Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2111048003
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Chase Settle Title: Rep Safety & Environmental Sr

Signature: Chase Settle Date: 06/17/2021

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

OCD Only

Received by: Robert Hamlet Date: 9/2/2022

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

Signature: Robert Hamlet Date: 9/2/2022

RANGER
ENVIRONMENTAL SERVICES, INC.

SITE UPDATE REPORT

STATE D SWD #1
UNIT N, SECTION 16, TOWNSHIP 20S, RANGE 24E
EDDY COUNTY, NEW MEXICO
32.56827, -104.59513
RANGER REFERENCE NO. 5375

PREPARED FOR:

EOG RESOURCES, INC.
ARTESIA DIVISION
105 S 4TH STREET
ARTESIA, NEW MEXICO 88210

PREPARED BY:

RANGER ENVIRONMENTAL SERVICES, INC.
P.O. BOX 201179
AUSTIN, TEXAS 78720

MAY 18, 2022

Max Cook, CAPM (TX)
Senior Project Manager

William Kierdorf, REM
Project Manager

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RANGER
ENVIRONMENTAL SERVICES, INC.

SITE UPDATE REPORT
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UNIT N, SECTION 16, TOWNSHIP 20S, RANGE 24E
EDDY COUNTY, NEW MEXICO
32.56827, -104.59513
RANGER REFERENCE NO. 5375

1.0 SITE LOCATION AND BACKGROUND

The State D SWD #1 (Site) is located on State land, approximately 22 miles southwest of Artesia, within Eddy County, New Mexico. The facility is situated in Unit N, Section 16, T20S-R24E at GPS coordinates 32.56827, -104.59513. The Site formerly consisted of a disposal well, a tank battery with an earthen containment berm, pump houses and associated equipment.

On March 21, 2021, historical crude oil impacts were documented at the Site associated with the decommissioning of the tank battery. Visual impacts were observed upon removal of the oil tanks. As such, the release volume and date are unknown, and no liquids were available for recovery. The incident was reported to the New Mexico Oil Conservation Division (NMOCD) on April 20, 2021 (NMOCD Incident # nAPP2111048003). EOG Resources, Inc. (EOG) has engaged Ranger Environmental Services, Inc. (Ranger) to assist in the remediation and reclamation efforts at the Site.

In order to properly delineate the extent of the crude oil soil impacts, additional assessment activities were completed at the Site in May and June of 2021. Based on the findings of the assessment activities, a *Site Characterization and Proposed Remediation Plan* (Remediation Plan) report was prepared and submitted to the NMOCD on June 17, 2021. This report included site characterization details, details of the completed assessment activities, proposed regulatory cleanup criteria, and a proposed remediation strategy to address the site impacts. On September 22, 2021, the NMOCD approved the proposed remediation plan. Due to the extent of the soil impacts at the Site, the approved remediation plan called for a 120-day time period to complete the proposed activities.

Prior to the commencement of remedial activities at the Site, a review of internal EOG policies was completed and it was determined that due to the depth of the proposed excavation activities at the Site (proposed to an approximate depth of 24 feet below ground surface (bgs)), an excavation plan stamped by professional engineer (P.E.) would be required. Based on this requirement, an appropriate party was engaged to prepare the necessary plan. Due to difficulties encountered in finding an appropriate party to prepare the excavation plan and the estimated time frame to complete such a plan, EOG submitted a request to the NMOCD on January 20, 2022 for an extension to July 21, 2022 to complete the site remediation activities and to submit the site closure report. On January 21, 2022, the NMOCD granted an extension; however, the approval was limited to an additional 90-day period to complete the project. Copies of the associated NMOCD correspondence are attached.

Due to the extent of required excavation and time frame to conduct the necessary excavation activities at the Site, a *Site Update Report*, dated April 18, 2022, was prepared and submitted to the NMOCD. The update report provided details of the completed remediation efforts at the Site and an anticipated completion time frame for the project. In the *Site Update Report*, an additional 30 days to complete remedial efforts at the Site was requested.

The following *Site Update Report* has been prepared to provide an update to remedial activities completed subsequent to the April 18, 2022 *Site Update Report,* provide information on plans to address one outstanding area, and proposed the assessment of excavated material for potential re-use at the location as backfill.

A copy of the previously submitted Form C-141 Release Notification, Assessment/ Characterization and Remediation Plan sections of Form C-141, are attached. A Topographic Map and Area Map noting the location of the subject Site and surrounding areas, and a Site Map illustrating the Site features and sampling locations, are provided in the Figures section.

2.0 SITE REMEDIATION

2.1 Initial Soil Excavation and Confirmation Sampling

As detailed in the *Site Update Report* dated April 18, 2022, upon receiving the professional engineer (P.E.) approved excavation plan, EOG initiated soil removal operations at the Site on April 11, 2022. Soil removal operations were initially completed to the anticipated boundaries and depths presented in the NMOCD approved Remediation Plan. At the time the *Site Update Report* was prepared and submitted to the NMOCD, soil removal operations had been completed in the majority of the excavation; however, the proposed 24 foot deep area had only been excavated to a depth of approximately 12 to 13 feet and was awaiting the required benching and shoring to be completed to allow for safe soil removal activities.

On April 13 and 14, 2022, initial confirmation soil samples were collected from 13 of the 26 locations presented in the NMOCD approved sampling plan. An additional three samples were collected on April 19, 2022, as the areas were completed to the initial approved excavation boundaries.

Upon review of the laboratory analytical results, 13 of the of the 16 samples collected during the initial soil removal operations were documented to have concentrations within the applicable Table 1 Criteria. Three samples were noted to have concentrations in exceedance of the applicable Table 1 Criteria. The areas documented to have elevated concentrations were ultimately over-excavated and additional confirmation samples were collected from the respective areas.

2.2 Stabilization Over-Excavation Activities

As required by the P.E. approved excavation plan, benching and shoring operations were required at the Site to allow for the safe removal of material to the proposed maximum excavation depth of 24 feet bgs. Benching and shoring activities were completed to the north, east, south, and west of the area anticipated maximum depth of approximately 24 feet bgs.

During the completion of the necessary benching and shoring activities, areas previously assessed, sampled and documented to be with the applicable Table 1 Criteria, as well as areas outside of the impact/remediation area at the Site were removed. Throughout the remediation

process at the Site, excavated material believed to be, or documented (through confirmation soil samples) to be within the Table 1 Closure Criteria, was segregated and placed aside for potential re-use as backfill. Prior to utilizing the material as backfill, it will be assessed via laboratory sample analysis to confirm all concentrations are within the applicable Table 1 Criteria. Details of the proposed backfill material assessment is included below.

As the excavation was completed to the proposed maximum depth of approximately 24 feet bgs, elevated field organic vapor monitor (OVM) readings and visual impacts were noted to still be present in the area. To address the observed impacts, additional removal operations were completed in the area to a depth of approximately 27 feet. Additionally, the area was laterally over excavated to address observed areas of concern.

2.3 Vertical Assessment Test Excavations

Upon reaching a depth of approximately 27 feet bgs, visual impacts in the area were no longer present; however, elevated field OVM readings were still present at the excavation base. To evaluate conditions and determine if additional removal was necessary three test excavations were completed in the area. During the test excavation assessment, Ranger personnel collected field OVM readings at approximate one foot intervals from approximately 27 feet to the total depth of each test excavation. Soil samples for laboratory analysis were collected from various depths of each test excavation, including the areas exhibiting the most elevated OVM reading. A total of 12 soil samples, four samples from each test excavation, were collected for laboratory analysis.

Upon review of the soil sample laboratory analytical results, all 12 samples were documented to have BTEX, TPH and chloride concentrations within the applicable Table 1 Criteria. A site map denoting the location of the three test excavations within the 27 foot deep main excavation is included in the Figures section of the report.

2.4 Confirmation Soil Sampling & Limited Over-Excavation

Based on the results of the test excavation soil samples, confirmation sampling activities were completed at the Site on May 9, 2022. Due to the required benching and shoring activities, the NMOCD approved sampling plan was altered to adequately assess the excavated areas based on the adjusted excavation boundaries. During the May 9, 2022, sampling activities a total of 19 soil samples were collected for laboratory analysis.

From the original NMOCD approved sample areas, Ranger collected confirmation samples on May 9, 2022 from the 10 areas that had yet to be assessed. The three locations (“S3-WW”, “S5-WW”, “S6-WW”) documented to have elevated concentrations during the April 2022 assessments, were over-excavated and additional confirmation samples were collected from these areas. Due to the benching and shoring activities, six additional samples were collected from locations along the eastern and western benching/shoring areas to document area conditions.

Upon review of the soil sample laboratory analytical results from May 9, 2022, 17 of the 19 samples collected were documented to have BTEX, TPH and chloride concentrations below the applicable Table 1 Criteria. The remaining two samples were noted to have concentrations that exceeded applicable Table 1 Criteria. The sample collected at the base of the area excavated to 27 feet (S4-B) was noted to have a TPH concentration that exceeded of the applicable Table 1 Criteria and the sample collected on the northern portion of the eastern benching/shoring area (EB-N) was noted to have a chloride concertation in exceedance of the applicable Table 1 Criteria.

To address two sample areas exhibiting concentrations in exceedance of the Table 1 Criteria, additional soil removal operations and confirmation sampling activities were completed on May 13, 2022. In the vicinity of sample location "S4-B", soil removal was completed to a depth of approximately 27.5 feet bgs and an additional sample ("S4-BA") was collected from the area. In the vicinity of sample location "EB-N", the area was completed to approximately seven feet bgs and an additional sample ("EB-NA") was collected from the area.

2.5 Confirmation Sample Results and Additional Over-Excavation

Upon review of the confirmation sample results, all but one sample area ("EB-NA") has been brought into attainment of the Table 1 (groundwater ≤50 feet) criteria and the Restoration, Reclamation and Re-Vegetation criteria detailed in 19.15.29.13 NMAC. Soil chloride concentrations in sample "EB-NA" were documented to be 610 ppm chloride, minimally in exceedance of the 600 ppm Table 1 Criteria. A comprehensive sample results table summarizing the laboratory sample results for all samples collected during the remediation process is attached. Copies of the laboratory analytical reports including chain-of-custody documentation are attached.

To address the elevated chloride concertation in the "EB-NA" sample area, additional soil removal operations will be completed in the area, and an additional sample will be collected for laboratory analysis. The activities are scheduled to be completed on May 20, 2022, to allow for required NMOCD notification timeframe that final sampling activities are to be completed. The additional sampling activities will be completed in accordance with the methodologies and procedures detailed below in section 2.6.

2.6 Sampling Methodologies, QA/QC Procedures, and NMOCD Correspondence

Throughout the remediation process at the Site, all samples collected for laboratory analysis were collected and managed using standard QA/QC and chain-of-custody procedures.

Confirmation soils samples collected at the Site were done so in the methodology presented in the NMOCD approved Remediation Plan as five-part composite samples. The samples collected during the additional vertical test excavation assessment activities were collected as individual grab samples.

Upon collection, all soil samples selected for laboratory analysis were submitted to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico for analysis of total petroleum hydrocarbons (TPH) using EPA Method 8015; benzene, toluene, ethylbenzene and xylenes (BTEX) using EPA Method 8021; and, total chloride using EPA Method 300.

Prior to all confirmation sampling events, notice was provided to the NMOCD in accordance with NMAC 19.15.29.12(D). Copies of the associated notifications are attached.

3.0 GENERATED MATERIAL MANAGEMENT

3.1 Waste Disposal

All impacted soils generated during the remedial excavation activities were transported and disposed of at Lea Land disposal facility in Lea County, New Mexico.

3.2 Non-Impacted Material Assessment and Proposed Re-Use

As previously stated, a significant volume of soil believed not to be impacted or confirmed to be below the applicable Table 1 Criteria was excavated as part of the P.E. approved excavation plan for safety purposes. It is estimated that approximately 5,000 cubic yards of material has been excavated from non-impacted areas at the Site. Based on the source locations of the material, it is anticipated that the soils are within the most stringent Table 1 Criteria and suitable for re-use as backfill at the location.

To confirm that the material is within the applicable Table 1 Criteria, it is proposed to assess the material via one five part composite sample per 50 cubic yards of material. Upon collection the composite parts will be placed into a new disposable mixing vessel, thoroughly mixed, and a sample for laboratory analysis will be collected from the mixture. Upon collection, the soil samples will submitted to and approved laboratory for analysis of TPH, BTEX, and chloride using NMOCD approved laboratory methods.

Upon review of the laboratory analytical results, the material documented to have concentrations within the Table 1 (groundwater ≤50 feet) criteria will be utilized as backfill at the location. All material documented to have concentrations in exceedance of the Table 1 (groundwater ≤50 feet) criteria will be removed from the location and will be transported to an approved disposal facility.

4.0 SITE CLOSURE

Upon completion of the additional over-excavation/confirmation sampling activities in the “EB-NA” sample area and confirmation that the area has been brought into attainment of the Table 1 target criteria, a Closure Form C-141 and full Closure Report will be submitted to the NMOCD, and Site closure will be requested. The Closure Report will be completed in accordance with the closure reporting criteria detailed in NMAC 19.15.29.12(E).

FORM C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	nAPP2111048003
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party EOG Resources, Inc.	OGRID 7377
Contact Name Chase Settle	Contact Telephone 575-748-1471
Contact email Chase_Settle@eogresources.com	Incident # *(assigned by OCD)*
Contact mailing address 104 S. 4th Street, Artesia, NM 88210	

Location of Release Source

Latitude 32.56827 Longitude -104.59513
(NAD 83 in decimal degrees to 5 decimal places)

Site Name State D SWD #1	Site Type Battery
Date Release Discovered 03/21/2021	API# *(if applicable)* 30-015-21572

Unit Letter	Section	Township	Range	County
N	16	20S	24E	Eddy

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)

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

Cause of Release
Historical impacts discovered during the P&A of the battery. Visual impacts noticed under the oil tanks once they were removed, sampling results to confirmed the presence of impacted soil. Release volume and date are unknown.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2111048003
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☑ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☑ The source of the release has been stopped.
☑ The impacted area has been secured to protect human health and the environment.
☑ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☑ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Chase Settle
Title: Rep Safety & Environmental Sr
Signature: Chase Settle
Date: 04/19/2021
email: Chase_Settle@eogresources.com
Telephone: 575-748-1471

OCD Only

Received by: Ramona Marcus
Date: 5/9/2021

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2111048003
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2111048003
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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: Chase Settle Title: Rep Safety & Environmental Sr

Signature: Chase Settle Date: 06/17/2021

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

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2111048003
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Remediation Plan

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

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

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

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- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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Printed Name: Chase Settle Title: Rep Safety & Environmental Sr

Signature: Chase Settle Date: 06/17/2021

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

OCD Only

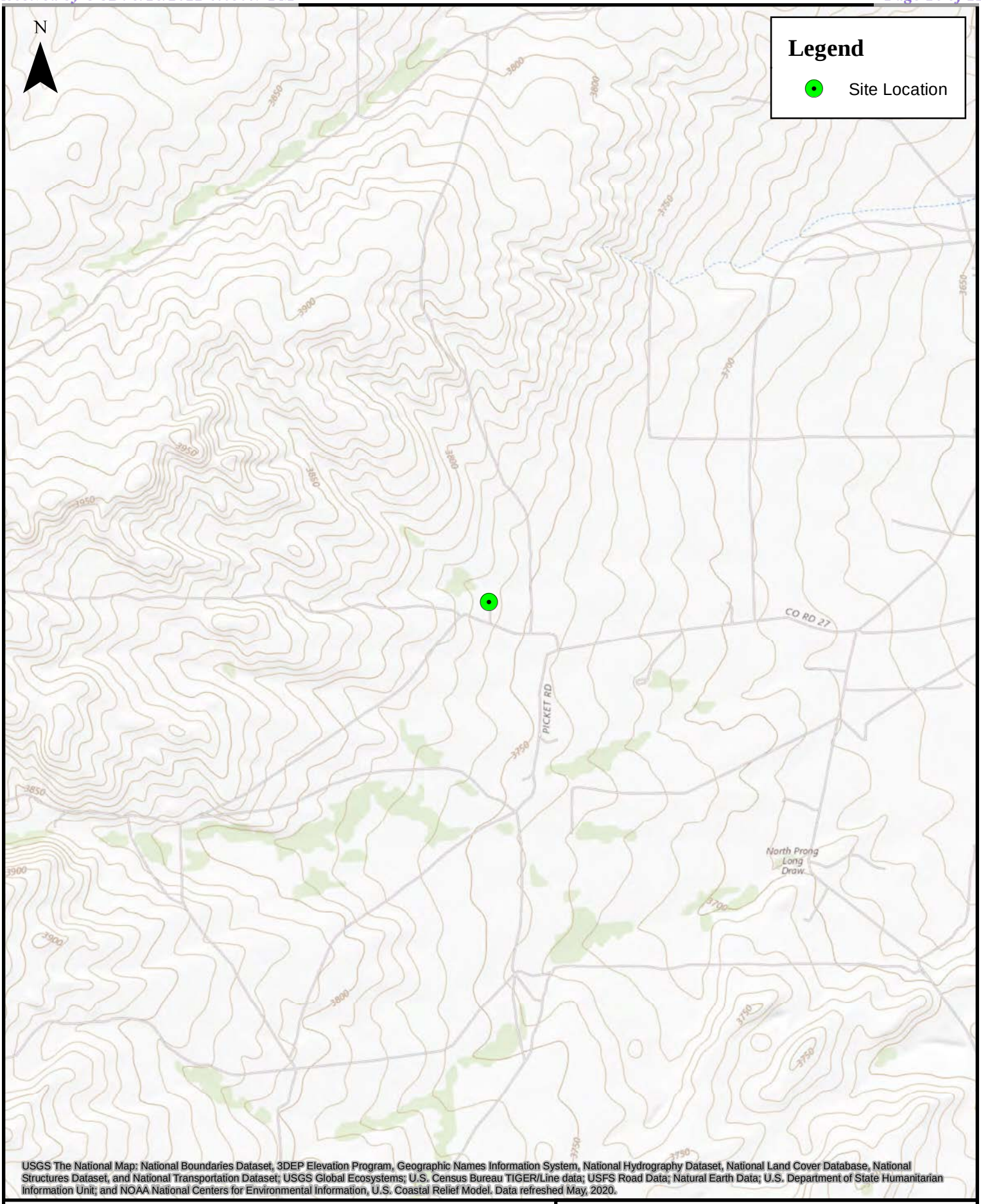
Received by: _____ Date: _____

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

Signature: _____ Date: _____

FIGURES

Topographic Map
Area Map
NMOCD Approved Soil Excavation & Sample Location Map
Excavation Area Map
Confirmation Sample Location Map
Vertical Assessment Test Excavation Location Map

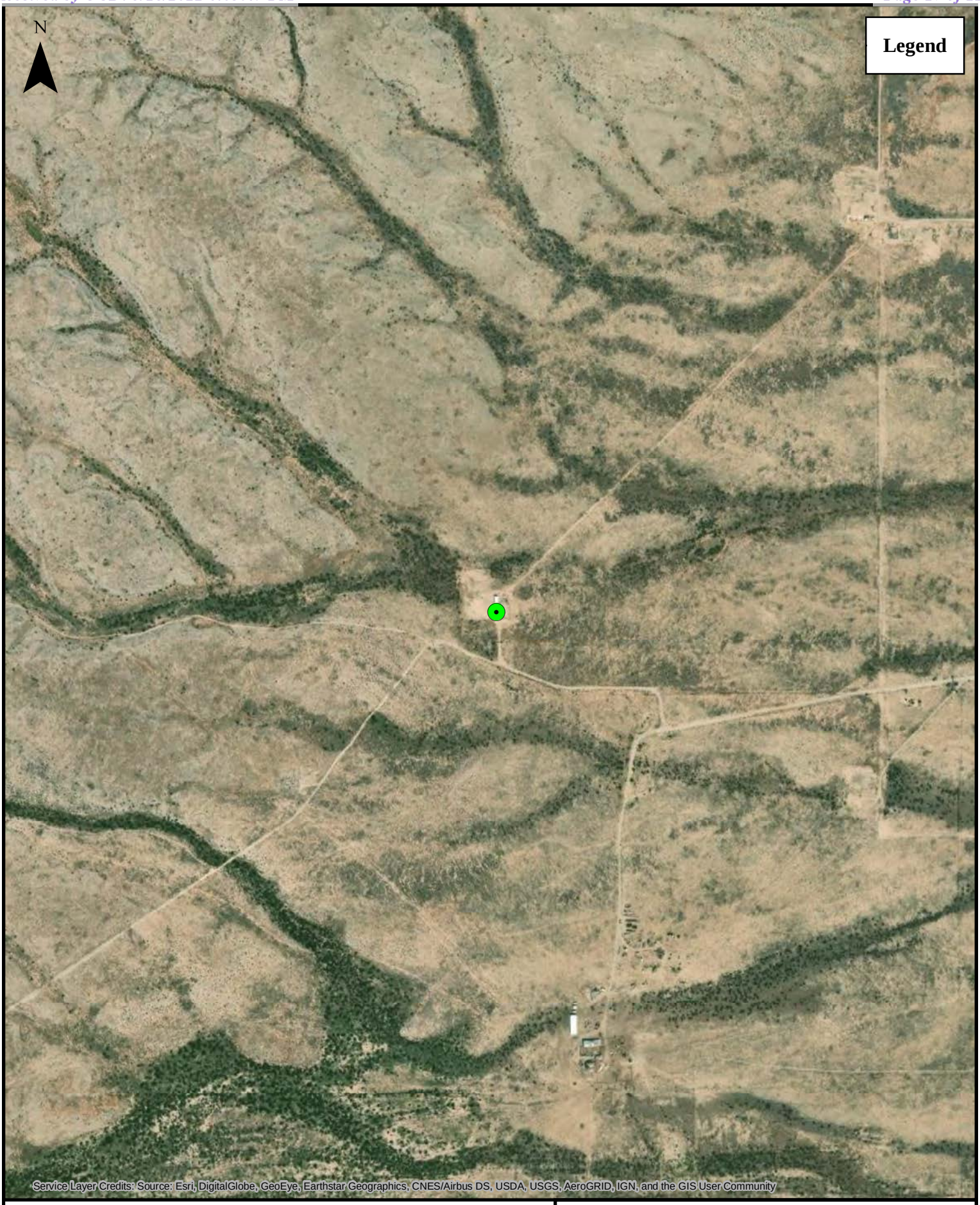


RANGER ENVIRONMENTAL SERVICES, INC.

0 600 1,200 2,400 3,600 4,800 Feet

1:24,000

Topographic Map
State D SWD #1
EOG Resources, Inc.

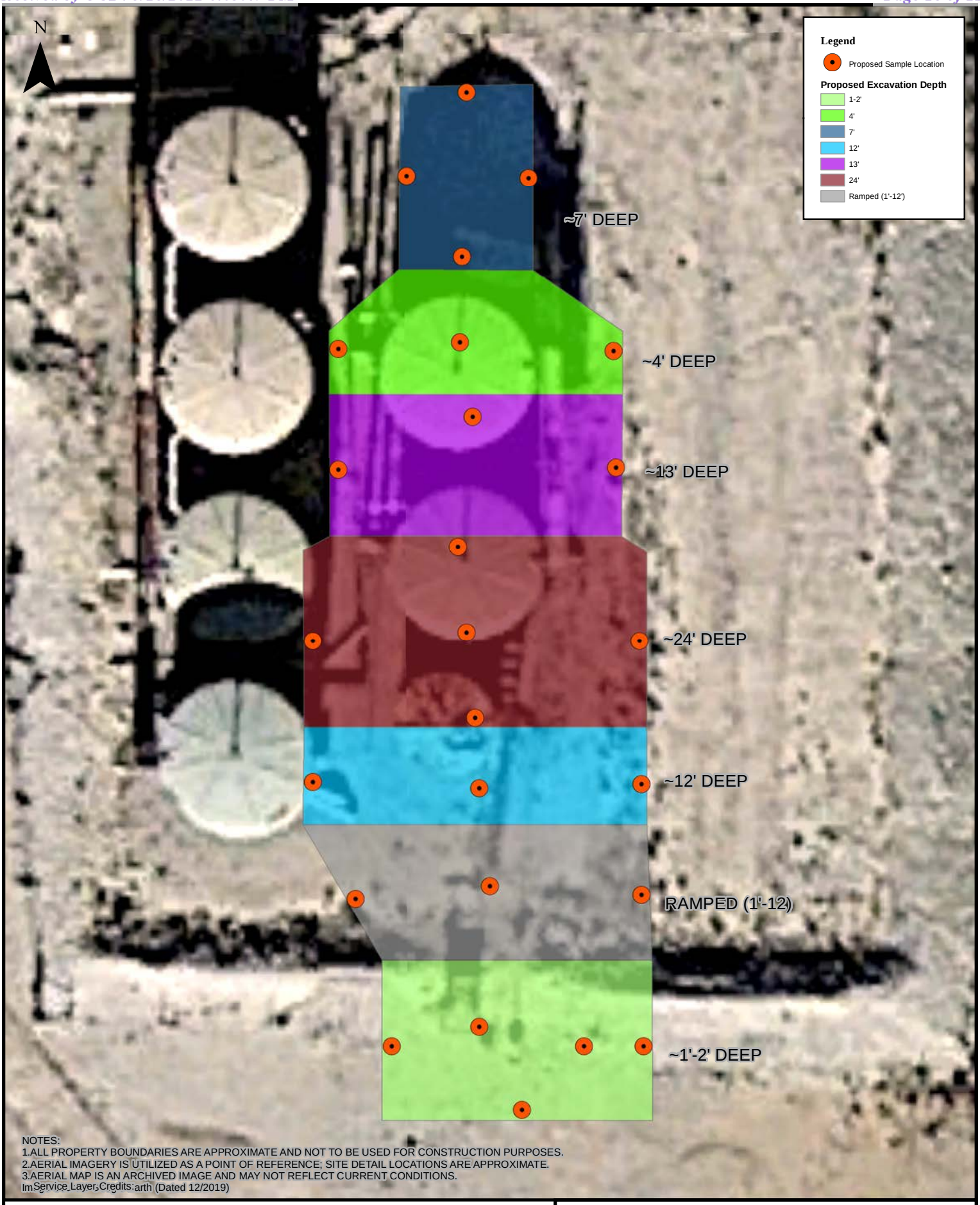


RANGER ENVIRONMENTAL SERVICES, INC.

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

1:10,000

Area Map
State D SWD #1
EOG Resources, Inc.



NOTES:
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2.AERIAL IMAGERY IS UTILIZED AS A POINT OF REFERENCE; SITE DETAIL LOCATIONS ARE APPROXIMATE.
3.AERIAL MAP IS AN ARCHIVED IMAGE AND MAY NOT REFLECT CURRENT CONDITIONS.
Image Service Layer Credits: arth (Dated 12/2019)

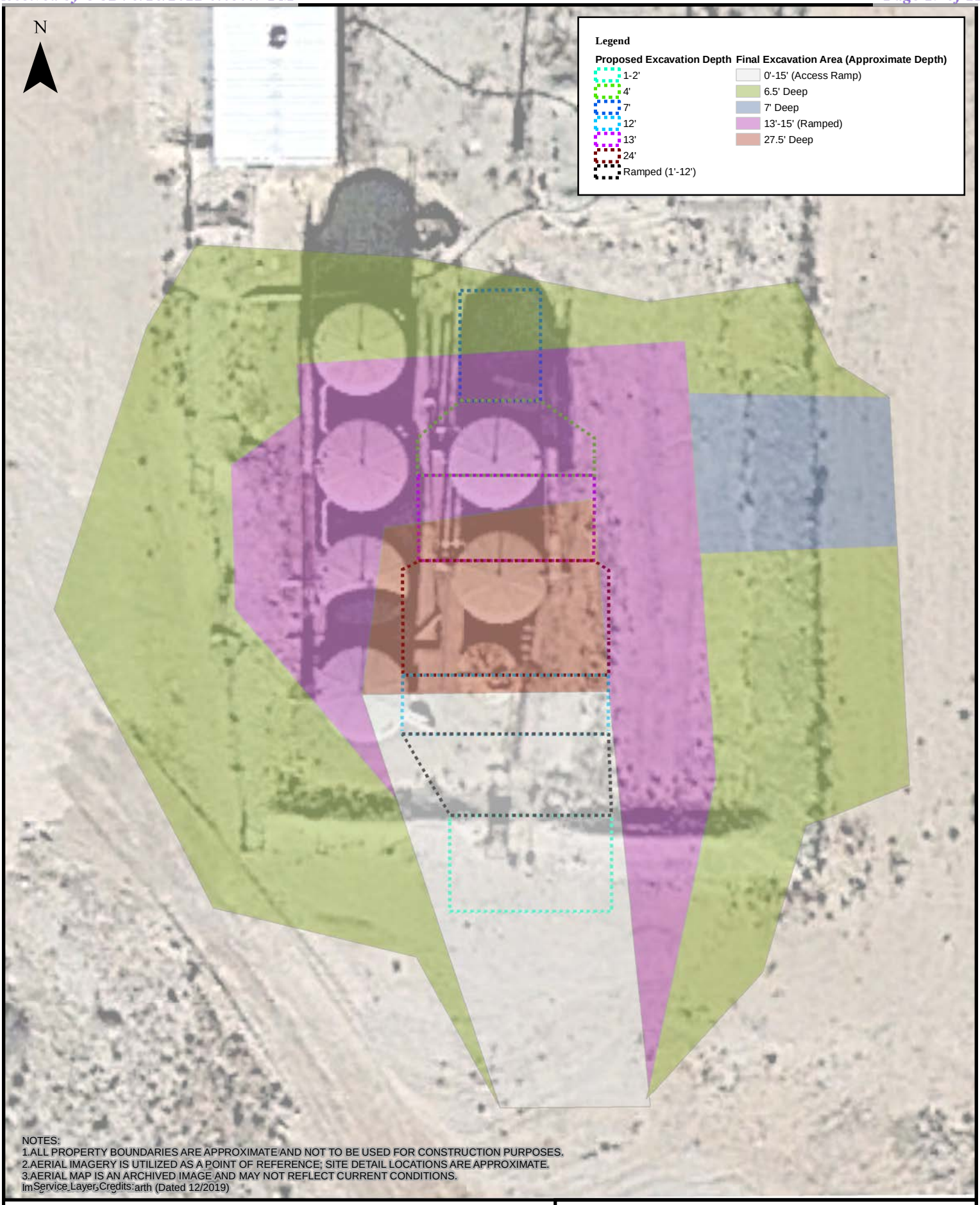
RANGER ENVIRONMENTAL SERVICES, INC.

0 3.5 7 14 21 28 Feet

1:150

NMOCD Approved Soil Excavation & Sample Location Map

State D SWD #1
EOG Resources, Inc.



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ImService Layer Credits: arth (Dated 12/2019)

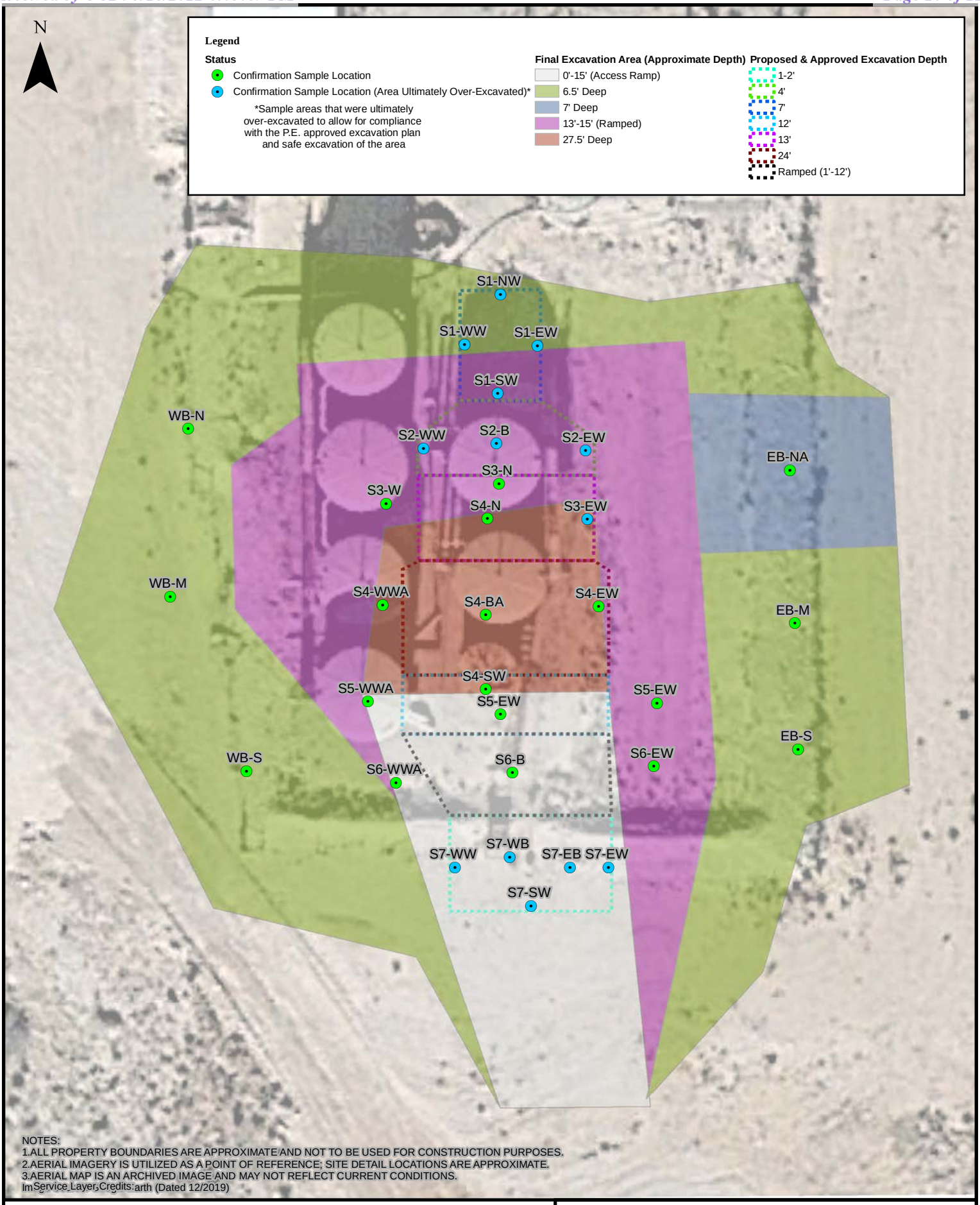
RANGER ENVIRONMENTAL SERVICES, INC.

0 5 10 20 30 40 Feet

1:250

Excavation Area Map

State D SWD #1
EOG Resources, Inc.



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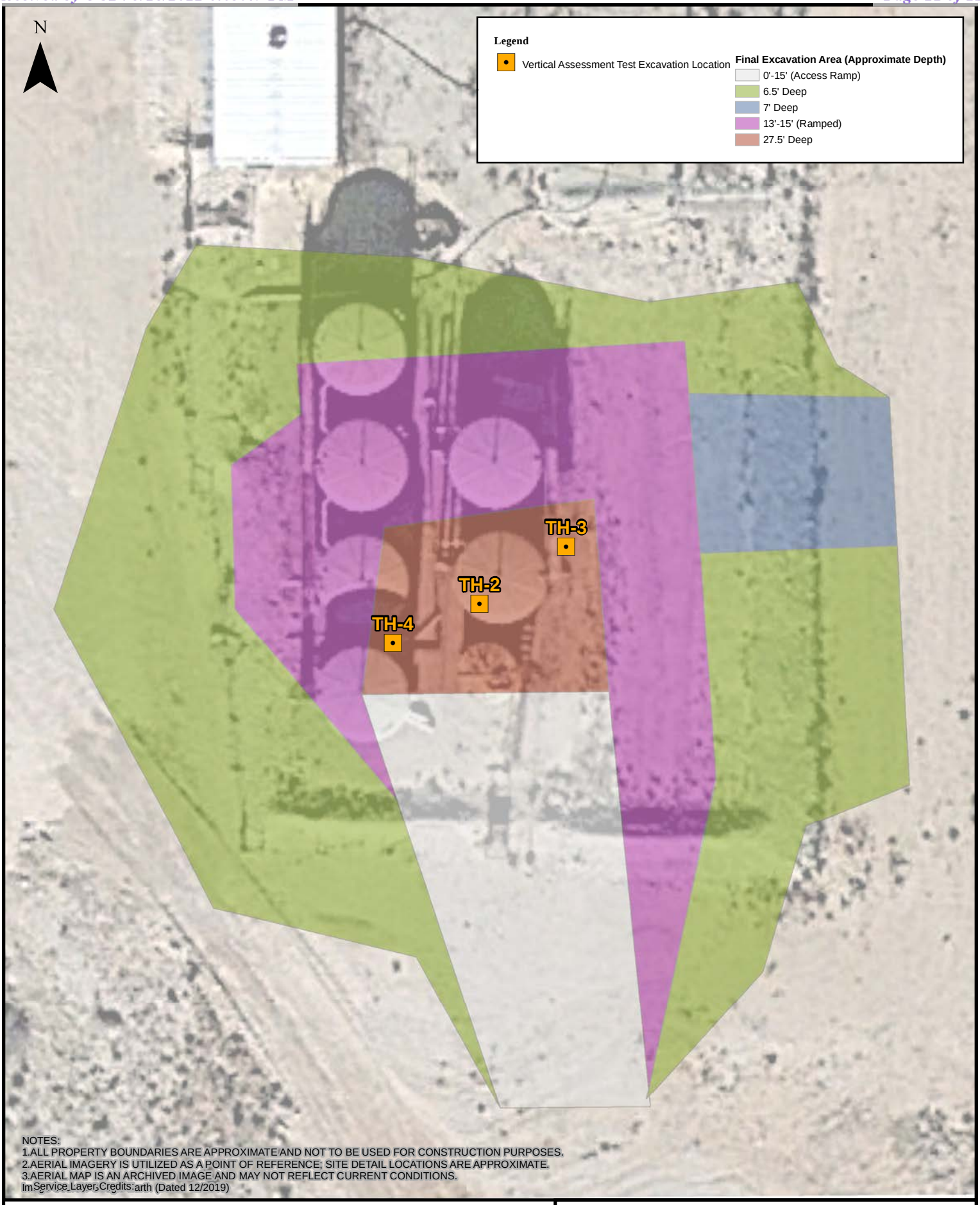
RANGER ENVIRONMENTAL SERVICES, INC.

0 5 10 20 30 40 Feet

1:250

Confirmation Sample Location Map

State D SWD #1
EOG Resources, Inc.



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3.AERIAL MAP IS AN ARCHIVED IMAGE AND MAY NOT REFLECT CURRENT CONDITIONS.
ImService Layer Credits: arth (Dated 12/2019)

RANGER ENVIRONMENTAL SERVICES, INC.

0 5 10 20 30 40 Feet

1:250

Vertical Assessment Test Excavation Location Map

State D SWD #1
EOG Resources, Inc.

TABLES

Confirmation Soil Sample BTEX (EPA 8260), TPH (EPA 8015) & Chloride (EPA 300) Analytical Data

Vertical Assessment Soil Sample BTEX (EPA 8260), TPH (EPA 8015) & Chloride (EPA 300) Analytical Data

CONFIRMAITON SOIL SAMPLE BTEX (EPA 8260), TPH (EPA 8015) & CHLORIDE (EPA 300) ANALYTICAL DATA
STATE D SWD #1
nAPP2111048003
EDDY COUNTY, NEW MEXICO

All values presented in parts per million (mg/Kg)

SAMPLE ID	DATE	DEPTH (FT)	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO C6-C10	TPH DRO C10-C28	TPH MRO C28-C36	TPH (GRO+DRO)	TPH (GRO+DRO+ MRO)	CHLORIDE
S1-NW	4/13/2022	0-7'	<0.019	<0.039	<0.039	<0.077	<0.08	<3.9	<10	<50	<10	<50	98
S1-EW	4/13/2022	0-7'	<0.017	<0.034	<0.034	<0.068	<0.07	<3.4	<9.7	<48	<9.7	<48	250
S1-WW	4/13/2022	0-7'	<0.021	<0.043	<0.043	<0.086	<0.09	<4.3	<9.6	<48	<9.6	<48	<60
S1-SW	4/13/2022	4'-7'	<0.019	<0.038	<0.038	<0.076	<0.08	<3.8	<9.2	<46	<9.2	<46	100
S2-EW	4/13/2022	0-4'	<0.018	<0.036	<0.036	<0.072	<0.07	<3.6	<9.6	<48	<9.6	<48	<60
S2-B	4/13/2022	4'	<0.018	<0.037	<0.037	<0.073	<0.07	<3.7	<9.2	<46	<9.2	<46	<60
S2-WW	4/13/2022	0-4'	<0.021	<0.041	<0.041	<0.083	<0.08	<4.1	<9.8	<49	<9.8	<49	220
S3-N	5/9/2022	13'-15'	<0.024	<0.048	<0.048	<0.097	<0.10	<4.8	<9.6	<48	<9.6	<48	100
S3-EW	4/14/2022	13'	<0.073	<0.15	<0.15	<0.29	<0.29	<15	24	<48	24	24	81
S3-WW	4/19/2022	5'-13'	~~<0.035~~	~~<0.070~~	~~<0.070~~	~~<0.14~~	~~<0.14~~	~~<7.0~~	~~560~~	~~300~~	~~560~~	**~~860~~**	~~270~~
S3-W	5/9/2022	13'-15'	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	18	<48	18	18	170
S4-N	5/9/2022	15'-27'	<0.024	<0.047	<0.047	<0.094	<0.09	<4.7	<10	<50	<10	<50	62
S4-EW	5/9/2022	15'-27'	<0.024	<0.049	<0.049	<0.098	<0.10	<4.9	<9.5	<48	<9.5	<48	180
S4-SW	5/9/2022	15'-27'	<0.024	<0.048	<0.048	<0.096	<0.10	<4.8	<9.7	<48	<9.7	<48	65
S4-WWA	5/9/2022	15'-27'	<0.12	<0.24	<0.24	<0.49	<0.49	<24	18	<50	18.0	18	190
S4-B	5/9/2022	27'	~~<0.023~~	~~<0.046~~	~~<0.046~~	~~<0.093~~	~~<0.09~~	~~<4.6~~	~~82~~	~~72~~	~~82~~	**~~150~~**	~~92~~
S4-BA	5/13/2022	27.5'	<0.015	<0.031	<0.031	<0.061	<0.06	<3.1	<10	<50	<10	<50	390
S5-WW	4/19/2022	0'-13'	~~<0.025~~	~~<0.049~~	~~<0.049~~	~~<0.098~~	~~<0.10~~	~~<4.9~~	~~83~~	~~75~~	~~83~~	**~~158~~**	~~310~~
S5-WWA	5/9/2022	6.5'-27'	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<9.6	<48	<9.6	<48	69
S5-EW	5/9/2022	6.5'-15'	<0.025	<0.050	<0.050	<0.099	<0.10	<5.0	<9.6	<48	<9.6	<48	85
S5-B	5/9/2022	15'	<0.024	<0.048	<0.048	<0.096	<0.10	<4.8	<9.7	<49	<9.7	<49	70
S6-WW	4/19/2022	1'-12'	~~<0.015~~	~~<0.030~~	~~<0.030~~	~~<0.060~~	~~<0.06~~	~~<3.0~~	~~120~~	~~120~~	~~120~~	**~~240~~**	**~~940~~**
S6-WWA	5/9/2022	6.5'-15'	<0.025	<0.050	<0.050	<0.099	<0.10	<5.0	38	<50	38	38	210
S6-EW	5/9/2022	6.5'-15'	<0.024	<0.048	<0.048	<0.095	<0.10	<4.8	27	<49	27	27	100
S6-B	5/9/2022	15'	<0.023	<0.046	<0.046	<0.093	<0.09	<4.6	<9.8	<49	<9.8	<49	64
S7-SW	4/13/2022	0-1'	<0.018	<0.036	<0.036	<0.073	<0.07	<3.6	<10	<50	<10	<50	160
S7-EW	4/13/2022	0-2'	<0.020	<0.039	<0.039	<0.079	<0.08	<3.9	<9.4	<47	<9.4	<47	<61
S7-WW	4/14/2022	0-2'	<0.018	<0.036	<0.036	<0.072	<0.07	<3.6	<10	<50	<10	<50	<60
S7-EB	4/13/2022	1'-2'	<0.019	<0.039	<0.039	<0.077	<0.08	<3.9	<9.7	<49	<9.7	<49	340
S7-WB	4/13/2022	1'-2'	<0.020	<0.040	<0.040	<0.080	<0.08	<4.0	<8.9	<45	<8.9	<45	330
EB-N	5/9/2022	6.5'	~~<0.024~~	~~<0.048~~	~~<0.048~~	~~<0.096~~	~~<0.10~~	~~<4.8~~	~~<10~~	~~<50~~	~~<10~~	~~<50~~	**~~970~~**
EB-NA	5/13/2022	7'	<0.027	<0.054	<0.054	<0.11	<0.11	<5.4	<10	<50	<10	<50	**610**
EB-M	5/9/2022	6.5'	<0.024	<0.048	<0.048	<0.097	<0.10	<4.8	<9.9	<50	<9.9	<50	84
EB-S	5/9/2022	6.5'	<0.024	<0.048	<0.048	<0.096	<0.10	<4.8	<9.9	<49	<9.9	<49	<60
WB-N	5/9/2022	6.5'	<0.024	<0.048	<0.048	<0.096	<0.10	<4.8	<9.8	<49	<9.8	<49	<60
WB-M	5/9/2022	6.5'	<0.024	<0.048	<0.048	<0.096	<0.10	<4.8	17	54	17.0	70	98
WB-S	5/9/2022	6.5'	<0.024	<0.048	<0.048	<0.097	<0.10	<4.8	<9.8	<49	<9.8	<49	570
19.15.29.12 NMAC Table 1 Closure Criteria for Soils Impacted by a Release (GW <50')			**10**	---	---	---	**50**	---	---	---	---	**100**	**600**
19.15.29.13 NMAC Reclamation Criteria (0'-4' Soils Only)			**10[3]**				**50[3]**					**100[3]**	**600**

Notes:

1. Results exceeding the Table 1 Closure Criteria are presented in bold type and are highlighted yellow.
2. Results exceeding the NMAC Restoration, Reclamation and re-vegetation chloride concentration requirements are presented in bold red type.
3. Value derived from the State of New Mexico Energy, Minerals and Natural Resources Department document *Procedures for the Implementation of the Spill Rule* (19.15.29 NMAC) dated September 6, 2019.
4. NA - Not Analyzed

NA = Not Analyzed
TPH = Total Petroleum Hydrocarbons
mg/Kg = Milligrams per Kilogram

VERTICAL ASSESSMENT SOIL SAMPLE BTEX (EPA 8260), TPH (EPA 8015) & CHLORIDE (EPA 300) ANALYTICAL DATA
STATE D SWD #1
nAPP2111048003
EDDY COUNTY, NEW MEXICO

All values presented in parts per million (mg/Kg)

SAMPLE ID	DATE	DEPTH (FT)	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO C6-C10	TPH DRO C10-C28	TPH MRO C28-C36	TPH (GRO+DRO)	TPH (GRO+DRO+ MRO)	CHLORIDE
TH-2/33	4/27/2022	33'	<0.024	<0.048	<0.048	<0.096	<0.10	<4.8	<9.8	<49	<9.8	<49	100
TH-2/37	4/27/2022	37'	<0.025	<0.049	<0.049	<0.099	<0.10	6	30	<48	36	36	75
TH-2/43	4/27/2022	43'	<0.024	<0.047	<0.047	<0.095	<0.09	<4.7	<9.7	<48	<9.7	<48	69
TH-2/45	4/27/2022	45'	<0.025	<0.050	<0.050	<0.099	<0.10	<5.0	<9.1	<46	<9.1	<46	78
TH-3/31	4/27/2022	31'	<0.023	<0.047	<0.047	<0.094	<0.09	<4.7	10	<47	10	10	98
TH-3/39	4/27/2022	39'	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<9.8	<49	<9.8	<49	89
TH-3/43	4/27/2022	43'	<0.024	<0.047	<0.047	<0.094	<0.09	<4.7	<9.1	<46	<9.1	<46	86
TH-3/45	4/27/2022	45'	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<8.9	<45	<8.9	<45	63
TH-4/29	4/27/2022	29'	<0.024	<0.049	<0.049	<0.097	<0.10	<4.9	<9.6	<48	<9.6	<48	94
TH-4/35	4/27/2022	35'	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<8.5	<43	<8.5	<43	100
TH-4/41	4/27/2022	41'	<0.024	<0.048	<0.048	<0.096	<0.10	<4.8	<8.8	<44	<8.8	<44	110
TH-4/45	4/27/2022	45'	<0.025	<0.049	<0.049	<0.099	<0.10	<4.9	<9.2	<46	<9.2	<46	120
19.15.29.12 NMAC Table 1 Closure Criteria for Soils Impacted by a Release (GW <50')			**10**	**---**	**---**	**---**	**50**	**---**	**---**	**---**	**---**	**100**	**600**
19.15.29.13 NMAC Reclamation Criteria (0'-4' Soils Only)			**10[3]**				**50[3]**					**100[3]**	**600**

Notes:

1. Results exceeding the Table 1 Closure Criteria are presented in bold type and are highlighted yellow.
2. Results exceeding the NMAC Restoration, Reclamation and re-vegetation chloride concentration requirements are presented in bold red type.
3. Value derived from the State of New Mexico Energy, Minerals and Natural Resources Department document *Procedures for the Implementation of the Spill Rule* (19.15.29 NMAC) dated September 6, 2019.
4. NA - Not Analyzed

ATTACHMENT 1 – PHOTOGRAPHIC DOCUMENTATION

PHOTOGRAPH NO. 1 – A view of the Site during the remediation process. The view is towards the southwest.

Approximate GPS Coordinates: 32.568276, -104.594769

PHOTOGRAPH NO. 2 – A view of the vertical test excavation assessment process on April 27, 2022. The view is towards the southwest.

Approximate GPS Coordinates: 32.568124, -104.594871

PHOTOGRAPH NO. 3 – A view of the completed excavation area. The view is towards the southeast.

Approximate GPS Coordinates: 32.568203, -104.595226

PHOTOGRAPH NO. 4 – An additional view of the completed excavation area. The view is towards the north

Approximate GPS Coordinates: 32.567852, -104.594920

PHOTOGRAPH NO. 5 – A view of the stockpiled material awaiting assessment for potential re-use as backfill material.

Approximate GPS Coordinates: 32.568415, -104.595391

ATTACHMENT 2 – LABORATORY ANALYTICAL RESULTS

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 20, 2022

Will Kierdorf
EOG
105 South Fourth Street
Artesia, NM 88210
TEL:
FAX

RE: State D SWD 1 OrderNo.: 2204720

Dear Will Kierdorf:

Hall Environmental Analysis Laboratory received 11 sample(s) on 4/15/2022 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2204720**
Date Reported: **4/20/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** S1-NW
Project: State D SWD 1 **Collection Date:** 4/13/2022 10:22:00 AM
Lab ID: 2204720-001 **Matrix:** MEOH (SOIL) **Received Date:** 4/15/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**LRN**
Chloride	98	60		mg/Kg	20	4/15/2022 3:12:18 PM	66883
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/15/2022 4:09:55 PM	66878
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/15/2022 4:09:55 PM	66878
Surr: DNOP	96.5	51.1-141		%Rec	1	4/15/2022 4:09:55 PM	66878
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	4/15/2022 10:46:21 AM	B87295
Surr: BFB	99.4	37.7-212		%Rec	1	4/15/2022 10:46:21 AM	B87295
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.019		mg/Kg	1	4/15/2022 10:46:21 AM	R87295
Toluene	ND	0.039		mg/Kg	1	4/15/2022 10:46:21 AM	R87295
Ethylbenzene	ND	0.039		mg/Kg	1	4/15/2022 10:46:21 AM	R87295
Xylenes, Total	ND	0.077		mg/Kg	1	4/15/2022 10:46:21 AM	R87295
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	4/15/2022 10:46:21 AM	R87295

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2204720**
Date Reported: **4/20/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** S1-EW
Project: State D SWD 1 **Collection Date:** 4/13/2022 10:27:00 AM
Lab ID: 2204720-002 **Matrix:** MEOH (SOIL) **Received Date:** 4/15/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**LRN**
Chloride	250	60		mg/Kg	20	4/15/2022 3:24:42 PM	66883
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/15/2022 4:20:35 PM	66878
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/15/2022 4:20:35 PM	66878
Surr: DNOP	94.9	51.1-141		%Rec	1	4/15/2022 4:20:35 PM	66878
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	4/15/2022 11:57:11 AM	B87295
Surr: BFB	98.2	37.7-212		%Rec	1	4/15/2022 11:57:11 AM	B87295
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.017		mg/Kg	1	4/15/2022 11:57:11 AM	R87295
Toluene	ND	0.034		mg/Kg	1	4/15/2022 11:57:11 AM	R87295
Ethylbenzene	ND	0.034		mg/Kg	1	4/15/2022 11:57:11 AM	R87295
Xylenes, Total	ND	0.068		mg/Kg	1	4/15/2022 11:57:11 AM	R87295
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	4/15/2022 11:57:11 AM	R87295

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2204720**
Date Reported: **4/20/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** S1-SW
Project: State D SWD 1 **Collection Date:** 4/13/2022 10:29:00 AM
Lab ID: 2204720-003 **Matrix:** MEOH (SOIL) **Received Date:** 4/15/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**LRN**
Chloride	100	60		mg/Kg	20	4/15/2022 3:37:06 PM	66883
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/15/2022 4:31:15 PM	66878
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/15/2022 4:31:15 PM	66878
Surr: DNOP	87.6	51.1-141		%Rec	1	4/15/2022 4:31:15 PM	66878
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	4/15/2022 1:07:54 PM	B87295
Surr: BFB	101	37.7-212		%Rec	1	4/15/2022 1:07:54 PM	B87295
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.019		mg/Kg	1	4/15/2022 1:07:54 PM	R87295
Toluene	ND	0.038		mg/Kg	1	4/15/2022 1:07:54 PM	R87295
Ethylbenzene	ND	0.038		mg/Kg	1	4/15/2022 1:07:54 PM	R87295
Xylenes, Total	ND	0.076		mg/Kg	1	4/15/2022 1:07:54 PM	R87295
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	4/15/2022 1:07:54 PM	R87295

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204720**
Date Reported: **4/20/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** S1-WW
Project: State D SWD 1 **Collection Date:** 4/13/2022 10:32:00 AM
Lab ID: 2204720-004 **Matrix:** MEOH (SOIL) **Received Date:** 4/15/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**LRN**
Chloride	ND	60		mg/Kg	20	4/15/2022 3:49:30 PM	66883
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/15/2022 4:41:54 PM	66878
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/15/2022 4:41:54 PM	66878
Surr: DNOP	96.6	51.1-141		%Rec	1	4/15/2022 4:41:54 PM	66878
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	4/15/2022 1:31:21 PM	B87295
Surr: BFB	102	37.7-212		%Rec	1	4/15/2022 1:31:21 PM	B87295
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.021		mg/Kg	1	4/15/2022 1:31:21 PM	R87295
Toluene	ND	0.043		mg/Kg	1	4/15/2022 1:31:21 PM	R87295
Ethylbenzene	ND	0.043		mg/Kg	1	4/15/2022 1:31:21 PM	R87295
Xylenes, Total	ND	0.086		mg/Kg	1	4/15/2022 1:31:21 PM	R87295
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	4/15/2022 1:31:21 PM	R87295

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204720**
Date Reported: **4/20/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** S2-EW
Project: State D SWD 1 **Collection Date:** 4/13/2022 10:39:00 AM
Lab ID: 2204720-005 **Matrix:** MEOH (SOIL) **Received Date:** 4/15/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**LRN**
Chloride	ND	60		mg/Kg	20	4/15/2022 4:26:43 PM	66883
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/15/2022 4:52:35 PM	66878
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/15/2022 4:52:35 PM	66878
Surr: DNOP	96.9	51.1-141		%Rec	1	4/15/2022 4:52:35 PM	66878
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	4/15/2022 1:55:04 PM	B87295
Surr: BFB	99.6	37.7-212		%Rec	1	4/15/2022 1:55:04 PM	B87295
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.018		mg/Kg	1	4/15/2022 1:55:04 PM	R87295
Toluene	ND	0.036		mg/Kg	1	4/15/2022 1:55:04 PM	R87295
Ethylbenzene	ND	0.036		mg/Kg	1	4/15/2022 1:55:04 PM	R87295
Xylenes, Total	ND	0.072		mg/Kg	1	4/15/2022 1:55:04 PM	R87295
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	4/15/2022 1:55:04 PM	R87295

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204720**
Date Reported: **4/20/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** S2-B
Project: State D SWD 1 **Collection Date:** 4/13/2022 10:42:00 AM
Lab ID: 2204720-006 **Matrix:** MEOH (SOIL) **Received Date:** 4/15/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**LRN**
Chloride	ND	60		mg/Kg	20	4/15/2022 4:39:07 PM	66883
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/15/2022 5:03:13 PM	66878
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/15/2022 5:03:13 PM	66878
Surr: DNOP	104	51.1-141		%Rec	1	4/15/2022 5:03:13 PM	66878
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	4/15/2022 2:18:32 PM	B87295
Surr: BFB	100	37.7-212		%Rec	1	4/15/2022 2:18:32 PM	B87295
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.018		mg/Kg	1	4/15/2022 2:18:32 PM	R87295
Toluene	ND	0.037		mg/Kg	1	4/15/2022 2:18:32 PM	R87295
Ethylbenzene	ND	0.037		mg/Kg	1	4/15/2022 2:18:32 PM	R87295
Xylenes, Total	ND	0.073		mg/Kg	1	4/15/2022 2:18:32 PM	R87295
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	4/15/2022 2:18:32 PM	R87295

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204720**
Date Reported: **4/20/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** S2-WW
Project: State D SWD 1 **Collection Date:** 4/13/2022 3:11:00 PM
Lab ID: 2204720-007 **Matrix:** MEOH (SOIL) **Received Date:** 4/15/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**LRN**
Chloride	220	60		mg/Kg	20	4/15/2022 4:51:32 PM	66883
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/15/2022 5:13:50 PM	66878
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/15/2022 5:13:50 PM	66878
Surr: DNOP	96.7	51.1-141		%Rec	1	4/15/2022 5:13:50 PM	66878
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	4/15/2022 2:41:59 PM	B87295
Surr: BFB	98.6	37.7-212		%Rec	1	4/15/2022 2:41:59 PM	B87295
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.021		mg/Kg	1	4/15/2022 2:41:59 PM	R87295
Toluene	ND	0.041		mg/Kg	1	4/15/2022 2:41:59 PM	R87295
Ethylbenzene	ND	0.041		mg/Kg	1	4/15/2022 2:41:59 PM	R87295
Xylenes, Total	ND	0.083		mg/Kg	1	4/15/2022 2:41:59 PM	R87295
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	4/15/2022 2:41:59 PM	R87295

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204720**
Date Reported: **4/20/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** S7-EW
Project: State D SWD 1 **Collection Date:** 4/13/2022 3:30:00 PM
Lab ID: 2204720-008 **Matrix:** MEOH (SOIL) **Received Date:** 4/15/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**LRN**
Chloride	ND	61		mg/Kg	20	4/15/2022 5:03:56 PM	66883
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/15/2022 5:24:25 PM	66878
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/15/2022 5:24:25 PM	66878
Surr: DNOP	99.2	51.1-141		%Rec	1	4/15/2022 5:24:25 PM	66878
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	4/15/2022 3:05:22 PM	B87295
Surr: BFB	100	37.7-212		%Rec	1	4/15/2022 3:05:22 PM	B87295
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.020		mg/Kg	1	4/15/2022 3:05:22 PM	R87295
Toluene	ND	0.039		mg/Kg	1	4/15/2022 3:05:22 PM	R87295
Ethylbenzene	ND	0.039		mg/Kg	1	4/15/2022 3:05:22 PM	R87295
Xylenes, Total	ND	0.079		mg/Kg	1	4/15/2022 3:05:22 PM	R87295
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	4/15/2022 3:05:22 PM	R87295

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2204720**
Date Reported: **4/20/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** S7-EB
Project: State D SWD 1 **Collection Date:** 4/13/2022 3:34:00 PM
Lab ID: 2204720-009 **Matrix:** MEOH (SOIL) **Received Date:** 4/15/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**LRN**
Chloride	340	60		mg/Kg	20	4/15/2022 5:16:20 PM	66883
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/15/2022 5:35:02 PM	66878
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/15/2022 5:35:02 PM	66878
Surr: DNOP	98.0	51.1-141		%Rec	1	4/15/2022 5:35:02 PM	66878
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	4/15/2022 4:39:15 PM	B87295
Surr: BFB	103	37.7-212		%Rec	1	4/15/2022 4:39:15 PM	B87295
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.019		mg/Kg	1	4/15/2022 4:39:15 PM	R87295
Toluene	ND	0.039		mg/Kg	1	4/15/2022 4:39:15 PM	R87295
Ethylbenzene	ND	0.039		mg/Kg	1	4/15/2022 4:39:15 PM	R87295
Xylenes, Total	ND	0.077		mg/Kg	1	4/15/2022 4:39:15 PM	R87295
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	4/15/2022 4:39:15 PM	R87295

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204720**
Date Reported: **4/20/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** S7-SW
Project: State D SWD 1 **Collection Date:** 4/13/2022 3:39:00 PM
Lab ID: 2204720-010 **Matrix:** MEOH (SOIL) **Received Date:** 4/15/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	160	60		mg/Kg	20	4/15/2022 5:28:45 PM	66883
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/15/2022 5:45:43 PM	66878
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/15/2022 5:45:43 PM	66878
Surr: DNOP	92.4	51.1-141		%Rec	1	4/15/2022 5:45:43 PM	66878
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	4/15/2022 5:02:39 PM	B87295
Surr: BFB	99.8	37.7-212		%Rec	1	4/15/2022 5:02:39 PM	B87295
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.018		mg/Kg	1	4/15/2022 5:02:39 PM	R87295
Toluene	ND	0.036		mg/Kg	1	4/15/2022 5:02:39 PM	R87295
Ethylbenzene	ND	0.036		mg/Kg	1	4/15/2022 5:02:39 PM	R87295
Xylenes, Total	ND	0.073		mg/Kg	1	4/15/2022 5:02:39 PM	R87295
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	4/15/2022 5:02:39 PM	R87295

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204720**
Date Reported: **4/20/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** S7-WB
Project: State D SWD 1 **Collection Date:** 4/13/2022 3:43:00 PM
Lab ID: 2204720-011 **Matrix:** MEOH (SOIL) **Received Date:** 4/15/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**LRN**
Chloride	330	60		mg/Kg	20	4/15/2022 5:41:09 PM	66883
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	4/15/2022 5:56:28 PM	66878
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	4/15/2022 5:56:28 PM	66878
Surr: DNOP	99.2	51.1-141		%Rec	1	4/15/2022 5:56:28 PM	66878
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	4/15/2022 5:26:02 PM	B87295
Surr: BFB	98.6	37.7-212		%Rec	1	4/15/2022 5:26:02 PM	B87295
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.020		mg/Kg	1	4/15/2022 5:26:02 PM	R87295
Toluene	ND	0.040		mg/Kg	1	4/15/2022 5:26:02 PM	R87295
Ethylbenzene	ND	0.040		mg/Kg	1	4/15/2022 5:26:02 PM	R87295
Xylenes, Total	ND	0.080		mg/Kg	1	4/15/2022 5:26:02 PM	R87295
Surr: 4-Bromofluorobenzene	99.2	70-130		%Rec	1	4/15/2022 5:26:02 PM	R87295

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2204720**

20-Apr-22

Client: EOG

Project: State D SWD 1

Sample ID: **MB-66883**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **66883**	RunNo: **87282**
Prep Date: **4/15/2022**	Analysis Date: **4/15/2022**	SeqNo: **3087147** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-66883**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **66883**	RunNo: **87282**
Prep Date: **4/15/2022**	Analysis Date: **4/15/2022**	SeqNo: **3087148** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.5	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2204720**

20-Apr-22

Client: EOG

Project: State D SWD 1

Sample ID: **LCS-66857**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **66857**	RunNo: **87285**							
Prep Date: **4/14/2022**	Analysis Date: **4/15/2022**	SeqNo: **3086642**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.6		5.000		112	51.1	141			

Sample ID: **LCS-66878**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **66878**	RunNo: **87285**							
Prep Date: **4/15/2022**	Analysis Date: **4/15/2022**	SeqNo: **3086643**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.6	68.9	135			
Surr: DNOP	4.1		5.000		81.8	51.1	141			

Sample ID: **MB-66857**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **66857**	RunNo: **87285**							
Prep Date: **4/14/2022**	Analysis Date: **4/15/2022**	SeqNo: **3086644**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	15		10.00		151	51.1	141			S

Sample ID: **MB-66878**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **66878**	RunNo: **87307**							
Prep Date: **4/15/2022**	Analysis Date: **4/18/2022**	SeqNo: **3087519**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.5		10.00		84.7	51.1	141			

Sample ID: **MB-66907**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **66907**	RunNo: **87307**							
Prep Date: **4/18/2022**	Analysis Date: **4/18/2022**	SeqNo: **3088643**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.9		10.00		79.2	51.1	141			

Sample ID: **LCS-66907**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **66907**	RunNo: **87307**							
Prep Date: **4/18/2022**	Analysis Date: **4/18/2022**	SeqNo: **3088645**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.6		5.000		71.4	51.1	141			

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2204720**
20-Apr-22

Client: EOG
Project: State D SWD 1

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **B87295**	RunNo: **87295**							
Prep Date:	Analysis Date: **4/15/2022**	SeqNo: **3086879**	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	1000		1000		102	37.7	212			

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **B87295**	RunNo: **87295**							
Prep Date:	Analysis Date: **4/15/2022**	SeqNo: **3086880**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	72.3	137			
Surr: BFB	2100		1000		210	37.7	212			

Sample ID: **mb-66851**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **66851**	RunNo: **87295**							
Prep Date: **4/14/2022**	Analysis Date: **4/15/2022**	SeqNo: **3086896**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		103	37.7	212			

Sample ID: **lcs-66851**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **66851**	RunNo: **87295**							
Prep Date: **4/14/2022**	Analysis Date: **4/15/2022**	SeqNo: **3086897**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	2100		1000		210	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2204720**

20-Apr-22

Client: EOG

Project: State D SWD 1

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R87295**	RunNo: **87295**
Prep Date:	Analysis Date: **4/15/2022**	SeqNo: **3086928** 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	1.0		1.000		102	70	130			

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R87295**	RunNo: **87295**
Prep Date:	Analysis Date: **4/15/2022**	SeqNo: **3086929** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.2	80	120			
Toluene	0.94	0.050	1.000	0	93.6	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.4	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.1	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		105	70	130			

Sample ID: **mb-66851**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **66851**	RunNo: **87295**
Prep Date: **4/14/2022**	Analysis Date: **4/15/2022**	SeqNo: **3086943** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		103	70	130			

Sample ID: **LCS-66851**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **66851**	RunNo: **87295**
Prep Date: **4/14/2022**	Analysis Date: **4/15/2022**	SeqNo: **3086944** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		104	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 2204720 | RcptNo: 1

Received By: Sean Livingston 4/15/2022 8:00:00 AM

Completed By: Sean Livingston 4/15/2022 8:23:01 AM

Reviewed By: 4-15-22

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? (Note discrepancies on chain of custody) Yes ☑ No ☐
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? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: gn 4/15/22

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	5.7	Good				

Chain-of-Custody Record

Client: EOG-Artesia / Ranger Env.

Mailing Address: EOG - 105 S 4th St, Artesia NM, 88210

Ranger: PO Box 201179, Austin TX 78720

Phone #: 521-335-1785

email or Fax#: Will@RangerEnv.com

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

Accreditation: ☐ Az Compliance
■ **NELAC** ☐ Other
■ **EDD** (Type) Excel

Turn-Around Time:
☐ Standard ☒ **Rush** 24HR Rush

Project Name: STATE D SWD #1

Project #: 5375

Project Manager: W. Kierdorf

Sampler: W. KIERDORF / R. MARTIN (4/13, 4/14)

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp (including CF): 5.6 +0.1 = 5.7°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2204770	BTEX (8021)	TPH:8015D(GRO / DRO / MRO)	Chloride (EPA 300)
4/13/22	1022	SOIL	S1-NW	1 x 4oz JAR	ICE	001	X	X	X
	1027		S1-EW			002			
	1029		S1-SW			003			
	1032		S1-WW			004			
	1039		S2-EW			005			
	1042		S2-B			006			
	1511		S2-WW			007			
	1530		S7-EW			008			
	1534		S7-EB			009			
	1539		S7-SW			010			
↓	1543	↓	S7-WB	↓	↓	011	↓	↓	↓

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
4/13/22	1600			Person	4/13/22	1600
4/14/22	1030				4/14/22	1030

Remarks: Bill to EOG Artesia

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 repo

4/14/22 1900

S2W coming 4/15/22 8:00

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 20, 2022

Will Kierdorf
EOG
105 South Fourth Street
Artesia, NM 88210
TEL:
FAX

RE: State D SWD 1 OrderNo.: 2204722

Dear Will Kierdorf:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/15/2022 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2204722**
Date Reported: **4/20/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** S7-WW
Project: State D SWD 1 **Collection Date:** 4/14/2022 8:46:00 AM
Lab ID: 2204722-001 **Matrix:** MEOH (SOIL) **Received Date:** 4/15/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	ND	60		mg/Kg	20	4/15/2022 5:53:33 PM	66883
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/15/2022 6:07:16 PM	66878
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/15/2022 6:07:16 PM	66878
Surr: DNOP	102	51.1-141		%Rec	1	4/15/2022 6:07:16 PM	66878
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	4/15/2022 5:49:19 PM	B87295
Surr: BFB	101	37.7-212		%Rec	1	4/15/2022 5:49:19 PM	B87295
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.018		mg/Kg	1	4/15/2022 5:49:19 PM	R87295
Toluene	ND	0.036		mg/Kg	1	4/15/2022 5:49:19 PM	R87295
Ethylbenzene	ND	0.036		mg/Kg	1	4/15/2022 5:49:19 PM	R87295
Xylenes, Total	ND	0.072		mg/Kg	1	4/15/2022 5:49:19 PM	R87295
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	4/15/2022 5:49:19 PM	R87295

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2204722**
Date Reported: **4/20/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** S3-EW
Project: State D SWD 1 **Collection Date:** 4/14/2022 9:49:00 AM
Lab ID: 2204722-002 **Matrix:** MEOH (SOIL) **Received Date:** 4/15/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**LRN**
Chloride	81	60		mg/Kg	20	4/15/2022 6:05:57 PM	66883
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	24	9.6		mg/Kg	1	4/15/2022 6:18:05 PM	66878
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/15/2022 6:18:05 PM	66878
Surr: DNOP	89.9	51.1-141		%Rec	1	4/15/2022 6:18:05 PM	66878
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	15		mg/Kg	5	4/15/2022 6:12:43 PM	B87295
Surr: BFB	102	37.7-212		%Rec	5	4/15/2022 6:12:43 PM	B87295
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.073		mg/Kg	5	4/15/2022 6:12:43 PM	R87295
Toluene	ND	0.15		mg/Kg	5	4/15/2022 6:12:43 PM	R87295
Ethylbenzene	ND	0.15		mg/Kg	5	4/15/2022 6:12:43 PM	R87295
Xylenes, Total	ND	0.29		mg/Kg	5	4/15/2022 6:12:43 PM	R87295
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	5	4/15/2022 6:12:43 PM	R87295

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2204722**

20-Apr-22

Client: EOG

Project: State D SWD 1

Sample ID: **MB-66883** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **66883** RunNo: **87282**

Prep Date: **4/15/2022** Analysis Date: **4/15/2022** SeqNo: **3087147** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-66883** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **66883** RunNo: **87282**

Prep Date: **4/15/2022** Analysis Date: **4/15/2022** SeqNo: **3087148** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.5	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2204722**

20-Apr-22

Client: EOG

Project: State D SWD 1

Sample ID: **LCS-66857**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **66857**	RunNo: **87285**							
Prep Date: **4/14/2022**	Analysis Date: **4/15/2022**	SeqNo: **3086642**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.6		5.000		112	51.1	141			

Sample ID: **LCS-66878**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **66878**	RunNo: **87285**							
Prep Date: **4/15/2022**	Analysis Date: **4/15/2022**	SeqNo: **3086643**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.6	68.9	135			
Surr: DNOP	4.1		5.000		81.8	51.1	141			

Sample ID: **MB-66857**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **66857**	RunNo: **87285**							
Prep Date: **4/14/2022**	Analysis Date: **4/15/2022**	SeqNo: **3086644**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	15		10.00		151	51.1	141			S

Sample ID: **MB-66878**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **66878**	RunNo: **87307**							
Prep Date: **4/15/2022**	Analysis Date: **4/18/2022**	SeqNo: **3087519**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.5		10.00		84.7	51.1	141			

Sample ID: **MB-66907**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **66907**	RunNo: **87307**							
Prep Date: **4/18/2022**	Analysis Date: **4/18/2022**	SeqNo: **3088643**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.9		10.00		79.2	51.1	141			

Sample ID: **LCS-66907**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **66907**	RunNo: **87307**							
Prep Date: **4/18/2022**	Analysis Date: **4/18/2022**	SeqNo: **3088645**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.6		5.000		71.4	51.1	141			

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2204722**

20-Apr-22

Client: EOG

Project: State D SWD 1

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **B87295**	RunNo: **87295**							
Prep Date:	Analysis Date: **4/15/2022**	SeqNo: **3086879**	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	1000		1000		102	37.7	212			

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **B87295**	RunNo: **87295**							
Prep Date:	Analysis Date: **4/15/2022**	SeqNo: **3086880**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	72.3	137			
Surr: BFB	2100		1000		210	37.7	212			

Sample ID: **mb-66851**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **66851**	RunNo: **87295**							
Prep Date: **4/14/2022**	Analysis Date: **4/15/2022**	SeqNo: **3086896**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		103	37.7	212			

Sample ID: **lcs-66851**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **66851**	RunNo: **87295**							
Prep Date: **4/14/2022**	Analysis Date: **4/15/2022**	SeqNo: **3086897**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	2100		1000		210	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2204722**

20-Apr-22

Client: EOG

Project: State D SWD 1

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R87295**	RunNo: **87295**
Prep Date:	Analysis Date: **4/15/2022**	SeqNo: **3086928** 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	1.0		1.000		102	70	130			

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R87295**	RunNo: **87295**
Prep Date:	Analysis Date: **4/15/2022**	SeqNo: **3086929** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.2	80	120			
Toluene	0.94	0.050	1.000	0	93.6	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.4	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.1	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		105	70	130			

Sample ID: **mb-66851**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **66851**	RunNo: **87295**
Prep Date: **4/14/2022**	Analysis Date: **4/15/2022**	SeqNo: **3086943** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		103	70	130			

Sample ID: **LCS-66851**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **66851**	RunNo: **87295**
Prep Date: **4/14/2022**	Analysis Date: **4/15/2022**	SeqNo: **3086944** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		104	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 2204722 | RcptNo: 1

Received By: Sean Livingston 4/15/2022 8:00:00 AM

Completed By: Sean Livingston 4/15/2022 8:29:18 AM

Reviewed By: JR 4-15-22

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 preserved 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? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
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? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: JR 4/15/22

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	5.7	Good				

Chain-of-Custody Record

Client: EOG-Artesia / Ranger Env.

Mailing Address: EOG - 105 S 4th St, Artesia NM, 88210

Ranger: PO Box 201179, Austin TX 78720

Phone #: 521-335-1785

email or Fax#: Will@RangerEnv.com

QA/QC Package:

■ **Standard** ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

■ **NELAC** ☐ Other

■ **EDD** (Type) Excel

Turn-Around Time:

☐ Standard ☒ **Rush** 24 hour Rush

Project Name: State D SWD #1

Project #: 5375

Project Manager: W. Kierdorf

Sampler: Robert Martin

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 5.4 +0.1 =5.7°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2204722	BTEX (8021)	TPH:8015D(GRO / DRO / MRO)	Chloride (EPA 300)
4/14/22	0846	soil	S7-WW	1 4oz Jar	Ice	001	X	X	X
"	0949	soil	S3-EW	"	"	002	X	X	X

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
4/14/22	1030				4/14/22	1030
4/14/22	1900		Sue	courier	4/15/22	8:00

Remarks: Bill to EOG Artesia

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.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 26, 2022

Will Kierdorf
EOG
105 South Fourth Street
Artesia, NM 88210
TEL:
FAX:

RE: State D SWD 1 OrderNo.: 2204920

Dear Will Kierdorf:

Hall Environmental Analysis Laboratory received 3 sample(s) on 4/21/2022 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2204920**
Date Reported: **4/26/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** S5-WW
Project: State D SWD 1 **Collection Date:** 4/19/2022 10:03:00 AM
Lab ID: 2204920-001 **Matrix:** MEOH (SOIL) **Received Date:** 4/21/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	310	60		mg/Kg	20	4/21/2022 7:45:29 PM	67001
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	83	10		mg/Kg	1	4/21/2022 11:05:04 AM	66978
Motor Oil Range Organics (MRO)	75	50		mg/Kg	1	4/21/2022 11:05:04 AM	66978
Surr: DNOP	86.0	51.1-141		%Rec	1	4/21/2022 11:05:04 AM	66978
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/21/2022 9:47:16 AM	G87428
Surr: BFB	94.9	37.7-212		%Rec	1	4/21/2022 9:47:16 AM	G87428
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/21/2022 9:47:16 AM	B87428
Toluene	ND	0.049		mg/Kg	1	4/21/2022 9:47:16 AM	B87428
Ethylbenzene	ND	0.049		mg/Kg	1	4/21/2022 9:47:16 AM	B87428
Xylenes, Total	ND	0.098		mg/Kg	1	4/21/2022 9:47:16 AM	B87428
Surr: 4-Bromofluorobenzene	97.3	70-130		%Rec	1	4/21/2022 9:47:16 AM	B87428

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204920**
Date Reported: **4/26/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** S6-WW
Project: State D SWD 1 **Collection Date:** 4/19/2022 10:05:00 AM
Lab ID: 2204920-002 **Matrix:** MEOH (SOIL) **Received Date:** 4/21/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	940	61		mg/Kg	20	4/21/2022 7:57:49 PM	67001
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	120	9.5		mg/Kg	1	4/21/2022 11:36:45 AM	66978
Motor Oil Range Organics (MRO)	120	47		mg/Kg	1	4/21/2022 11:36:45 AM	66978
Surr: DNOP	90.7	51.1-141		%Rec	1	4/21/2022 11:36:45 AM	66978
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.0		mg/Kg	1	4/21/2022 10:10:41 AM	G87428
Surr: BFB	93.2	37.7-212		%Rec	1	4/21/2022 10:10:41 AM	G87428
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.015		mg/Kg	1	4/21/2022 10:10:41 AM	B87428
Toluene	ND	0.030		mg/Kg	1	4/21/2022 10:10:41 AM	B87428
Ethylbenzene	ND	0.030		mg/Kg	1	4/21/2022 10:10:41 AM	B87428
Xylenes, Total	ND	0.060		mg/Kg	1	4/21/2022 10:10:41 AM	B87428
Surr: 4-Bromofluorobenzene	97.0	70-130		%Rec	1	4/21/2022 10:10:41 AM	B87428

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204920**
Date Reported: **4/26/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** S3-WW
Project: State D SWD 1 **Collection Date:** 4/19/2022 10:00:00 AM
Lab ID: 2204920-003 **Matrix:** MEOH (SOIL) **Received Date:** 4/21/2022 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	270	60		mg/Kg	20	4/21/2022 8:10:09 PM	67001
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	560	10		mg/Kg	1	4/21/2022 11:47:20 AM	66978
Motor Oil Range Organics (MRO)	300	50		mg/Kg	1	4/21/2022 11:47:20 AM	66978
Surr: DNOP	94.0	51.1-141		%Rec	1	4/21/2022 11:47:20 AM	66978
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	7.0		mg/Kg	1	4/21/2022 10:34:10 AM	G87428
Surr: BFB	92.9	37.7-212		%Rec	1	4/21/2022 10:34:10 AM	G87428
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.035		mg/Kg	1	4/21/2022 10:34:10 AM	B87428
Toluene	ND	0.070		mg/Kg	1	4/21/2022 10:34:10 AM	B87428
Ethylbenzene	ND	0.070		mg/Kg	1	4/21/2022 10:34:10 AM	B87428
Xylenes, Total	ND	0.14		mg/Kg	1	4/21/2022 10:34:10 AM	B87428
Surr: 4-Bromofluorobenzene	96.0	70-130		%Rec	1	4/21/2022 10:34:10 AM	B87428

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2204920**

26-Apr-22

Client: EOG

Project: State D SWD 1

Sample ID: **MB-67001**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **67001**	RunNo: **87438**
Prep Date: **4/21/2022**	Analysis Date: **4/21/2022**	SeqNo: **3093533** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-67001**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **67001**	RunNo: **87438**
Prep Date: **4/21/2022**	Analysis Date: **4/21/2022**	SeqNo: **3093534** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.3	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2204920**

26-Apr-22

Client: EOG

Project: State D SWD 1

Sample ID: **LCS-66978**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **66978**	RunNo: **87442**
Prep Date: **4/21/2022**	Analysis Date: **4/21/2022**	SeqNo: **3093765** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	100	68.9	135			
Surr: DNOP	4.3		5.000		85.0	51.1	141			

Sample ID: **MB-66978**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **66978**	RunNo: **87442**
Prep Date: **4/21/2022**	Analysis Date: **4/21/2022**	SeqNo: **3093766** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.8		10.00		88.3	51.1	141			

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2204920**

26-Apr-22

Client: EOG

Project: State D SWD 1

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **G87428**	RunNo: **87428**
Prep Date:	Analysis Date: **4/21/2022**	SeqNo: **3092813** 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	950		1000		95.0	37.7	212			

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G87428**	RunNo: **87428**
Prep Date:	Analysis Date: **4/21/2022**	SeqNo: **3092822** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.6	72.3	137			
Surr: BFB	2000		1000		200	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2204920**

26-Apr-22

Client: EOG

Project: State D SWD 1

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B87428**	RunNo: **87428**
Prep Date:	Analysis Date: **4/21/2022**	SeqNo: **3093040** 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	0.97		1.000		97.4	70	130			

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B87428**	RunNo: **87428**
Prep Date:	Analysis Date: **4/21/2022**	SeqNo: **3093049** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.025	1.000	0	85.8	80	120			
Toluene	0.92	0.050	1.000	0	91.6	80	120			
Ethylbenzene	0.94	0.050	1.000	0	93.5	80	120			
Xylenes, Total	2.8	0.10	3.000	0	93.3	80	120			
Surr: 4-Bromofluorobenzene	0.99		1.000		98.5	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 2204920 | RcptNo: 1

Received By: Tracy Casarrubias 4/21/2022 7:40:00 AM

Completed By: Sean Livingston 4/21/2022 8:09:04 AM

Reviewed By: CM 4/21/22

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? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
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? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: JM 4/21/22

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	4.6	Good				

Chain-of-Custody Record

Client: EOG-Artesia / Ranger Env.

Mailing Address: EOG - 105 S 4th St, Artesia NM, 88210

Ranger: PO Box 201179, Austin TX 78720

Phone #: 521-335-1785

email or Fax#: Will@RangerEnv.com

QA/QC Package:

■ **Standard** ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

■ **NELAC** ☐ Other_____

■ **EDD** (Type) Excel

Turn-Around Time:

☐ Standard ☒ **Rush** 24-hr.

Project Name:

State D SWD #1

Project #: 5375

Project Manager: W. Kierdorf

Sampler: W. Kennedy

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 4.6 - 0 = 4.6

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2204920	BTEX (8021)	TPH:8015D(GRO / DRO / MRO)	Chloride (EPA 300)
4/19/22	1003	Soil	S5-WW	1x4oz ~~Cooler~~	ICE	001	X	X	X
"	1005	"	S6-WW	"	"	002	"	"	"
"	1000	"	S3-WW	"	"	003	"	"	"

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
4/20/22	1430	W. Kennedy			4/20/22	1430
4/20/22	1900				4/21/22	7:10

Remarks: Bill to EOG Artesia

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 repo

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

May 06, 2022

Will Kierdorf

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

RE: State D SWD 1 OrderNo.: 2204C81

Dear Will Kierdorf:

Hall Environmental Analysis Laboratory received 13 sample(s) on 4/29/2022 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2204C81**
Date Reported: **5/6/2022**

CLIENT: EOG
Client Sample ID: TH-2/33
Project: State D SWD 1
Collection Date: 4/27/2022 11:04:00 AM
Lab ID: 2204C81-002 **Matrix:** SOIL **Received Date:** 4/29/2022 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	100	60		mg/Kg	20	5/3/2022 12:08:03 AM	67209
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/2/2022 10:15:37 AM	67168
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/2/2022 10:15:37 AM	67168
Surr: DNOP	105	51.1-141		%Rec	1	5/2/2022 10:15:37 AM	67168
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/2/2022 10:41:00 AM	67163
Surr: BFB	105	37.7-212		%Rec	1	5/2/2022 10:41:00 AM	67163
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**	
Benzene	ND	0.024		mg/Kg	1	5/2/2022 10:41:00 AM	67163
Toluene	ND	0.048		mg/Kg	1	5/2/2022 10:41:00 AM	67163
Ethylbenzene	ND	0.048		mg/Kg	1	5/2/2022 10:41:00 AM	67163
Xylenes, Total	ND	0.096		mg/Kg	1	5/2/2022 10:41:00 AM	67163
Surr: 4-Bromofluorobenzene	85.5	70-130		%Rec	1	5/2/2022 10:41:00 AM	67163

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2204C81**
Date Reported: **5/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: TH-2/37
Project: State D SWD 1
Collection Date: 4/27/2022 11:09:00 AM
Lab ID: 2204C81-003 **Matrix:** SOIL **Received Date:** 4/29/2022 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	75	60		mg/Kg	20	5/3/2022 12:20:25 AM	67209
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	30	9.6		mg/Kg	1	5/2/2022 10:29:24 AM	67168
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/2/2022 10:29:24 AM	67168
Surr: DNOP	107	51.1-141		%Rec	1	5/2/2022 10:29:24 AM	67168
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**	
Gasoline Range Organics (GRO)	6.0	4.9		mg/Kg	1	5/2/2022 11:41:00 AM	67163
Surr: BFB	175	37.7-212		%Rec	1	5/2/2022 11:41:00 AM	67163
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**	
Benzene	ND	0.025		mg/Kg	1	5/2/2022 11:41:00 AM	67163
Toluene	ND	0.049		mg/Kg	1	5/2/2022 11:41:00 AM	67163
Ethylbenzene	ND	0.049		mg/Kg	1	5/2/2022 11:41:00 AM	67163
Xylenes, Total	ND	0.099		mg/Kg	1	5/2/2022 11:41:00 AM	67163
Surr: 4-Bromofluorobenzene	91.7	70-130		%Rec	1	5/2/2022 11:41:00 AM	67163

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204C81**
Date Reported: **5/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: TH-2/43
Project: State D SWD 1
Collection Date: 4/27/2022 11:15:00 AM
Lab ID: 2204C81-004 **Matrix:** SOIL **Received Date:** 4/29/2022 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	69	60		mg/Kg	20	5/3/2022 12:32:46 AM	67209
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/2/2022 10:43:12 AM	67168
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/2/2022 10:43:12 AM	67168
Surr: DNOP	106	51.1-141		%Rec	1	5/2/2022 10:43:12 AM	67168
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/2/2022 12:40:00 PM	67163
Surr: BFB	103	37.7-212		%Rec	1	5/2/2022 12:40:00 PM	67163
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**	
Benzene	ND	0.024		mg/Kg	1	5/2/2022 12:40:00 PM	67163
Toluene	ND	0.047		mg/Kg	1	5/2/2022 12:40:00 PM	67163
Ethylbenzene	ND	0.047		mg/Kg	1	5/2/2022 12:40:00 PM	67163
Xylenes, Total	ND	0.095		mg/Kg	1	5/2/2022 12:40:00 PM	67163
Surr: 4-Bromofluorobenzene	83.1	70-130		%Rec	1	5/2/2022 12:40:00 PM	67163

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204C81**
Date Reported: **5/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: TH-2/45
Project: State D SWD 1
Collection Date: 4/27/2022 11:17:00 AM
Lab ID: 2204C81-005 **Matrix:** SOIL **Received Date:** 4/29/2022 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	78	60		mg/Kg	20	5/3/2022 12:45:06 AM	67209
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	5/2/2022 10:57:05 AM	67168
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/2/2022 10:57:05 AM	67168
Surr: DNOP	107	51.1-141		%Rec	1	5/2/2022 10:57:05 AM	67168
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/2/2022 12:59:00 PM	67163
Surr: BFB	103	37.7-212		%Rec	1	5/2/2022 12:59:00 PM	67163
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**	
Benzene	ND	0.025		mg/Kg	1	5/2/2022 12:59:00 PM	67163
Toluene	ND	0.050		mg/Kg	1	5/2/2022 12:59:00 PM	67163
Ethylbenzene	ND	0.050		mg/Kg	1	5/2/2022 12:59:00 PM	67163
Xylenes, Total	ND	0.099		mg/Kg	1	5/2/2022 12:59:00 PM	67163
Surr: 4-Bromofluorobenzene	81.0	70-130		%Rec	1	5/2/2022 12:59:00 PM	67163

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204C81**
Date Reported: **5/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: TH-3/31
Project: State D SWD 1
Collection Date: 4/27/2022 2:53:00 PM
Lab ID: 2204C81-006 **Matrix:** SOIL **Received Date:** 4/29/2022 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	98	60		mg/Kg	20	5/3/2022 12:57:26 AM	67209
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	10	9.5		mg/Kg	1	5/2/2022 11:10:51 AM	67168
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/2/2022 11:10:51 AM	67168
Surr: DNOP	109	51.1-141		%Rec	1	5/2/2022 11:10:51 AM	67168
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/2/2022 1:19:00 PM	67163
Surr: BFB	106	37.7-212		%Rec	1	5/2/2022 1:19:00 PM	67163
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**	
Benzene	ND	0.023		mg/Kg	1	5/2/2022 1:19:00 PM	67163
Toluene	ND	0.047		mg/Kg	1	5/2/2022 1:19:00 PM	67163
Ethylbenzene	ND	0.047		mg/Kg	1	5/2/2022 1:19:00 PM	67163
Xylenes, Total	ND	0.094		mg/Kg	1	5/2/2022 1:19:00 PM	67163
Surr: 4-Bromofluorobenzene	83.6	70-130		%Rec	1	5/2/2022 1:19:00 PM	67163

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204C81**
Date Reported: **5/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: TH-3/39
Project: State D SWD 1
Collection Date: 4/27/2022 3:01:00 PM
Lab ID: 2204C81-007 **Matrix:** SOIL **Received Date:** 4/29/2022 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	89	60		mg/Kg	20	5/3/2022 1:34:28 AM	67209
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/2/2022 11:54:21 AM	67168
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/2/2022 11:54:21 AM	67168
Surr: DNOP	108	51.1-141		%Rec	1	5/2/2022 11:54:21 AM	67168
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/2/2022 1:39:00 PM	67163
Surr: BFB	102	37.7-212		%Rec	1	5/2/2022 1:39:00 PM	67163
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**	
Benzene	ND	0.025		mg/Kg	1	5/2/2022 1:39:00 PM	67163
Toluene	ND	0.050		mg/Kg	1	5/2/2022 1:39:00 PM	67163
Ethylbenzene	ND	0.050		mg/Kg	1	5/2/2022 1:39:00 PM	67163
Xylenes, Total	ND	0.10		mg/Kg	1	5/2/2022 1:39:00 PM	67163
Surr: 4-Bromofluorobenzene	80.3	70-130		%Rec	1	5/2/2022 1:39:00 PM	67163

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204C81**
Date Reported: **5/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: TH-3/43
Project: State D SWD 1
Collection Date: 4/27/2022 3:05:00 PM
Lab ID: 2204C81-008 **Matrix:** SOIL **Received Date:** 4/29/2022 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	86	60		mg/Kg	20	5/3/2022 1:46:48 AM	67209
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	5/2/2022 12:08:07 PM	67168
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/2/2022 12:08:07 PM	67168
Surr: DNOP	109	51.1-141		%Rec	1	5/2/2022 12:08:07 PM	67168
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/2/2022 1:59:00 PM	67163
Surr: BFB	104	37.7-212		%Rec	1	5/2/2022 1:59:00 PM	67163
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**	
Benzene	ND	0.024		mg/Kg	1	5/2/2022 1:59:00 PM	67163
Toluene	ND	0.047		mg/Kg	1	5/2/2022 1:59:00 PM	67163
Ethylbenzene	ND	0.047		mg/Kg	1	5/2/2022 1:59:00 PM	67163
Xylenes, Total	ND	0.094		mg/Kg	1	5/2/2022 1:59:00 PM	67163
Surr: 4-Bromofluorobenzene	84.4	70-130		%Rec	1	5/2/2022 1:59:00 PM	67163

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204C81**
Date Reported: **5/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: TH-3/45
Project: State D SWD 1
Collection Date: 4/27/2022 3:07:00 PM
Lab ID: 2204C81-009 **Matrix:** SOIL **Received Date:** 4/29/2022 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	63	60		mg/Kg	20	5/3/2022 12:39:18 PM	67208
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	5/2/2022 12:21:57 PM	67168
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	5/2/2022 12:21:57 PM	67168
Surr: DNOP	110	51.1-141		%Rec	1	5/2/2022 12:21:57 PM	67168
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/2/2022 2:18:00 PM	67163
Surr: BFB	105	37.7-212		%Rec	1	5/2/2022 2:18:00 PM	67163
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**	
Benzene	ND	0.025		mg/Kg	1	5/2/2022 2:18:00 PM	67163
Toluene	ND	0.050		mg/Kg	1	5/2/2022 2:18:00 PM	67163
Ethylbenzene	ND	0.050		mg/Kg	1	5/2/2022 2:18:00 PM	67163
Xylenes, Total	ND	0.10		mg/Kg	1	5/2/2022 2:18:00 PM	67163
Surr: 4-Bromofluorobenzene	84.2	70-130		%Rec	1	5/2/2022 2:18:00 PM	67163

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204C81**
Date Reported: **5/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: TH-4/29
Project: State D SWD 1
Collection Date: 4/27/2022 3:49:00 PM
Lab ID: 2204C81-010 **Matrix:** SOIL
Received Date: 4/29/2022 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	94	61		mg/Kg	20	5/3/2022 12:51:44 PM	67208
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/2/2022 12:35:44 PM	67168
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/2/2022 12:35:44 PM	67168
Surr: DNOP	110	51.1-141		%Rec	1	5/2/2022 12:35:44 PM	67168
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/2/2022 2:38:00 PM	67163
Surr: BFB	103	37.7-212		%Rec	1	5/2/2022 2:38:00 PM	67163
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**	
Benzene	ND	0.024		mg/Kg	1	5/2/2022 2:38:00 PM	67163
Toluene	ND	0.049		mg/Kg	1	5/2/2022 2:38:00 PM	67163
Ethylbenzene	ND	0.049		mg/Kg	1	5/2/2022 2:38:00 PM	67163
Xylenes, Total	ND	0.097		mg/Kg	1	5/2/2022 2:38:00 PM	67163
Surr: 4-Bromofluorobenzene	83.3	70-130		%Rec	1	5/2/2022 2:38:00 PM	67163

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204C81**
Date Reported: **5/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: TH-4/35
Project: State D SWD 1
Collection Date: 4/27/2022 3:55:00 PM
Lab ID: 2204C81-011 **Matrix:** SOIL **Received Date:** 4/29/2022 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	100	60		mg/Kg	20	5/3/2022 3:40:34 PM	67208
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	8.5		mg/Kg	1	5/2/2022 12:49:25 PM	67168
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	5/2/2022 12:49:25 PM	67168
Surr: DNOP	110	51.1-141		%Rec	1	5/2/2022 12:49:25 PM	67168
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/2/2022 2:58:00 PM	67163
Surr: BFB	95.8	37.7-212		%Rec	1	5/2/2022 2:58:00 PM	67163
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**	
Benzene	ND	0.025		mg/Kg	1	5/2/2022 2:58:00 PM	67163
Toluene	ND	0.050		mg/Kg	1	5/2/2022 2:58:00 PM	67163
Ethylbenzene	ND	0.050		mg/Kg	1	5/2/2022 2:58:00 PM	67163
Xylenes, Total	ND	0.10		mg/Kg	1	5/2/2022 2:58:00 PM	67163
Surr: 4-Bromofluorobenzene	79.3	70-130		%Rec	1	5/2/2022 2:58:00 PM	67163

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204C81**
Date Reported: **5/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: TH-4/41
Project: State D SWD 1
Collection Date: 4/27/2022 4:00:00 PM
Lab ID: 2204C81-012 **Matrix:** SOIL **Received Date:** 4/29/2022 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	110	61		mg/Kg	20	5/3/2022 3:52:59 PM	67208
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	5/2/2022 1:03:06 PM	67168
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	5/2/2022 1:03:06 PM	67168
Surr: DNOP	108	51.1-141		%Rec	1	5/2/2022 1:03:06 PM	67168
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/2/2022 3:57:00 PM	67163
Surr: BFB	105	37.7-212		%Rec	1	5/2/2022 3:57:00 PM	67163
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**	
Benzene	ND	0.024		mg/Kg	1	5/2/2022 3:57:00 PM	67163
Toluene	ND	0.048		mg/Kg	1	5/2/2022 3:57:00 PM	67163
Ethylbenzene	ND	0.048		mg/Kg	1	5/2/2022 3:57:00 PM	67163
Xylenes, Total	ND	0.096		mg/Kg	1	5/2/2022 3:57:00 PM	67163
Surr: 4-Bromofluorobenzene	83.4	70-130		%Rec	1	5/2/2022 3:57:00 PM	67163

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204C81**
Date Reported: **5/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: TH-4/45
Project: State D SWD 1
Collection Date: 4/27/2022 4:05:00 PM
Lab ID: 2204C81-013 **Matrix:** SOIL **Received Date:** 4/29/2022 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	120	60		mg/Kg	20	5/3/2022 4:05:23 PM	67208
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	5/2/2022 1:17:09 PM	67168
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/2/2022 1:17:09 PM	67168
Surr: DNOP	110	51.1-141		%Rec	1	5/2/2022 1:17:09 PM	67168
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/2/2022 4:17:00 PM	67163
Surr: BFB	101	37.7-212		%Rec	1	5/2/2022 4:17:00 PM	67163
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**	
Benzene	ND	0.025		mg/Kg	1	5/2/2022 4:17:00 PM	67163
Toluene	ND	0.049		mg/Kg	1	5/2/2022 4:17:00 PM	67163
Ethylbenzene	ND	0.049		mg/Kg	1	5/2/2022 4:17:00 PM	67163
Xylenes, Total	ND	0.099		mg/Kg	1	5/2/2022 4:17:00 PM	67163
Surr: 4-Bromofluorobenzene	82.0	70-130		%Rec	1	5/2/2022 4:17:00 PM	67163

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2204C81**

06-May-22

Client: EOG

Project: State D SWD 1

Sample ID: **MB-67209**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **67209**	RunNo: **87670**
Prep Date: **5/2/2022**	Analysis Date: **5/2/2022**	SeqNo: **3104230** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-67209**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **67209**	RunNo: **87670**
Prep Date: **5/2/2022**	Analysis Date: **5/2/2022**	SeqNo: **3104231** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.0	90	110			

Sample ID: **MB-67208**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **67208**	RunNo: **87697**
Prep Date: **5/2/2022**	Analysis Date: **5/3/2022**	SeqNo: **3105941** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-67208**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **67208**	RunNo: **87697**
Prep Date: **5/2/2022**	Analysis Date: **5/3/2022**	SeqNo: **3105942** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	96.9	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2204C81**

06-May-22

Client: EOG

Project: State D SWD 1

Sample ID: **MB-67168**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **67168**	RunNo: **87654**
Prep Date: **4/29/2022**	Analysis Date: **5/2/2022**	SeqNo: **3103431** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.6		10.00		96.2	51.1	141			

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2204C81**

06-May-22

Client: EOG

Project: State D SWD 1

Sample ID: **lcs-67163**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **67163**	RunNo: **87661**							
Prep Date: **4/29/2022**	Analysis Date: **5/2/2022**	SeqNo: **3103633**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	114	72.3	137			
Surr: BFB	2300		1000		230	37.7	212			S

Sample ID: **mb-67163**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **67163**	RunNo: **87661**							
Prep Date: **4/29/2022**	Analysis Date: **5/2/2022**	SeqNo: **3103634**	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	1000		1000		101	37.7	212			

Sample ID: **lcs-67167**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **67167**	RunNo: **87661**							
Prep Date: **4/29/2022**	Analysis Date: **5/2/2022**	SeqNo: **3103657**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	2300		1000		226	37.7	212			S

Sample ID: **mb-67167**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **67167**	RunNo: **87661**							
Prep Date: **4/29/2022**	Analysis Date: **5/2/2022**	SeqNo: **3103658**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		104	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2204C81**

06-May-22

Client: EOG

Project: State D SWD 1

Sample ID: **lcs-67163**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **67163**	RunNo: **87661**
Prep Date: **4/29/2022**	Analysis Date: **5/2/2022**	SeqNo: **3103681** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.025	1.000	0	85.5	80	120			
Toluene	0.88	0.050	1.000	0	87.6	80	120			
Ethylbenzene	0.88	0.050	1.000	0	88.3	80	120			
Xylenes, Total	2.6	0.10	3.000	0	88.2	80	120			
Surr: 4-Bromofluorobenzene	0.87		1.000		86.7	70	130			

Sample ID: **mb-67163**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **67163**	RunNo: **87661**
Prep Date: **4/29/2022**	Analysis Date: **5/2/2022**	SeqNo: **3103682** 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	0.83		1.000		83.5	70	130			

Sample ID: **lcs-67167**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **67167**	RunNo: **87661**
Prep Date: **4/29/2022**	Analysis Date: **5/2/2022**	SeqNo: **3103705** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.82		1.000		82.4	70	130			

Sample ID: **mb-67167**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **67167**	RunNo: **87661**
Prep Date: **4/29/2022**	Analysis Date: **5/2/2022**	SeqNo: **3103706** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.84		1.000		84.1	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 2204C81 | RcptNo: 1

Received By: **Juan Rojas** 4/29/2022 7:10:00 AM

Completed By: **Tracy Casarrubias** 4/29/2022 8:00:26 AM

Reviewed By: KPG 4-29-22

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? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
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? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: JN 4/29/22

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	1.6	Good	Yes			
2	0.8	Good	Yes			

Chain-of-Custody Record

Client: EOG-Artesia / Ranger Env.

Mailing Address: EOG - 105 S 4th St, Artesia NM, 88210

Ranger: PO Box 201179, Austin TX 78720

Phone #: 521-335-1785

email or Fax#: Will@RangerEnv.com

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

Accreditation: ☐ Az Compliance
■ NELAC ☐ Other

■ EDD (Type) Excel

Turn-Around Time:
☐ Standard ☒ Rush 48-hr

Project Name: State D SWD #1

Project #: 5375

Project Manager: W. Kierdorf

Sampler: W. Kennedy
On Ice: ☒ Yes ☐ No
# of Coolers: 2
Cooler Temp(including CF): 1.6-0=1.6
0.8-0=0.8

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2204C81	BTEX (8021)	TPH:8015D(GRO / DRO / MRO)	Chloride (EPA 300)
4/27/22	1100	Soil	TH-2/29 *	1 x 4oz Jar	ICE	001	X	X	X
	1104		TH-2/33			002			
	1109		TH-2/37			003			
	1115		TH-2/43			004			
	1117		TH-2/45			005			
	1453		TH-3/31			006			
	1501		TH-3/39			007			
	1505		TH-3/43			008			
	1507		TH-3/45			009			
	1549		TH-4/29			010			
	1555	[redacted]	TH-4/35			011			
	1601	[redacted]	TH-4/41			012			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
4/28/22	1115	W. Kennedy	[signature]		4/28/22	1115
4/28/22	1900	[signature]	[signature]	Courier	4/29/22	7:10

Remarks: Bill to EOG Artesia
* Soil jar broke in transit. JC 4/28/22

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 repo

Chain-of-Custody Record

Client: EOG-Artesia / Ranger Env.

Mailing Address: EOG - 105 S 4th St, Artesia NM, 88210

Ranger: PO Box 201179, Austin TX 78720

Phone #: 521-335-1785

email or Fax#: Will@RangerEnv.com

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

Accreditation: ☐ Az Compliance
■ **NELAC** ☐ Other_____
■ **EDD** (Type) Excel

Turn-Around Time:
☐ Standard ☒ **Rush** 48-hr

Project Name: State D SWD #1

Project #: 5375

Project Manager: W. Kierdorf

Sampler: W. Kierdorf
On Ice: ☒ Yes ☐ No
# of Coolers: 2
Cooler Temp(including CF): 16-0=1.6

05-070-8
HEAL No. 2204C81

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX (8021)	TPH:8015D(GRO / DRO / MRO)	Chloride (EPA 300)
4/27/22	1605	Soil	TH-4/45	1 x 4oz Jar	ICE	013	X	X	X

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
4/28/22	1115					
4/28/22	1900		Courier		4/29/22	7:10

Remarks: Bill to EOG Artesia

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 repo

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

May 13, 2022

Will Kierdorf

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

RE: State D SWD 1 OrderNo.: 2205428

Dear Will Kierdorf:

Hall Environmental Analysis Laboratory received 19 sample(s) on 5/10/2022 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,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2205428**
Date Reported: **5/13/2022**

CLIENT: EOG
Client Sample ID: S3-N
Project: State D SWD 1
Collection Date: 5/9/2022 8:20:00 AM
Lab ID: 2205428-001 **Matrix:** SOIL **Received Date:** 5/10/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	100	60		mg/Kg	20	5/10/2022 8:23:13 PM	67381
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/11/2022 8:07:07 AM	67371
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/11/2022 8:07:07 AM	67371
Surr: DNOP	93.1	51.1-141		%Rec	1	5/11/2022 8:07:07 AM	67371
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/11/2022 8:01:20 AM	67372
Surr: BFB	98.2	37.7-212		%Rec	1	5/11/2022 8:01:20 AM	67372
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	5/11/2022 8:01:20 AM	67372
Toluene	ND	0.048		mg/Kg	1	5/11/2022 8:01:20 AM	67372
Ethylbenzene	ND	0.048		mg/Kg	1	5/11/2022 8:01:20 AM	67372
Xylenes, Total	ND	0.097		mg/Kg	1	5/11/2022 8:01:20 AM	67372
Surr: 4-Bromofluorobenzene	96.8	70-130		%Rec	1	5/11/2022 8:01:20 AM	67372

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2205428**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: S3-W
Project: State D SWD 1
Collection Date: 5/9/2022 8:24:00 AM
Lab ID: 2205428-002 **Matrix:** SOIL **Received Date:** 5/10/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	170	60		mg/Kg	20	5/10/2022 9:00:26 PM	67381
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	18	9.6		mg/Kg	1	5/11/2022 8:31:09 AM	67371
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/11/2022 8:31:09 AM	67371
Surr: DNOP	89.4	51.1-141		%Rec	1	5/11/2022 8:31:09 AM	67371
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/11/2022 8:25:04 AM	67372
Surr: BFB	94.5	37.7-212		%Rec	1	5/11/2022 8:25:04 AM	67372
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.025		mg/Kg	1	5/11/2022 8:25:04 AM	67372
Toluene	ND	0.050		mg/Kg	1	5/11/2022 8:25:04 AM	67372
Ethylbenzene	ND	0.050		mg/Kg	1	5/11/2022 8:25:04 AM	67372
Xylenes, Total	ND	0.10		mg/Kg	1	5/11/2022 8:25:04 AM	67372
Surr: 4-Bromofluorobenzene	94.3	70-130		%Rec	1	5/11/2022 8:25:04 AM	67372

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2205428**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: S4-N
Project: State D SWD 1
Collection Date: 5/9/2022 8:28:00 AM
Lab ID: 2205428-003 **Matrix:** SOIL **Received Date:** 5/10/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	62	60		mg/Kg	20	5/10/2022 9:12:51 PM	67381
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/11/2022 8:55:12 AM	67371
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/11/2022 8:55:12 AM	67371
Surr: DNOP	91.7	51.1-141		%Rec	1	5/11/2022 8:55:12 AM	67371
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/11/2022 8:48:49 AM	67372
Surr: BFB	95.0	37.7-212		%Rec	1	5/11/2022 8:48:49 AM	67372
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	5/11/2022 8:48:49 AM	67372
Toluene	ND	0.047		mg/Kg	1	5/11/2022 8:48:49 AM	67372
Ethylbenzene	ND	0.047		mg/Kg	1	5/11/2022 8:48:49 AM	67372
Xylenes, Total	ND	0.094		mg/Kg	1	5/11/2022 8:48:49 AM	67372
Surr: 4-Bromofluorobenzene	96.6	70-130		%Rec	1	5/11/2022 8:48:49 AM	67372

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2205428**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: S4-B
Project: State D SWD 1
Collection Date: 5/9/2022 8:34:00 AM
Lab ID: 2205428-004 **Matrix:** SOIL **Received Date:** 5/10/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	92	61		mg/Kg	20	5/10/2022 9:25:15 PM	67381
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	82	9.8		mg/Kg	1	5/11/2022 9:19:08 AM	67371
Motor Oil Range Organics (MRO)	72	49		mg/Kg	1	5/11/2022 9:19:08 AM	67371
Surr: DNOP	105	51.1-141		%Rec	1	5/11/2022 9:19:08 AM	67371
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/11/2022 9:12:24 AM	67372
Surr: BFB	94.9	37.7-212		%Rec	1	5/11/2022 9:12:24 AM	67372
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.023		mg/Kg	1	5/11/2022 9:12:24 AM	67372
Toluene	ND	0.046		mg/Kg	1	5/11/2022 9:12:24 AM	67372
Ethylbenzene	ND	0.046		mg/Kg	1	5/11/2022 9:12:24 AM	67372
Xylenes, Total	ND	0.093		mg/Kg	1	5/11/2022 9:12:24 AM	67372
Surr: 4-Bromofluorobenzene	96.0	70-130		%Rec	1	5/11/2022 9:12:24 AM	67372

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2205428**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: S4-EW
Project: State D SWD 1
Collection Date: 5/9/2022 8:40:00 AM
Lab ID: 2205428-005 **Matrix:** SOIL **Received Date:** 5/10/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	180	60		mg/Kg	20	5/10/2022 9:37:40 PM	67381
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/11/2022 9:43:10 AM	67371
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/11/2022 9:43:10 AM	67371
Surr: DNOP	98.9	51.1-141		%Rec	1	5/11/2022 9:43:10 AM	67371
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/11/2022 9:35:59 AM	67372
Surr: BFB	98.4	37.7-212		%Rec	1	5/11/2022 9:35:59 AM	67372
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	5/11/2022 9:35:59 AM	67372
Toluene	ND	0.049		mg/Kg	1	5/11/2022 9:35:59 AM	67372
Ethylbenzene	ND	0.049		mg/Kg	1	5/11/2022 9:35:59 AM	67372
Xylenes, Total	ND	0.098		mg/Kg	1	5/11/2022 9:35:59 AM	67372
Surr: 4-Bromofluorobenzene	99.2	70-130		%Rec	1	5/11/2022 9:35:59 AM	67372

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2205428**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: S4-SW
Project: State D SWD 1
Collection Date: 5/9/2022 9:00:00 AM
Lab ID: 2205428-006 **Matrix:** SOIL **Received Date:** 5/10/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	65	60		mg/Kg	20	5/10/2022 9:50:04 PM	67381
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/11/2022 10:07:10 AM	67371
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/11/2022 10:07:10 AM	67371
Surr: DNOP	100	51.1-141		%Rec	1	5/11/2022 10:07:10 AM	67371
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/11/2022 9:59:37 AM	67372
Surr: BFB	98.3	37.7-212		%Rec	1	5/11/2022 9:59:37 AM	67372
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	5/11/2022 9:59:37 AM	67372
Toluene	ND	0.048		mg/Kg	1	5/11/2022 9:59:37 AM	67372
Ethylbenzene	ND	0.048		mg/Kg	1	5/11/2022 9:59:37 AM	67372
Xylenes, Total	ND	0.096		mg/Kg	1	5/11/2022 9:59:37 AM	67372
Surr: 4-Bromofluorobenzene	96.3	70-130		%Rec	1	5/11/2022 9:59:37 AM	67372

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2205428**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: S4-WWA
Project: State D SWD 1
Collection Date: 5/9/2022 9:02:00 AM
Lab ID: 2205428-007 **Matrix:** SOIL **Received Date:** 5/10/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	190	60		mg/Kg	20	5/10/2022 10:02:29 PM	67381
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	18	10		mg/Kg	1	5/11/2022 10:31:15 AM	67371
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/11/2022 10:31:15 AM	67371
Surr: DNOP	105	51.1-141		%Rec	1	5/11/2022 10:31:15 AM	67371
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	24		mg/Kg	5	5/11/2022 10:23:16 AM	67372
Surr: BFB	98.4	37.7-212		%Rec	5	5/11/2022 10:23:16 AM	67372
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.12		mg/Kg	5	5/11/2022 10:23:16 AM	67372
Toluene	ND	0.24		mg/Kg	5	5/11/2022 10:23:16 AM	67372
Ethylbenzene	ND	0.24		mg/Kg	5	5/11/2022 10:23:16 AM	67372
Xylenes, Total	ND	0.49		mg/Kg	5	5/11/2022 10:23:16 AM	67372
Surr: 4-Bromofluorobenzene	96.4	70-130		%Rec	5	5/11/2022 10:23:16 AM	67372

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2205428**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: S5-B
Project: State D SWD 1
Collection Date: 5/9/2022 9:04:00 AM
Lab ID: 2205428-008 **Matrix:** SOIL **Received Date:** 5/10/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	70	60		mg/Kg	20	5/10/2022 10:39:42 PM	67381
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/11/2022 10:55:17 AM	67371
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/11/2022 10:55:17 AM	67371
Surr: DNOP	99.8	51.1-141		%Rec	1	5/11/2022 10:55:17 AM	67371
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/11/2022 10:46:41 AM	67372
Surr: BFB	98.9	37.7-212		%Rec	1	5/11/2022 10:46:41 AM	67372
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	5/11/2022 10:46:41 AM	67372
Toluene	ND	0.048		mg/Kg	1	5/11/2022 10:46:41 AM	67372
Ethylbenzene	ND	0.048		mg/Kg	1	5/11/2022 10:46:41 AM	67372
Xylenes, Total	ND	0.096		mg/Kg	1	5/11/2022 10:46:41 AM	67372
Surr: 4-Bromofluorobenzene	97.7	70-130		%Rec	1	5/11/2022 10:46:41 AM	67372

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205428**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** S5-WWA
Project: State D SWD 1 **Collection Date:** 5/9/2022 9:06:00 AM
Lab ID: 2205428-009 **Matrix:** SOIL **Received Date:** 5/10/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	69	60		mg/Kg	20	5/10/2022 10:52:07 PM	67381
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**ED**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/10/2022 7:59:45 PM	67371
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/10/2022 7:59:45 PM	67371
Surr: DNOP	80.1	51.1-141		%Rec	1	5/10/2022 7:59:45 PM	67371
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/11/2022 11:10:15 AM	67372
Surr: BFB	101	37.7-212		%Rec	1	5/11/2022 11:10:15 AM	67372
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.025		mg/Kg	1	5/11/2022 11:10:15 AM	67372
Toluene	ND	0.050		mg/Kg	1	5/11/2022 11:10:15 AM	67372
Ethylbenzene	ND	0.050		mg/Kg	1	5/11/2022 11:10:15 AM	67372
Xylenes, Total	ND	0.10		mg/Kg	1	5/11/2022 11:10:15 AM	67372
Surr: 4-Bromofluorobenzene	97.4	70-130		%Rec	1	5/11/2022 11:10:15 AM	67372

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205428**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** S5-EW
Project: State D SWD 1 **Collection Date:** 5/9/2022 10:19:00 AM
Lab ID: 2205428-010 **Matrix:** SOIL **Received Date:** 5/10/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	85	60		mg/Kg	20	5/10/2022 11:04:32 PM	67381
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**ED**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/10/2022 8:14:50 PM	67371
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/10/2022 8:14:50 PM	67371
Surr: DNOP	88.4	51.1-141		%Rec	1	5/10/2022 8:14:50 PM	67371
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/11/2022 11:33:45 AM	67372
Surr: BFB	99.0	37.7-212		%Rec	1	5/11/2022 11:33:45 AM	67372
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.025		mg/Kg	1	5/11/2022 11:33:45 AM	67372
Toluene	ND	0.050		mg/Kg	1	5/11/2022 11:33:45 AM	67372
Ethylbenzene	ND	0.050		mg/Kg	1	5/11/2022 11:33:45 AM	67372
Xylenes, Total	ND	0.099		mg/Kg	1	5/11/2022 11:33:45 AM	67372
Surr: 4-Bromofluorobenzene	96.6	70-130		%Rec	1	5/11/2022 11:33:45 AM	67372

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205428**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: S6-B
Project: State D SWD 1
Collection Date: 5/9/2022 10:21:00 AM
Lab ID: 2205428-011 **Matrix:** SOIL **Received Date:** 5/10/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	64	60		mg/Kg	20	5/10/2022 11:16:56 PM	67381
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/10/2022 8:29:44 PM	67371
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/10/2022 8:29:44 PM	67371
Surr: DNOP	87.2	51.1-141		%Rec	1	5/10/2022 8:29:44 PM	67371
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/11/2022 12:20:42 PM	67372
Surr: BFB	102	37.7-212		%Rec	1	5/11/2022 12:20:42 PM	67372
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	5/11/2022 12:20:42 PM	67372
Toluene	ND	0.046		mg/Kg	1	5/11/2022 12:20:42 PM	67372
Ethylbenzene	ND	0.046		mg/Kg	1	5/11/2022 12:20:42 PM	67372
Xylenes, Total	ND	0.093		mg/Kg	1	5/11/2022 12:20:42 PM	67372
Surr: 4-Bromofluorobenzene	97.6	70-130		%Rec	1	5/11/2022 12:20:42 PM	67372

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2205428**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: S6-EW
Project: State D SWD 1
Collection Date: 5/9/2022 10:23:00 AM
Lab ID: 2205428-012 **Matrix:** SOIL **Received Date:** 5/10/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	100	60		mg/Kg	20	5/10/2022 11:29:21 PM	67381
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**ED**
Diesel Range Organics (DRO)	27	9.8		mg/Kg	1	5/10/2022 8:44:31 PM	67371
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/10/2022 8:44:31 PM	67371
Surr: DNOP	90.9	51.1-141		%Rec	1	5/10/2022 8:44:31 PM	67371
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/11/2022 12:44:10 PM	67372
Surr: BFB	96.3	37.7-212		%Rec	1	5/11/2022 12:44:10 PM	67372
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	5/11/2022 12:44:10 PM	67372
Toluene	ND	0.048		mg/Kg	1	5/11/2022 12:44:10 PM	67372
Ethylbenzene	ND	0.048		mg/Kg	1	5/11/2022 12:44:10 PM	67372
Xylenes, Total	ND	0.095		mg/Kg	1	5/11/2022 12:44:10 PM	67372
Surr: 4-Bromofluorobenzene	93.6	70-130		%Rec	1	5/11/2022 12:44:10 PM	67372

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2205428**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: S6-WWA
Project: State D SWD 1
Collection Date: 5/9/2022 10:25:00 AM
Lab ID: 2205428-013 **Matrix:** SOIL **Received Date:** 5/10/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	210	60		mg/Kg	20	5/10/2022 11:41:45 PM	67381
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**ED**
Diesel Range Organics (DRO)	38	9.9		mg/Kg	1	5/10/2022 8:59:21 PM	67371
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/10/2022 8:59:21 PM	67371
Surr: DNOP	82.3	51.1-141		%Rec	1	5/10/2022 8:59:21 PM	67371
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/11/2022 1:07:38 PM	67372
Surr: BFB	96.0	37.7-212		%Rec	1	5/11/2022 1:07:38 PM	67372
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.025		mg/Kg	1	5/11/2022 1:07:38 PM	67372
Toluene	ND	0.050		mg/Kg	1	5/11/2022 1:07:38 PM	67372
Ethylbenzene	ND	0.050		mg/Kg	1	5/11/2022 1:07:38 PM	67372
Xylenes, Total	ND	0.099		mg/Kg	1	5/11/2022 1:07:38 PM	67372
Surr: 4-Bromofluorobenzene	96.5	70-130		%Rec	1	5/11/2022 1:07:38 PM	67372

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2205428**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: EB-N
Project: State D SWD 1
Collection Date: 5/9/2022 10:27:00 AM
Lab ID: 2205428-014 **Matrix:** SOIL **Received Date:** 5/10/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	970	60		mg/Kg	20	5/10/2022 11:54:09 PM	67381
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**ED**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/10/2022 9:14:05 PM	67371
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/10/2022 9:14:05 PM	67371
Surr: DNOP	82.2	51.1-141		%Rec	1	5/10/2022 9:14:05 PM	67371
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/11/2022 1:31:08 PM	67372
Surr: BFB	96.8	37.7-212		%Rec	1	5/11/2022 1:31:08 PM	67372
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	5/11/2022 1:31:08 PM	67372
Toluene	ND	0.048		mg/Kg	1	5/11/2022 1:31:08 PM	67372
Ethylbenzene	ND	0.048		mg/Kg	1	5/11/2022 1:31:08 PM	67372
Xylenes, Total	ND	0.096		mg/Kg	1	5/11/2022 1:31:08 PM	67372
Surr: 4-Bromofluorobenzene	96.0	70-130		%Rec	1	5/11/2022 1:31:08 PM	67372

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2205428**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: EB-M
Project: State D SWD 1
Collection Date: 5/9/2022 10:29:00 AM
Lab ID: 2205428-015 **Matrix:** SOIL **Received Date:** 5/10/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	84	60		mg/Kg	20	5/11/2022 12:06:34 AM	67381
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**ED**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/10/2022 9:28:54 PM	67371
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/10/2022 9:28:54 PM	67371
Surr: DNOP	83.7	51.1-141		%Rec	1	5/10/2022 9:28:54 PM	67371
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/11/2022 1:54:40 PM	67372
Surr: BFB	98.5	37.7-212		%Rec	1	5/11/2022 1:54:40 PM	67372
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	5/11/2022 1:54:40 PM	67372
Toluene	ND	0.048		mg/Kg	1	5/11/2022 1:54:40 PM	67372
Ethylbenzene	ND	0.048		mg/Kg	1	5/11/2022 1:54:40 PM	67372
Xylenes, Total	ND	0.097		mg/Kg	1	5/11/2022 1:54:40 PM	67372
Surr: 4-Bromofluorobenzene	97.2	70-130		%Rec	1	5/11/2022 1:54:40 PM	67372

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2205428**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: EB-S
Project: State D SWD 1
Collection Date: 5/9/2022 10:31:00 AM
Lab ID: 2205428-016 **Matrix:** SOIL **Received Date:** 5/10/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	5/11/2022 12:18:58 AM	67381
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**ED**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/10/2022 9:43:30 PM	67371
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/10/2022 9:43:30 PM	67371
Surr: DNOP	80.3	51.1-141		%Rec	1	5/10/2022 9:43:30 PM	67371
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/11/2022 2:18:16 PM	67372
Surr: BFB	96.9	37.7-212		%Rec	1	5/11/2022 2:18:16 PM	67372
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	5/11/2022 2:18:16 PM	67372
Toluene	ND	0.048		mg/Kg	1	5/11/2022 2:18:16 PM	67372
Ethylbenzene	ND	0.048		mg/Kg	1	5/11/2022 2:18:16 PM	67372
Xylenes, Total	ND	0.096		mg/Kg	1	5/11/2022 2:18:16 PM	67372
Surr: 4-Bromofluorobenzene	95.3	70-130		%Rec	1	5/11/2022 2:18:16 PM	67372

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205428**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** WB-N
Project: State D SWD 1 **Collection Date:** 5/9/2022 10:33:00 AM
Lab ID: 2205428-017 **Matrix:** SOIL **Received Date:** 5/10/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	5/11/2022 12:31:23 AM	67381
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**ED**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/10/2022 9:58:37 PM	67371
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/10/2022 9:58:37 PM	67371
Surr: DNOP	82.3	51.1-141		%Rec	1	5/10/2022 9:58:37 PM	67371
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/11/2022 2:41:51 PM	67372
Surr: BFB	104	37.7-212		%Rec	1	5/11/2022 2:41:51 PM	67372
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	5/11/2022 2:41:51 PM	67372
Toluene	ND	0.048		mg/Kg	1	5/11/2022 2:41:51 PM	67372
Ethylbenzene	ND	0.048		mg/Kg	1	5/11/2022 2:41:51 PM	67372
Xylenes, Total	ND	0.096		mg/Kg	1	5/11/2022 2:41:51 PM	67372
Surr: 4-Bromofluorobenzene	97.7	70-130		%Rec	1	5/11/2022 2:41:51 PM	67372

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205428**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** WB-M
Project: State D SWD 1 **Collection Date:** 5/9/2022 10:35:00 AM
Lab ID: 2205428-018 **Matrix:** SOIL **Received Date:** 5/10/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	98	60		mg/Kg	20	5/11/2022 1:08:36 AM	67381
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**ED**
Diesel Range Organics (DRO)	17	10		mg/Kg	1	5/10/2022 10:13:42 PM	67371
Motor Oil Range Organics (MRO)	54	50		mg/Kg	1	5/10/2022 10:13:42 PM	67371
Surr: DNOP	90.7	51.1-141		%Rec	1	5/10/2022 10:13:42 PM	67371
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/11/2022 3:05:25 PM	67372
Surr: BFB	102	37.7-212		%Rec	1	5/11/2022 3:05:25 PM	67372
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	5/11/2022 3:05:25 PM	67372
Toluene	ND	0.048		mg/Kg	1	5/11/2022 3:05:25 PM	67372
Ethylbenzene	ND	0.048		mg/Kg	1	5/11/2022 3:05:25 PM	67372
Xylenes, Total	ND	0.096		mg/Kg	1	5/11/2022 3:05:25 PM	67372
Surr: 4-Bromofluorobenzene	97.9	70-130		%Rec	1	5/11/2022 3:05:25 PM	67372

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205428**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG
Client Sample ID: WB-S
Project: State D SWD 1
Collection Date: 5/9/2022 10:37:00 AM
Lab ID: 2205428-019 **Matrix:** SOIL **Received Date:** 5/10/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	570	60		mg/Kg	20	5/10/2022 9:58:38 PM	67385
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/10/2022 10:28:53 PM	67371
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/10/2022 10:28:53 PM	67371
Surr: DNOP	91.4	51.1-141		%Rec	1	5/10/2022 10:28:53 PM	67371
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/11/2022 3:29:03 PM	67372
Surr: BFB	94.7	37.7-212		%Rec	1	5/11/2022 3:29:03 PM	67372
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	5/11/2022 3:29:03 PM	67372
Toluene	ND	0.048		mg/Kg	1	5/11/2022 3:29:03 PM	67372
Ethylbenzene	ND	0.048		mg/Kg	1	5/11/2022 3:29:03 PM	67372
Xylenes, Total	ND	0.097		mg/Kg	1	5/11/2022 3:29:03 PM	67372
Surr: 4-Bromofluorobenzene	95.1	70-130		%Rec	1	5/11/2022 3:29:03 PM	67372

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2205428**

13-May-22

Client: EOG

Project: State D SWD 1

Sample ID: **MB-67381**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **67381**	RunNo: **87873**							
Prep Date: **5/10/2022**	Analysis Date: **5/10/2022**	SeqNo: **3115002**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-67381**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **67381**	RunNo: **87873**							
Prep Date: **5/10/2022**	Analysis Date: **5/10/2022**	SeqNo: **3115003**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.3	90	110			

Sample ID: **MB-67385**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **67385**	RunNo: **87894**							
Prep Date: **5/10/2022**	Analysis Date: **5/10/2022**	SeqNo: **3115237**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-67385**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **67385**	RunNo: **87894**							
Prep Date: **5/10/2022**	Analysis Date: **5/10/2022**	SeqNo: **3115238**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.1	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2205428**

13-May-22

Client: EOG

Project: State D SWD 1

Sample ID: **MB-67371**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **67371**	RunNo: **87866**
Prep Date: **5/10/2022**	Analysis Date: **5/10/2022**	SeqNo: **3115676** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.9		10.00		98.8	51.1	141			

Sample ID: **LCS-67371**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **67371**	RunNo: **87866**
Prep Date: **5/10/2022**	Analysis Date: **5/10/2022**	SeqNo: **3115677** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.2	68.9	135			
Surr: DNOP	4.6		5.000		93.0	51.1	141			

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2205428**

13-May-22

Client: EOG

Project: State D SWD 1

Sample ID: **mb-67372**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **67372**	RunNo: **87896**
Prep Date: **5/10/2022**	Analysis Date: **5/11/2022**	SeqNo: **3115282** 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	1000		1000		101	37.7	212			

Sample ID: **lcs-67372**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **67372**	RunNo: **87896**
Prep Date: **5/10/2022**	Analysis Date: **5/11/2022**	SeqNo: **3116399** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	108	72.3	137			
Surr: BFB	2100		1000		213	37.7	212			S

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **G87896**	RunNo: **87896**
Prep Date:	Analysis Date: **5/11/2022**	SeqNo: **3116402** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		101	37.7	212			

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G87896**	RunNo: **87896**
Prep Date:	Analysis Date: **5/11/2022**	SeqNo: **3116403** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	2200		1000		221	37.7	212			S

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2205428**

13-May-22

Client: EOG

Project: State D SWD 1

Sample ID: **mb-67372**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **67372**	RunNo: **87896**
Prep Date: **5/10/2022**	Analysis Date: **5/11/2022**	SeqNo: **3115291** 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	0.99		1.000		99.4	70	130			

Sample ID: **LCS-67372**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **67372**	RunNo: **87896**
Prep Date: **5/10/2022**	Analysis Date: **5/11/2022**	SeqNo: **3116440** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.025	1.000	0	86.9	80	120			
Toluene	0.92	0.050	1.000	0	92.2	80	120			
Ethylbenzene	0.93	0.050	1.000	0	93.0	80	120			
Xylenes, Total	2.8	0.10	3.000	0	93.7	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		100	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B87896**	RunNo: **87896**
Prep Date:	Analysis Date: **5/11/2022**	SeqNo: **3116443** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.98		1.000		98.3	70	130			

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B87896**	RunNo: **87896**
Prep Date:	Analysis Date: **5/11/2022**	SeqNo: **3116444** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.99		1.000		99.2	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 2205428 | RcptNo: 1

Received By: Juan Rojas 5/10/2022 7:00:00 AM

Completed By: Cheyenne Cason 5/10/2022 7:54:48 AM

Reviewed By: KPH 5.10.22

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? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
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? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: JNS 5/10/22

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	1.3	Good	Not Present			

Chain-of-Custody Record

Client: EOG-Artesia / Ranger Env.

Mailing Address: EOG - 105 S 4th St, Artesia NM, 88210

Ranger: PO Box 201179, Austin TX 78720

Phone #: 521-335-1785

email or Fax#: Will@RangerEnv.com

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

Accreditation: ☐ Az Compliance
■ NELAC ☐ Other_____
■ EDD (Type) Excel

Turn-Around Time:
☐ Standard ☒ Rush 24-hr.

Project Name: State D SWD #1

Project #: 5375

Project Manager: W. Kierdorf

Sampler: W. Kennedy
On Ice: ☒ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 1.3-0=1.3

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Time ~~Date~~	Date ~~Time~~	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2205428	BTEX (8021)	TPH:8015D(GRO / DRO / MRO)	Chloride (EPA 300)
0820	5/9/22	Soil	S3-N	1 x 4oz	ICE	001	X	X	X
0824			S3-W			002			
0828			S4-N			003			
0834			S4-B			004			
0840			S4-EW			005			
0900			S4-SW			006			
0902			S4-WWA			007			
0904			S5-B			008			
0906			S5-WVA			009			
1019			S5-EW			010			
1021			S6-B			011			
1023			S6-EW			012			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
5/9/22	1333	W. Kennedy			5/9/22	1333
5/9/22	1700			courier	5/10/22	7:00

Remarks: Bill to EOG Artesia

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 repo

Chain-of-Custody Record

Client: EOG-Artesia / Ranger Env.

Mailing Address: EOG - 105 S 4th St, Artesia NM, 88210

Ranger: PO Box 201179, Austin TX 78720

Phone #: 521-335-1785

email or Fax#: Will@RangerEnv.com

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

Accreditation: ☐ Az Compliance
■ NELAC ☐ Other_____
■ EDD (Type) Excel

Turn-Around Time:
☐ Standard ☒ Rush 24 hr

Project Name:
State D SWD #1

Project #: 5375

Project Manager: W. Kierdorf

Sampler: W. Kennedy
On Ice: ☒ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 1.3-0=1.3

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2205428	BTEX (8021)	TPH:8015D(GRO / DRO / MRO)	Chloride (EPA 300)
5/9/22	1025	Soil	S6-WWA	1x40mlVial	Ice	013	X	X	X
"	1027	"	EB-N	"	"	014	"	"	"
"	1029	"	EB-M	"	"	015	"	"	"
"	1031	"	EB-S	"	"	016	"	"	"
"	1033	"	WB-N	"	"	017	"	"	"
"	1035	"	WB-M	"	"	018	"	"	"
"	1037	"	WB-S	"	"	019	"	"	"

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
05/9/22	1333	W. Kennedy	[signature]		5/9/22	1333
5/9/22	1900	[signature]	[signature]	CDO	5/10/22	7:00

Remarks: Bill to EOG Artesia

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 repo

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

May 18, 2022

Will Kierdorf
EOG
105 South Fourth Street
Artesia, NM 88210
TEL:
FAX:

RE: State D SWD 1 OrderNo.: 2205671

Dear Will Kierdorf:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/14/2022 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2205671**
Date Reported: **5/18/2022**

CLIENT: EOG **Client Sample ID:** S4-BA
Project: State D SWD 1 **Collection Date:** 5/13/2022 10:30:00 AM
Lab ID: 2205671-001 **Matrix:** MEOH (SOIL) **Received Date:** 5/14/2022 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	390	60		mg/Kg	20	5/16/2022 12:19:54 PM	67476
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/16/2022 10:56:33 AM	67470
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/16/2022 10:56:33 AM	67470
Surr: DNOP	85.0	51.1-141		%Rec	1	5/16/2022 10:56:33 AM	67470
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	5/16/2022 11:15:44 AM	67457
Surr: BFB	94.8	37.7-212		%Rec	1	5/16/2022 11:15:44 AM	67457
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.015		mg/Kg	1	5/16/2022 11:15:44 AM	67457
Toluene	ND	0.031		mg/Kg	1	5/16/2022 11:15:44 AM	67457
Ethylbenzene	ND	0.031		mg/Kg	1	5/16/2022 11:15:44 AM	67457
Xylenes, Total	ND	0.061		mg/Kg	1	5/16/2022 11:15:44 AM	67457
Surr: 4-Bromofluorobenzene	94.0	70-130		%Rec	1	5/16/2022 11:15:44 AM	67457

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2205671**
Date Reported: **5/18/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG **Client Sample ID:** EB-NA
Project: State D SWD 1 **Collection Date:** 5/13/2022 10:43:00 AM
Lab ID: 2205671-002 **Matrix:** MEOH (SOIL) **Received Date:** 5/14/2022 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	610	60		mg/Kg	20	5/17/2022 10:45:36 AM	67476
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/16/2022 11:37:34 AM	67470
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/16/2022 11:37:34 AM	67470
Surr: DNOP	81.8	51.1-141		%Rec	1	5/16/2022 11:37:34 AM	67470
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.4		mg/Kg	1	5/16/2022 11:39:09 AM	67457
Surr: BFB	97.8	37.7-212		%Rec	1	5/16/2022 11:39:09 AM	67457
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.027		mg/Kg	1	5/16/2022 11:39:09 AM	67457
Toluene	ND	0.054		mg/Kg	1	5/16/2022 11:39:09 AM	67457
Ethylbenzene	ND	0.054		mg/Kg	1	5/16/2022 11:39:09 AM	67457
Xylenes, Total	ND	0.11		mg/Kg	1	5/16/2022 11:39:09 AM	67457
Surr: 4-Bromofluorobenzene	95.0	70-130		%Rec	1	5/16/2022 11:39:09 AM	67457

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	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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2205671**

18-May-22

Client: EOG

Project: State D SWD 1

Sample ID: **MB-67476**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **67476**	RunNo: **88022**
Prep Date: **5/16/2022**	Analysis Date: **5/16/2022**	SeqNo: **3121392** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-67476**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **67476**	RunNo: **88022**
Prep Date: **5/16/2022**	Analysis Date: **5/16/2022**	SeqNo: **3121394** 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			

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2205671**

18-May-22

Client: EOG

Project: State D SWD 1

Sample ID: **MB-67470**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **67470**	RunNo: **88020**
Prep Date: **5/16/2022**	Analysis Date: **5/16/2022**	SeqNo: **3119942** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.1		10.00		80.6	51.1	141			

Sample ID: **LCS-67470**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **67470**	RunNo: **88020**
Prep Date: **5/16/2022**	Analysis Date: **5/16/2022**	SeqNo: **3119943** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.6	68.9	135			
Surr: DNOP	4.1		5.000		82.6	51.1	141			

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2205671**

18-May-22

Client: EOG

Project: State D SWD 1

Sample ID: **mb-67457**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **67457**	RunNo: **88023**							
Prep Date: **5/13/2022**	Analysis Date: **5/16/2022**	SeqNo: **3120460**	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	1000		1000		99.9	37.7	212			

Sample ID: **lcs-67457**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **67457**	RunNo: **88023**							
Prep Date: **5/13/2022**	Analysis Date: **5/16/2022**	SeqNo: **3120528**	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	101	72.3	137			
Surr: BFB	2100		1000		206	37.7	212			

Sample ID: **lcs-67463**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **67463**	RunNo: **88053**							
Prep Date: **5/14/2022**	Analysis Date: **5/17/2022**	SeqNo: **3121609**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1900		1000		189	37.7	212			

Sample ID: **mb-67463**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **67463**	RunNo: **88053**							
Prep Date: **5/14/2022**	Analysis Date: **5/17/2022**	SeqNo: **3121610**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	860		1000		85.6	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	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#: **2205671**

18-May-22

Client: EOG

Project: State D SWD 1

Sample ID: **mb-67457**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **67457**	RunNo: **88023**
Prep Date: **5/13/2022**	Analysis Date: **5/16/2022**	SeqNo: **3120505** 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		95.3	70	130			

Sample ID: **lcs-67463**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **67463**	RunNo: **88053**
Prep Date: **5/14/2022**	Analysis Date: **5/17/2022**	SeqNo: **3121613** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.91		1.000		90.8	70	130			

Sample ID: **mb-67463**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **67463**	RunNo: **88053**
Prep Date: **5/14/2022**	Analysis Date: **5/17/2022**	SeqNo: **3121614** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.91		1.000		91.1	70	130			

Sample ID: **lcs-67457**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **67457**	RunNo: **88033**
Prep Date: **5/13/2022**	Analysis Date: **5/17/2022**	SeqNo: **3121632** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.025	1.000	0	85.1	80	120			
Toluene	0.87	0.050	1.000	0	87.3	80	120			
Ethylbenzene	0.87	0.050	1.000	0	86.8	80	120			
Xylenes, Total	2.6	0.10	3.000	0	85.6	80	120			
Surr: 4-Bromofluorobenzene	0.90		1.000		89.9	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 2205671 | RcptNo: 1

Received By: **Sean Livingston** 5/14/2022 9:45:00 AM Sean Livingston

Completed By: **Sean Livingston** 5/14/2022 10:03:47 AM Sean Livingston

Reviewed By: SGL 5/14/22

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? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
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? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: SGL 5/14/22

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	5.9	Good				

Chain-of-Custody Record

Client: EOG-Artesia / Ranger Env.

Mailing Address: EOG - 105 S 4th St, Artesia NM, 88210

Ranger: PO Box 201179, Austin TX 78720

Phone #: 521-335-1785

email or Fax#: Will@RangerEnv.com

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

Accreditation: ☐ Az Compliance
■ NELAC ☐ Other

■ EDD (Type) Excel

Turn-Around Time:
☐ Standard ☒ Rush Same Day

Project Name:
State D SWD #1

Project #: 5375

Project Manager: W. Kierdorf

Sampler: W. Kennedy
On Ice: ☑ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 5.4 +0.1 = 5.5 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX (8021)	TPH:8015D(GRO / DRO / MRO)	Chloride (EPA 300)
5/13/22	1030	Soil	SS-BA	1x 4oz jar	~~None~~ ICE	2205671-001	X	X	X
"	1043	"	FB-~~MA~~ NA per Erin Sun 5/14/22	"	"	-002	"	"	"

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
5/13/22	1235	W. Kennedy	[signature]		5/13/22	1235
5/13/22	1900	[signature]	See courier		5/14/22	9:45

Remarks: Bill to EOG Artesia

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 repo

ATTACHMENT 3 – NMOCD CORRESPONDENCE

From: Tina Huerta <Tina_Huerta@eogresources.com>
Sent: Monday, April 11, 2022 9:54 AM
To: Robert.Hamlet@state.nm.us
Cc: Artesia S&E Spill Remediation <Artesia_S&E_Spill_Remediation@eogresources.com>; Artesia Regulatory <Artesia_Regulatory@eogresources.com>
Subject: State D SWD #1 (nAPP2111048003) Sampling Notification

Good Morning,

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

State D SWD #1
30-015-21572
N-16-20S-24E
Eddy County, NM
nAPP2111048003

Sampling will begin at 10:00 a.m. on Wednesday, April 13, 2022, and be continuous through Thursday, April 14, 2022.

Thank you,

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

eog resources

Artesia Division

From: Tina Huerta <Tina_Huerta@eogresources.com>
Sent: Thursday, April 14, 2022 11:40 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: Artesia S&E Spill Remediation <Artesia_S&E_Spill_Remediation@eogresources.com>; Artesia Regulatory <Artesia_Regulatory@eogresources.com>
Subject: [EXTERNAL] State D SWD 1 (nAPP2111048003) Sampling Notification

Good Morning,

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

State D SWD 1
30-015-21572
N-16-20S-24E
Eddy County, New Mexico
nAPP2111048003

Sampling will begin at 12:00 p.m. on Tuesday, April 19, 2022, and be continuous through Friday, April 22, 2022.

Thank you,

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

eog resources
Artesia Division

rom: Tina Huerta <Tina_Huerta@eogresources.com>
ent: Thursday, May 5, 2022 8:46 AM
o: Robert.Hamlet@state.nm.us; rmann@slo.state.nm.us; mnaranjo@slo.state.nm.us
c: Artesia S&E Spill Remediation <Artesia_S&E_Spill_Remediation@eogresources.com>; Artesia Regulatory <Artesia_Regulatory@eogresources.com>
ubject: State D SWD 1 (nAPP2111048003) Sampling Notification

ood Morning,

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

State D SWD 1
N-16-20S-24E; Eddy County, NM
nAPP2111048003

Sampling will begin at 9:00 a.m. on Monday, May 9, 2022.

Thank you,

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

eog resources

Artesia Division

From: Miriam Morales <Miriam_Morales@eogresources.com>
Sent: Wednesday, May 11, 2022 11:15 AM
To: Robert.Hamlet@state.nm.us; rmann@slo.state.nm.us; mnaranjo@slo.state.nm.us
Cc: Artesia Regulatory <Artesia_Regulatory@eogresources.com>; Artesia S&E Spill Remediation <Artesia_S&E_Spill_Remediation@eogresources.com>
Subject: State D SWD #1 (nAPP2111048003) Sampling Notification

Good morning,

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

State D SWD #1
N-16-20S-24E; Eddy County, NM
nAPP2111048003

Sampling will begin at 10:30 a.m. on Friday, May 13, 2022.

Thank you,

Miriam Morales

From: Tina Huerta <Tina_Huerta@eogresources.com>
Sent: Wednesday, May 18, 2022 9:22 AM
To: Robert.Hamlet@state.nm.us; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Jennifer.Nobui@state.nm.us; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@state.nm.us>; rmann@slo.state.nm.us; mnaranjo@slo.state.nm.us
Cc: Artesia S&E Spill Remediation <Artesia_S&E_Spill_Remediation@eogresources.com>; Artesia Regulatory <Artesia_Regulatory@eogresources.com>
Subject: State D SWD 1 (nAPP2111048003) Sampling Notification

Good Morning,

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

State D SWD 1
N-16-20S-24E
Eddy County, NM
nAPP2111048003

Sampling will begin at 9:30 a.m. on Friday, May 20, 2022.

Thank you,

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

eog resources
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 108452

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 108452
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. All excavated soil that will be used for back-fill material will need to include 5-point composite sampling every 50 cubic yards to verify it meets Table 1 criteria standards. Floor confirmation samples should be delineated/excavated to meet closure criteria standards for site assessment/characterization/proven depth to water determination. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. Samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Confirmation samples should be collected every 200 ft2. The work will need to occur in 90 days after the work plan has been approved.	9/2/2022