standards for TPH in one (1) of the near surface samples (CS-22). CS-22 was collected along the competent base of the excavation. Analytical results are summarized in **Table 1, Summary of Soil Analytical Results** and **Appendix F, Laboratory Analytical Report**.

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### In-Situ Remediation Activities

Due to the restrictive layer encountered at 2.5 feet bgs, further excavation of the base could not be completed. To aid with in-situ bioremediation of the residual TPH, a 5% potassium permanganate solution was applied to the base of the excavation. A copy of the Safety Data Sheet (SDS) for the potassium permanganate is included in **Appendix G, Potassium Permanganate SDS**.

### Additional Confirmation Sampling

On August 17, 2022, NMOCD requested additional assessment activities for the north and south tank footprints, as well as additional delineation of the remediation excavation. Envirotech and EOG earthwork contractors returned to the subject site on August 24, 2022, and under the purview of a NMOCD confirmation sampling notice, to complete the requested field activities.

A handheld GPS and historical aerial photographs were used to locate the footprint of the north and south ASTs. A backhoe was utilized to collect five-point composite soil samples from each tank footprint. Confirmation soil samples were collected at 0 to 0.25 feet bgs, 1-foot bgs, and 2.5 feet bgs.

GPS coordinates from the original remediation excavation were used to locate the previous excavation. A trench was excavated to expose the base of the remediation excavation, which was also confirmed by evidence of residual potassium permanganate. A soil sample (CS-22B) was collected from the base of the excavation. Additionally, four (4) soil samples were collected in the four cardinal directions around the remediation excavation footprint. The perimeter samples were collected at 2.5 feet bgs.

All samples collected were placed into an individual laboratory provided 2-ounce jars, capped head space free, and transported on ice to Envirotech Analytical Laboratory under strict chain of custody. The soil samples were analyzed per analytical methods referenced in 19.15.29.13 NMAC. Soil sample locations are illustrated in **Figure 2, Site Map**.

### Laboratory Analytical Results

Laboratory results confirmed all contaminants of concern are below applicable release/remediation closure criteria. Analytical results are summarized in **Table 1** and **Appendix F**.

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### Summary and Conclusions

Envirotech personnel completed the closure sampling and additional delineation of the remediation excavation at the Strait BLN State Com #5. EOG contractors backfilled the excavation with non-waste containing material on June 22, 2022, and restored the site after the additional sampling on August 24, 2022. Based on the analytical results all soil samples, all contaminants of concern are below the NMOCD release/reclamation criteria; therefore, Envirotech recommends requesting a **No Further Action** status regarding the remediation excavations.

### Statement of Limitations

The work and services provided were in accordance with NMOCD standards. All observations and conclusions provided here are based on the information and current site conditions found at the subject well site. This work has been conducted and reported in accordance with generally accepted professional practices in geology, engineering, environmental chemistry, and hydrogeology.

We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully submitted,  
**ENVIROTECH, INC.**



---

Tami Knight, CHMM  
Environmental Project Manager  
tknight@envirotech-inc.com

Reviewed by:



---

Sherry Auckland, CHMM  
Environmental Project Manager  
[sauckland@envirotech-inc.com](mailto:sauckland@envirotech-inc.com)

# Figures



**Figure 1, *Vicinity Map***

**Figure 2, *Site Map***



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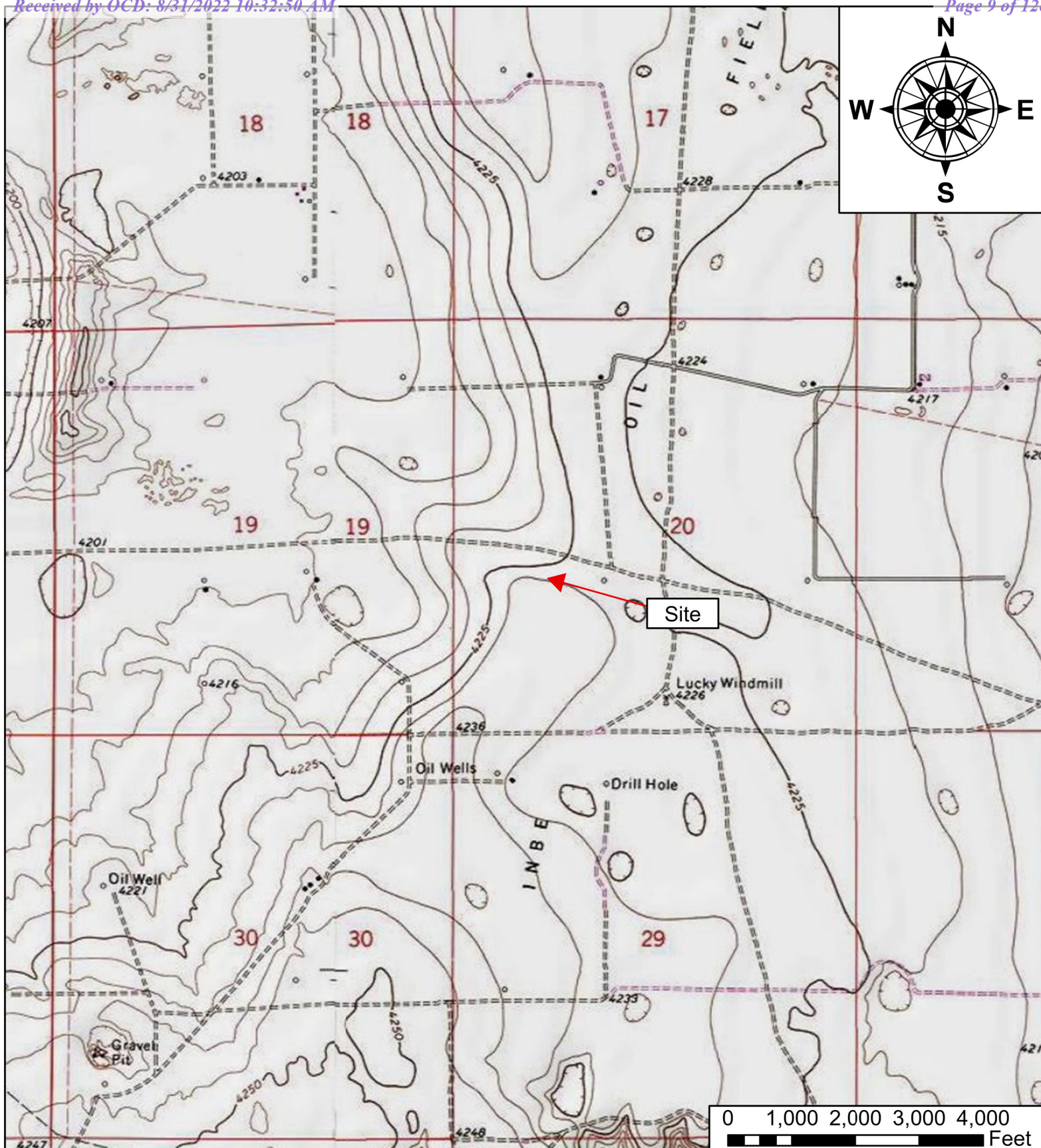


Figure 1, Vicinity Map

EOG Resources  
 Strait BLN State Com #5 Well Site  
 API: 30-025-38169  
 Unit L, Section 20, Township 10S, Range 34E  
 Lea County, New Mexico  
 33.43061, -103.49161  
 Project #19034-0014



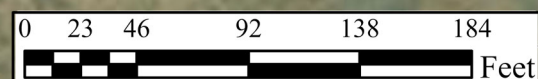
Environmental Scientists and Engineers  
 5796 U.S Highway 64  
 Farmington, New Mexico 87401  
 505.632.0615

Date Drawn: 06/16/2022  
 Drawn by: B.Hall







CS-20	33.43061, -103.49266
CS-21	33.43061, -103.49265
CS-22	33.43061, -103.49265
CS-23, 24, 25	33.43065, -103.49261
CS-26, 27, 28	33.43055, -103.49263
CS-29	33.43059, -103.49266
CS-30	33.43059, -103.49259
CS-31	33.43063, -103.49262
CS-32	33.43057, -103.49263



### Legend

-  Remediation Excavation
-  5-Point Composite Sample

### Figure 2, Site Map

EOG Resources  
 Strait BLN State Com #5 Well Site  
 API: 30-025-38169  
 Unit L, Section 20, Township 10S, Range 34E  
 Lea County, New Mexico  
 33.43061, -103.49161  
 Project #19034-0014



Environmental Scientists and Engineers  
 5796 U.S Highway 64  
 Farmington, New Mexico 87401  
 505.632.0615

Date Drawn: 08/30/2022  
 Drawn by: C.Todacheenie

# Tables



**Table 1, *Summary of Soil Analytical Results***



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**Table 1, Summary of Soil Analytical Results**  
**EOG Resources, Inc. Release Closure Report**  
**Strait BLN State Com #5 ; API: 30-025-38169**  
**Unit L Section 20, Township 10S, Range 34E**  
**Eddy County, New Mexico**  
**Project #19034-0014**

Date	Laboratory Sample ID	Sample Depth (below ground surface)	EPA Method 8015			EPA Method 8021		EPA Method 300.0
			mg/kg					
			GRO	DRO	ORO	Benzenze	BTEX	Chloride
NMOCD Reclamation Closure Criteria Table 1 - 19.15.29.13 NMAC (mg/kg)			100			10	50	600
5/31/2022	CS-20	West Wall (0-2.5 ft. )	<20.0	<25.0	<50.0	<0.025	<0.1	<20
	CS-21	East Wall (0-2.5 ft. )	<20.0	<25.0	<50.0	<0.025	<0.1	<20
	CS-22	Base (2.5 ft. )	<20.0	1,610	1,320	<0.025	<0.1	<200
8/24/2022	CS-22B	Base (2.5 ft. )	<20.0	<25.0	<50.0	<0.025	<0.1	60.7
	CS-23	North Tank Footprint (0-0.25 ft )	<20.0	<25.0	<50.0	<0.025	<0.1	<20
	CS-24	North Tank Footprint (1.0 ft )	<20.0	<25.0	<50.0	<0.025	<0.1	23.2
	CS-25	North Tank Footprint (2.5 ft )	<20.0	<25.0	<50.0	<0.025	<0.1	<20
	CS-26	South Tank Footprint (0-0.25 ft )	<20.0	<25.0	<50.0	<0.025	<0.1	45.7
	CS-27	South Tank Footprint (1.0 ft )	<20.0	<25.0	<50.0	<0.025	<0.1	67.5
	CS-28	South Tank Footprint (2.5 ft )	<20.0	<25.0	<50.0	<0.025	<0.1	<20
	CS-29	West Perimeter (2.5 ft )	<20.0	<25.0	<50.0	<0.025	<0.1	64.7
	CS-30	East Perimeter (2.5 ft )	<20.0	<25.0	<50.0	<0.025	<0.1	26.3
	CS-31	North Perimeter (2.5 ft )	<20.0	<25.0	<50.0	<0.025	<0.1	25.8
	CS-32	South Perimeter (2.5 ft )	<20.0	<25.0	<50.0	<0.025	<0.1	<20



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# Appendix A



## *Siting Criteria Documentation*



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<b>Site Name:</b>	Strait BLN State Com #5			
<b>API #:</b>	30-025-38169			
<b>Lat/Long:</b>	33.4306, -103.4916			
<b>TRS:</b>	Unti L Sec 20 T10S R34E			
<b>Land Jurisdiction:</b>	State			
<b>County:</b>	Lea			
<b>Wellhead Protection Area Assessment</b>				
<b>Water Source Type (well/spring/stock pond)</b>	<b>ID</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Distance</b>
<b>Distance to Nearest Significant Watercourse</b>				
Playa lake 1,178.6 ft				
<b>Depth to Groundwater Determination</b>				
Cathodic Report/Site Specific Hydrogeology				
Elevation Differential				
Water Wells	L-13072-POD1 Windmill 0.43 miles; DTW=70 ft			
<b>Sensitive Receptor Determination</b>				
<300' of any continuously flowing watercourse or any other significant watercourse	No			
<200' of any lakebed, sinkhole or playa lake (measured from the Ordinary High Water	No			
<300' of an occupied permanent residence, school, hospital, institution or church	No			
<500' of a spring or private/domestic water well used by <5 households for domestic or stock watering purposes	No			
<1000' of any water well or spring	No			
Within incorporated municipal boundaries or within a defined municipal fresh water well	No			
<300' of a wetland	No			
Within the area overlying a subsurface mine	No			
Within an unstable area	No			
Within a 100-year floodplain (Zone D - risk unknown)	No			
<b>DTW Determination</b>	<b>≤50 <input type="checkbox"/></b>	<b>50-100 <input checked="" type="checkbox"/></b>	<b>&gt;100 <input type="checkbox"/></b>	
Benzene	10	10	10	
BTEX (mg/kg)	50	50	50	
8015 TPH (GRO/DRO) (mg/kg)	Not Applicable	1,000	1,000	
8015 TPH (GRO/DRO/MRO) (mg/kg)	100	2,500	2,500	
Chlorides (mg/kg)	600	10,000	20,000	






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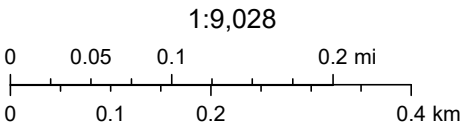
# OCD Well Locations



5/13/2022, 6:39:44 AM

## Wells - Large Scale

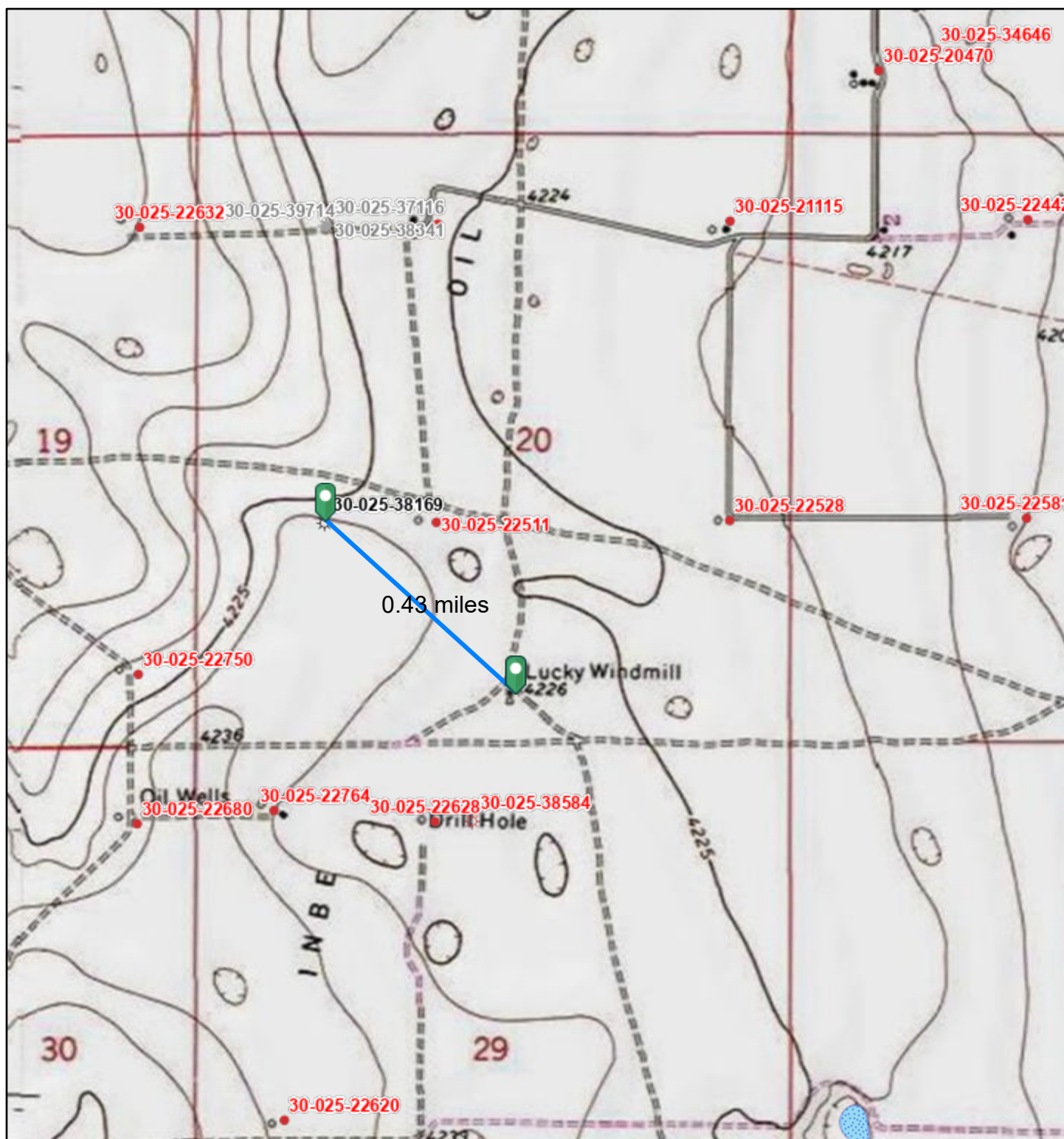
-  Gas, Active
-  Gas, Plugged
-  Oil, Plugged



Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, NM OSE



## Distance to Windmill



5/13/2022, 6:42:10 AM

1:18,056

## Wells - Large Scale

Gas, Active

Gas, Cancelled



## Gas, Plugged



Oil, Cancelled



### Oil, Plugged



Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., Copyright:© 2013 National Geographic Society, i-cubed, NM OSE

Revised December 1975

IMPORTANT — READ INSTRUCTIONS ON BACK BEFORE FILLING OUT THIS FORM.

## Declaration of Owner of Underground Water Right

LEA COUNTY

~~UNRECORDED~~  
~~XXXXXXXXXX~~Declaration No. 13-136Date received April 20, 1993

## STATEMENT

1. Name of Declarant DIAMOND AND HALF INC.  
Mailing Address BOX 917, TATUM  
County of LEA, State of NEW MEXICO 88267
2. Source of water supply SHALLOW WATER AQUIFER  
(artesian or shallow water aquifer)
3. Describe well location under one of the following subheadings:  
a. SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  of Sec. 20 Twp. 10S Rge. 34E N.M.P.M., in  
LEA County.  
b. Tract No. \_\_\_\_\_ of Map No. \_\_\_\_\_ of the \_\_\_\_\_  
c. X = \_\_\_\_\_ feet. Y = \_\_\_\_\_ feet. N. M. Coordinate System \_\_\_\_\_ Zone  
in the \_\_\_\_\_ Grant.  
On land owned by DECLARANT
4. Description of well: date drilled APPROX 1945 driller UNKNOWN depth 100 feet.  
outside diameter of casing 67/8 inches; original capacity UNKNOWN gal. per min.; present capacity 40  
gal. per min.; pumping lift 90 feet; static water level 70 feet (above) (below) land surface;  
make and type of pump 10' WINDMILL  
make, type, horsepower, etc., of power plant \_\_\_\_\_  
Fractional or percentage interest claimed in well 100%
5. Quantity of water appropriated and beneficially used 3 ACRE FEET PER ANNUM  
(acre feet per acre) (acre feet per annum)  
for LIVESTOCK WATERING, POTENTIAL COMMERCIAL USE purposes.
6. Acreage actually irrigated \_\_\_\_\_ acres, located and described as follows (describe only lands actually irrigated):
- | Subdivision | Sec. | Twp. | Range | Acres<br>Irrigated | Owner |
|-------------|------|------|-------|--------------------|-------|
|             |      |      |       |                    |       |
|             |      |      |       |                    |       |
|             |      |      |       |                    |       |
|             |      |      |       |                    |       |
|             |      |      |       |                    |       |
|             |      |      |       |                    |       |
|             |      |      |       |                    |       |
|             |      |      |       |                    |       |
|             |      |      |       |                    |       |
|             |      |      |       |                    |       |
- (Note: location of well and acreage actually irrigated must be shown on plat on reverse side.)

7. Water was first applied to beneficial use APPROX 1945 and since that time  
month day year  
has been used fully and continuously on all of the above described lands or for the above described purposes except  
as follows: \_\_\_\_\_

8. Additional statements or explanations THIS WELL HAS A PIPELINE OF APPROX 1 1/4 MILES  
THAT RUNS TO THE NW 1/4 OF SEC. 33, T 10S, R 34E.

I, Carl L. Johnson being first duly sworn upon my oath,  
depose and say that the above is a full and complete statement prepared in accordance with the instructions on the re-  
verse side of this form and submitted in evidence of ownership of a valid underground water right, that I have carefully  
read each and all of the items contained therein and that the same are true to the best of my knowledge and belief.

DIAMOND AND HALF, INC., declarant.

by: Carl L. Johnson President

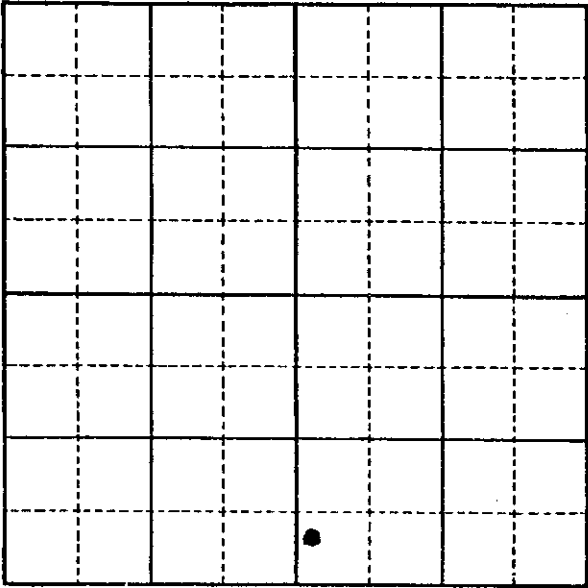
Subscribed and sworn to before me this 15th day of April, A.D. 19 93

My commission expires June 9, 1993 FILED Patricia Thomas Notary Public

UNDER NEW MEXICO LAW A DECLARATION IS ONLY A STATEMENT OF DECLARANT'S CLAIM.  
IT DOES NOT CONSTITUTE APPROVAL OR REJECTION OF THE CLAIM.

Locate well and areas actually irrigated as accurately as possible on following plat:

Section (s) 20, Township 10S, Range 34E N. M. P. M.



INSTRUCTIONS

- Declaration shall be executed (preferably typewritten) in triplicate and must be accompanied by a \$1.00 filing fee. Each of triplicate copies must be properly signed and attested.
- A separate declaration must be filed for each well in use.
- All blanks shall be filled out fully. Required information which cannot be sworn to by declarant shall be supplied by affidavit of person or persons familiar with the facts and shall be submitted herewith.
- Secs. 1-3. Complete all blanks.
- Sec. 4. Fill out all blanks applicable as fully as possible.
- Sec. 5. Irrigation use shall be stated in acre feet of water per acre per year applied on the land. If used for domestic, municipal, or other purposes, state total quantity in acre feet used annually.
- Sec. 6. Describe only the acreage actually irrigated. When necessary to clearly define irrigated acreages, describe to nearest 2½ acre subdivision. If located on unsurveyed lands, describe by legal supdivision "as projected" from the nearest government survey corners, or describe by metes and bounds and tie survey to some permanent, easily-located natural object.
- Sec. 7. Explain and give dates as nearly as possible of any years when all or part of acreage claimed was not irrigated.
- Sec. 8. If well irrigates or supplies supplemental water to any other land than that described above, or if land is also irrigated from any other source, explain under this section. Give any other data necessary to fully describe water right.
- If additional space is necessary, use a separate sheet or sheets and attach securely hereto.





5X  
93 APR 27 AM 10 01

STATE ENGINEER OFFICE  
SANTA FE NEW MEXICO  
ELUID MARTINEZ  
STATE ENGINEER

STATE OF NEW MEXICO

STATE ENGINEER OFFICE

ROS WELL

April 26, 1993

DISTRICT II  
1900 West Second St.  
Roswell, New Mexico 88201  
(505) 622-6521

Files: 13-135 thru 13-140

Carl L. Johnson  
Diamond and Half Inc.  
Box 917  
Tatum, N. M. 88267

Dear Mr. Johnson:

Enclosed are your copies of Declarations of Owner of Underground Water Rights as numbered above, which have been filed for record in the office of the State Engineer.

Please refer to these numbers in all future correspondence concerning these declarations.

The filing of these declarations does not indicate affirmation or rejection of the statements contained therein.

Yours very truly,

Frank Bradley  
Water Rights Supervisor

FB/lc  
encs.  
cc: Santa Fe



# FEMA Flood Map Service Center: Search By Address

Navigation

Search

Languages

MSC Home (/portal/)

MSC Search by Address  
(/portal/search)

MSC Search All Products  
(/portal/advanceSearch)

▼ MSC Products and Tools  
(/portal/resources/productsandtools)

Hazus  
(/portal/resources/hazus)

LOMC Batch Files  
(/portal/resources/lomc)

Product Availability  
(/portal/productAvailability)

MSC Frequently Asked  
Questions (FAQs)  
(/portal/resources/faq)

MSC Email Subscriptions  
(/portal/subscriptionHome)

Contact MSC Help  
(/portal/resources/contact)

Enter an address, place, or coordinates: ?

-103.4916, 33.4306

Search

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

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

## Search Results—Products for LEA COUNTY UNINCORPORATED AREAS

Show ALL Products » (<https://msc.fema.gov/portal/availabilitySearch?addcommunity=350130&communityName=LEA C>)

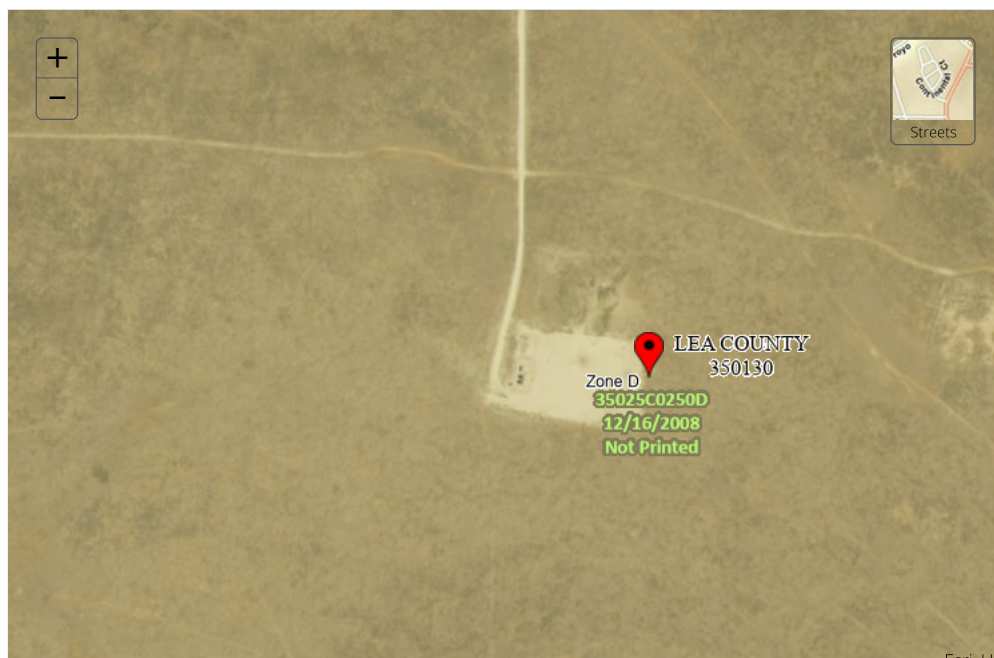
The flood map for the selected area is number 35025C0250D. The flood map for this location has a status of "not printed". This means that the entire area of the panel is in a single flood zone, so FEMA chose to economize and not create a printable image for this location. However, the flood zone data is viewable on the interactive map below and you can print a map for your location using the "FIRMette" button

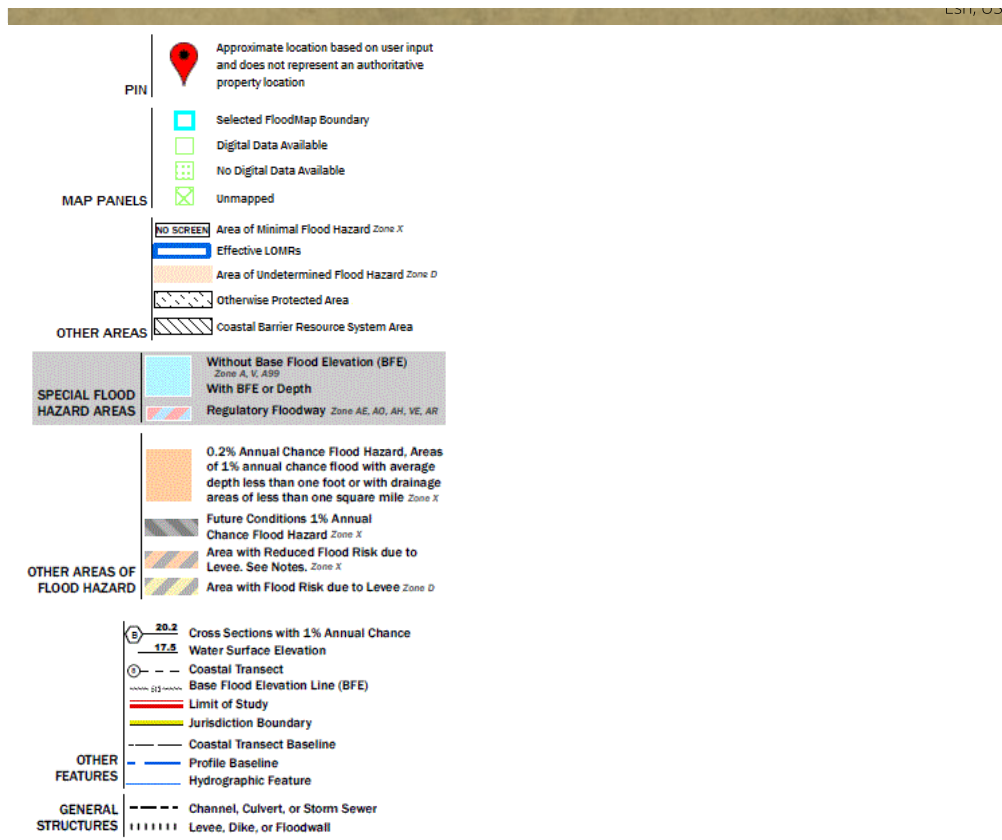
### DYNAMIC MAP



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

Go To NFHL Viewer » (<https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d>)





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[L\(https://www.oig.dhs.gov/hotline\)](https://www.oig.dhs.gov/hotline)

Official website of the Department of Homeland Security

# Appendix B



## *Web Soil Survey*



Practical Solutions for a Better Tomorrow

Map Unit Description: Kimbrough gravelly loam, dry, 0 to 3 percent slopes---Lea County, New Mexico

---

## Lea County, New Mexico

### KO—Kimbrough gravelly loam, dry, 0 to 3 percent slopes

#### Map Unit Setting

*National map unit symbol:* 2tw43

*Elevation:* 2,500 to 4,800 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 57 to 63 degrees F

*Frost-free period:* 180 to 220 days

*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Kimbrough, dry, and similar soils:* 80 percent

*Minor components:* 20 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Kimbrough, Dry

##### Setting

*Landform:* Playa rims, plains

*Down-slope shape:* Convex, linear

*Across-slope shape:* Concave, linear

*Parent material:* Loamy eolian deposits derived from sedimentary rock

##### Typical profile

*A - 0 to 3 inches:* gravelly loam

*Bw - 3 to 10 inches:* loam

*Bkkm1 - 10 to 16 inches:* cemented material

*Bkkm2 - 16 to 80 inches:* cemented material

##### Properties and qualities

*Slope:* 0 to 3 percent

*Depth to restrictive feature:* 4 to 18 inches to petrocalcic

*Drainage class:* Well drained

*Runoff class:* High

*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.01 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum content:* 95 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

Map Unit Description: Kimbrough gravelly loam, dry, 0 to 3 percent slopes---Lea County, New Mexico

---

*Hydrologic Soil Group:* D  
*Ecological site:* R077DY049TX - Very Shallow 12-17" PZ  
*Hydric soil rating:* No

#### **Minor Components**

##### **Eunice**

*Percent of map unit:* 10 percent  
*Landform:* Plains  
*Down-slope shape:* Linear  
*Across-slope shape:* Convex  
*Ecological site:* R077DY049TX - Very Shallow 12-17" PZ  
*Hydric soil rating:* No

##### **Spraberry**

*Percent of map unit:* 6 percent  
*Landform:* Playa rims, plains  
*Down-slope shape:* Convex, linear  
*Across-slope shape:* Linear  
*Ecological site:* R077DY049TX - Very Shallow 12-17" PZ  
*Hydric soil rating:* No

##### **Kenhill**

*Percent of map unit:* 4 percent  
*Landform:* Plains  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Ecological site:* R077DY038TX - Clay Loam 12-17" PZ  
*Hydric soil rating:* No

## **Data Source Information**

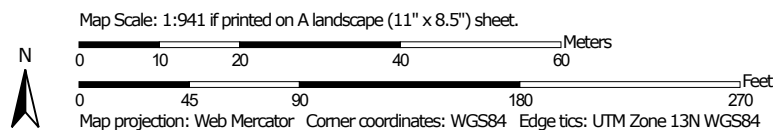
Soil Survey Area: Lea County, New Mexico  
Survey Area Data: Version 18, Sep 10, 2021



# Soil Map—Lea County, New Mexico



Soil Map may not be valid at this scale.



**Natural Resources**  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

5/27/2022  
Page 1 of 3



## Soil Map—Lea County, New Mexico

## 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: Lea County, New Mexico

Survey Area Data: Version 18, Sep 10, 2021

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

Date(s) aerial images were photographed: Feb 5, 2021—Feb 8, 2021

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.

Soil Map—Lea County, New Mexico

---

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KO	Kimbrough gravelly loam, dry, 0 to 3 percent slopes	4.3	100.0%
<b>Totals for Area of Interest</b>		<b>4.3</b>	<b>100.0%</b>

# Appendix C




## *Field Notes*



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Practical Solutions for a Better Tomorrow

CLIENT: <u>EOG</u>	 <b>envirotech</b> 505-632-0615   1-800-362-1879	Envmtl. Spclst: <u>J. Garcia</u>	
CLIENT/JOB #: <u>19034-0014</u>		Onsite: <u>9:15</u>	Offsite: <u>17:00</u>
START DATE: <u>5/23/2022</u>		LAT: <u>33.4306</u>	
FINISH DATE: _____		LONG: <u>-103.4516</u>	
Page # <u>1</u> of <u>2</u>	5796 US Highway 64 Farmington, NM 87401		

LOCATION:	Name: <u>Strait BLM State Comm</u>	Well #: <u>5</u>	API: _____
	County: <u>Lea</u>	State: <u>NM</u>	HWY-MM: _____
Cause of Release: <u>Tank Buttery</u>	Material Released: <u>Unknown</u>	Amt. Released: <u>Unknown</u>	
QUAD/UNIT: <u>L</u>	SEC: <u>20</u>	TWP: <u>10 S</u>	RNG: <u>34 E</u> PM: _____
Spill Located Approximately: _____ FT. FROM _____			
Excavation Approx: _____ FT. X _____ FT. X _____ FT. Volume (cy/tons): _____			
Disposal Facility: _____			
Land Use: _____ Land Owner: _____			
REGULATORY AGENCY: <u>NMDCO</u>		TPH CLOSURE STD: <u>2500<sup>mg</sup> 100</u>	
ADDITIONAL CLOSURE REQUIREMENTS: _____			

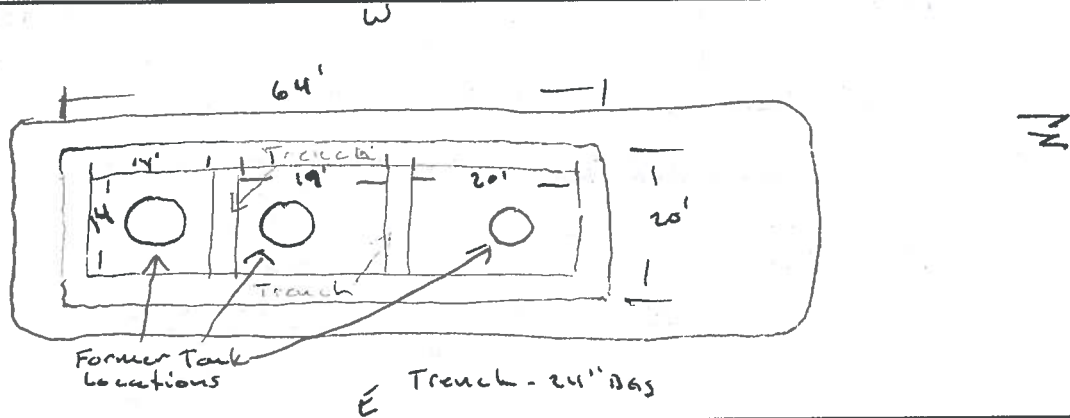
SAMPLE NAME	TIME COLLECTED	DESCRIPTION	VOC		TPH (Method 418.1)			Chloride	
			TIME	PID/OV ppm	TIME	READING	CALC ppm	TIME	mg/kg
CS-1	9:48	Middle Tank	10:51	0.0	19:24	26	104	11:11	<281
CS-2	10:12	South Tank	10:52	0.0	19:26	9	36	11:12	<281
CS-3	11:28	North Tank	12:28	0.0	19:27	98	392	12:30	<281
CS-4	14:09	S.Tank W.Wall	16:14	0.0	19:29	6	24	15:37	<281
CS-5	14:13	S.Tank N.Wall	16:15	0.0	19:31	8	32	15:39	<281
CS-6	14:18	S.Tank E.Wall	16:16	0.0	19:33	11	44	15:40	<281
CS-7	14:23	S.Tank S.Wall	16:17	0.0	19:35	14	56	15:41	<281
CS-8	14:30	M.Tank W.Wall	16:18	950	19:36	462	1858	15:53	<281
CS-9	14:40	M.Tank N.Wall	16:19	0.0	19:38	9	36	15:56	<281
CS-10	14:45	M.Tank E.Wall	16:20	0.0	19:40	2	8	15:57	<281
CS-11	14:49	M.Tank S.Wall	16:21	0.0	19:41	2	8	15:58	<281

**NOTES:** Include laboratory analysis information

CS-COMPOSITE SAMPLE  
 GS-GRAB SAMPLE  
 SB-SOIL BORING  
 TP-TEST PIT  
 DU- DECISION UNIT  
 ST-STATION

**SITE PERIMETER:** Draw a schematic of the spill site. Attach photos and other diagrams as needed.



**EXCAVATION OVERVIEW:**

**EXCAVATION PROFILE VIEWS:**


Sample Name:

Sample Name:

Sample Name:

Sample Name:

Revised 6/14/2021

CLIENT: <u>EOG</u>	 <b>envirotech</b> 505-632-0615   1-800-362-1879 5796 US Highway 64 Farmington, NM 87401	Envmtl. Spclst: <u>J. Garcia</u>	
CLIENT/JOB #: <u>19034-0014</u>		Onsite: <u>8:00</u>	Offsite: <u>15:15</u>
START DATE: <u>5/24/2022</u>		LAT: <u>33.4306</u>	LONG: <u>-103.4916</u>
FINISH DATE: _____			
Page # <u>1</u> of <u>1</u>			

LOCATION:	Name: <u>Strait BLN State Com</u>	Well #: <u>5</u>	API: _____
	County: <u>Lea</u>	State: <u>NM</u>	HWY-MM: _____
Cause of Release: <u>Tank Battery</u>	Material Released: <u>Unknown</u>	Amt. Released: <u>Unknown</u>	
QUAD/UNIT: <u>L</u>	SEC: <u>20</u>	TWP: <u>10S</u>	RNG: <u>34E</u> PM: _____
Spill Located Approximately: _____ FT. FROM _____			
Excavation Approx: _____ FT. X _____ FT. X _____ FT. Volume (cy/tons): _____			
Disposal Facility: _____			
Land Use: _____ Land Owner: _____			
REGULATORY AGENCY: <u>NMOC</u>		TPH CLOSURE STD: <u>100</u>	
ADDITIONAL CLOSURE REQUIREMENTS: _____			

SAMPLE NAME	TIME COLLECTED	DESCRIPTION	VOC		TPH (Method 418.1)			Chloride	
			TIME	PID/OV ppm	TIME	READING	CALC ppm	TIME	mg/kg
CS-16	11:42	N. Tank W. Wall	13:01	0.0	13:15	6	24	12:24	<281
CS-17	12:08	N. Tank W. Base	13:02	0.0	13:19	184	736	12:25	<281
CS-18	13:42	N. Tank	15:00	0.0	15:06	17	68	13:59	<281
CS-19	13:48	W. Wall Excavation	15:01	0.0	15:09	22	88	14:00	<281
5/31/2022									
CS-20	1510	West Wall							
CS-21	1515	East Wall							
CS-22	1520	base prior to pp application							
CS-23		base subsequent of pp application							(did not collect sample)

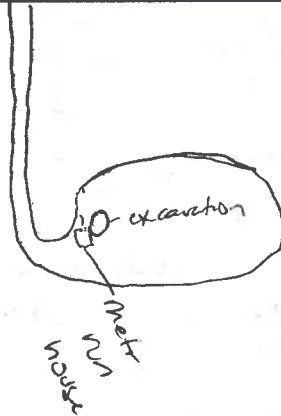
  

NOTES: Include laboratory analysis information	
CS-COMPOSITE SAMPLE GS-GRAB SAMPLE SB-SOIL BORING TP-TEST PIT DU- DECISION UNIT ST-STATION	CS-20 through CS-23 = confirmation samples PP = potassium permanganate

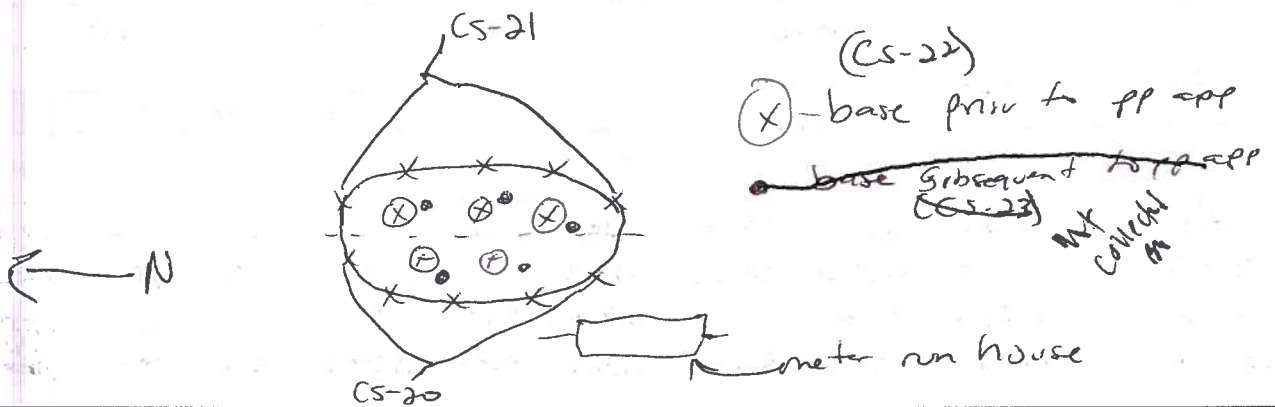


5/31/2022

SITE PERIMETER: Draw a schematic of the spill site. Attach photos and other diagrams as needed.



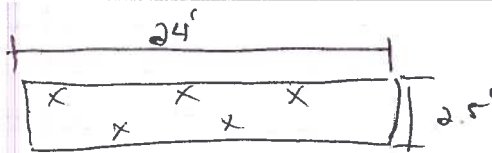
EXCAVATION OVERVIEW:



EXCAVATION PROFILE VIEWS:

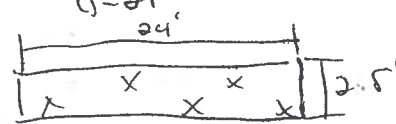
Sample Name:

CS-22



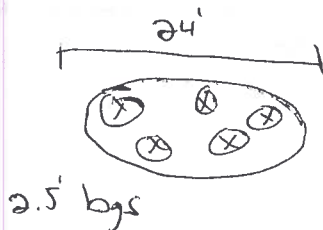
Sample Name:

CS-21



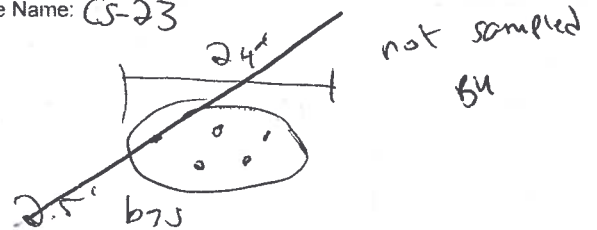
Sample Name:

CS-22



Sample Name:

CS-23





## Daily Site Visit Report

Client:	EOG Resources	Inspection Date:	5/31/2022
Site Location Name:		Report Run Date:	6/2/2022 7:35 PM
Client Contact Name:	Jeremy Haas	API #:	
Client Contact Phone #:			
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

### Summary of Times

Arrived at Site	5/31/2022 3:00 PM
Departed Site	

### Field Notes

**16:27** collected confirmation samples, applied potassium permanganate

### Next Steps & Recommendations

1

# Daily Site Visit Report

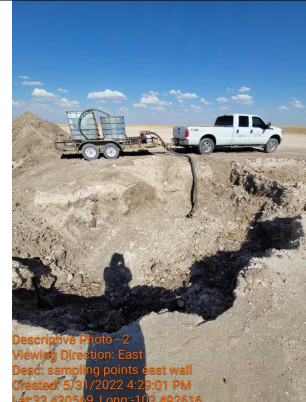
## Site Photos

**Viewing Direction: North**



excavation

**Viewing Direction: East**



sampling points east wall

**Viewing Direction: South**



excavation

**Viewing Direction: West**



sampling points west wall




## Daily Site Visit Report

Daily Site Visit Signature

**Inspector:** Brittany Hall

**Signature:**

CLIENT: <u>EOG</u>		 <b>envirotech</b> 505-632-0615   1-800-362-1879		Envmtl. Spclst: <u>K SANCHEZ</u>	
CLIENT/JOB #: <u>19034-0014</u>				Onsite: <u>8:00</u> Offsite: <u>14:15</u>	
START DATE: <u>8-24-22</u>		5796 US Highway 64 Farmington, NM 87401		LAT: _____	
FINISH DATE: _____				LONG: _____	
Page # _____ of _____					

LOCATION:	Name: <u>STRAIT BLN COM</u>	Well #: <u>005</u>	API: _____
	County: <u>EDDY</u>	State: <u>NM</u>	HWY-MM: _____
Cause of Release: _____	Material Released: _____		Amt. Released: _____
QUAD/UNIT: _____	SEC: _____	TWP: _____	RNG: _____ PM: _____
Spill Located Approximately: _____ FT. FROM _____			
Excavation Approx: _____ FT. X _____ FT. X _____ FT. Volume (cy/tons): _____			
Disposal Facility: _____			
Land Use: _____ Land Owner: _____			
REGULATORY AGENCY: <u>NMOC</u>		TPH CLOSURE STD: <u>100</u>	
ADDITIONAL CLOSURE REQUIREMENTS: _____			

SAMPLE NAME	TIME COLLECTED	DESCRIPTION	VOC		TPH (Method 418.1)			Chloride	
			TIME	PID/OV ppm	TIME	READING	CALC ppm	TIME	mg/kg
CS-23	12:30	<del>N. PIT</del> TANK SURFACE	13:00	0.0	13:05	01	04	13:15	<32
CS-24	12:34	<del>N. PIT</del> TANK 1' BGS	13:02	0.0	13:09	03	12	13:19	<32
CS-25	13:33	<del>N. PIT</del> TANK 2.5' BGS	13:50	0.0	13:43	01	04	13:46	<32
CS-26	13:49	S. TANK SURFACE	14:20	0.0	14:22	00	00	14:15	<32
CS-27	13:54	S. TANK 1' BGS	14:21	0.0	14:25	01	04	14:17	38
CS-28	14:31	S. TANK 2.5' BGS	14:50	0.0	14:39	04	16	14:44	38

NOTES: Include laboratory analysis information	
CS-COMPOSITE SAMPLE GS-GRAB SAMPLE SB-SOIL BORING TP-TEST PIT DU- DECISION UNIT ST-STATION	200 STD → 206 13:03 ZEROED → 00 13:04



Draw on if needed.  
Untitled Map

Write a description for your map.

TRENCH FOR  
EXTENTS 4' BGS

CENTER OF TRENCH 33.4305941 - 103.4926141 (CS-1)  
NORTH <sup>PAVE</sup> SIDE 33.4706467 - 103.4926060  
SOUTH SIDE 33.4705549 - 103.4926802 (CS-2)(CS-23-25)  
W. PERIMETER 33.4305907 - 103.4926640 (CS-26-28)  
E. PERIMETER 33.4305857 - 103.4925919 (CS-30) CS-29  
N. PERIMETER 33.4706251 - 103.4926194 CS-31  
S. PERIMETER 33.4305707 - 103.4926295 CS-32

90 ft



Legend



## Appendix D



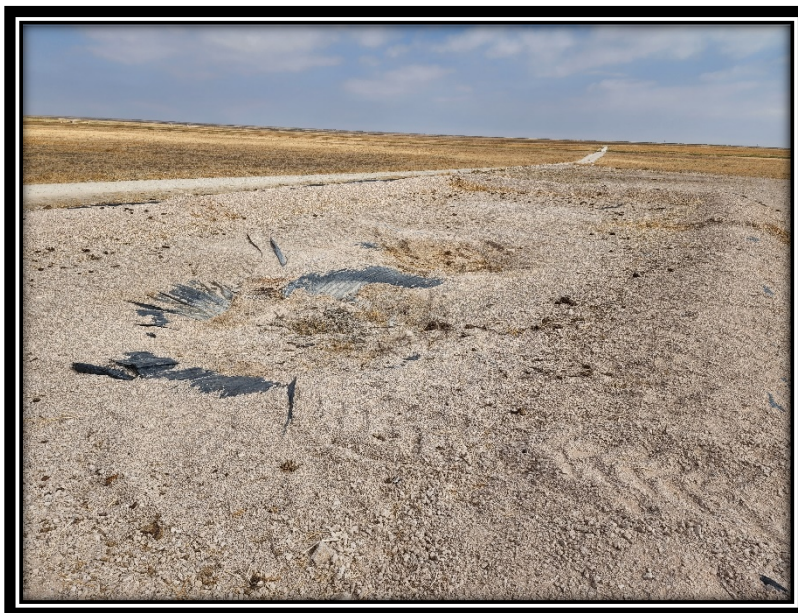
### *Site Photography*



Practical Solutions for a Better Tomorrow

Site Photography  
EOG Resources  
Strait BLN Com #5 Well Site  
Release Closure Report  
Lea County, New Mexico  
Project #19034-0014

May 23-25, 2022



Picture 1: View of Impacted Area



Picture 2: View of Liner Removal



Site Photography  
EOG Resources  
Strait BLN Com #5 Well Site  
Release Closure Report  
Lea County, New Mexico  
Project #19034-0014



Picture 3: View 1 of Assessment Activities



Picture 4: View 2 of Assessment Activities



Site Photography  
EOG Resources  
Strait BLN Com #5 Well Site  
Release Closure Report  
Lea County, New Mexico  
Project #19034-0014



Picture 5: View 1 of Remediation Excavation (Middle Tank)



Picture 6: View 2 of Remediation Excavation (Middle Tank)



Site Photography  
EOG Resources  
Strait BLN Com #5 Well Site  
Release Closure Report  
Lea County, New Mexico  
Project #19034-0014

May 31, 2022



Picture 7: View of Excavation



Picture 8: Sampling Points of East Wall

Site Photography  
EOG Resources  
Strait BLN Com #5 Well Site  
Release Closure Report  
Lea County, New Mexico  
Project #19034-0014



Picture 9: Sampling Points of West Wall



Picture 10: View of Potassium Permanganate Application

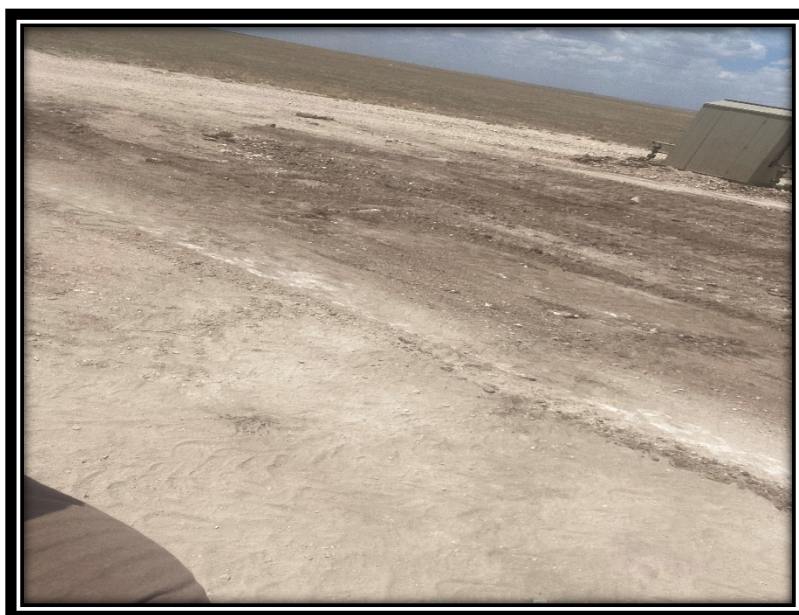


Site Photography  
EOG Resources  
Strait BLN Com #5 Well Site  
Release Closure Report  
Lea County, New Mexico  
Project #19034-0014

June 22 ,2022



Picture 11: View 1 of Backfill



Picture 12: View 2 of Backfill

Site Photography  
EOG Resources  
Strait BLN Com #5 Well Site  
Release Closure Report  
Lea County, New Mexico  
Project #19034-0014

August 24, 2022



Picture 11: Delineation Activities



Picture 12: Competent Base With Residual Potassium Permanganate

# Appendix E



## *Regulatory Correspondence*



**Practical Solutions for a Better Tomorrow**



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	nAPP2214536837
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party	EOG Resources, Inc.	OGRID	7377
Contact Name	Jeremy Haass	Contact Telephone	575-748-1471
Contact email	Jeremy_Haass@eogresources.com	Incident #	nAPP2214536837
Contact mailing address	104 S. 4th Street, Artesia, NM 88210		

### Location of Release Source

Latitude 33.4306 Longitude -103.4916  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Strait BLN State Com #5	Site Type	Battery
Date Release Discovered	5/25/2022	API#	30-025-38169

Unit Letter	Section	Township	Range	County
L	20	10S	34E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls)	Unknown	Volume Recovered (bbls)	0
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls)	Unknown	Volume Recovered (bbls)	0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Condensate	Volume Released (bbls)		Volume Recovered (bbls)	
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)		Volume Recovered (Mcf)	
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)		Volume/Weight Recovered (provide units)	

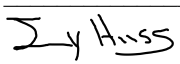
Cause of Release Historical impacts were discovered during the decommissioning process of the location. The environmental consultant contracted to investigate the area determined on 5/25/2022, based on the impacted area footprint, that the release more than likely breached the reportable volume threshold.

Incident ID	NAPP2214536837
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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*

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> 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: <u>Jeremy Haass</u>	Title: <u>Sr. Safety &amp; Environmental Specialist</u>
Signature: <u></u>	Date: <u>5/25/2022</u>
email: <u>jeremy_haass@eogresources.com</u>	Telephone: <u>575-748-1471</u>
<b><u>OCD Only</u></b>	
Received by: <u>Jocelyn Harimon</u>	Date: <u>05/25/2022</u>

Incident ID	
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>70</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

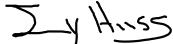
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods,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

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: Jeremy Haass Title: Sr. Safety & Environmental Specialist  
Signature:  Date: 08/30/22  
email: jeremy\_haas@eogresources.com Telephone: 575-748-1471

**OCD Only**

Received by: Jocelyn Harimon Date: 08/31/2022

Incident ID	
District RP	
Facility ID	
Application ID	

## Remediation Plan

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

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

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

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

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

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

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

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



Incident ID	
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 OCD 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: Jeremy Haass Title: Sr. Safety & Environmental Specialist

Signature:  Date: 08/30/22

email: jeremy\_haass@eogresources.com Telephone: 575-748-1471

### OCD Only

Received by: Jocelyn Harimon Date: 08/31/2022

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:  Date: 09/08/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS  
  
Action 110366

**CONDITIONS**

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 110366
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
jharimon	When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141	5/25/2022

## Brittany Hall

---

**From:** Jeremy Haass <Jeremy\_Haass@eogresources.com>  
**Sent:** Wednesday, May 25, 2022 11:05 AM  
**To:** Brittany Hall; Tami Knight  
**Subject:** FW: Strait BLN State Com 5 (nAPP2214536837) Sampling Notification

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

FYI. Also this site is in Lea County. My Regulatory Department caught it.

---

**From:** Tina Huerta <Tina\_Huerta@eogresources.com>  
**Sent:** Wednesday, May 25, 2022 10:45 AM  
**To:** emnrd-ocd-district1spills@state.nm.us  
**Cc:** Artesia S&E Spill Remediation <Artesia\_S&E\_Spill\_Remediation@eogresources.com>; Artesia Regulatory <Artesia\_Regulatory@eogresources.com>  
**Subject:** Strait BLN State Com 5 (nAPP2214536837) Sampling Notification

Good Morning,

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

Strait BLN State Com #5  
Unit L Sec 20-10S-34E  
Lea County, NM  
Incident ID nAPP2214536837

Sampling will begin at 3:00 p.m. on Tuesday, May 31, 2022.

*Tina Huerta*  
*Regulatory Specialist*  
*Direct: 575.748.4168*  
*Cell: 575.703.3121*  
*Email: [tina\\_huerta@eogresources.com](mailto:tina_huerta@eogresources.com)*



**From:** [Jeremy Haass](#)  
**To:** [Tami Knight](#)  
**Subject:** FW: Strait BLN State Com 5 (nAPP2214536837) Sampling Notification  
**Date:** Friday, August 19, 2022 11:01:53 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)

---

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

FYI

***Jeremy Haass***

***Safety & Environmental Specialist***

***EOG Resources – Artesia Division***

***104 S. 4<sup>th</sup> Street***

***Artesia, NM 88210***

**Office: (575) 748-4311**

**Fax: (575) 748-4131**

**Cell: (575) 513-9235**

**[jeremy\\_haass@eogresources.com](mailto:jeremy_haass@eogresources.com)**



---

**From:** Tina Huerta <Tina\_Huerta@eogresources.com>

**Sent:** Friday, August 19, 2022 10:05 AM

**To:** Jennifer Nobui <Jennifer.Nobui@state.nm.us>; Jocelyn Harimon  
<Jocelyn.Harimon@state.nm.us>; Mike Bratcher <mike.bratcher@state.nm.us>; Robert Hamlet  
<Robert.Hamlet@state.nm.us>

**Cc:** Artesia S&E Spill Remediation <Artesia\_S&E\_Spill\_Remediation@eogresources.com>; Artesia  
Regulatory <Artesia\_Regulatory@eogresources.com>

**Subject:** Strait BLN State Com 5 (nAPP2214536837) Sampling Notification

Good Morning,

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

Strait BLN State Com 5

L-20-10S-34E

Lea County, NM

nAPP2214536837

Sampling will begin at 8:00 a.m. on Wednesday, August 24, 2022.

# Appendix F



## *Laboratory Analytical Report*



Practical Solutions for a Better Tomorrow



Report to:  
Greg Crabtree



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

Project Name: Strait BLM State Com # 5  
Confirmation Sampling

Work Order: E206023

Job Number: 19034-0014

Received: 6/2/2022

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
6/9/22

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: 6/9/22

Greg Crabtree  
104 South 4th Street  
Artesia, NM 88210



Project Name: Strait BLM State Com # 5 Confirmation Sampling  
Workorder: E206023  
Date Received: 6/2/2022 8:46:00AM

Greg Crabtree,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 6/2/2022 8:46:00AM, under the Project Name: Strait BLM State Com # 5 Confirmation Sampling.

The analytical test results summarized in this report with the Project Name: Strait BLM State Com # 5 Confirmation Sampling 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 regarding 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](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto: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  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

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

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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**Sample Summary**

EOG Resources 104 South 4th Street Artesia NM, 88210	Project Name: Strait BLM State Com # 5 Confirmation Sampling Project Number: 19034-0014 Project Manager: Greg Crabtree	<b>Reported:</b> 06/09/22 13:29
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
CS - 20	E206023-01A	Soil	05/31/22	06/02/22	Glass Jar, 4 oz.
	E206023-01B	Soil	05/31/22	06/02/22	Glass Jar, 4 oz.
CS - 21	E206023-02A	Soil	05/31/22	06/02/22	Glass Jar, 4 oz.
	E206023-02B	Soil	05/31/22	06/02/22	Glass Jar, 4 oz.
CS - 22	E206023-03A	Soil	05/31/22	06/02/22	Glass Jar, 4 oz.
	E206023-03B	Soil	05/31/22	06/02/22	Glass Jar, 4 oz.





## Sample Data

EOG Resources 104 South 4th Street Artesia NM, 88210	Project Name: Strait BLM State Com # 5 Confirmation Sampling Project Number: 19034-0014 Project Manager: Greg Crabtree	Reported: 6/9/2022 1:29:27PM
--	--	---------------------------------

CS - 20

E206023-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
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<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg	Analyst: RKS		Batch: 2224003	
Benzene	ND	0.0250	1	06/06/22	06/07/22	
Ethylbenzene	ND	0.0250	1	06/06/22	06/07/22	
Toluene	ND	0.0250	1	06/06/22	06/07/22	
o-Xylene	ND	0.0250	1	06/06/22	06/07/22	
p,m-Xylene	ND	0.0500	1	06/06/22	06/07/22	
Total Xylenes	ND	0.0250	1	06/06/22	06/07/22	
Surrogate: Bromofluorobenzene	98.7 %	70-130		06/06/22	06/07/22	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		06/06/22	06/07/22	
Surrogate: Toluene-d8	101 %	70-130		06/06/22	06/07/22	

<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: RKS		Batch: 2224003	
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/06/22	06/07/22	
Surrogate: Bromofluorobenzene	98.7 %	70-130		06/06/22	06/07/22	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		06/06/22	06/07/22	
Surrogate: Toluene-d8	101 %	70-130		06/06/22	06/07/22	

<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: JL		Batch: 2224008	
Diesel Range Organics (C10-C28)	ND	25.0	1	06/07/22	06/07/22	
Oil Range Organics (C28-C36)	ND	50.0	1	06/07/22	06/07/22	
Surrogate: n-Nonane	98.8 %	50-200		06/07/22	06/07/22	

<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS		Batch: 2224012	
Chloride	ND	20.0	1	06/07/22	06/07/22	



## Sample Data

EOG Resources  
104 South 4th Street  
Artesia NM, 88210

Project Name: Strait BLM State Com # 5 Confirmation Sampling  
Project Number: 19034-0014  
Project Manager: Greg Crabtree

**Reported:**  
6/9/2022 1:29:27PM

## CS - 21

## E206023-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2224003
Benzene	ND	0.0250	1	06/06/22	06/07/22	
Ethylbenzene	ND	0.0250	1	06/06/22	06/07/22	
Toluene	ND	0.0250	1	06/06/22	06/07/22	
o-Xylene	ND	0.0250	1	06/06/22	06/07/22	
p,m-Xylene	ND	0.0500	1	06/06/22	06/07/22	
Total Xylenes	ND	0.0250	1	06/06/22	06/07/22	
Surrogate: Bromofluorobenzene		100 %	70-130	06/06/22	06/07/22	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130	06/06/22	06/07/22	
Surrogate: Toluene-d8		100 %	70-130	06/06/22	06/07/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2224003
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/06/22	06/07/22	
Surrogate: Bromofluorobenzene		100 %	70-130	06/06/22	06/07/22	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130	06/06/22	06/07/22	
Surrogate: Toluene-d8		100 %	70-130	06/06/22	06/07/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2224008
Diesel Range Organics (C10-C28)	ND	25.0	1	06/07/22	06/07/22	
Oil Range Organics (C28-C36)	ND	50.0	1	06/07/22	06/07/22	
Surrogate: n-Nonane		108 %	50-200	06/07/22	06/07/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2224012
Chloride	ND	20.0	1	06/07/22	06/07/22	



## Sample Data

EOG Resources  
104 South 4th Street  
Artesia NM, 88210

Project Name: Strait BLM State Com # 5 Confirmation Sampling  
Project Number: 19034-0014  
Project Manager: Greg Crabtree

**Reported:**  
6/9/2022 1:29:27PM

CS - 22

E206023-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2224003
Benzene	ND	0.0250	1	06/06/22	06/07/22	
Ethylbenzene	ND	0.0250	1	06/06/22	06/07/22	
Toluene	ND	0.0250	1	06/06/22	06/07/22	
o-Xylene	ND	0.0250	1	06/06/22	06/07/22	
p,m-Xylene	ND	0.0500	1	06/06/22	06/07/22	
Total Xylenes	ND	0.0250	1	06/06/22	06/07/22	
Surrogate: Bromofluorobenzene	99.1 %	70-130		06/06/22	06/07/22	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		06/06/22	06/07/22	
Surrogate: Toluene-d8	99.8 %	70-130		06/06/22	06/07/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2224003
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/06/22	06/07/22	
Surrogate: Bromofluorobenzene	99.1 %	70-130		06/06/22	06/07/22	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		06/06/22	06/07/22	
Surrogate: Toluene-d8	99.8 %	70-130		06/06/22	06/07/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2224008
Diesel Range Organics (C10-C28)	1610	50.0	2	06/07/22	06/08/22	
Oil Range Organics (C28-C36)	1320	100	2	06/07/22	06/08/22	
Surrogate: n-Nonane	128 %	50-200		06/07/22	06/08/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2224012
Chloride	ND	20.0	1	06/07/22	06/07/22	



## QC Summary Data

EOG Resources	Project Name:	Strait BLM State Com # 5 Confirmation Sampling	Reported:
104 South 4th Street	Project Number:	19034-0014	
Artesia NM, 88210	Project Manager:	Greg Crabtree	6/9/2022 1:29:27PM

## Volatile Organic Compounds by EPA 8260B

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 (2224003-BLK1)

Prepared: 06/06/22 Analyzed: 06/07/22

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: Bromofluorobenzene	0.494		0.500		98.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.472		0.500		94.3	70-130			
Surrogate: Toluene-d8	0.496		0.500		99.2	70-130			

## LCS (2224003-BS1)

Prepared: 06/06/22 Analyzed: 06/07/22

Benzene	3.01	0.0250	2.50		121	70-130			
Ethylbenzene	3.09	0.0250	2.50		124	70-130			
Toluene	3.01	0.0250	2.50		120	70-130			
o-Xylene	3.10	0.0250	2.50		124	70-130			
p,m-Xylene	6.12	0.0500	5.00		122	70-130			
Total Xylenes	9.22	0.0250	7.50		123	70-130			
Surrogate: Bromofluorobenzene	0.503		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.477		0.500		95.4	70-130			
Surrogate: Toluene-d8	0.505		0.500		101	70-130			

## LCS Dup (2224003-BSD1)

Prepared: 06/06/22 Analyzed: 06/07/22

Benzene	2.81	0.0250	2.50		113	70-130	6.87	23	
Ethylbenzene	2.85	0.0250	2.50		114	70-130	8.35	27	
Toluene	2.78	0.0250	2.50		111	70-130	7.95	24	
o-Xylene	2.88	0.0250	2.50		115	70-130	7.48	27	
p,m-Xylene	5.64	0.0500	5.00		113	70-130	8.18	27	
Total Xylenes	8.51	0.0250	7.50		113	70-130	7.94	27	
Surrogate: Bromofluorobenzene	0.516		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.500		0.500		100	70-130			
Surrogate: Toluene-d8	0.498		0.500		99.5	70-130			





## QC Summary Data

EOG Resources 104 South 4th Street Artesia NM, 88210	Project Name: Project Number: Project Manager:	Strait BLM State Com # 5 Confirmation Sampling 19034-0014 Greg Crabtree	Reported:  6/9/2022 1:29:27PM
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## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2224003-BLK1)

Prepared: 06/06/22 Analyzed: 06/07/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.494		0.500		98.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.472		0.500		94.3	70-130			
Surrogate: Toluene-d8	0.496		0.500		99.2	70-130			

## LCS (2224003-BS2)

Prepared: 06/06/22 Analyzed: 06/07/22

Gasoline Range Organics (C6-C10)	53.8	20.0	50.0		108	70-130			
Surrogate: Bromofluorobenzene	0.498		0.500		99.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.499		0.500		99.7	70-130			
Surrogate: Toluene-d8	0.511		0.500		102	70-130			

## LCS Dup (2224003-BSD2)

Prepared: 06/06/22 Analyzed: 06/07/22

Gasoline Range Organics (C6-C10)	58.4	20.0	50.0		117	70-130	8.28	20	
Surrogate: Bromofluorobenzene	0.500		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.498		0.500		99.6	70-130			
Surrogate: Toluene-d8	0.515		0.500		103	70-130			



## QC Summary Data

EOG Resources	Project Name:	Strait BLM State Com # 5 Confirmation Sampling	<b>Reported:</b>
104 South 4th Street	Project Number:	19034-0014	
Artesia NM, 88210	Project Manager:	Greg Crabtree	6/9/2022 1:29:27PM

## Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2224008-BLK1)

Prepared: 06/06/22 Analyzed: 06/06/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	44.3		50.0		88.7	50-200			

## LCS (2224008-BS1)

Prepared: 06/06/22 Analyzed: 06/06/22

Diesel Range Organics (C10-C28)	502	25.0	500		100	38-132			
Surrogate: <i>n</i> -Nonane	36.9		50.0		73.9	50-200			

## Matrix Spike (2224008-MS1)

Source: E206018-03

Prepared: 06/06/22 Analyzed: 06/06/22

Diesel Range Organics (C10-C28)	519	25.0	500	ND	104	38-132			
Surrogate: <i>n</i> -Nonane	49.3		50.0		98.6	50-200			

## Matrix Spike Dup (2224008-MSD1)

Source: E206018-03

Prepared: 06/06/22 Analyzed: 06/06/22

Diesel Range Organics (C10-C28)	503	25.0	500	ND	101	38-132	3.28	20	
Surrogate: <i>n</i> -Nonane	49.3		50.0		98.6	50-200			



## QC Summary Data

EOG Resources	Project Name:	Strait BLM State Com # 5 Confirmation Sampling	<b>Reported:</b>
104 South 4th Street	Project Number:	19034-0014	
Artesia NM, 88210	Project Manager:	Greg Crabtree	6/9/2022 1:29:27PM

## Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2224012-BLK1)

Prepared: 06/07/22 Analyzed: 06/07/22

Chloride ND 20.0

## LCS (2224012-BS1)

Prepared: 06/07/22 Analyzed: 06/07/22

Chloride 251 20.0 250 100 90-110

## Matrix Spike (2224012-MS1)

Source: E206022-01

Prepared: 06/07/22 Analyzed: 06/07/22

Chloride 284 20.0 250 ND 114 80-120

## Matrix Spike Dup (2224012-MSD1)

Source: E206022-01

Prepared: 06/07/22 Analyzed: 06/07/22

Chloride 291 20.0 250 ND 116 80-120 2.34 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	Project Name:	Strait BLM State Com # 5 Confirmation Sampling	
104 South 4th Street	Project Number:	19034-0014	Reported:
Artesia NM, 88210	Project Manager:	Greg Crabtree	06/09/22 13:29

- 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.





[illegible]

## Envirotech Analytical Laboratory

Printed: 6/2/2022 9:46:39AM

## 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	Date Received:	06/02/22 08:46	Work Order ID:	E206023
Phone:	(575) 748-4217	Date Logged In:	06/02/22 09:43	Logged In By:	Caitlin Christian
Email:		Due Date:	06/09/22 17:00 (5 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
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: Brittany HallComments/ResolutionSample 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? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

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 filtration 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

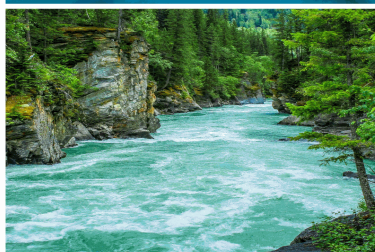
Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Greg Crabtree



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

### EOG Resources

Project Name: Strait BLN State Com

Work Order: E208140

Job Number: 19034-0014

Received: 8/25/2022

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/26/22

5796 U.S. Hwy 64  
Farmington, NM 87401

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



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: 8/26/22



Greg Crabtree  
104 South 4th Street  
Artesia, NM 88210

Project Name: Strait BLN State Com  
Workorder: E208140  
Date Received: 8/25/2022 12:51:00PM

Greg Crabtree,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/25/2022 12:51:00PM, under the Project Name: Strait BLN State Com.

The analytical test results summarized in this report with the Project Name: Strait BLN State Com 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 regarding 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](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
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**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

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

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)



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**Sample Summary**

EOG Resources 104 South 4th Street Artesia NM, 88210	Project Name: Strait BLN State Com Project Number: 19034-0014 Project Manager: Greg Crabtree	<b>Reported:</b> 08/26/22 14:20
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
CS-29	E208140-01A	Soil	08/24/22	08/25/22	Glass Jar, 2 oz.
CS-30	E208140-02A	Soil	08/24/22	08/25/22	Glass Jar, 2 oz.
CS-31	E208140-03A	Soil	08/24/22	08/25/22	Glass Jar, 2 oz.
CS-32	E208140-04A	Soil	08/24/22	08/25/22	Glass Jar, 2 oz.



## Sample Data

EOG Resources 104 South 4th Street Artesia NM, 88210	Project Name: Strait BLN State Com Project Number: 19034-0014 Project Manager: Greg Crabtree	Reported: 8/26/2022 2:20:44PM
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## CS-29

## E208140-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
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<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg	Analyst: IY		Batch: 2235046	
Benzene	ND	0.0250	1	08/25/22	08/25/22	
Ethylbenzene	ND	0.0250	1	08/25/22	08/25/22	
Toluene	ND	0.0250	1	08/25/22	08/25/22	
o-Xylene	ND	0.0250	1	08/25/22	08/25/22	
p,m-Xylene	ND	0.0500	1	08/25/22	08/25/22	
Total Xylenes	ND	0.0250	1	08/25/22	08/25/22	
<i>Surrogate: Bromofluorobenzene</i>	100 %	70-130		08/25/22	08/25/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	99.8 %	70-130		08/25/22	08/25/22	
<i>Surrogate: Toluene-d8</i>	102 %	70-130		08/25/22	08/25/22	

<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: IY		Batch: 2235046	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/25/22	08/25/22	
<i>Surrogate: Bromofluorobenzene</i>	100 %	70-130		08/25/22	08/25/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	99.8 %	70-130		08/25/22	08/25/22	
<i>Surrogate: Toluene-d8</i>	102 %	70-130		08/25/22	08/25/22	

<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: KL		Batch: 2235050	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/25/22	08/26/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/25/22	08/26/22	
<i>Surrogate: n-Nonane</i>	92.7 %	50-200		08/25/22	08/26/22	

<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS		Batch: 2235045	
Chloride	64.7	20.0	1	08/25/22	08/26/22	



## Sample Data

EOG Resources  
104 South 4th Street  
Artesia NM, 88210

Project Name: Strait BLN State Com  
Project Number: 19034-0014  
Project Manager: Greg Crabtree

**Reported:**  
8/26/2022 2:20:44PM

## CS-30

## E208140-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235046
Benzene	ND	0.0250	1	08/25/22	08/25/22	
Ethylbenzene	ND	0.0250	1	08/25/22	08/25/22	
Toluene	ND	0.0250	1	08/25/22	08/25/22	
o-Xylene	ND	0.0250	1	08/25/22	08/25/22	
p,m-Xylene	ND	0.0500	1	08/25/22	08/25/22	
Total Xylenes	ND	0.0250	1	08/25/22	08/25/22	
Surrogate: Bromofluorobenzene		102 %	70-130	08/25/22	08/25/22	
Surrogate: 1,2-Dichloroethane-d4		99.9 %	70-130	08/25/22	08/25/22	
Surrogate: Toluene-d8		105 %	70-130	08/25/22	08/25/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235046
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/25/22	08/25/22	
Surrogate: Bromofluorobenzene		102 %	70-130	08/25/22	08/25/22	
Surrogate: 1,2-Dichloroethane-d4		99.9 %	70-130	08/25/22	08/25/22	
Surrogate: Toluene-d8		105 %	70-130	08/25/22	08/25/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KL		Batch: 2235050
Diesel Range Organics (C10-C28)	ND	25.0	1	08/25/22	08/26/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/25/22	08/26/22	
Surrogate: n-Nonane		86.4 %	50-200	08/25/22	08/26/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2235045
Chloride	26.3	20.0	1	08/25/22	08/26/22	



## Sample Data

EOG Resources  
104 South 4th Street  
Artesia NM, 88210

Project Name: Strait BLN State Com  
Project Number: 19034-0014  
Project Manager: Greg Crabtree

**Reported:**  
8/26/2022 2:20:44PM

## CS-31

## E208140-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235046
Benzene	ND	0.0250	1	08/25/22	08/25/22	
Ethylbenzene	ND	0.0250	1	08/25/22	08/25/22	
Toluene	ND	0.0250	1	08/25/22	08/25/22	
o-Xylene	ND	0.0250	1	08/25/22	08/25/22	
p,m-Xylene	ND	0.0500	1	08/25/22	08/25/22	
Total Xylenes	ND	0.0250	1	08/25/22	08/25/22	
Surrogate: Bromofluorobenzene		104 %	70-130	08/25/22	08/25/22	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130	08/25/22	08/25/22	
Surrogate: Toluene-d8		103 %	70-130	08/25/22	08/25/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235046
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/25/22	08/25/22	
Surrogate: Bromofluorobenzene		104 %	70-130	08/25/22	08/25/22	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130	08/25/22	08/25/22	
Surrogate: Toluene-d8		103 %	70-130	08/25/22	08/25/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KL		Batch: 2235050
Diesel Range Organics (C10-C28)	ND	25.0	1	08/25/22	08/26/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/25/22	08/26/22	
Surrogate: n-Nonane		83.4 %	50-200	08/25/22	08/26/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2235045
Chloride	25.8	20.0	1	08/25/22	08/26/22	





## Sample Data

EOG Resources  
104 South 4th Street  
Artesia NM, 88210

Project Name: Strait BLN State Com  
Project Number: 19034-0014  
Project Manager: Greg Crabtree

**Reported:**  
8/26/2022 2:20:44PM

## CS-32

## E208140-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235046
Benzene	ND	0.0250	1	08/25/22	08/25/22	
Ethylbenzene	ND	0.0250	1	08/25/22	08/25/22	
Toluene	ND	0.0250	1	08/25/22	08/25/22	
o-Xylene	ND	0.0250	1	08/25/22	08/25/22	
p,m-Xylene	ND	0.0500	1	08/25/22	08/25/22	
Total Xylenes	ND	0.0250	1	08/25/22	08/25/22	
Surrogate: Bromofluorobenzene		104 %	70-130	08/25/22	08/25/22	
Surrogate: 1,2-Dichloroethane-d4		99.0 %	70-130	08/25/22	08/25/22	
Surrogate: Toluene-d8		102 %	70-130	08/25/22	08/25/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235046
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/25/22	08/25/22	
Surrogate: Bromofluorobenzene		104 %	70-130	08/25/22	08/25/22	
Surrogate: 1,2-Dichloroethane-d4		99.0 %	70-130	08/25/22	08/25/22	
Surrogate: Toluene-d8		102 %	70-130	08/25/22	08/25/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KL		Batch: 2235050
Diesel Range Organics (C10-C28)	ND	25.0	1	08/25/22	08/26/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/25/22	08/26/22	
Surrogate: n-Nonane		84.8 %	50-200	08/25/22	08/26/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2235045
Chloride	ND	20.0	1	08/25/22	08/26/22	



## QC Summary Data

EOG Resources	Project Name:	Strait BLN State Com	Reported:
104 South 4th Street	Project Number:	19034-0014	
Artesia NM, 88210	Project Manager:	Greg Crabtree	8/26/2022 2:20:44PM

## Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2235046-BLK1)

Prepared: 08/25/22 Analyzed: 08/25/22

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: Bromofluorobenzene	0.496		0.500		99.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.490		0.500		98.0	70-130			
Surrogate: Toluene-d8	0.515		0.500		103	70-130			

## LCS (2235046-BS1)

Prepared: 08/25/22 Analyzed: 08/25/22

Benzene	2.68	0.0250	2.50		107	70-130			
Ethylbenzene	2.65	0.0250	2.50		106	70-130			
Toluene	2.59	0.0250	2.50		104	70-130			
o-Xylene	2.49	0.0250	2.50		99.6	70-130			
p,m-Xylene	4.94	0.0500	5.00		98.8	70-130			
Total Xylenes	7.43	0.0250	7.50		99.1	70-130			
Surrogate: Bromofluorobenzene	0.518		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.489		0.500		97.8	70-130			
Surrogate: Toluene-d8	0.519		0.500		104	70-130			

## LCS Dup (2235046-BSD1)

Prepared: 08/25/22 Analyzed: 08/25/22

Benzene	2.45	0.0250	2.50		97.8	70-130	8.96	23	
Ethylbenzene	2.43	0.0250	2.50		97.2	70-130	8.57	27	
Toluene	2.37	0.0250	2.50		94.7	70-130	9.09	24	
o-Xylene	2.31	0.0250	2.50		92.3	70-130	7.55	27	
p,m-Xylene	4.54	0.0500	5.00		90.8	70-130	8.48	27	
Total Xylenes	6.85	0.0250	7.50		91.3	70-130	8.17	27	
Surrogate: Bromofluorobenzene	0.520		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.500		0.500		100	70-130			
Surrogate: Toluene-d8	0.517		0.500		103	70-130			



## QC Summary Data

EOG Resources	Project Name:	Strait BLN State Com	Reported:
104 South 4th Street	Project Number:	19034-0014	
Artesia NM, 88210	Project Manager:	Greg Crabtree	8/26/2022 2:20:44PM

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2235046-BLK1)

Prepared: 08/25/22 Analyzed: 08/25/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.496		0.500		99.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.490		0.500		98.0	70-130			
Surrogate: Toluene-d8	0.515		0.500		103	70-130			

## LCS (2235046-BS2)

Prepared: 08/25/22 Analyzed: 08/25/22

Gasoline Range Organics (C6-C10)	54.7	20.0	50.0		109	70-130			
Surrogate: Bromofluorobenzene	0.514		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.502		0.500		100	70-130			
Surrogate: Toluene-d8	0.511		0.500		102	70-130			

## LCS Dup (2235046-BSD2)

Prepared: 08/25/22 Analyzed: 08/25/22

Gasoline Range Organics (C6-C10)	55.2	20.0	50.0		110	70-130	0.850	20	
Surrogate: Bromofluorobenzene	0.510		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.500		0.500		100	70-130			
Surrogate: Toluene-d8	0.509		0.500		102	70-130			



## QC Summary Data

EOG Resources	Project Name:	Strait BLN State Com	Reported:
104 South 4th Street	Project Number:	19034-0014	
Artesia NM, 88210	Project Manager:	Greg Crabtree	8/26/2022 2:20:44PM

## Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2235050-BLK1)

Prepared: 08/25/22 Analyzed: 08/25/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	45.1		50.0		90.2	50-200			

## LCS (2235050-BS1)

Prepared: 08/25/22 Analyzed: 08/25/22

Diesel Range Organics (C10-C28)	224	25.0	250		89.6	38-132			
Surrogate: n-Nonane	41.1		50.0		82.2	50-200			

## Matrix Spike (2235050-MS1)

Source: E208135-04

Prepared: 08/25/22 Analyzed: 08/25/22

Diesel Range Organics (C10-C28)	232	25.0	250	ND	92.7	38-132			
Surrogate: n-Nonane	44.2		50.0		88.4	50-200			

## Matrix Spike Dup (2235050-MSD1)

Source: E208135-04

Prepared: 08/25/22 Analyzed: 08/25/22

Diesel Range Organics (C10-C28)	231	25.0	250	ND	92.5	38-132	0.248	20	
Surrogate: n-Nonane	39.2		50.0		78.4	50-200			



## QC Summary Data

EOG Resources	Project Name:	Strait BLN State Com	<b>Reported:</b>
104 South 4th Street	Project Number:	19034-0014	
Artesia NM, 88210	Project Manager:	Greg Crabtree	8/26/2022 2:20:44PM

## Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2235045-BLK1)

Prepared: 08/25/22 Analyzed: 08/25/22

Chloride ND 20.0

## LCS (2235045-BS1)

Prepared: 08/25/22 Analyzed: 08/25/22

Chloride 266 20.0 250 106 90-110

## Matrix Spike (2235045-MS1)

Source: E208135-01

Prepared: 08/25/22 Analyzed: 08/25/22

Chloride 423 20.0 250 82.1 136 80-120 M2

## Matrix Spike Dup (2235045-MSD1)

Source: E208135-01

Prepared: 08/25/22 Analyzed: 08/25/22

Chloride 383 20.0 250 82.1 120 80-120 9.89 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	Project Name:	Strait BLN State Com	
104 South 4th Street	Project Number:	19034-0014	<b>Reported:</b>
Artesia NM, 88210	Project Manager:	Greg Crabtree	08/26/22 14:20

M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.

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.



Page 14 of 15

## Envirotech Analytical Laboratory

Printed: 8/25/2022 1:26:08PM

## 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	Date Received:	08/25/22 12:51	Work Order ID:	E208140
Phone:	(575) 748-4217	Date Logged In:	08/25/22 11:51	Logged In By:	Caitlin Christian
Email:		Due Date:	08/26/22 17:00 (1 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
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: Kholeton SanchezComments/ResolutionSample 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? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

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 filtration 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:  
Greg Crabtree



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

Project Name: Strait BLN State Com

Work Order: E208137

Job Number: 19034-0014

Received: 8/25/2022

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/26/22

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: 8/26/22

Greg Crabtree  
104 South 4th Street  
Artesia, NM 88210



Project Name: Strait BLN State Com  
Workorder: E208137  
Date Received: 8/25/2022 12:51:00PM

Greg Crabtree,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/25/2022 12:51:00PM, under the Project Name: Strait BLN State Com.

The analytical test results summarized in this report with the Project Name: Strait BLN State Com 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 regarding 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**  
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[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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**Alexa Michaels**  
Sample Custody Officer  
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**Rayny Hagan**  
Technical Representative  
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**Sample Summary**

EOG Resources 104 South 4th Street Artesia NM, 88210	Project Name: Strait BLN State Com Project Number: 19034-0014 Project Manager: Greg Crabtree	<b>Reported:</b> 08/26/22 14:11
--	--	------------------------------------

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
CS-23	E208137-01A	Soil	08/24/22	08/25/22	Glass Jar, 2 oz.
CS-24	E208137-02A	Soil	08/24/22	08/25/22	Glass Jar, 2 oz.
CS-25	E208137-03A	Soil	08/24/22	08/25/22	Glass Jar, 2 oz.
CS-26	E208137-04A	Soil	08/24/22	08/25/22	Glass Jar, 2 oz.
CS-27	E208137-05A	Soil	08/24/22	08/25/22	Glass Jar, 2 oz.
CS-28	E208137-06A	Soil	08/24/22	08/25/22	Glass Jar, 2 oz.



## Sample Data

EOG Resources  
104 South 4th Street  
Artesia NM, 88210

Project Name: Strait BLN State Com  
Project Number: 19034-0014  
Project Manager: Greg Crabtree

**Reported:**  
8/26/2022 2:11:32PM

## CS-23

## E208137-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235046
Benzene	ND	0.0250	1	08/25/22	08/25/22	
Ethylbenzene	ND	0.0250	1	08/25/22	08/25/22	
Toluene	ND	0.0250	1	08/25/22	08/25/22	
o-Xylene	ND	0.0250	1	08/25/22	08/25/22	
p,m-Xylene	ND	0.0500	1	08/25/22	08/25/22	
Total Xylenes	ND	0.0250	1	08/25/22	08/25/22	
<i>Surrogate: Bromofluorobenzene</i>		110 %	70-130	08/25/22	08/25/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.7 %	70-130	08/25/22	08/25/22	
<i>Surrogate: Toluene-d8</i>		96.9 %	70-130	08/25/22	08/25/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235046
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/25/22	08/25/22	
<i>Surrogate: Bromofluorobenzene</i>		110 %	70-130	08/25/22	08/25/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.7 %	70-130	08/25/22	08/25/22	
<i>Surrogate: Toluene-d8</i>		96.9 %	70-130	08/25/22	08/25/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KL		Batch: 2235050
Diesel Range Organics (C10-C28)	ND	25.0	1	08/25/22	08/26/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/25/22	08/26/22	
<i>Surrogate: n-Nonane</i>		98.7 %	50-200	08/25/22	08/26/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2235045
Chloride	ND	20.0	1	08/25/22	08/25/22	



## Sample Data

EOG Resources  
104 South 4th Street  
Artesia NM, 88210

Project Name: Strait BLN State Com  
Project Number: 19034-0014  
Project Manager: Greg Crabtree

**Reported:**  
8/26/2022 2:11:32PM

## CS-24

## E208137-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235046
Benzene	ND	0.0250	1	08/25/22	08/25/22	
Ethylbenzene	ND	0.0250	1	08/25/22	08/25/22	
Toluene	ND	0.0250	1	08/25/22	08/25/22	
o-Xylene	ND	0.0250	1	08/25/22	08/25/22	
p,m-Xylene	ND	0.0500	1	08/25/22	08/25/22	
Total Xylenes	ND	0.0250	1	08/25/22	08/25/22	
Surrogate: Bromofluorobenzene	90.4 %	70-130		08/25/22	08/25/22	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		08/25/22	08/25/22	
Surrogate: Toluene-d8	98.5 %	70-130		08/25/22	08/25/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235046
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/25/22	08/25/22	
Surrogate: Bromofluorobenzene	90.4 %	70-130		08/25/22	08/25/22	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		08/25/22	08/25/22	
Surrogate: Toluene-d8	98.5 %	70-130		08/25/22	08/25/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KL		Batch: 2235050
Diesel Range Organics (C10-C28)	ND	25.0	1	08/25/22	08/26/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/25/22	08/26/22	
Surrogate: n-Nonane	85.0 %	50-200		08/25/22	08/26/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2235045
Chloride	23.2	20.0	1	08/25/22	08/25/22	



## Sample Data

EOG Resources  
104 South 4th Street  
Artesia NM, 88210

Project Name: Strait BLN State Com  
Project Number: 19034-0014  
Project Manager: Greg Crabtree

**Reported:**  
8/26/2022 2:11:32PM

## CS-25

## E208137-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235046
Benzene	ND	0.0250	1	08/25/22	08/25/22	
Ethylbenzene	ND	0.0250	1	08/25/22	08/25/22	
Toluene	ND	0.0250	1	08/25/22	08/25/22	
o-Xylene	ND	0.0250	1	08/25/22	08/25/22	
p,m-Xylene	ND	0.0500	1	08/25/22	08/25/22	
Total Xylenes	ND	0.0250	1	08/25/22	08/25/22	
Surrogate: Bromofluorobenzene	93.1 %	70-130		08/25/22	08/25/22	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		08/25/22	08/25/22	
Surrogate: Toluene-d8	96.6 %	70-130		08/25/22	08/25/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235046
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/25/22	08/25/22	
Surrogate: Bromofluorobenzene	93.1 %	70-130		08/25/22	08/25/22	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		08/25/22	08/25/22	
Surrogate: Toluene-d8	96.6 %	70-130		08/25/22	08/25/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KL		Batch: 2235050
Diesel Range Organics (C10-C28)	ND	25.0	1	08/25/22	08/26/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/25/22	08/26/22	
Surrogate: n-Nonane	99.7 %	50-200		08/25/22	08/26/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2235045
Chloride	ND	20.0	1	08/25/22	08/25/22	





## Sample Data

EOG Resources  
104 South 4th Street  
Artesia NM, 88210

Project Name: Strait BLN State Com  
Project Number: 19034-0014  
Project Manager: Greg Crabtree

**Reported:**  
8/26/2022 2:11:32PM

## CS-26

## E208137-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235046
Benzene	ND	0.0250	1	08/25/22	08/25/22	
Ethylbenzene	ND	0.0250	1	08/25/22	08/25/22	
Toluene	ND	0.0250	1	08/25/22	08/25/22	
o-Xylene	ND	0.0250	1	08/25/22	08/25/22	
p,m-Xylene	ND	0.0500	1	08/25/22	08/25/22	
Total Xylenes	ND	0.0250	1	08/25/22	08/25/22	
Surrogate: Bromofluorobenzene	93.0 %	70-130		08/25/22	08/25/22	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		08/25/22	08/25/22	
Surrogate: Toluene-d8	97.5 %	70-130		08/25/22	08/25/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235046
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/25/22	08/25/22	
Surrogate: Bromofluorobenzene	93.0 %	70-130		08/25/22	08/25/22	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		08/25/22	08/25/22	
Surrogate: Toluene-d8	97.5 %	70-130		08/25/22	08/25/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KL		Batch: 2235050
Diesel Range Organics (C10-C28)	ND	50.0	2	08/25/22	08/26/22	
Oil Range Organics (C28-C36)	ND	100	2	08/25/22	08/26/22	
Surrogate: n-Nonane	96.1 %	50-200		08/25/22	08/26/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2235045
Chloride	45.7	20.0	1	08/25/22	08/25/22	



## Sample Data

EOG Resources  
104 South 4th Street  
Artesia NM, 88210

Project Name: Strait BLN State Com  
Project Number: 19034-0014  
Project Manager: Greg Crabtree

**Reported:**  
8/26/2022 2:11:32PM

## CS-27

## E208137-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235046
Benzene	ND	0.0250	1	08/25/22	08/25/22	
Ethylbenzene	ND	0.0250	1	08/25/22	08/25/22	
Toluene	ND	0.0250	1	08/25/22	08/25/22	
o-Xylene	ND	0.0250	1	08/25/22	08/25/22	
p,m-Xylene	ND	0.0500	1	08/25/22	08/25/22	
Total Xylenes	ND	0.0250	1	08/25/22	08/25/22	
Surrogate: Bromofluorobenzene	92.4 %	70-130		08/25/22	08/25/22	
Surrogate: 1,2-Dichloroethane-d4	98.8 %	70-130		08/25/22	08/25/22	
Surrogate: Toluene-d8	94.4 %	70-130		08/25/22	08/25/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235046
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/25/22	08/25/22	
Surrogate: Bromofluorobenzene	92.4 %	70-130		08/25/22	08/25/22	
Surrogate: 1,2-Dichloroethane-d4	98.8 %	70-130		08/25/22	08/25/22	
Surrogate: Toluene-d8	94.4 %	70-130		08/25/22	08/25/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KL		Batch: 2235050
Diesel Range Organics (C10-C28)	ND	25.0	1	08/25/22	08/26/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/25/22	08/26/22	
Surrogate: n-Nonane	78.9 %	50-200		08/25/22	08/26/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2235045
Chloride	67.5	20.0	1	08/25/22	08/25/22	



## Sample Data

EOG Resources  
104 South 4th Street  
Artesia NM, 88210

Project Name: Strait BLN State Com  
Project Number: 19034-0014  
Project Manager: Greg Crabtree

**Reported:**  
8/26/2022 2:11:32PM

## CS-28

## E208137-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235046
Benzene	ND	0.0250	1	08/25/22	08/25/22	
Ethylbenzene	ND	0.0250	1	08/25/22	08/25/22	
Toluene	ND	0.0250	1	08/25/22	08/25/22	
o-Xylene	ND	0.0250	1	08/25/22	08/25/22	
p,m-Xylene	ND	0.0500	1	08/25/22	08/25/22	
Total Xylenes	ND	0.0250	1	08/25/22	08/25/22	
Surrogate: Bromofluorobenzene	92.7 %	70-130		08/25/22	08/25/22	
Surrogate: 1,2-Dichloroethane-d4	105 %	70-130		08/25/22	08/25/22	
Surrogate: Toluene-d8	96.4 %	70-130		08/25/22	08/25/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235046
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/25/22	08/25/22	
Surrogate: Bromofluorobenzene	92.7 %	70-130		08/25/22	08/25/22	
Surrogate: 1,2-Dichloroethane-d4	105 %	70-130		08/25/22	08/25/22	
Surrogate: Toluene-d8	96.4 %	70-130		08/25/22	08/25/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KL		Batch: 2235050
Diesel Range Organics (C10-C28)	ND	25.0	1	08/25/22	08/26/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/25/22	08/26/22	
Surrogate: n-Nonane	82.7 %	50-200		08/25/22	08/26/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2235045
Chloride	ND	20.0	1	08/25/22	08/25/22	



## QC Summary Data

EOG Resources	Project Name:	Strait BLN State Com	Reported:
104 South 4th Street	Project Number:	19034-0014	
Artesia NM, 88210	Project Manager:	Greg Crabtree	8/26/2022 2:11:32PM

## Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2235046-BLK1)

Prepared: 08/25/22 Analyzed: 08/25/22

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: Bromofluorobenzene	0.496		0.500		99.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.490		0.500		98.0	70-130			
Surrogate: Toluene-d8	0.515		0.500		103	70-130			

## LCS (2235046-BS1)

Prepared: 08/25/22 Analyzed: 08/25/22

Benzene	2.68	0.0250	2.50		107	70-130			
Ethylbenzene	2.65	0.0250	2.50		106	70-130			
Toluene	2.59	0.0250	2.50		104	70-130			
o-Xylene	2.49	0.0250	2.50		99.6	70-130			
p,m-Xylene	4.94	0.0500	5.00		98.8	70-130			
Total Xylenes	7.43	0.0250	7.50		99.1	70-130			
Surrogate: Bromofluorobenzene	0.518		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.489		0.500		97.8	70-130			
Surrogate: Toluene-d8	0.519		0.500		104	70-130			

## LCS Dup (2235046-BSD1)

Prepared: 08/25/22 Analyzed: 08/25/22

Benzene	2.45	0.0250	2.50		97.8	70-130	8.96	23	
Ethylbenzene	2.43	0.0250	2.50		97.2	70-130	8.57	27	
Toluene	2.37	0.0250	2.50		94.7	70-130	9.09	24	
o-Xylene	2.31	0.0250	2.50		92.3	70-130	7.55	27	
p,m-Xylene	4.54	0.0500	5.00		90.8	70-130	8.48	27	
Total Xylenes	6.85	0.0250	7.50		91.3	70-130	8.17	27	
Surrogate: Bromofluorobenzene	0.520		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.500		0.500		100	70-130			
Surrogate: Toluene-d8	0.517		0.500		103	70-130			



## QC Summary Data

EOG Resources	Project Name:	Strait BLN State Com	Reported:
104 South 4th Street	Project Number:	19034-0014	
Artesia NM, 88210	Project Manager:	Greg Crabtree	8/26/2022 2:11:32PM

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2235046-BLK1)

Prepared: 08/25/22 Analyzed: 08/25/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.496		0.500		99.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.490		0.500		98.0	70-130			
Surrogate: Toluene-d8	0.515		0.500		103	70-130			

## LCS (2235046-BS2)

Prepared: 08/25/22 Analyzed: 08/25/22

Gasoline Range Organics (C6-C10)	54.7	20.0	50.0		109	70-130			
Surrogate: Bromofluorobenzene	0.514		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.502		0.500		100	70-130			
Surrogate: Toluene-d8	0.511		0.500		102	70-130			

## LCS Dup (2235046-BSD2)

Prepared: 08/25/22 Analyzed: 08/25/22

Gasoline Range Organics (C6-C10)	55.2	20.0	50.0		110	70-130	0.850	20	
Surrogate: Bromofluorobenzene	0.510		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.500		0.500		100	70-130			
Surrogate: Toluene-d8	0.509		0.500		102	70-130			





## QC Summary Data

EOG Resources	Project Name:	Strait BLN State Com	Reported:
104 South 4th Street	Project Number:	19034-0014	
Artesia NM, 88210	Project Manager:	Greg Crabtree	8/26/2022 2:11:32PM

## Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2235050-BLK1)

Prepared: 08/25/22 Analyzed: 08/25/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	45.1		50.0		90.2	50-200			

## LCS (2235050-BS1)

Prepared: 08/25/22 Analyzed: 08/25/22

Diesel Range Organics (C10-C28)	224	25.0	250		89.6	38-132			
Surrogate: n-Nonane	41.1		50.0		82.2	50-200			

## Matrix Spike (2235050-MS1)

Source: E208135-04

Prepared: 08/25/22 Analyzed: 08/25/22

Diesel Range Organics (C10-C28)	232	25.0	250	ND	92.7	38-132			
Surrogate: n-Nonane	44.2		50.0		88.4	50-200			

## Matrix Spike Dup (2235050-MSD1)

Source: E208135-04

Prepared: 08/25/22 Analyzed: 08/25/22

Diesel Range Organics (C10-C28)	231	25.0	250	ND	92.5	38-132	0.248	20	
Surrogate: n-Nonane	39.2		50.0		78.4	50-200			



## QC Summary Data

EOG Resources	Project Name:	Strait BLN State Com	<b>Reported:</b>
104 South 4th Street	Project Number:	19034-0014	
Artesia NM, 88210	Project Manager:	Greg Crabtree	8/26/2022 2:11:32PM

## Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2235045-BLK1)

Prepared: 08/25/22 Analyzed: 08/25/22

Chloride ND 20.0

## LCS (2235045-BS1)

Prepared: 08/25/22 Analyzed: 08/25/22

Chloride 266 20.0 250 106 90-110

## Matrix Spike (2235045-MS1)

Source: E208135-01

Prepared: 08/25/22 Analyzed: 08/25/22

Chloride 423 20.0 250 82.1 136 80-120 M2

## Matrix Spike Dup (2235045-MSD1)

Source: E208135-01

Prepared: 08/25/22 Analyzed: 08/25/22

Chloride 383 20.0 250 82.1 120 80-120 9.89 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	Project Name:	Strait BLN State Com	
104 South 4th Street	Project Number:	19034-0014	<b>Reported:</b>
Artesia NM, 88210	Project Manager:	Greg Crabtree	08/26/22 14:11

M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.

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: <u>EOG</u>					Bill To					Lab Use Only					TAT				EPA Program		
Project: <u>STRAIT BLN STATE Com</u>										Lab WO# <u>E 208137</u>		Job Number <u>19034-0014</u>			1D	2D	3D	Standard	CWA	SDWA	
Project Manager: <u>Greg Crabtree</u>					Attention:					Analysis and Method										RCRA	
Address:					Address:															X	
City, State, Zip					City, State, Zip					State										TX	
Phone:					Phone:																
Email: <u>Tknight Gcrabtree Bhall Igarcia KSanchez</u>					Email:					Remarks											
Dcarter																					
Report due by:										<div style="display: flex; justify-content: space-between;"> <span>NM</span> <span>CO</span> <span>UT</span> <span>AZ</span> <span>TX</span> </div>											
																				X	
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number																
12:30	8-24-22	S	1	GS-23	1	X															
12:34				CS-24	2																
13:33				CS-25	3																
13:49				CS-26	4																
13:54				CS-27	5																
14:31				CS-28	6																

## Additional Instructions:

FINAL REPORT DUE - 8-29-22

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.						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.					
Sampled by: <u>K Sanchez</u>											
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only Received on ice: <u>Y</u> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>					
<u>[Signature]</u>	<u>8-25-22</u>	<u>12:50</u>	<u>[Signature]</u>	<u>8/25/22</u>	<u>12:51</u>						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time						
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____						Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA					
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.											

## Envirotech Analytical Laboratory

Printed: 8/25/2022 1:24:40PM

## 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	Date Received:	08/25/22 12:51	Work Order ID:	E208137
Phone:	(575) 748-4217	Date Logged In:	08/25/22 09:45	Logged In By:	Caitlin Christian
Email:		Due Date:	08/26/22 17:00 (1 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
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: Kholeton SanchezComments/ResolutionSample 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? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

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 filtration 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:  
Greg Crabtree



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

Project Name: Strait BLN State Com #005

Work Order: E208150

Job Number: 19034-0014

Received: 8/26/2022

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/26/22

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: 8/26/22

Greg Crabtree  
104 South 4th Street  
Artesia, NM 88210



Project Name: Strait BLN State Com #005  
Workorder: E208150  
Date Received: 8/26/2022 11:31:00AM

Greg Crabtree,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/26/2022 11:31:00AM, under the Project Name: Strait BLN State Com #005.

The analytical test results summarized in this report with the Project Name: Strait BLN State Com #005 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 regarding 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](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto: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  
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Sample Summary

EOG Resources	Project Name:	Strait BLN State Com #005	Reported:
104 South 4th Street	Project Number:	19034-0014	
Artesia NM, 88210	Project Manager:	Greg Crabtree	08/26/22 14:18

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
CS-22 B	E208150-01A	Soil	08/24/22	08/26/22	Glass Jar, 4 oz.



## Sample Data

EOG Resources 104 South 4th Street Artesia NM, 88210	Project Name: Strait BLN State Com #005 Project Number: 19034-0014 Project Manager: Greg Crabtree	<b>Reported:</b> 8/26/2022 2:18:58PM
--	---	---

### CS-22 B

### E208150-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235049
Benzene	ND	0.0250	1	08/26/22	08/26/22	
Ethylbenzene	ND	0.0250	1	08/26/22	08/26/22	
Toluene	ND	0.0250	1	08/26/22	08/26/22	
o-Xylene	ND	0.0250	1	08/26/22	08/26/22	
p,m-Xylene	ND	0.0500	1	08/26/22	08/26/22	
Total Xylenes	ND	0.0250	1	08/26/22	08/26/22	
<i>Surrogate: Bromofluorobenzene</i>	93.1 %	70-130		08/26/22	08/26/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	101 %	70-130		08/26/22	08/26/22	
<i>Surrogate: Toluene-d8</i>	97.7 %	70-130		08/26/22	08/26/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235049
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/26/22	08/26/22	
<i>Surrogate: Bromofluorobenzene</i>	93.1 %	70-130		08/26/22	08/26/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	101 %	70-130		08/26/22	08/26/22	
<i>Surrogate: Toluene-d8</i>	97.7 %	70-130		08/26/22	08/26/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KL		Batch: 2235050
Diesel Range Organics (C10-C28)	ND	25.0	1	08/25/22	08/26/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/25/22	08/26/22	
<i>Surrogate: n-Nonane</i>	82.6 %	50-200		08/25/22	08/26/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2235045
Chloride	60.7	20.0	1	08/25/22	08/26/22	



## QC Summary Data

EOG Resources	Project Name:	Strait BLN State Com #005	Reported:
104 South 4th Street	Project Number:	19034-0014	
Artesia NM, 88210	Project Manager:	Greg Crabtree	8/26/2022 2:18:58PM

## Volatile Organic Compounds by EPA 8260B

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 (2235049-BLK1)

Prepared: 08/25/22 Analyzed: 08/25/22

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: Bromofluorobenzene	0.449		0.500		89.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.504		0.500		101	70-130			
Surrogate: Toluene-d8	0.489		0.500		97.7	70-130			

## LCS (2235049-BS1)

Prepared: 08/25/22 Analyzed: 08/25/22

Benzene	1.98	0.0250	2.50		79.2	70-130			
Ethylbenzene	2.18	0.0250	2.50		87.0	70-130			
Toluene	2.03	0.0250	2.50		81.2	70-130			
o-Xylene	2.25	0.0250	2.50		89.9	70-130			
p,m-Xylene	4.38	0.0500	5.00		87.5	70-130			
Total Xylenes	6.62	0.0250	7.50		88.3	70-130			
Surrogate: Bromofluorobenzene	0.516		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.486		0.500		97.2	70-130			
Surrogate: Toluene-d8	0.498		0.500		99.5	70-130			

## LCS Dup (2235049-BSD1)

Prepared: 08/25/22 Analyzed: 08/26/22

Benzene	1.95	0.0250	2.50		77.9	70-130	1.68	23	
Ethylbenzene	2.13	0.0250	2.50		85.1	70-130	2.25	27	
Toluene	1.97	0.0250	2.50		79.0	70-130	2.72	24	
o-Xylene	2.19	0.0250	2.50		87.7	70-130	2.41	27	
p,m-Xylene	4.25	0.0500	5.00		85.0	70-130	2.93	27	
Total Xylenes	6.44	0.0250	7.50		85.9	70-130	2.75	27	
Surrogate: Bromofluorobenzene	0.509		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.469		0.500		93.7	70-130			
Surrogate: Toluene-d8	0.490		0.500		98.0	70-130			



## QC Summary Data

EOG Resources	Project Name:	Strait BLN State Com #005	Reported:
104 South 4th Street	Project Number:	19034-0014	
Artesia NM, 88210	Project Manager:	Greg Crabtree	8/26/2022 2:18:58PM

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2235049-BLK1)

Prepared: 08/25/22 Analyzed: 08/25/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.449		0.500		89.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.504		0.500		101	70-130			
Surrogate: Toluene-d8	0.489		0.500		97.7	70-130			

## LCS (2235049-BS2)

Prepared: 08/25/22 Analyzed: 08/26/22

Gasoline Range Organics (C6-C10)	41.3	20.0	50.0		82.7	70-130			
Surrogate: Bromofluorobenzene	0.487		0.500		97.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.452		0.500		90.3	70-130			
Surrogate: Toluene-d8	0.508		0.500		102	70-130			

## LCS Dup (2235049-BSD2)

Prepared: 08/25/22 Analyzed: 08/26/22

Gasoline Range Organics (C6-C10)	38.1	20.0	50.0		76.2	70-130	8.09	20	
Surrogate: Bromofluorobenzene	0.496		0.500		99.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.458		0.500		91.6	70-130			
Surrogate: Toluene-d8	0.498		0.500		99.6	70-130			





## QC Summary Data

EOG Resources	Project Name:	Strait BLN State Com #005	Reported:
104 South 4th Street	Project Number:	19034-0014	
Artesia NM, 88210	Project Manager:	Greg Crabtree	8/26/2022 2:18:58PM

## Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2235050-BLK1)

Prepared: 08/25/22 Analyzed: 08/25/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	45.1		50.0		90.2	50-200			

## LCS (2235050-BS1)

Prepared: 08/25/22 Analyzed: 08/25/22

Diesel Range Organics (C10-C28)	224	25.0	250		89.6	38-132			
Surrogate: n-Nonane	41.1		50.0		82.2	50-200			

## Matrix Spike (2235050-MS1)

Source: E208135-04

Prepared: 08/25/22 Analyzed: 08/25/22

Diesel Range Organics (C10-C28)	232	25.0	250	ND	92.7	38-132			
Surrogate: n-Nonane	44.2		50.0		88.4	50-200			

## Matrix Spike Dup (2235050-MSD1)

Source: E208135-04

Prepared: 08/25/22 Analyzed: 08/25/22

Diesel Range Organics (C10-C28)	231	25.0	250	ND	92.5	38-132	0.248	20	
Surrogate: n-Nonane	39.2		50.0		78.4	50-200			



## QC Summary Data

EOG Resources	Project Name:	Strait BLN State Com #005	<b>Reported:</b>
104 South 4th Street	Project Number:	19034-0014	
Artesia NM, 88210	Project Manager:	Greg Crabtree	8/26/2022 2:18:58PM

## Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

## Blank (2235045-BLK1)

Prepared: 08/25/22 Analyzed: 08/25/22

Chloride ND 20.0

## LCS (2235045-BS1)

Prepared: 08/25/22 Analyzed: 08/25/22

Chloride 266 20.0 250 106 90-110

## Matrix Spike (2235045-MS1)

Source: E208135-01

Prepared: 08/25/22 Analyzed: 08/25/22

Chloride 423 20.0 250 82.1 136 80-120 M2

## Matrix Spike Dup (2235045-MSD1)

Source: E208135-01

Prepared: 08/25/22 Analyzed: 08/25/22

Chloride 383 20.0 250 82.1 120 80-120 9.89 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	Project Name:	Strait BLN State Com #005	
104 South 4th Street	Project Number:	19034-0014	<b>Reported:</b>
Artesia NM, 88210	Project Manager:	Greg Crabtree	08/26/22 14:18

M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.

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.



[illegible]

## Envirotech Analytical Laboratory

Printed: 8/26/2022 1:04:32PM

## 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	Date Received:	08/26/22 11:31	Work Order ID:	E208150
Phone:	(575) 748-4217	Date Logged In:	08/26/22 11:33	Logged In By:	Caitlin Christian
Email:		Due Date:	08/26/22 17:00 (0 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
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: Kholeton SanchezComments/ResolutionSample 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? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

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 filtration 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.

## Appendix G



### *Potassium Permanganate SDS*



Practical Solutions for a Better Tomorrow





## Univar USA Inc Material Safety Data Sheet

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MSDS No:

Version No:

Order No:

Univar USA Inc., 17425 NE Union Hill Rd., Redmond WA 98052  
(425) 889 3400

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### Emergency Assistance

For emergency assistance involving chemicals call  
Chemtrec - (800) 424-9300

UNIVAR USA INC.

ISSUE DATE:2008-03-01

MSDS NO:P1436VSX  
VERSION:008 2009-08-28

Annotation:

The Version Date and Number for this MSDS is : 08/28/2009 - #008

PRODUCT NAME: POTASSIUM PERMANGANATE

MSDS NUMBER: P1436VSX

DATE ISSUED: 03/01/2008

SUPERSEDES: 12/01/2007

ISSUED BY: 008237

\*\*\*\*\*  
\*\*\*\*\*

## MATERIAL SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 of the European Parliament and of  
the Council, of 18 December 2006 concerning REACH

## Section 1 Chemical Product and Company Identification

PRODUCT NAME: CAIROX Potassium permanganate, KMnO4

TRADE NAME: CAIROX POTASSIUM PERMANGANATE

SYNONYMS: Permanganic acid potassium salt

Potassium permanganate

Chameleon mineral

Condy's crystals

Permanganate of potash

USES OF SUBSTANCE: Potassium permanganate is an oxidant recommended for  
applications that require a strong oxidant.

COMPANY NAME (US):

COMPANY ADDRESS:

CARUS CORPORATION

315 Fifth Street, Peru, IL 61354, USA

INFORMATION: (815) 223-1500 (Tel)

(815) 224-6816 (FAX)

www.caruscor\_poration.com (Web)

salesmkt@caruscorporation.com (Email)

EMERGENCY TELEPHONE:

(800) 435 6856 (USA)

(815) 223-1500 (Other countries)

(800) 424-9300 (Chemtrec, USA)

(703) 527-3887 (Chemtrec, Other countries)

UNIVAR USA INC.

ISSUE DATE:2008-03-01

MSDS NO:P1436VSX  
VERSION:008 2009-08-28

## Annotation:

## Section 2 Hazards Identification

## 1. EYE CONTACT

Potassium Permanganate is damaging to eye tissue on contact. It may cause severe burns that result in damage to the eye.

## 2. SKIN CONTACT

Contact of solutions at room temperature may be irritating to the skin, leaving brown stains. Concentrated solutions at elevated temperature and crystals are damaging to the skin.

## 3. INHALATION

Acute inhalation toxicity data are not available. However, airborne concentrations of potassium permanganate in the form of dust or mist may cause damage to the respiratory tract.

## 4. INGESTION

Potassium permanganate, if swallowed, may cause severe burns to mucous membranes of the mouth, throat, esophagus, and stomach.

## Section 3 Hazardous Ingredients

MATERIAL OR COMPONENT	CAS NO.	EINECS	%	HAZARD DATA
Potassium Permanganate	7722-64-7	231-760-3	>97.5%	PEL/C 5 mg Mn per cubic meter of air  TLV-TWA 0.2 mg Mn per cubic meter of air

## RISK PHRASES:

- 8 Contact with combustibles may case fire.
- 22 Harmful if swallowed.
- 50/53 Very toxic to aquatic organisms, may cause long-term effects in the aquatic environment.

## SAFETY PHRASES:

- 60 This material and its container must be disposed of as hazardous waste.
- 61 Avoid releases to the environment. Refer to special instructions / Safety data sheet.

## Section 4 First Aid Measures

## 1. EYES

Immediately flush eyes with large amounts of water for at least 15 minutes holding lids apart to ensure flushing of the entire surface. Do not attempt to neutralize chemically. Seek medical attention immediately. Note to physician: Soluble decomposition products are alkaline. Insoluble decomposition product is brown manganese dioxide.

UNIVAR USA INC.

ISSUE DATE:2008-03-01

MSDS NO:P1436VSX

VERSION:008 2009-08-28

Annotation:

## 2. SKIN

Immediately wash contaminated areas with water. Remove contaminated clothing and footwear. Wash clothing and decontaminate footwear before reuse. Seek medical attention immediately if irritation is severe or persistent.

## 3. INHALATION

Remove person from contaminated area to fresh air. If breathing has stopped, resuscitate and administer oxygen if readily available. Seek medical attention immediately.

## 4. INGESTION

Never give anything by mouth to an unconscious or convulsing person. If person is conscious, give large quantities of water. Seek medical attention immediately.

## Section 5 Fire Fighting Measures

### NEPA\* HAZARD SIGNS

#### Health Hazard

1 = Materials which under fire conditions would give off irritating combustion products. (less than 1 hour exposure)  
Materials that on the skin could cause irritation.

#### Flammability Hazard

0 = Materials that will not burn.

#### Reactivity Hazard

0 = Materials which in themselves are normally stable, even under fire exposure conditions, and which are not reactive with water.

#### Special Hazard

OX = Oxidizer

\*National Fire Protection Association 704 (USA)

FIRST RESPONDERS: Wear protective gloves, boots, goggles, and respirator. In case of fire, wear positive pressure breathing apparatus. Approach incident with caution.

### FLASHPOINT

None

### FLAMMABLE OR EXPLOSIVE LIMITS

Lower: Nonflammable Upper: Nonflammable

### EXTINGUISHING MEDIA

Use large quantities of water. Water will turn pink to purple if in contact with potassium permanganate. Dike to contain. Do not use thy chemicals, CO2 Halon or foams.

UNIVAR USA INC.

MSDS NO:P1436VSX  
VERSION:008 2009-08-28

ISSUE DATE:2008-03-01

**Annotation:**

**SPECIAL FIREFIGHTING PROCEDURES**

If material is involved in fire, flood with water. Cool all affected containers with large quantities of water. Apply water from as far a distance as possible. Wear self-contained breathing apparatus and full protective clothing.

**UNUSUAL FIRE AND EXPLOSION**

Powerful oxidizing material. May decompose spontaneously if exposed to heat (150 deg C / 302 deg F). May be explosive in contact with certain other chemicals (Section 10). May react violently with finely divided and readily oxidizable substances. Increases burning rate of combustible material.

**Section 6 Accidental Release Measures**

**PERSONAL PRECAUTIONS:**

Ensure adequate ventilation. Avoid dust formation. Avoid inhalation and contact with eyes and skin. Personnel should wear protective clothing suitable for the task. Remove all ignition sources and incompatible materials before attempting clean up.

**ENVIRONMENTAL PRECAUTIONS:**

Do not flush into sanitary sewer system or surface water. If accidental release into the environment occurs, inform the responsible authorities. Keep the product away from drains, sewers, surface and ground water and soil.

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:**

Clean up spills immediately by sweeping or shoveling up the material. Do not return spilled material to the original container transfer to a clean metal drum. To clean contaminated surfaces or floors, flush with abundant quantities of water into sewer, if permitted by federal, state, and local regulations - if not, collect water and treat chemically (Section 13).

**Section 7 Handling and Storage**

**WORK/HYGIENIC PRACTICES**

Wash hands thoroughly with soap and water after handling potassium permanganate. Do not eat, drink or smoke when working with potassium permanganate. Wear proper protective equipment. Remove clothing, if it becomes contaminated.

**VENTILATION REQUIREMENTS**

Provide sufficient mechanical and/or local exhaust to maintain exposure below the TLV/TWA.

**CONDITIONS FOR SAFE STORAGE**

Store in accordance with NFPA 430 requirements for Class II oxidizers. Protect containers from physical damage. Store in a cool, dry area in closed containers. Segregate from acids, peroxides, formaldehyde, and all

UNIVAR USA INC.

ISSUE DATE:2008-03-01

MSDS NO:P1436VSX  
VERSION:008 2009-08-28**Annotation:**

combustible, organic, or easily oxidizable materials including antifreeze and hydraulic fluid.

**Section 8 Exposure Controls and Personal Protection****RESPIRATORY PROTECTION**

In cases where overexposure to dust may occur, the use of an approved NIOSH-MSHA dust respirator or an air supplied respirator is advised. Engineering or administrative controls should be implemented to control dust

**EYE**

Faceshield, goggles, or safety glasses with side shields should be worn. Provide eyewash in working area.

**GLOVES**

Rubber or plastic gloves should be worn.

**OTHER PROTECTIVE EQUIPMENT**

Normal work clothing covering arms and legs, and rubber, or plastic apron should be worn.

**Section 9 Physical and Chemical Properties**

APPEARANCE AND ODOR	Dark purple solid with metallic luster, odorless
BOILING POINT, 760 mm Hg	Not applicable
VAPOR PRESSURE (mm Hg)	Not applicable
SOLUBILITY IN WATER % BY SOLUTION	6% at 20 deg C (68 deg F) and 20% at 65 deg C (149 deg F)
PERCENT VOLATILE BY VOLUME	Not volatile
EVAPORATION RATE	Not applicable
MELTING POINT	Starts to decompose with evolution of oxygen (O <sub>2</sub> ) at temperatures above 150 deg C (302 deg F). Once initiated, the decomposition is exothermic and self sustaining.
SPECIFIC GRAVITY	2.7 at 20 deg C (68 deg F)
BULK DENSITY	Approximately 1.45 - 1.6 kg / l
VAPOR DENSITY (AIR=1)	Not applicable
OXIDIZING PROPERTIES	Strong oxidizer

**Section 10 Stability and Reactivity****STABILITY**

Under normal conditions, the material is stable.

**CONDITIONS TO AVOID**

Contact with incompatible materials or heat (150 deg C / 302 deg F) could result in violent exothermic chemical reaction.

**INCOMPATIBLE MATERIALS**



UNIVAR USA INC.

ISSUE DATE:2008-03-01

MSDS NO:P1436VSX  
VERSION:008 2009-08-28

**Annotation:**

Acids, peroxides, formaldehyde, anti-freeze, hydraulic fluids and all combustible organic or readily oxidizable inorganic materials including metal powders. With hydrochloric acid, chlorine gas is liberated.

**HAZARDOUS DECOMPOSITION PRODUCTS**

When involved in a fire, potassium permanganate may liberate corrosive fumes.

**CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION**

Material is not known to polymerize.

**Section 11 Toxicological Information**

**1. ACUTE TOXICITY**

**INGESTION:**

LD 50 oral rat: 780 mg/kg male (14 days); 525 mg/kg female (14 days).

Harmful if swallowed. ALD: 10g. Ingestion may cause nausea, vomiting, sore throat, stomach-ache and eventually lead to a perforation of the intestine. Liver and kidney injuries may occur.

**SKIN CONTACT:**

LD 50 dermal: no data available.

The product may be absorbed into the body through the skin. Major effects of exposure: severe irritation, brown staining of skin.

**INHALATION:**

LC 50 inhalation: No data available.

The product may be absorbed into the body by inhalation. Major effects of exposure: respiratory disorder, cough.

**2. CHRONIC TOXICITY**

No known cases of chronic poisoning due to permanganates have been reported. Prolonged exposure, usually over many years, to heavy concentrations of manganese oxides in the form of dust and fumes may lead to chronic manganese poisoning, chiefly involving the central nervous system.

**3. CARCINOGENICITY**

Potassium permanganate has not been classified as a carcinogen by ACGIH, NIOSH, OSHA, NTP, or IARC.

**4. MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE**

Potassium permanganate solution will cause further irritation of tissue, open wounds, burns or mucous membranes.

**Section 12 Ecological Information**

**ENTRY TO THE ENVIRONMENT**

Permanganate has a low estimated lifetime in the environment, being readily converted by oxidizable materials to insoluble MnO<sub>2</sub>.

UNIVAR USA INC.

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## Annotation:

BIOCONCENTRATION POTENTIAL

In non-reducing and non-acidic environments, MnO<sub>2</sub> is insoluble and has a very low bioaccumulative potential.

## AQUATIC TOXICITY

The toxicity data for potassium permanganate is given below:

Rainbow trout, 96 hour LC50:	1.8 mg/L
Bluegill sunfish, 96 hour LC50:	2.3 mg/L
Milk fish (Chanos Chanos)/ 96 hour LC50:	>1.4mg/l

Offer surplus and non-recyclable product or solutions to a licensed disposal company.

Reduce potassium permanganate in aqueous solutions with sodium thiosulfate, a bisulfite or ferrous salt solution. The bisulfite or ferrous salt may require some dilute sulfuric acid (10% w/w) to promote reduction. Neutralize with sodium carbonate to neutral pH, if acid was used. Decant or filter and deposit sludge in approved landfill. Where permitted, the sludge may be drained into sewer with large quantities of water. Contact Cams Chemical Company for additional recommendations.

Packaging materials must be triple rinsed to remove all potassium permanganate prior to re-cycling or disposal.

## Section 14 Transport Information

USA (land, D.O.T.)

Proper Shipping Name:	49 CFR172.101	Potassium Permanganate
Hazard Class:	49 CFR172.101	Oxidizer
ID Number:	49 CFR172.101	UN 1490
Packing Group:	49 CFR172.101	II
Division:	49 CFR172.101	5.1

European Labeling in	ID Number:	UN 1490
accordance Road/Rail	ADR/RID Class	5.1
Transport (ADR/RID)	Description of Goods:	Potassium Permanganate
	Hazard Identification No.	50

European Labeling in	Proper Shipping Name:	Potassium Permanganate
accordance with EC	Hazard Class:	Oxidizer
directive (Water, I.M.O.)	ID Number:	UN 1490
Packing Group:		II
Division:		5.1
Marine Pollutant:		No

European Labeling in	Proper Shipping Name:	Potassium Permanganate
accordance with EC	Hazard Class:	Oxidizer
directive (Air, I.C.A.O.)	ID Number:	UN 1490

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## Annotation:

Packing Group:

II

Division:

5.1

## Section 15 Regulatory Information

## EUROPEAN AND INTERNATIONAL REGULATIONS:

## MARKINGS ACCORDING TO EU GUIDELINES:

The product has been classified and marked in accordance with EU directives/ordinances on hazardous materials.

CHEMICAL NAME	CAS NO.	EINECS	UN NUMBER
Potassium Permanganate	7722-64-7	231-760-3	UN 1490

## RISK PHRASES:

8 Contact with combustibles may case fire.  
22 Harmful if swallowed.  
50/53 Very toxic to aquatic organisms, may cause long-term effects in the aquatic environment. SAFETY PHRASES:  
60 This material and its container must be disposed of as hazardous waste.  
61 Avoid releases to the environment. Refer to special instructions / Safety data sheet.

## US FEDERAL REGULATIONS:

## CHEMICAL INVENTORY STATUS PART 1

Ingredient	CAS. NO.	TSCA	EC	Japan	Australia
Potassium Permanganate	7722-64-7	Yes	Yes		

## CHEMICAL INVENTORY STATUS PART 2 -- CANADA---

Ingredient	CAS. NO.	Korea	DSL	NDSL	PHIL
Potassium Permanganate	7722-64-7	No	Yes		

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR, Canada) and the MSDS contains all of the information required by the CPR.

## FEDERAL, STATE &amp; INTERNATIONAL REGULATIONS PART 1

Ingredient	CAS. NO.	SARA 302		SARA 313	
		RQ	TPQ	List	Chemical Catg.
Potassium Permanganate	7722-64-7	N/A	N/A	Yes	Yes

(Manganese compounds)

## FEDERAL, STATE &amp; INTERNATIONAL REGULATIONS PART 2

Ingredient	CAS. NO.	CERCLA	RCRA	TSCA 8(d)
Potassium Permanganate	7722-64-7	Yes (RQ =100 lbs)	D001	No

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Annotation:

Ingredient	CAS. NO.	CWC	TSCA 12(b)	CDTA	SARA
Potassium Permanganate	7722-64-7	No	No		311/312 4545 Kg

Ingredient	CAS. NO.	Acute	Chronic	Fire	Pressure
Potassium Permanganate	7722-64-7	Yes	Yes	Yes	No

Reactivity	Pure/Liquid
No	Pure

Ingredient	CAS. NO.	Australian Hazchem Code	Poison Schedule	WHMIS
Potassium	7722-64-7			C, D2B

## Section 16 Other Information

NIOSH	National Institute for Occupational Safety and Health
MSHA	Mine Safety and Health Administration
OSHA	Occupational Safety and Health Administration
NTP	National Toxicology Program
IARC	International Agency for Research on Cancer
PEL	Permissible Exposure Limit
C	Ceiling Exposure Limit
TLV-TWA	Threshold Limit Value-Time Weighted Average
CAS	Chemical Abstract Service
EINECS	Inventory of Existing Chemical Substances (European)

## Univar USA Inc Material Safety Data Sheet

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For Additional Information contact MSDS Coordinator during business hours, Pacific time: (425) 889-3400

### Notice

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Do not use ingredient information and/or ingredient percentages in this MSDS as a product specification. For product specification information refer to a product specification sheet and/or a certificate of analysis. These can be obtained from your local Univar sales office.

All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate, Univar makes no representations as to its accuracy or sufficiency. Conditions of use are beyond Univar's control and therefore users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product, or from the publication or use of, or reliance upon, information contained herein.

This information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process

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**District IV**  
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Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS  
  
Action 139819

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 139819
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	9/8/2022