

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Incident ID	nAPP2234037824
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party EOG Resources, Inc	OGRID 7377
Contact Name Amber Griffin	Contact Telephone 575-748-1471
Contact email amber_griffin@eogresources.com	Incident # nAPP2234037824
Contact mailing address 104 S. 4th Street, Artesia, NM 88210	

Location of Release Source

Latitude 32.923674 Longitude -103.250771
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Brown SWD Valve Can #3	Site Type Valve Can (Pipeline)
Date Release Discovered 12/5/2022	API# (if applicable) N/A

Unit Letter	Section	Township	Range	County
H	16	16S	37E	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)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) Unknown	Volume Recovered (bbls)
	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 of the location. The environmental consultant contracted to investigate the area determined on 12/5/2022, based on impacted area footprint, that the release more than likely breached the reportable volume threshold.

State of New Mexico
Oil Conservation Division

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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>Amber Griffin</u> Title: <u>Rep Safety & Environmental Sr</u> Signature: <u><i>Amber Griffin</i></u> Date: <u>12/5/2022</u> email: <u>amber_griffin@eogresources.com</u> Telephone: <u>575-748-1471</u>
<u>OCD Only</u> Received by: <u>Jocelyn Harimon</u> Date: <u>12/06/2022</u>

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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>50-100</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 not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input 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 1/2-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.

Oil Conservation Division

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

Printed Name: Amber Griffin Title: Rep Safety & Environmental Sr

Signature: *Amber Griffin* Date: 12/30/2022

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

OCD Only

Received by: Jocelyn Harimon Date: 12/30/2022

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Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Amber Griffin Title: Rep Safety & Environmental Sr
 Signature: *Amber Griffin* Date: 12/30/2022
 email: amber_griffin@eogresources.com Telephone: 575-748-1471

OCD Only

Received by: Jocelyn Harimon Date: 12/30/2022

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: *Jennifer Nobui* Date: 01/25/2023
 Printed Name: Jennifer Nobui Title: Environmental Specialist A



December 29, 2022

New Mexico Oil Conservation Division

New Mexico Energy, Minerals, and Natural Resources Department
1220 South Street, Francis Drive
Santa Fe, New Mexico 87505

Re: Closure Report

Brown SWD Valve Can #3
EOG Resources, Inc.
Incident Number nAPP2234037824
Lea County, New Mexico

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of EOG Resources, Inc. (EOG), has prepared this *Closure Report* to document assessment, excavation, and soil sampling activities performed at the Brown SWD Valve Can #3 (Site). The purpose of this work was to remediate historical soil impacts discovered during the decommissioning of a pipeline and associated valve can. Based on the excavation activities and analytical results from the soil sampling events, EOG is submitting this *Closure Report* describing remediation and sampling activities that have occurred for closure of Incident Number nAPP2234037824.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site (Figure 1) is located in Unit H, Section 16, Township 16 South, Range 37 East, in Lea County, New Mexico (32.923674°N, 103.250771°W) and is associated with oil and gas exploration and production operations on New Mexico State Land (SLO).

Historical soil impacts were discovered as visual staining during decommissioning of the produced water pipeline. Analytical results from soil samples collected on December 5, 2022 confirmed the presence of elevated total petroleum hydrocarbon (TPH) and chloride concentrations, indicating a likely historical release to the subsurface from the pipeline valve. Although the volume of released fluids is unknown, the quantity of crude oil and produced water released at the Site likely exceeded the reportable volume threshold of 5 barrels (bbls) based on field observations of the area exhibiting stained soil and analytical results. EOG reported the release to the New Mexico Oil Conservation Division (NMOCD) on a *Release Notification Form C-141* (Form C-141) on December 5, 2022, and the release was assigned Incident Number nAPP2234037824.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to determine applicability of *Table I, Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are summarized below, with potential site receptors identified on Figure 1.

Depth to groundwater at the Site is between 50 feet and 100 feet below ground surface (bgs) based on data from the nearest groundwater well identified on the New Mexico Office of the State Engineer (NMOSE) database. On May 10, 1984, domestic well (L-09469-POD1 located 0.15 miles west of the Site) was drilled to a depth of 140 feet bgs and encountered groundwater at a depth of 60 feet bgs. This well was permitted for prospecting, mining, or drilling operations and the permit expired in 2015 (Appendix A). Additionally, based on the absence of a plugging record on the NMOCD database, Ensolum personnel inspected a 200 foot radius around the specified well location for any evidence of an existing water well on September 29, 2022. No well or associated features (i.e., concrete pad, steel casing, piping, etc.) were encountered during the inspection and it is presumed that the well has since been plugged and abandoned and no longer exists. The next closest water well is USGS well 325537103150001 (16S.37E.09.434334) located 0.40 miles north of the Site with a recorded depth to water of 52 feet bgs in 1996. All existing wells used for depth to groundwater determination are depicted on Figure 1. The referenced well records are included in Appendix A. Photographs taken during the well reconnaissance are presented in Appendix B.

The closest waterbody is a playa located approximately 6,145 feet northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a continuously flowing or significant watercourse, freshwater well, or spring, and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area).

Based on the results of the Site Characterization, the following NMOCD Table I Closure Criteria (Closure Criteria) apply to the Site:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 10,000 mg/kg

Due to the Site's decommission status, a reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet, per NMAC 19.15.29.13.D (1).

DELINEATION SOIL SAMPLING ACTIVITIES

On October 28, 2022, Ensolum personnel conducted delineation activities to evaluate the release extent. Specifically, soil samples from five potholes (PH01 and PH05) were collected at depths ranging from 2 to 6 feet bgs. Soil from the delineation samples were field screened for volatile aromatic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The delineation locations and other Site features (i.e., pipeline) were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

Soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 6 degrees Celsius (°C) under strict chain-of-custody procedures to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico for analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency

(EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-motor oil range organics (MRO or ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for delineation soil samples indicated that soil collected from PH05 contained concentrations of TPH exceeding the Closure Criteria and reclamation requirement. All other analyzed samples were in compliance with the applicable Closure Criteria and reclamation requirement. Based on and the delineation results, excavation activities appeared to be warranted in the vicinity of PH05.

EXCAVATION SOIL SAMPLING ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On November 29, 2022, and December 23, 2022, Ensolum personnel returned to the Site to complete excavation activities. Excavation activities were performed using track-mounted backhoe and transport vehicles. To direct excavation activities, soil was field screened for VOCs and chloride using the methods described above. Based on field screening and delineation analytical results, the excavation was completed to a depth of 6 feet to the full lateral extent shown on Figure 3.

Following removal of the impacted soil, 5-point composite soil samples were collected at least every 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite floor samples FS01 and FS02 were collected from the floor of the excavation at a depth of 6 feet bgs. Composite sidewall samples SW01 through SW04 were collected from the sidewalls of the excavation from depths ranging from the ground surface to 6 feet bgs. The soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 3. Photographic documentation of the field activities is presented in Appendix B.

Sidewall samples SW01 and SW02, collected on November 29, 2022, exceeded the reclamation requirement applied in the top 4 feet bgs. As such, additional soil was removed from the excavation on December 23, 2022 and 5-point composite samples were recollected as SW03 and SW04. Laboratory analytical results for final floor and sidewall samples indicated that all concentrations were compliant with the Closure Criteria and reclamation requirement. Laboratory analytical results are summarized in Table 1, with laboratory analytical reports included as Appendix C. NMOCD notifications for the sampling events are included in Appendix D.

The final excavation area measured approximately 400 square feet laterally and extended to approximately to 6 feet bgs. A total of approximately 90 cubic yards of impacted soil was removed and properly disposed at Lea Land landfill in Carlsbad, New Mexico.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the historical impacts discovered during the pipeline decommissioning. Laboratory analytical results for the excavation soil samples collected from the final excavation extent indicated all COC concentrations were compliant with the Site Closure Criteria and applied reclamation requirement. Based on the soil sample analytical results, the excavation of impacted soil has mitigated impacts at this Site no further remediation is required. As such, EOG respectfully requests closure for Incident Number nAPP2234037824. EOG will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions.

If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

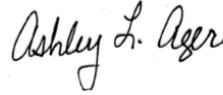
EOG Resources, Inc.
Closure Report
Brown SWD Valve Can #3

Page 4

Sincerely,
Ensolum, LLC



Anita Thapalia, PG
Project Geologist



Ashley Ager, MS, PG
Principal

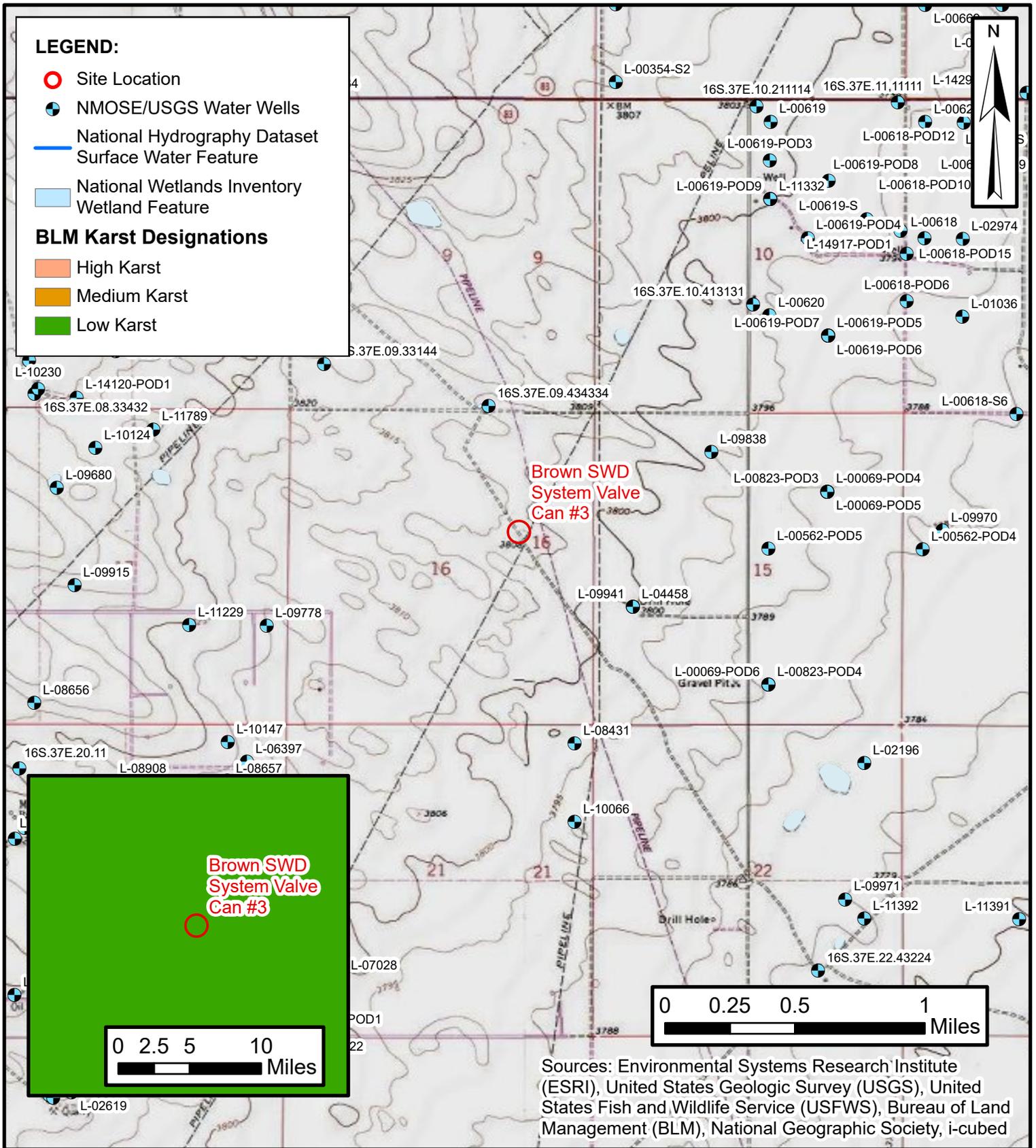
cc: Chase Settle, EOG
Amber Griffin, EOG
New Mexico State Land (SLO)

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix D	NMOCD Notifications



FIGURES



SITE RECEPTOR MAP

EOG RESOURCES, INC.
 BROWN SWD VALVE CAN #3
 nAPP2234037824
 Unit H, Sec 16, T16S, R37E
 Lea County, New Mexico

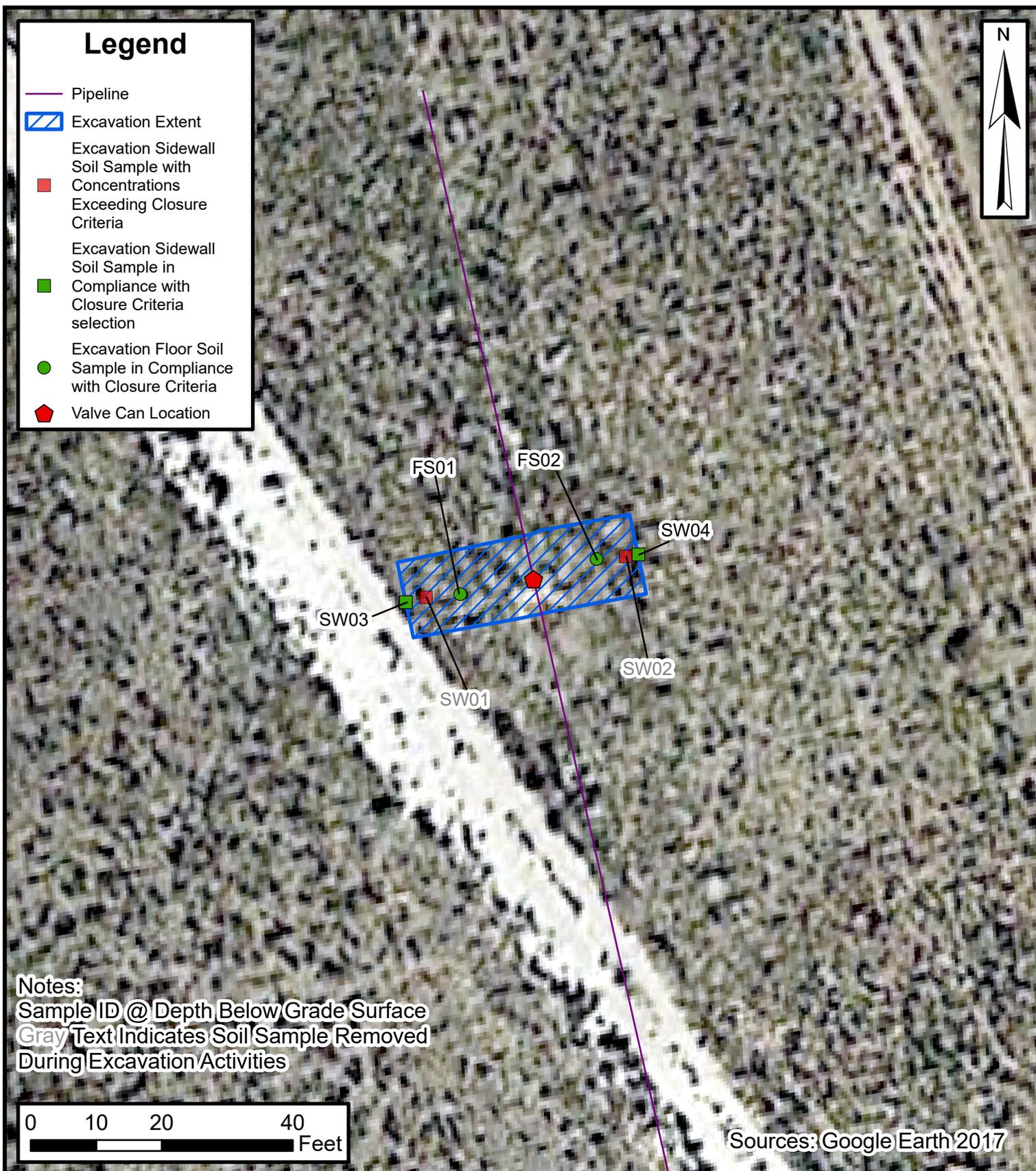
FIGURE
1



Delineation Soil Sample Locations

EOG RESOURCES, INC.
 BROWN SWD SYSTEM VALVE CAN #3
 nAPP2234037824
 Unit H, Sec 16, T16S, R37E
 Lea County, New Mexico

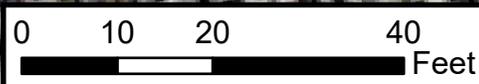
FIGURE
2



Legend

- Pipeline
- Excavation Extent
- Excavation Sidewall Soil Sample with Concentrations Exceeding Closure Criteria
- Excavation Sidewall Soil Sample in Compliance with Closure Criteria selection
- Excavation Floor Soil Sample in Compliance with Closure Criteria
- Valve Can Location

Notes:
 Sample ID @ Depth Below Grade Surface
 Gray Text Indicates Soil Sample Removed During Excavation Activities



Sources: Google Earth 2017

Excavation Soil Sample Locations

EOG RESOURCES, INC.
 BROWN SWD SYSTEM VALVE CAN #3
 nAPP2234037824
 Unit H, Sec 16, T16S, R37E
 Lea County, New Mexico

FIGURE
3





TABLES



**TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
BROWN SWD VALVE CAN #3
EOG Resources, Inc.
Lea County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	2,500	10,000
Delineation Soil Samples										
PH01	10/28/2022	2	<0.023	<0.09	<4.7	<15	<49	<15	<49	<60
PH01A	10/28/2022	4	<0.023	<0.09	<4.7	<15	<50	<15	<50	<60
PH02	10/28/2022	2	<0.024	<0.09	<4.7	<15	<48	<15	<48	<60
PH02A	10/28/2022	4	<0.024	<0.10	<4.8	<15	<48	<15	<48	<60
PH03	10/28/2022	2	<0.024	<0.10	<4.9	<15	<50	<15	<50	270
PH03A	10/28/2022	4	<0.023	<0.09	<4.7	<15	<49	<15	<49	320
PH04	10/28/2022	2	<0.024	<0.10	<4.8	<15	<50	<15	<50	67
PH04A	10/28/2022	4	<0.024	<0.10	<4.9	<15	<49	<15	<49	590
PH05	10/28/2022	2	<0.024	<0.10	<4.9	980	1,700	980	2,600	80
PH05A	10/28/2022	4	<0.024	<0.10	<4.8	1,200	2,400	1,200	3,600	<60
PH05B	10/28/2022	6	<0.025	<0.10	<4.9	900	510	900	1,400	240
Excavation Sidewall Soil Samples										
SW01	11/29/2022	0-6'	<0.024	<0.10	<4.8	1,600	1,300	1,600	2,900	270
SW02	11/29/2022	0-6'	<0.024	<0.10	<4.8	79	88	79	170	160
SW03	12/23/2022	0 - 6'	<0.050	<0.30	<10.0	<10.0	<10.0	<10.0	<10.0	272
SW04	12/23/2022	0 - 6'	<0.050	<0.31	<10.0	<10.0	<10.0	<10.0	<10.0	32
Excavation Floor Soil Samples										
FS01	11/29/2022	6	<0.024	<0.09	<4.7	930	740	930	1,700	210
FS02	12/23/2022	6	<0.050	<0.30	<10.0	<10.0	<10.0	<10.0	<10.0	64

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities



APPENDIX A

Referenced Well Records



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
 (quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64 Q16 Q4	Sec	Tw	Rng	X	Y
L 09469		3 2 16	16S	37E	663353	3644195*	

Driller License: 421	Driller Company: GLENN'S WATER WELL SERVICE	
Driller Name: GLENN, CLARK A."CORKY" (LD)		
Drill Start Date: 05/10/1984	Drill Finish Date: 05/10/1984	Plug Date:
Log File Date: 05/31/1984	PCW Rev Date:	Source: Shallow
Pump Type:	Pipe Discharge Size:	Estimated Yield: 100 GPM
Casing Size: 6.63	Depth Well: 140 feet	Depth Water:

Water Bearing Stratifications:	Top	Bottom	Description
	60	140	Other/Unknown

Casing Perforations:	Top	Bottom
	110	140

Meter Number: 6107	Meter Make:
Meter Serial Number:	Meter Multiplier: 1.0000
Number of Dials: 5	Meter Type: Diversion
Unit of Measure: Barrels 42 gal.	Return Flow Percent:
Usage Multiplier:	Reading Frequency: Monthly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount Online
12/05/2002	2002	11772	A	jw		0
01/18/2003	2003	12637	A	jw		0.111

**YTD Meter Amounts:	Year	Amount
	2002	0
	2003	0.111

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

10/27/22 10:00 AM

POINT OF DIVERSION SUMMARY

File Number: _____

2-14864
5

NEW MEXICO STATE ENGINEER OFFICE
APPLICATION TO APPROPRIATE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

c/o Glenn's Water Well service, Inc. P.O. Box 692 Tatum, NM 88267 Dec. 6, 2002

1. APPLICANT

Name: EOG Resources Work Phone: 915.686.3714
Contact: _____ Home Phone: _____
Address: P.O. Box 2267
City: Midland State: TX Zip: 79702

2. LOCATION OF WELL (E thru H optional)

A. 1/4 SW NE 1/4 NE SW 1/4 Section: 16 Township: 16-S. Range: 37-N, M.P.M.
in Lea County.

B. X = _____ feet, Y = _____ feet, N.M. Coordinate System
Zone in the _____ Grant.
U.S.G.S. Quad Map _____

C. Give State Engineer File Number if existing well: L-9469

D. On land owned by: Billy Royce Medlin

E. Tract No. _____, Map No. _____ of the _____

F. Lot No. _____, Block No. _____ of Unit/Tract _____ of the
_____ Subdivision recorded in _____ County.

G. Latitude: _____ Longitude: _____

H. Other: _____

3. USE OF WATER (check use applied for)

___ One household, non-commercial trees, lawn and garden not to exceed a total of one acre.

___ Livestock watering.

Note: If any of the following items are marked, give the name and nature of business or use under item 5 of the additional statements or explanations section.

___ More than one household, non-commercial trees, lawns and gardens not to exceed a total of one acre.

___ Drinking and sanitary purposes and the irrigation of non-commercial trees, shrubs and lawns not to exceed one acre in conjunction with a commercial operation.

Prospecting, mining or drilling operations to discover or develop natural resources.

___ Construction of public works, highways and roads.

Trn Desc: _____

File Number: L-9469

Log Due Date: _____

Trn Number: 250295

Form: wr-01

page 1

STATE ENGINEER OFFICE
HOSWELL, NEW MEXICO
DEC - 9 AM 10:5

File Number: _____

**NEW MEXICO STATE ENGINEER OFFICE
APPLICATION TO APPROPRIATE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES**

4. WELL INFORMATION (Change, Repair, Drill, Test, Supplement)

Name of well driller and driller license number: _____

Approximate depth _____ feet; Outside diameter of casing _____ inches.

____ Change Location of existing well or replacement well

____ Repair or Deepen:

____ Clean out well to original depth

____ Deepen well from _____ to _____ feet

____ Other _____

____ Drill and test a well for _____ use.

____ Supplemental well

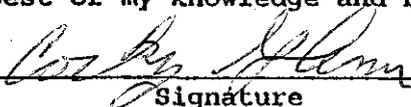
5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

~~EOG Resources Inc. will use the water well in the drilling of
#1 Green Drake '9' 2310 FSL, 2280 FEL, Section 9, township
16-South, Range 37-East in Lea County.~~

ACKNOWLEDGEMENT FOR NATURAL PERSONS

I, Corky Glenn affirm that the foregoing statements are true to
(Please Print)

the best of my knowledge and belief, By: _____


Signature

Signature

Trn Desc: _____
Log Due Date: _____

File Number: _____
Trn Number: _____

**NEW MEXICO STATE ENGINEER OFFICE
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES**

GENERAL CONDITIONS OF APPROVAL (A thru I)

- A The maximum amount of water that may be appropriated under this permit is 3 acre-feet in any year.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated. A licensed driller shall not be required for the construction of a driven well; provided, that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter (Section 72-12-12).
- C Driller's well record must be filed with the State Engineer within 10 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.
- D The casing shall not exceed 7 inches outside diameter except under specific conditions in which reasons satisfactory to the State Engineer are shown.
- E If the well under this permit is used at any time to serve more than one household or livestock in a commercial feed lot operation, or for drinking and sanitation purposes in conjunction with a commercial operation, the permittee shall notify the State Engineer Office in writing.
- F In the event this well is combined with other wells permitted under Section 72-12-1 New Mexico Statutes Annotated, the total outdoor use shall not exceed the irrigation of one acre of non-commercial trees, lawn, and garden, or the equivalent outside consumptive use, and the total appropriation for household and outdoor use from the entire water distribution system shall not exceed 3 acre-feet in any year.
- G If artesian water is encountered, all rules and regulations pertaining to the drilling and casing of artesian wells shall be complied with.
- H The amount and uses of water permitted under this Application are subject to such limitations as may be imposed by the courts or by lawful municipal and county ordinances which are more restrictive than applicable State Engineer Regulations and the conditions of this permit.

Trn Desc: L 9469
Log Due Date: _____
Form: wr-01

File Number: L 09469
Trn Number: 250295

page: 1

NEW MEXICO STATE ENGINEER OFFICE
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

GENERAL CONDITIONS OF APPROVAL (Continued)

I The permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

SPECIFIC CONDITIONS OF APPROVAL

- 5A A totalizing meter shall be installed before the first branch of the discharge line from the well and the installation shall be acceptable to the State Engineer; the Engineer shall be advised of the make, model, serial number, date of installation, and initial reading of the meter prior to appropriation of water; pumping records shall be submitted to the District Supervisor for each calendar month on or before the 10th day of the following month.
- 3 Appropriation and use of water under this permit shall not exceed a period of one year from the date of approval.

ACTION OF STATE ENGINEER

This application is approved for the use indicated, subject to all general conditions and to specific conditions listed above.

Witness my hand and seal this 09 day of Dec A.D., 2002

Thomas C. Turney, State Engineer

By: Andy Morley
Andy Morley



STATE OF NEW MEXICO

OFFICE OF THE STATE ENGINEER

ROSWELL

THOMAS C. TURNEY
State Engineer

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

Trn Nbr: 250295
Well File Nbr: L 9469

December 12, 2002

Glenn's Water Well Service, Inc.
EOG Resources
P.O. Box 692
Tatum, NM 88267

Greetings:

The well driller's record for the above numbered well has been received in this office indicating your well has been completed.

Your permit was granted with the condition that a meter be installed and meter readings submitted to this office. A copy of your permit is enclosed for your information.

Per Condition 5A, please advise this office within 30 days, on the attached form, of the make, model, serial number, date of installation, and initial reading of the meter prior to appropriation of the water.

Prior to any diversion of water for Oil Well Drilling Purposes, the permittee shall obtain written permission from the land and the well owner in accordance with NMSA 1978 Article 72-12-3. (B) Repl. Pamp. 1997.

If you have any questions, please feel free to contact us.

Sincerely,

A handwritten signature in cursive script that reads "Andy Morley".

Andy Morley
(505) 622-6467

Enclosure
cc: Santa Fe Office

Approval Code: A - Approved
Action Date: 12/09/2002
Log Due Date: 12/12/2002
State Engineer: Thomas C. Turney

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

12/28/22 7:49 PM

TRANSACTION SUMMARY



USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category:
 Geographic Area:

Click to hide News Bulletins

- Effective October 24, 2022 hyperlinks to legacy Current Condition pages will automatically redirect users to the corresponding Monitoring Location page. Please see the [Water Data For The Nation Blog](#) for full details, including how to navigate back to the legacy Current Condition page, if desired.
- Explore the *NEW* [USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.
- [Full News](#)

Groundwater levels for the Nation

Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

site_no list =

- 325537103150001

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 325537103150001 16S.37E.09.434334

Available data for this site

Lea County, New Mexico

Hydrologic Unit Code 12080003

Latitude 32°55'46", Longitude 103°15'07" NAD27

Land-surface elevation 3,809.30 feet above NGVD29

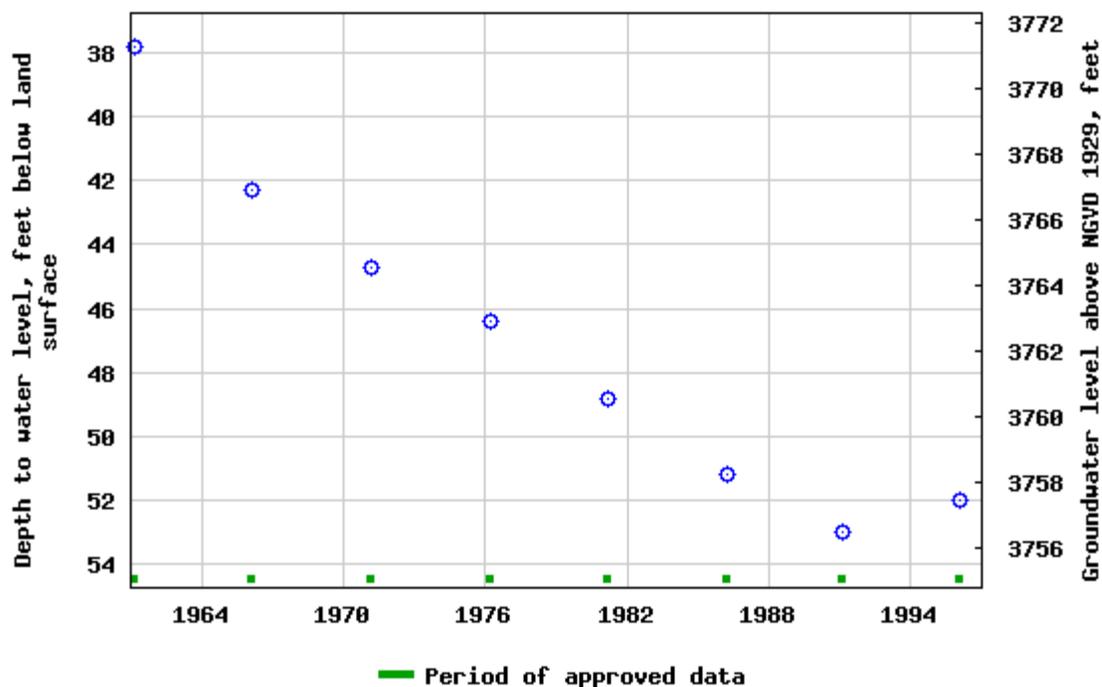
This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.

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

Output formats

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

USGS 325537103150001 16S.37E.09.434334



Breaks in the plot represent a gap of at least one year between field measurements. [Download a presentation-quality graph](#)

- [Questions about sites/data?](#)
- [Feedback on this web site](#)
- [Automated retrievals](#)
- [Help](#)
- [Data Tips](#)
- [Explanation of terms](#)
- [Subscribe for system changes](#)
- [News](#)

[Accessibility](#) [FOIA](#) [Privacy](#) [Policies and Notices](#)

[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

Title: Groundwater for USA: Water Levels

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

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

Page Last Modified: 2022-10-27 12:07:39 EDT

0.6 0.49 nadww01





APPENDIX B

Photographic Log



Photographic Log
EOG Resources, Inc
BROWN SWD VALVE CAN #3
Incident Number nAPP2234037824



Photograph: 1 Date: 10/28/2022
Description: Photo of Pothole PH02
View: East

Photograph: 2 Date: 10/28/2022
Description: Photo of Pothole PH05
View: Southeast



Photograph: 3 Date: 11/29/2022
Description: Photo of Site during excavation.
View: Northwest

Photograph: 4 Date: 12/23/2022
Description: Photo of final excavation extent.
View: West



Photographic Log
EOG Resources, Inc
BROWN SWD VALVE CAN #3
Incident Number nAPP2234037824



Photograph: 5 Date: 12/29/2022
Description: Site walk for well L-09469
View: Northwest

Photograph: 6 Date: 12/29/2022
Description: Site walk for well L-09469
View: East



Photograph: 7 Date: 12/29/2022
Description: Site walk for well L-09469
View: West

Photograph: 8 Date: 12/29/2022
Description: Site walk for well L-09469
View: Southeast



APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 08, 2022

Tacoma Morrissey
EOG
105 South Fourth Street
Artesia, NM 88210
TEL:
FAX:

RE: Brown SWD System Valve Can 3

OrderNo.: 2210E95

Dear Tacoma Morrissey:

Hall Environmental Analysis Laboratory received 11 sample(s) on 11/1/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written in a cursive style.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order **2210E95**

Date Reported: **11/8/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: PH01 @ 2'

Project: Brown SWD System Valve Can 3

Collection Date: 10/28/2022 10:20:00 AM

Lab ID: 2210E95-001

Matrix: SOIL

Received Date: 11/1/2022 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: NAI
Chloride	ND	60		mg/Kg	20	11/4/2022 8:43:04 AM	71290
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	11/4/2022 12:31:53 PM	71242
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/4/2022 12:31:53 PM	71242
Surr: DNOP	102	21-129		%Rec	1	11/4/2022 12:31:53 PM	71242
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/3/2022 1:30:00 PM	71239
Surr: BFB	88.8	37.7-212		%Rec	1	11/3/2022 1:30:00 PM	71239
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.023		mg/Kg	1	11/3/2022 1:30:00 PM	71239
Toluene	ND	0.047		mg/Kg	1	11/3/2022 1:30:00 PM	71239
Ethylbenzene	ND	0.047		mg/Kg	1	11/3/2022 1:30:00 PM	71239
Xylenes, Total	ND	0.094		mg/Kg	1	11/3/2022 1:30:00 PM	71239
Surr: 4-Bromofluorobenzene	90.2	70-130		%Rec	1	11/3/2022 1:30:00 PM	71239

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report

Lab Order **2210E95**

Date Reported: **11/8/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: PH01A @ 4'

Project: Brown SWD System Valve Can 3

Collection Date: 10/28/2022 10:25:00 AM

Lab ID: 2210E95-002

Matrix: SOIL

Received Date: 11/1/2022 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JTT
Chloride	ND	60		mg/Kg	20	11/4/2022 2:11:46 PM	71297
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: DGH
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	11/3/2022 6:53:50 AM	71219
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/3/2022 6:53:50 AM	71219
Surr: DNOP	101	21-129		%Rec	1	11/3/2022 6:53:50 AM	71219
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/2/2022 5:22:43 PM	71214
Surr: BFB	87.8	37.7-212		%Rec	1	11/2/2022 5:22:43 PM	71214
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	11/2/2022 5:22:43 PM	71214
Toluene	ND	0.047		mg/Kg	1	11/2/2022 5:22:43 PM	71214
Ethylbenzene	ND	0.047		mg/Kg	1	11/2/2022 5:22:43 PM	71214
Xylenes, Total	ND	0.093		mg/Kg	1	11/2/2022 5:22:43 PM	71214
Surr: 4-Bromofluorobenzene	90.9	70-130		%Rec	1	11/2/2022 5:22:43 PM	71214

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report

Lab Order **2210E95**

Date Reported: **11/8/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: PH02 @ 2'

Project: Brown SWD System Valve Can 3

Collection Date: 10/28/2022 12:20:00 PM

Lab ID: 2210E95-003

Matrix: SOIL

Received Date: 11/1/2022 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JTT
Chloride	ND	60		mg/Kg	20	11/4/2022 2:24:11 PM	71297
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: DGH
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	11/3/2022 7:04:29 AM	71219
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/3/2022 7:04:29 AM	71219
Surr: DNOP	74.7	21-129		%Rec	1	11/3/2022 7:04:29 AM	71219
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/2/2022 5:46:25 PM	71214
Surr: BFB	88.8	37.7-212		%Rec	1	11/2/2022 5:46:25 PM	71214
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/2/2022 5:46:25 PM	71214
Toluene	ND	0.047		mg/Kg	1	11/2/2022 5:46:25 PM	71214
Ethylbenzene	ND	0.047		mg/Kg	1	11/2/2022 5:46:25 PM	71214
Xylenes, Total	ND	0.094		mg/Kg	1	11/2/2022 5:46:25 PM	71214
Surr: 4-Bromofluorobenzene	92.8	70-130		%Rec	1	11/2/2022 5:46:25 PM	71214

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report

Lab Order **2210E95**

Date Reported: **11/8/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: PH02A @ 4'

Project: Brown SWD System Valve Can 3

Collection Date: 10/28/2022 12:25:00 PM

Lab ID: 2210E95-004

Matrix: SOIL

Received Date: 11/1/2022 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JTT
Chloride	ND	60		mg/Kg	20	11/4/2022 3:26:12 PM	71297
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: DGH
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	11/3/2022 7:15:10 AM	71219
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/3/2022 7:15:10 AM	71219
Surr: DNOP	78.4	21-129		%Rec	1	11/3/2022 7:15:10 AM	71219
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/2/2022 6:10:00 PM	71214
Surr: BFB	86.1	37.7-212		%Rec	1	11/2/2022 6:10:00 PM	71214
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/2/2022 6:10:00 PM	71214
Toluene	ND	0.048		mg/Kg	1	11/2/2022 6:10:00 PM	71214
Ethylbenzene	ND	0.048		mg/Kg	1	11/2/2022 6:10:00 PM	71214
Xylenes, Total	ND	0.096		mg/Kg	1	11/2/2022 6:10:00 PM	71214
Surr: 4-Bromofluorobenzene	90.8	70-130		%Rec	1	11/2/2022 6:10:00 PM	71214

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report

Lab Order **2210E95**

Date Reported: **11/8/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: PH03 @ 2'

Project: Brown SWD System Valve Can 3

Collection Date: 10/28/2022 12:40:00 PM

Lab ID: 2210E95-005

Matrix: SOIL

Received Date: 11/1/2022 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JTT
Chloride	270	59		mg/Kg	20	11/4/2022 3:38:36 PM	71297
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: DGH
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	11/3/2022 7:25:49 AM	71219
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/3/2022 7:25:49 AM	71219
Surr: DNOP	84.9	21-129		%Rec	1	11/3/2022 7:25:49 AM	71219
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/2/2022 6:33:33 PM	71214
Surr: BFB	88.7	37.7-212		%Rec	1	11/2/2022 6:33:33 PM	71214
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/2/2022 6:33:33 PM	71214
Toluene	ND	0.049		mg/Kg	1	11/2/2022 6:33:33 PM	71214
Ethylbenzene	ND	0.049		mg/Kg	1	11/2/2022 6:33:33 PM	71214
Xylenes, Total	ND	0.098		mg/Kg	1	11/2/2022 6:33:33 PM	71214
Surr: 4-Bromofluorobenzene	93.4	70-130		%Rec	1	11/2/2022 6:33:33 PM	71214

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report

Lab Order **2210E95**

Date Reported: **11/8/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: PH03A @ 4'

Project: Brown SWD System Valve Can 3

Collection Date: 10/28/2022 12:45:00 PM

Lab ID: 2210E95-006

Matrix: SOIL

Received Date: 11/1/2022 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JTT
Chloride	320	60		mg/Kg	20	11/4/2022 3:51:01 PM	71297
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: DGH
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	11/3/2022 8:30:12 AM	71219
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/3/2022 8:30:12 AM	71219
Surr: DNOP	124	21-129		%Rec	1	11/3/2022 8:30:12 AM	71219
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/2/2022 7:43:42 PM	71214
Surr: BFB	87.0	37.7-212		%Rec	1	11/2/2022 7:43:42 PM	71214
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	11/2/2022 7:43:42 PM	71214
Toluene	ND	0.047		mg/Kg	1	11/2/2022 7:43:42 PM	71214
Ethylbenzene	ND	0.047		mg/Kg	1	11/2/2022 7:43:42 PM	71214
Xylenes, Total	ND	0.094		mg/Kg	1	11/2/2022 7:43:42 PM	71214
Surr: 4-Bromofluorobenzene	91.2	70-130		%Rec	1	11/2/2022 7:43:42 PM	71214

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report

Lab Order **2210E95**

Date Reported: **11/8/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: PH04 @ 2'

Project: Brown SWD System Valve Can 3

Collection Date: 10/28/2022 1:00:00 PM

Lab ID: 2210E95-007

Matrix: SOIL

Received Date: 11/1/2022 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JTT
Chloride	67	60		mg/Kg	20	11/4/2022 4:03:25 PM	71297
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	11/4/2022 12:55:43 PM	71242
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/4/2022 12:55:43 PM	71242
Surr: DNOP	94.4	21-129		%Rec	1	11/4/2022 12:55:43 PM	71242
EPA METHOD 8015D: GASOLINE RANGE							Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/3/2022 1:50:00 PM	71239
Surr: BFB	92.9	37.7-212		%Rec	1	11/3/2022 1:50:00 PM	71239
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	0.024		mg/Kg	1	11/3/2022 1:50:00 PM	71239
Toluene	ND	0.048		mg/Kg	1	11/3/2022 1:50:00 PM	71239
Ethylbenzene	ND	0.048		mg/Kg	1	11/3/2022 1:50:00 PM	71239
Xylenes, Total	ND	0.096		mg/Kg	1	11/3/2022 1:50:00 PM	71239
Surr: 4-Bromofluorobenzene	90.2	70-130		%Rec	1	11/3/2022 1:50:00 PM	71239

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report

Lab Order **2210E95**

Date Reported: **11/8/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: PH04A @ 4'

Project: Brown SWD System Valve Can 3

Collection Date: 10/28/2022 1:05:00 PM

Lab ID: 2210E95-008

Matrix: SOIL

Received Date: 11/1/2022 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JTT
Chloride	590	60		mg/Kg	20	11/4/2022 4:15:50 PM	71297
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: DGH
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	11/3/2022 8:40:59 AM	71219
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/3/2022 8:40:59 AM	71219
Surr: DNOP	106	21-129		%Rec	1	11/3/2022 8:40:59 AM	71219
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/2/2022 8:07:16 PM	71214
Surr: BFB	87.3	37.7-212		%Rec	1	11/2/2022 8:07:16 PM	71214
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/2/2022 8:07:16 PM	71214
Toluene	ND	0.049		mg/Kg	1	11/2/2022 8:07:16 PM	71214
Ethylbenzene	ND	0.049		mg/Kg	1	11/2/2022 8:07:16 PM	71214
Xylenes, Total	ND	0.097		mg/Kg	1	11/2/2022 8:07:16 PM	71214
Surr: 4-Bromofluorobenzene	91.5	70-130		%Rec	1	11/2/2022 8:07:16 PM	71214

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report

Lab Order **2210E95**

Date Reported: **11/8/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: PH05 @ 2'

Project: Brown SWD System Valve Can 3

Collection Date: 10/28/2022 1:20:00 PM

Lab ID: 2210E95-009

Matrix: SOIL

Received Date: 11/1/2022 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JTT
Chloride	80	61		mg/Kg	20	11/4/2022 4:28:14 PM	71297
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: DGH
Diesel Range Organics (DRO)	980	140		mg/Kg	10	11/3/2022 7:36:42 AM	71219
Motor Oil Range Organics (MRO)	1700	470		mg/Kg	10	11/3/2022 7:36:42 AM	71219
Surr: DNOP	0	21-129	S	%Rec	10	11/3/2022 7:36:42 AM	71219
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/2/2022 8:30:55 PM	71214
Surr: BFB	87.1	37.7-212		%Rec	1	11/2/2022 8:30:55 PM	71214
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/2/2022 8:30:55 PM	71214
Toluene	ND	0.049		mg/Kg	1	11/2/2022 8:30:55 PM	71214
Ethylbenzene	ND	0.049		mg/Kg	1	11/2/2022 8:30:55 PM	71214
Xylenes, Total	ND	0.098		mg/Kg	1	11/2/2022 8:30:55 PM	71214
Surr: 4-Bromofluorobenzene	87.9	70-130		%Rec	1	11/2/2022 8:30:55 PM	71214

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report

Lab Order **2210E95**

Date Reported: **11/8/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: PH05A @ 4'

Project: Brown SWD System Valve Can 3

Collection Date: 10/28/2022 1:25:00 PM

Lab ID: 2210E95-010

Matrix: SOIL

Received Date: 11/1/2022 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JTT
Chloride	ND	60		mg/Kg	20	11/4/2022 4:40:38 PM	71297
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: DGH
Diesel Range Organics (DRO)	1200	150		mg/Kg	10	11/3/2022 7:58:12 AM	71219
Motor Oil Range Organics (MRO)	2400	490		mg/Kg	10	11/3/2022 7:58:12 AM	71219
Surr: DNOP	0	21-129	S	%Rec	10	11/3/2022 7:58:12 AM	71219
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/2/2022 8:54:34 PM	71214
Surr: BFB	86.3	37.7-212		%Rec	1	11/2/2022 8:54:34 PM	71214
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/2/2022 8:54:34 PM	71214
Toluene	ND	0.048		mg/Kg	1	11/2/2022 8:54:34 PM	71214
Ethylbenzene	ND	0.048		mg/Kg	1	11/2/2022 8:54:34 PM	71214
Xylenes, Total	ND	0.096		mg/Kg	1	11/2/2022 8:54:34 PM	71214
Surr: 4-Bromofluorobenzene	88.7	70-130		%Rec	1	11/2/2022 8:54:34 PM	71214

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2210E95

08-Nov-22

Client: EOG
Project: Brown SWD System Valve Can 3

Sample ID: MB-71290	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 71290	RunNo: 92304								
Prep Date: 11/3/2022	Analysis Date: 11/4/2022	SeqNo: 3316938	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-71290	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 71290	RunNo: 92304								
Prep Date: 11/3/2022	Analysis Date: 11/4/2022	SeqNo: 3316939	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.2	90	110			

Sample ID: MB-71297	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 71297	RunNo: 92365								
Prep Date: 11/4/2022	Analysis Date: 11/4/2022	SeqNo: 3319379	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-71297	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 71297	RunNo: 92365								
Prep Date: 11/4/2022	Analysis Date: 11/4/2022	SeqNo: 3319380	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.6	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2210E95

08-Nov-22

Client: EOG
Project: Brown SWD System Valve Can 3

Sample ID: LCS-71219	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 71219		RunNo: 92253							
Prep Date: 11/1/2022	Analysis Date: 11/3/2022		SeqNo: 3315788		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	15	50.00	0	95.4	64.4	127			
Surr: DNOP	5.3		5.000		106	21	129			

Sample ID: MB-71219	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 71219		RunNo: 92253							
Prep Date: 11/1/2022	Analysis Date: 11/3/2022		SeqNo: 3315791		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.6		10.00		85.8	21	129			

Sample ID: MB-71242	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 71242		RunNo: 92311							
Prep Date: 11/2/2022	Analysis Date: 11/3/2022		SeqNo: 3317016		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.7		10.00		97.5	21	129			

Sample ID: LCS-71242	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 71242		RunNo: 92311							
Prep Date: 11/2/2022	Analysis Date: 11/3/2022		SeqNo: 3317017		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	15	50.00	0	89.9	64.4	127			
Surr: DNOP	4.9		5.000		97.1	21	129			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2210E95

08-Nov-22

Client: EOG
Project: Brown SWD System Valve Can 3

Sample ID: mb-71214	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 71214		RunNo: 92280							
Prep Date: 11/1/2022	Analysis Date: 11/2/2022		SeqNo: 3314552		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		89.3	37.7	212			

Sample ID: lcs-71214	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 71214		RunNo: 92280							
Prep Date: 11/1/2022	Analysis Date: 11/2/2022		SeqNo: 3314553		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.5	72.3	137			
Surr: BFB	1900		1000		189	37.7	212			

Sample ID: lcs-71239	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 71239		RunNo: 92320							
Prep Date: 11/2/2022	Analysis Date: 11/3/2022		SeqNo: 3317183		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.4	72.3	137			
Surr: BFB	2000		1000		200	37.7	212			

Sample ID: mb-71239	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 71239		RunNo: 92320							
Prep Date: 11/2/2022	Analysis Date: 11/3/2022		SeqNo: 3317186		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		90.7	37.7	212			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2210E95

08-Nov-22

Client: EOG
Project: Brown SWD System Valve Can 3

Sample ID: mb-71214	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 71214		RunNo: 92280							
Prep Date: 11/1/2022	Analysis Date: 11/2/2022		SeqNo: 3314596		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.95		1.000		94.8	70	130			

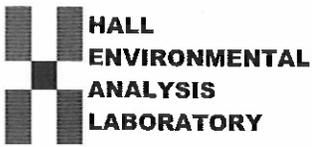
Sample ID: LCS-71214	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 71214		RunNo: 92280							
Prep Date: 11/1/2022	Analysis Date: 11/2/2022		SeqNo: 3314597		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.3	80	120			
Toluene	0.97	0.050	1.000	0	97.1	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.1	80	120			
Xylenes, Total	2.9	0.10	3.000	0	98.2	80	120			
Surr: 4-Bromofluorobenzene	0.94		1.000		94.1	70	130			

Sample ID: lcs-71239	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 71239		RunNo: 92320							
Prep Date: 11/2/2022	Analysis Date: 11/3/2022		SeqNo: 3317311		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	94.8	80	120			
Toluene	0.96	0.050	1.000	0	95.8	80	120			
Ethylbenzene	0.94	0.050	1.000	0	94.4	80	120			
Xylenes, Total	2.8	0.10	3.000	0	93.2	80	120			
Surr: 4-Bromofluorobenzene	0.94		1.000		93.6	70	130			

Sample ID: mb-71239	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 71239		RunNo: 92320							
Prep Date: 11/2/2022	Analysis Date: 11/3/2022		SeqNo: 3317312		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.91		1.000		91.5	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: EOG

Work Order Number: 2210E95

RcptNo: 1

Received By: Juan Rojas

11/1/2022 7:20:00 AM

Juan Rojas

Completed By: Cheyenne Cason

11/1/2022 7:59:19 AM

Cheyenne Cason

Reviewed By: *J 11-1-22*

Chain of Custody

- 1. Is Chain of Custody complete? Yes No Not Present
- 2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes No NA
- 4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 5. Sample(s) in proper container(s)? Yes No
- 6. Sufficient sample volume for indicated test(s)? Yes No
- 7. Are samples (except VOA and ONG) properly preserved? Yes No
- 8. Was preservative added to bottles? Yes No NA
- 9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes No NA
- 10. Were any sample containers received broken? Yes No
- 11. Does paperwork match bottle labels? Yes No
(Note discrepancies on chain of custody)
- 12. Are matrices correctly identified on Chain of Custody? Yes No
- 13. Is it clear what analyses were requested? Yes No
- 14. Were all holding times able to be met? Yes No
(If no, notify customer for authorization.)

of preserved bottles checked for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: *Juan 11/1/22*
Juan 11/1/22

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.5	Good	Not Present			



HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Turn-Around Time:
 Standard Rush 5 Day
Project Name: Brown SWD System Valve Can #3

Project #: 03C2000011
Incident #:
Project Manager:
Tacoma Morrissey
tmorrissey@ensolum.com

Client: Chase Settle, Amber Griffin
Mailing Address: 105 S. 4th St. Artesia, NM 88210
Phone #:
email or Fax#: Chase_Settle@eogresources.com

QA/QC Package:
 Standard Level 4 (Full Validation)

Sampler:
On Ice: Yes No 11/12/2
of Coolers: 1 35-0-3.5
Cooler Temp (including CF): 0-2-0-1-5-0-1

Container Type and #
Preservative Type
HEAL No.
2210E95

Accreditation: Az Compliance Other
 NELAC
 EDD (Type)

Analysis Request
8081 Pesticides/8082 PCB's
TPH:8015D(GRO / DRO / MRO)
EDB (Method 504.1)
PAHs by 8310 or 8270SIMS
RCRA 8 Metals
Cl, F, Br, NO₃, NO₂, PO₄, SO
8260 (VOA)
8270 (Semi-VOA)
Total Coliform (Present/Absent)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
10/28/2022	10:20	S	PH01 @ 2'	4 oz jar		221
10/28/2022	10:25	S	PH01A @ 4'	4 oz jar		222
10/28/2022	12:20	S	PH02 @ 2'	4 oz jar		223
10/28/2022	12:25	S	PH02A @ 4'	4 oz jar		224
10/28/2022	12:40	S	PH03 @ 2'	4 oz jar		225
10/28/2022	12:45	S	PH03A @ 4'	4 oz jar		226
10/28/2022	13:00	S	PH04 @ 2'	4 oz jar		227
10/28/2022	13:05	S	PH04A @ 4'	4 oz jar		228
10/28/2022	13:20	S	PH05 @ 2'	4 oz jar		229
10/28/2022	13:25	S	PH05A @ 4'	4 oz jar		230
10/28/2022	13:30	S	(hold) PH05B @ 6'	4 oz jar		231

Relinquished by: Amber Griffin
Time: 7:15
Date: 10/31/22

Relinquished by: Amber Griffin
Time: 1900
Date: 10/31/22

Received by: Amber Griffin
Date: 10/31/22
Time: 7:15
Via: Handwritten

Received by: Amber Griffin
Date: 10/31/22
Time: 7:15
Via: Handwritten

Remarks: Amber_Griffin@eogresources.com
shyde@ensolum.com

Remarks: Amber_Griffin@eogresources.com

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Released to Imaging: 1/25/2023 2:56:30 PM



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 12, 2022

Stuart Hyde

EOG

105 South Fourth Street

Artesia, NM 88210

TEL:

FAX:

RE: Brown SWD Valve Can 3

OrderNo.: 2212009

Dear Stuart Hyde:

Hall Environmental Analysis Laboratory received 3 sample(s) on 12/1/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **2212009**

Date Reported: **12/12/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: SW01

Project: Brown SWD Valve Can 3

Collection Date: 11/29/2022 10:00:00 AM

Lab ID: 2212009-001

Matrix: SOIL

Received Date: 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JTT
Chloride	270	60		mg/Kg	20	12/6/2022 5:07:32 PM	71876
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: DGH
Diesel Range Organics (DRO)	1600	290		mg/Kg	20	12/5/2022 10:43:05 AM	71834
Motor Oil Range Organics (MRO)	1300	960		mg/Kg	20	12/5/2022 10:43:05 AM	71834
Surr: DNOP	0	21-129	S	%Rec	20	12/5/2022 10:43:05 AM	71834
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/3/2022 5:06:59 PM	71803
Surr: BFB	85.4	37.7-212		%Rec	1	12/3/2022 5:06:59 PM	71803
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	12/3/2022 5:06:59 PM	71803
Toluene	ND	0.048		mg/Kg	1	12/3/2022 5:06:59 PM	71803
Ethylbenzene	ND	0.048		mg/Kg	1	12/3/2022 5:06:59 PM	71803
Xylenes, Total	ND	0.096		mg/Kg	1	12/3/2022 5:06:59 PM	71803
Surr: 4-Bromofluorobenzene	87.6	70-130		%Rec	1	12/3/2022 5:06:59 PM	71803

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report

Lab Order **2212009**

Date Reported: **12/12/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: SW02

Project: Brown SWD Valve Can 3

Collection Date: 11/29/2022 1:00:00 PM

Lab ID: 2212009-002

Matrix: SOIL

Received Date: 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JTT
Chloride	160	60		mg/Kg	20	12/6/2022 5:19:57 PM	71876
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: DGH
Diesel Range Organics (DRO)	79	14		mg/Kg	1	12/5/2022 2:31:29 PM	71834
Motor Oil Range Organics (MRO)	88	47		mg/Kg	1	12/5/2022 2:31:29 PM	71834
Surr: DNOP	107	21-129		%Rec	1	12/5/2022 2:31:29 PM	71834
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/3/2022 6:17:02 PM	71803
Surr: BFB	88.4	37.7-212		%Rec	1	12/3/2022 6:17:02 PM	71803
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	12/3/2022 6:17:02 PM	71803
Toluene	ND	0.048		mg/Kg	1	12/3/2022 6:17:02 PM	71803
Ethylbenzene	ND	0.048		mg/Kg	1	12/3/2022 6:17:02 PM	71803
Xylenes, Total	ND	0.097		mg/Kg	1	12/3/2022 6:17:02 PM	71803
Surr: 4-Bromofluorobenzene	92.2	70-130		%Rec	1	12/3/2022 6:17:02 PM	71803

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report

Lab Order **2212009**

Date Reported: **12/12/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: FS01

Project: Brown SWD Valve Can 3

Collection Date: 11/29/2022 12:00:00 PM

Lab ID: 2212009-003

Matrix: SOIL

Received Date: 12/1/2022 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JTT
Chloride	210	59		mg/Kg	20	12/6/2022 5:32:22 PM	71876
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: DGH
Diesel Range Organics (DRO)	930	150		mg/Kg	10	12/6/2022 5:38:50 PM	71857
Motor Oil Range Organics (MRO)	740	490		mg/Kg	10	12/6/2022 5:38:50 PM	71857
Surr: DNOP	0	21-129	S	%Rec	10	12/6/2022 5:38:50 PM	71857
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/3/2022 6:40:23 PM	71803
Surr: BFB	88.6	37.7-212		%Rec	1	12/3/2022 6:40:23 PM	71803
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	12/3/2022 6:40:23 PM	71803
Toluene	ND	0.047		mg/Kg	1	12/3/2022 6:40:23 PM	71803
Ethylbenzene	ND	0.047		mg/Kg	1	12/3/2022 6:40:23 PM	71803
Xylenes, Total	ND	0.095		mg/Kg	1	12/3/2022 6:40:23 PM	71803
Surr: 4-Bromofluorobenzene	89.5	70-130		%Rec	1	12/3/2022 6:40:23 PM	71803

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2212009

12-Dec-22

Client: EOG
Project: Brown SWD Valve Can 3

Sample ID: MB-71876	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 71876	RunNo: 93070								
Prep Date: 12/6/2022	Analysis Date: 12/6/2022	SeqNo: 3351894	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-71876	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 71876	RunNo: 93070								
Prep Date: 12/6/2022	Analysis Date: 12/6/2022	SeqNo: 3351895	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.7	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2212009

12-Dec-22

Client: EOG
Project: Brown SWD Valve Can 3

Sample ID: MB-71834	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 71834	RunNo: 93029								
Prep Date: 12/2/2022	Analysis Date: 12/5/2022	SeqNo: 3350297	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.3		10.00		93.5	21	129			

Sample ID: LCS-71834	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 71834	RunNo: 93029								
Prep Date: 12/2/2022	Analysis Date: 12/5/2022	SeqNo: 3350298	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	15	50.00	0	96.7	64.4	127			
Surr: DNOP	4.7		5.000		93.9	21	129			

Sample ID: MB-71857	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 71857	RunNo: 93056								
Prep Date: 12/5/2022	Analysis Date: 12/6/2022	SeqNo: 3351406	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		97.7	21	129			

Sample ID: LCS-71857	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 71857	RunNo: 93056								
Prep Date: 12/5/2022	Analysis Date: 12/6/2022	SeqNo: 3351407	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	15	50.00	0	99.6	64.4	127			
Surr: DNOP	5.0		5.000		99.4	21	129			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2212009

12-Dec-22

Client: EOG
Project: Brown SWD Valve Can 3

Sample ID: mb-71803	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 71803		RunNo: 92974							
Prep Date: 12/1/2022	Analysis Date: 12/3/2022		SeqNo: 3348424		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	870		1000		87.2	37.7	212			

Sample ID: lcs-71803	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 71803		RunNo: 92974							
Prep Date: 12/1/2022	Analysis Date: 12/3/2022		SeqNo: 3348425		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	25.00	0	81.9	72.3	137			
Surr: BFB	1700		1000		174	37.7	212			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2212009

12-Dec-22

Client: EOG
Project: Brown SWD Valve Can 3

Sample ID: mb-71803	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 71803	RunNo: 92974								
Prep Date: 12/1/2022	Analysis Date: 12/3/2022	SeqNo: 3348495	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.91		1.000		91.4	70	130			

Sample ID: LCS-71803	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 71803	RunNo: 92974								
Prep Date: 12/1/2022	Analysis Date: 12/3/2022	SeqNo: 3348496	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.025	1.000	0	83.2	80	120			
Toluene	0.85	0.050	1.000	0	84.9	80	120			
Ethylbenzene	0.84	0.050	1.000	0	83.8	80	120			
Xylenes, Total	2.5	0.10	3.000	0	83.9	80	120			
Surr: 4-Bromofluorobenzene	0.91		1.000		91.3	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: EOG Work Order Number: 2212009 RcptNo: 1

Received By: Juan Rojas 12/1/2022 7:35:00 AM
Completed By: Tracy Casarrubias 12/1/2022 8:36:13 AM
Reviewed By: [Signature] 12-1-22

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [] Not Present []
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [] NA []
4. Were all samples received at a temperature of >0° C to 6.0°C Yes [checked] No [] NA []
5. Sample(s) in proper container(s)? Yes [checked] No []
6. Sufficient sample volume for indicated test(s)? Yes [checked] No []
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No []
8. Was preservative added to bottles? Yes [] No [checked] NA []
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [checked]
10. Were any sample containers received broken? Yes [] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No []
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No []
13. Is it clear what analyses were requested? Yes [checked] No []
14. Were all holding times able to be met? Yes [checked] No []

of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by: [Signature] 12/1/22

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [] No [] NA [checked]

Person Notified: [] Date: []
By Whom: [] Via: [] eMail [] Phone [] Fax [] In Person []
Regarding: []
Client Instructions: []

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 1.7, Good, Yes, [], [], []



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

December 28, 2022

STUART HYDE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BROWN SWD VALVE CAN #3

Enclosed are the results of analyses for samples received by the laboratory on 12/27/22 9:58.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 STUART HYDE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	12/27/2022	Sampling Date:	12/23/2022
Reported:	12/28/2022	Sampling Type:	Soil
Project Name:	BROWN SWD VALVE CAN #3	Sampling Condition:	Cool & Intact
Project Number:	03C2000011	Sample Received By:	Shalyn Rodriguez
Project Location:	EOG - LEA		

Sample ID: SW 03 @ 0'-6' (H226066-01)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/27/2022	ND	2.09	104	2.00	6.14	
Toluene*	<0.050	0.050	12/27/2022	ND	2.21	111	2.00	5.44	
Ethylbenzene*	<0.050	0.050	12/27/2022	ND	2.20	110	2.00	5.46	
Total Xylenes*	<0.150	0.150	12/27/2022	ND	6.75	113	6.00	5.67	
Total BTEX	<0.300	0.300	12/27/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	12/27/2022	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/27/2022	ND	182	91.0	200	0.221	
DRO >C10-C28*	<10.0	10.0	12/27/2022	ND	176	88.1	200	1.07	
EXT DRO >C28-C36	<10.0	10.0	12/27/2022	ND					

Surrogate: 1-Chlorooctane 84.2 % 45.3-161

Surrogate: 1-Chlorooctadecane 90.8 % 46.3-178

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 STUART HYDE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	12/27/2022	Sampling Date:	12/23/2022
Reported:	12/28/2022	Sampling Type:	Soil
Project Name:	BROWN SWD VALVE CAN #3	Sampling Condition:	Cool & Intact
Project Number:	03C2000011	Sample Received By:	Shalyn Rodriguez
Project Location:	EOG - LEA		

Sample ID: SW 04 @ 0'-6' (H226066-02)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/27/2022	ND	2.09	104	2.00	6.14	
Toluene*	<0.050	0.050	12/27/2022	ND	2.21	111	2.00	5.44	
Ethylbenzene*	<0.050	0.050	12/27/2022	ND	2.20	110	2.00	5.46	
Total Xylenes*	<0.150	0.150	12/27/2022	ND	6.75	113	6.00	5.67	
Total BTEX	<0.300	0.300	12/27/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/27/2022	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/27/2022	ND	182	91.0	200	0.221	
DRO >C10-C28*	<10.0	10.0	12/27/2022	ND	176	88.1	200	1.07	
EXT DRO >C28-C36	<10.0	10.0	12/27/2022	ND					

Surrogate: 1-Chlorooctane 60.9 % 45.3-161

Surrogate: 1-Chlorooctadecane 65.9 % 46.3-178

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 STUART HYDE
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received:	12/27/2022	Sampling Date:	12/23/2022
Reported:	12/28/2022	Sampling Type:	Soil
Project Name:	BROWN SWD VALVE CAN #3	Sampling Condition:	Cool & Intact
Project Number:	03C2000011	Sample Received By:	Shalyn Rodriguez
Project Location:	EOG - LEA		

Sample ID: FS 02 @ 6' (H226066-03)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/27/2022	ND	2.09	104	2.00	6.14	
Toluene*	<0.050	0.050	12/27/2022	ND	2.21	111	2.00	5.44	
Ethylbenzene*	<0.050	0.050	12/27/2022	ND	2.20	110	2.00	5.46	
Total Xylenes*	<0.150	0.150	12/27/2022	ND	6.75	113	6.00	5.67	
Total BTEX	<0.300	0.300	12/27/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/27/2022	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/27/2022	ND	182	91.0	200	0.221	
DRO >C10-C28*	<10.0	10.0	12/27/2022	ND	176	88.1	200	1.07	
EXT DRO >C28-C36	<10.0	10.0	12/27/2022	ND					

Surrogate: 1-Chlorooctane 83.3 % 45.3-161

Surrogate: 1-Chlorooctadecane 89.8 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: Ensdium
 Project Manager: Stuart Hyde
 Address: 3122 Potlatch Park Hwy
 City: Celso State: NM Zip: 88220
 Phone #: 970-903-1607 Fax #:
 Project #: 03C2000011 Project Owner:
 Project Name: Brown SWD Valve Can #3
 Project Location: Lea
 Sampler Name: Peter Van Ratten
 P.O. #: _____ Company: EDG
 Attn: Chase Settle
 Address: 105 S. 4th St
 City: Artesia
 State: NM Zip: 88210
 Phone #: _____
 Fax #: _____

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			
<u>1</u>	<u>SW03 @ 0'-6'</u>	<u>C 1</u>	<u>1</u>	<u>✓</u>					<u>12-23</u>	<u>1035</u>	<u>BTEX</u>	
<u>2</u>	<u>SW04 @ 0'-6'</u>	<u>C 1</u>	<u>1</u>	<u>✓</u>					<u>12-23</u>	<u>1040</u>	<u>TPH</u>	
<u>3</u>	<u>FS02 @ 6'</u>	<u>C 1</u>	<u>1</u>	<u>✓</u>					<u>12-23</u>	<u>1045</u>	<u>Chlorides</u>	

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Relinquished By: _____ Received By: Stoddigren
 Date: 12-27-22
 Time: 0958
 Date: _____ Received By: _____
 Time: _____

Delivered By: (Circle One) Observed Temp. °C: 9.8 Sample Condition: Intact CHECKED BY: SK
 Sampler - UPS - Bus - Other: Corrected Temp. °C: 9.2 Cool Intact: Yes Bacteria (only) Sample Condition: Intact
 Turnaround Time: 24 hr Standard Rush Bacteria (only) Sample Condition: Intact
 Thermometer ID #113 Correction Factor -0.6°C Cool Intact: Yes Observed Temp. °C: _____
 Corrected Temp. °C: _____

FOR INFORMATION: 330710122
 Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



APPENDIX D
NMOCD Notifications

From: [Amber Griffin](#)
To: [Tacoma Morrissey](#); [Stuart Hyde](#)
Subject: FW: [EXTERNAL] Brown SWD Valve Can 3 (nAPP2234037824) Sampling Notification
Date: Wednesday, December 21, 2022 8:39:25 AM
Attachments: [image003.png](#)

[**EXTERNAL EMAIL**]

Thank you,
Amber Griffin

From: Tina Huerta <Tina_Huerta@eogresources.com>
Sent: Wednesday, December 21, 2022 8:39 AM
To: Artesia S&E Spill Remediation <Artesia_S&E_Spill_Remediation@eogresources.com>
Cc: Artesia Regulatory <Artesia_Regulatory@eogresources.com>
Subject: FW: [EXTERNAL] Brown SWD Valve Can 3 (nAPP2234037824) Sampling Notification

FYI

From: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Sent: Wednesday, December 21, 2022 8:23 AM
To: Tina Huerta <Tina_Huerta@eogresources.com>
Cc: Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Subject: RE: [EXTERNAL] Brown SWD Valve Can 3 (nAPP2234037824) 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.

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Jocelyn Harimon • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
<http://www.emnrd.nm.gov>



From: Tina Huerta <Tina_Huerta@eogresources.com>
Sent: Wednesday, December 21, 2022 6:55 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Artesia S&E Spill Remediation <Artesia_S&E_Spill_Remediation@eogresources.com>; Artesia Regulatory <Artesia_Regulatory@eogresources.com>
Subject: [EXTERNAL] Brown SWD Valve Can 3 (nAPP2234037824) Sampling Notification

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good Morning,

EOG Resources, Inc. respectfully submits notification (2) business days prior to conducting sampling on the following location.

Brown SWD Valve Can 3
H-26-16S-37E
Lea County, NM
nAPP2234037824

Sampling will begin at 9:00 a.m. on Friday, December 23, 2022.

Thank you,

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



Artesia Division

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 171301

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 171301
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	1/25/2023