

Volume calculator

There was no volume calculator prepared when the spill occurred.



Incident Number: nAB1810145936

Amended Deferral Request

Agate PWU 21 22 #062H

Section 21, Township 19 South, Range 29 East

API: 30-015-44201

County: Eddy

Vertex File Number: 23E-01653

Prepared for:

Devon Energy Production Company, LP

Prepared by:

Vertex Resource Services Inc.

Date:

June 2024

Devon Energy Production Company, LP
Agate PWU 21 22 #062H

Amended Deferral Request
June 2024

Amended Deferral Request
Agate PWU 21 22 #062H
Section 21, Township 19 South, Range 29 East
API: 30-015-44201
County: Eddy

Prepared for:
Devon Energy Production Company, LP
6488 Seven Rivers Highway
Artesia, New Mexico 88210

New Mexico Oil Conservation Division
508 W. Texas Ave.
Artesia, New Mexico 88210

Prepared by:
Vertex Resource Services Inc.
3101 Boyd Drive
Carlsbad, New Mexico 88220

Stephanie McCarty

Stephanie McCarty, B.Sc.
ENVIRONMENTAL TECHNICIAN, REPORTING

June 4, 2024

Date

kent stallings P.G.

Kent Stallings, P.G.
PROJECT MANAGER, REPORT REVIEW

June 14, 2024

Date

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1.0 Introduction

Devon Energy Production Company, LP (Devon) retained Vertex Resource Services Inc. (Vertex) to conduct a Release Assessment and Closure for a crude oil and produced water release that occurred on March 23, 2018, at Agate PWU 21 CTB in relation to Agate PWU 21 22 #062H, API 30-015-44201 (hereafter referred to as the “site”). Devon submitted an initial C-141 Release Notification (Appendix A) to New Mexico Oil Conservation Division (NMOCD) District 2 on April 6, 2018. Incident ID number nAB1810145936 was assigned to this incident. A closure and deferral request were submitted to the NMOCD on January 18, 2024, and was denied on January 22, 2024.

This is an amended deferral request intended to meet the objections noted in the denial of the original deferral request. This report provides a description of the release assessment and remediation activities associated with the site. The information presented demonstrates that closure criteria established in Table I of 19.15.29.12 of the *New Mexico Administrative Code* (NMAC; New Mexico Oil Conservation Division, 2018) related to NMOCD has been met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from NMOCD for closure and deferral of respective portions of this release, with the understanding that restoration of the release site will be deferred until such time as all oil and gas activities are terminated and the site is reclaimed following remediation activities as per NMAC 19.15.29.13.

2.0 Incident Description

The release occurred on March 23, 2018, due to a water dump valve on a separator releasing fluid onto the pad, around equipment. The incident was reported on April 6, 2018, and involved the release of 8 barrels (bbl.) of crude oil and 4 bbl. of produced water; all release fluids were contained on location. During the initial clean-up, no fluids were recovered. Additional details relevant to the release are presented in the C-141 Report (Appendix A).

Additionally, a release occurred on August 28, 2018, from a horizontal separator releasing fluid onto the pad and around equipment within the proposed deferral request area. It is unknown if the incident was reportable or the volumes of the release. During initial clean-up, it is unknown if fluids were recovered, and it is assumed they remained on location. A surface sample, TP23-01, was collected from the location.

3.0 Site Characteristics

The site is located approximately 15 miles northeast of Carlsbad, New Mexico at 32.645720° N, 104.086021° W (Google Inc., 2023). The legal location for the site is Section 21, Township 19 South and Range 29 East in Eddy County, New Mexico. The release area is located on state property. An aerial photograph and characterization sampling site schematic is presented on Figure 1.

The location is typical of oil and gas exploration and production sites in the Permian Basin and is currently used for oil and gas production. The following sections specifically describe the release area at the site or in proximity to the constructed pad (Figure 1).

The *Geological Map of New Mexico* (New Mexico Bureau of Geology and Mineral Resources, 2023) indicates the surface geology at the site primarily comprises Qp – Piedmont alluvial deposits (Holocene to lower Pleistocene). The soil at the

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site is characterized as Reeves-Gypsum land complex loam (United States Department of Agriculture, Natural Resources Conservation Service, 2023). Additional soil characteristics include well drained soil with high runoff and low available moisture levels in the soil profile. The karst geology potential for the site is high (United States Department of the Interior, Bureau of Land Management, 2018).

The surrounding landscape is associated with uplands landforms, mainly on hill slopes, such as ridges, plains and terraces, and some fan piedmont remnants, at elevations of 2,842 to 5,000 feet above sea level. The climate is semiarid with average annual precipitation ranging between 8 and 14 inches. Using information from the United States Department of Agriculture, the dominant vegetation was determined to be grasses with shrubs. Tobosa, black grama and blue grama are the dominant species in this area. Overgrazing and extended drought can reduce grass cover, transitioning into a burrograss-grassland state with threeawns, sand dropseed, sand muhly and broom snakeweed expansion (United States Department of Agriculture, Natural Resources Conservation Service, 2023). Limited to no vegetation is allowed to grow on the compacted production pad, right-of-way and access road.

4.0 Closure Criteria Determination

The nearest depth to groundwater reference for the site is the United States Geological Survey well USGS 323900104052901. It is located approximately 0.42 miles northwest of the site, last recorded a depth to groundwater from 1983 of 67.2 feet below ground surface (bgs; United States Geological Survey, 2023). Information pertaining to the depth to groundwater determination is included in Appendix B.

There is no surface water present at the site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is an intermittent stream identified in the National Wetlands Inventory approximately 1.18 miles west of the site (United States Fish and Wildlife Service, 2023). The nearest potential sinkhole to the site is 0.22 miles to the north (Google Inc., 2023).

At the site, there are no continuously flowing watercourses or significant watercourses, lakebeds, sinkholes, playa lakes or other critical water or community features as outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC. The site is in a region of High Karst Potential (United States Department of the Interior, Bureau of Land Management, 2018). Information pertaining to the closure criteria determination is summarized in Table 1 and references are included in Appendix B.

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Table 1. Closure Criteria Determination			
Site Name: Agate PWU 21 22 #062H			
Spill Coordinates: 32.645720,-104.086021		X: 585721	Y: 3612381
Site Specific Conditions		Value	Unit
1	Depth to Groundwater (nearest reference)	67	feet
	Distance between release and nearest DTGW reference	2,220	feet
		0.42	miles
	Date of nearest DTGW reference measurement	January 12, 1983	
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	6,258	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	1,177	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	40,193	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or	2,018	feet
	ii) Within 1000 feet of any fresh water well or spring	2,018	feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	1,963	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
	Distance between release and nearest registered mine	36,841	feet
9	Within an unstable area (Karst Map)	High	Critical High Medium Low
	Distance between release and nearest unstable area	0	feet
10	Within a 100-year Floodplain	>500	year
	Distance between release and nearest FEMA Zone A (100-year Floodplain)	2,541	feet
11	Soil Type	Loam, clay loam	
12	Ecological Classification	Loamy	
13	Geology	Piedmont alluvial deposits	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	<50'	<50' 51-100' >100'

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The closure criteria determined for the site are associated with the following constituent concentration limits as presented in Table 2.

Table 2. Closure Criteria for Soils Impacted by a Release		
Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Limit
< 50 feet	Chloride	600 mg/kg
	TPH (GRO+DRO+MRO)	100 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

TDS – total dissolved solids

TPH – total petroleum hydrocarbons, GRO – gas range organics, DRO – diesel range organics, MRO – motor oil range organics

BTEX – benzene, toluene, ethylbenzene and xylenes

5.0 Remedial Actions Taken

5.1 Initial Characterization and Remediation

An initial site inspection of the release area was completed on April 4, 2023, and initial characterization was completed between April 19 and September 1, 2023, which identified the area of the release specified in the initial C-141 Report. The impacted area per closure criteria was determined to be approximately 229 feet long and 140 feet wide; the total affected area was 16,395 square feet.

Remediation efforts began on September 1, 2023, and were finalized on October 6, 2023. Vertex personnel supervised the excavation of impacted soils. Field screening was conducted and consisted of analysis using a Photo Ionization Detector (volatile hydrocarbons), Dextsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons) and silver nitrate titration (chlorides). Field screening results were used to identify areas requiring further remediation. During excavation, a reassessment of BH23-01 to determine the vertical extent of the release to below delineation criteria, and to complete characterization was conducted; sample BH23-01 at 7 feet bgs was below closure criteria. Characterization laboratory results are summarized in Table 3. Multiple rain events throughout the duration of confirmation sampling and excavation may have influenced vertical depth of constituents of concern within excavations and soils were removed to a maximum depth of 8 feet bgs. Confirmation laboratory results are summarized in Table 4, and an excavation and confirmation sampling site schematic are presented on Figure 2. It was believed that sample WS23-28 at 0 to 4 feet collected on September 14, 2023, and sample WS23-28 at 0-3.5 feet collected on October 5, 2023, were collected in different areas after reviewing sample depths and results. Figure 2 depicts the location of the final sample collected on October 5, 2023. Sampling and Daily Field Reports documenting various phases of the remediation are presented in Appendix C.

Based on the initial characterization of the impacted area, it was determined that the dimensions of the contamination extended immediately under and around production equipment along the northwestern half of the pad. Vertex and Devon requested a deferral for the impacted areas beneath and around the equipment. Excavation near equipment and beneath pipes, where it was safely accessible, was reduced to a depth of 6 inches to 1 foot. Excavation was

advanced to 1 foot around TP23-01 and between horizontal separators. Excavation was halted adjacent to equipment to preserve the structural integrity of the ground beneath equipment. The deferral was requested due to safety concerns concerning operating near the production equipment and as the facility is a high production facility. Deferral of remediation of the release area under the production equipment was requested until such time as all oil and gas activities are terminated and the site is reclaimed per 19.15.29.13 NMAC. The deferral area request schematic is presented on Figure 3. Confirmation samples in the deferral area are identified as a purple highlighted row in Table 4.

Notifications that confirmatory samples were being collected were provided to the NMOCD on September 8, 18 and 28, 2023 (Appendix D). Confirmatory composite samples were collected from the base and walls of the excavation in 200 square foot increments. A total of 121 samples were collected for laboratory analysis following NMOCD soil sampling procedures. Samples were submitted to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico, under chain-of-custody protocols and analyzed for BTEX (EPA Method 8021B), total petroleum hydrocarbons (GRO, DRO, MRO – EPA Method 8015D) and total chlorides (EPA Method 300.0). Laboratory results are presented in Table 4, and the laboratory data reports are included in Appendix E. Laboratory results for all confirmatory samples collected outside the deferral area were below closure criteria for the site.

5.2 Closure and Deferral Denial and Supplementary Characterization

Devon submitted the initial closure and deferral report to the NMOCD on January 18, 2024. The initial request was denied on January 22, 2024, with following notations:

“Deferral request denied. High levels of impacted soil, including BS23-97 at 54,066 ppm total TPH, exist within the area requested for deferral. The area requested for deferral is located in an area of depth to groundwater less than 50 feet and within a high karst boundary. Areas of impact pose a threat to the environment and groundwater. High areas of impact are not vertically and/or horizontally delineated. Examples, WS23-39, WS23-46, BS23-51, BS23-41, BS23-97, etc.. Sample results for BH23-27 through BH23-42 are missing from the table. Sample areas are listed on Figure 1 and the table. Submit a report by April 26, 2024.”

On March 27, 2024, samples were re-collected from the surface 0.5 feet of material at each of the borehole locations missing laboratory data from the original closure report. All re-collected samples were sent for laboratory analyses. To meet the needs stated above, the Initial Characterization results table was reformatted to include Field Screening results for all samples in addition to laboratory results. The 2023 and March 2024 field screening results for samples collected at BH23-27 through BH23-42 at 0-0.5 feet bgs are presented in Table 1. Laboratory results for samples collected from BH23-27 through BH23-42 on March 27, 2024, were below NMOCD strictest criteria for chloride and TPH, confirming horizontal delineation of impacted area.

Vertex personnel completed additional characterization within the Deferral Request Area between February 5 and March 28, 2024, by advancing 29 boreholes and submitting 66 additional samples for laboratory analysis. Field screening and laboratory results are presented in Table 5. Boreholes BH24-05, BH24-04, BH24-03, and BH24-15 were advanced at the approximate centers of base sample locations BS24-51, BS24-41, BS24-97, and BS24-36, respectively. Borehole BH24-23 was advanced at the approximate center of wall excavation sample location WS24-46. Vertical delineation of the Deferral Request Area was completed, and sample point locations are presented in Figure 4.

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Confirmation base sample BS23-55 and wall sample WS23-89 are also included in Figure 4 to illustrate that BH24-02 has been delineated horizontally.

The laboratory results of the initial characterization, confirmation sampling events, and supplementary characterization provide horizontal and vertical delineation of the Deferral Request Area and are identified to aid future reclamation efforts.

6.0 Deferral Request

Vertex recommends no additional remediation action at this time to address the release at Agate PWU 21 22 #062H until the equipment on-site is decommissioned and removed. Laboratory analyses of the final confirmatory samples collected outside the deferral request area showed constituent of concern concentration levels below NMOCD closure criteria for areas where depth to groundwater is less than 50 feet bgs as shown in Table 2. Areas of release were remediated and backfilled with local soils by October 23, 2023.

On behalf of Devon, Vertex requests deferral of the portions of the release that are designated in proximity to dense equipment and is deemed unsafe for excavation of contaminated materials. The release and deferral request areas have been fully delineated with the understanding that should the deferral request be accepted, restoration of this portion of the release will be deferred until such time as all oil and gas activities are terminated and the site is reclaimed following remediation activities as per NMAC 19.15.29.13. Those areas are identified in Figure 4. The release volume was 12 bbl and was localized to the pad in immediate proximity of production equipment and infrastructure. Facility deconstruction will be required to complete remediation of the release.

Vertex respectfully requests the deferral to be granted on the grounds that the contamination is fully delineated and does not cause an imminent risk to human health, the environment, or ground water. Final remediation and reclamation shall take place in accordance with 19.15.29.12 and 19.15.29.13 NMAC once the site is no longer being used for oil and gas operations.

Should you have any questions or concerns, please do not hesitate to contact Kent Stallings at 346.814.1413 or kstallings@vertex.ca.

7.0 References

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Agate PWU 21 22 #062H

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8.0 Limitations

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

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

FIGURES

Document Path: G:\1-Projects\US PROJECTS\Devon Energy Corporation\2023\23E-01653- Agate PWU 21 22 #062H\Figure 1 Characterization Schematic_Agate PWU 21 22 #062H(23E-01653).mxd



- ◆ Borehole (Prefixed by "BH23-")
- ⬡ Approximate Lease Boundary
- ⬢ Approximate Release Area (~16,395 sq.ft.)



0 10 20 40 ft.

NAD 1983 UTM Zone 12N
Date: Jul 07/23

Map Center:
Lat: 32.645708,
Long: -104.086026



Characterization Sampling Site Schematic Agate PWU 21 22 #062H

FIGURE:

1

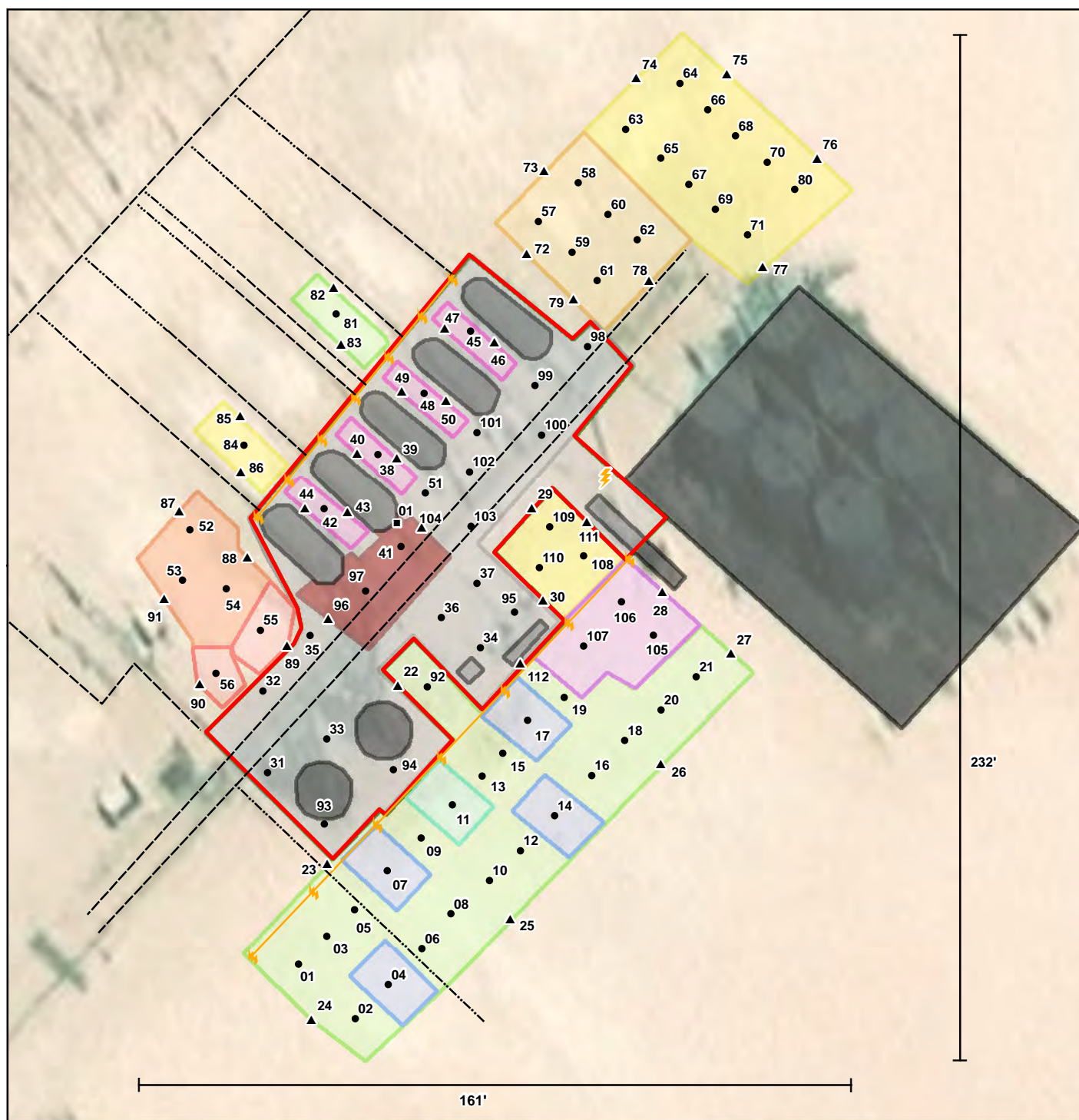


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Note: Georeferenced image from ESRI, 2021. Site features from GPS, Vertex Professional Services Ltd., 2023. Lease boundary approximate from imagery.

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Document Path: C:\Users\scantari\Vertex Resource Group Ltd\Vertex US Operations - General\Environmental Services\10 - Geomatics\SPC\Devon 23E-01653\Agate PWU 21 22 #062H\Figure 2 Confirmation Sampling Site Schematic 23E-01653 Req 17531.mxd



- | | | |
|----------------------------|---|--|
| ● Base Sample (Excavated) | Excavation to 1 ft. bgs (~416 sq.ft.) | Excavation to 7.5 ft. bgs (~602 sq.ft.) |
| ⚡ Power Pole | Excavation to 2 ft. bgs (~4,520 sq.ft.) | Excavation to 8 ft. bgs (~274 sq.ft.) |
| ▲ Wall Sample (Excavated) | Excavation to 2.5 ft. bgs (~744 sq.ft.) | Deferred Excavation to 0.5 ft. bgs (~5,917 sq.ft.) |
| ■ Testpit | Excavation to 3 ft. bgs (~187 sq.ft.) | Deferred Excavation to 1 ft. bgs (~469 sq.ft.) |
| ⚡ Buried Electric Line | Excavation to 3.5 ft. bgs (~605 sq.ft.) | Deferral Request Area |
| --- Pipeline (Aboveground) | Excavation to 4 ft. bgs (~2,291 sq.ft.) | Production Equipment |
| --- Pipeline (Underground) | Excavation to 5 ft. bgs (~980 sq.ft.) | |



0 5 10 20 ft.
NAD 1983 UTM Zone 13N
Date: Dec 12/23

Map Center:
Lat: 32.645709,
Long: -104.085912



Confirmation Sampling Site Schematic Agate PWU 21 22 #062H

FIGURE:

2

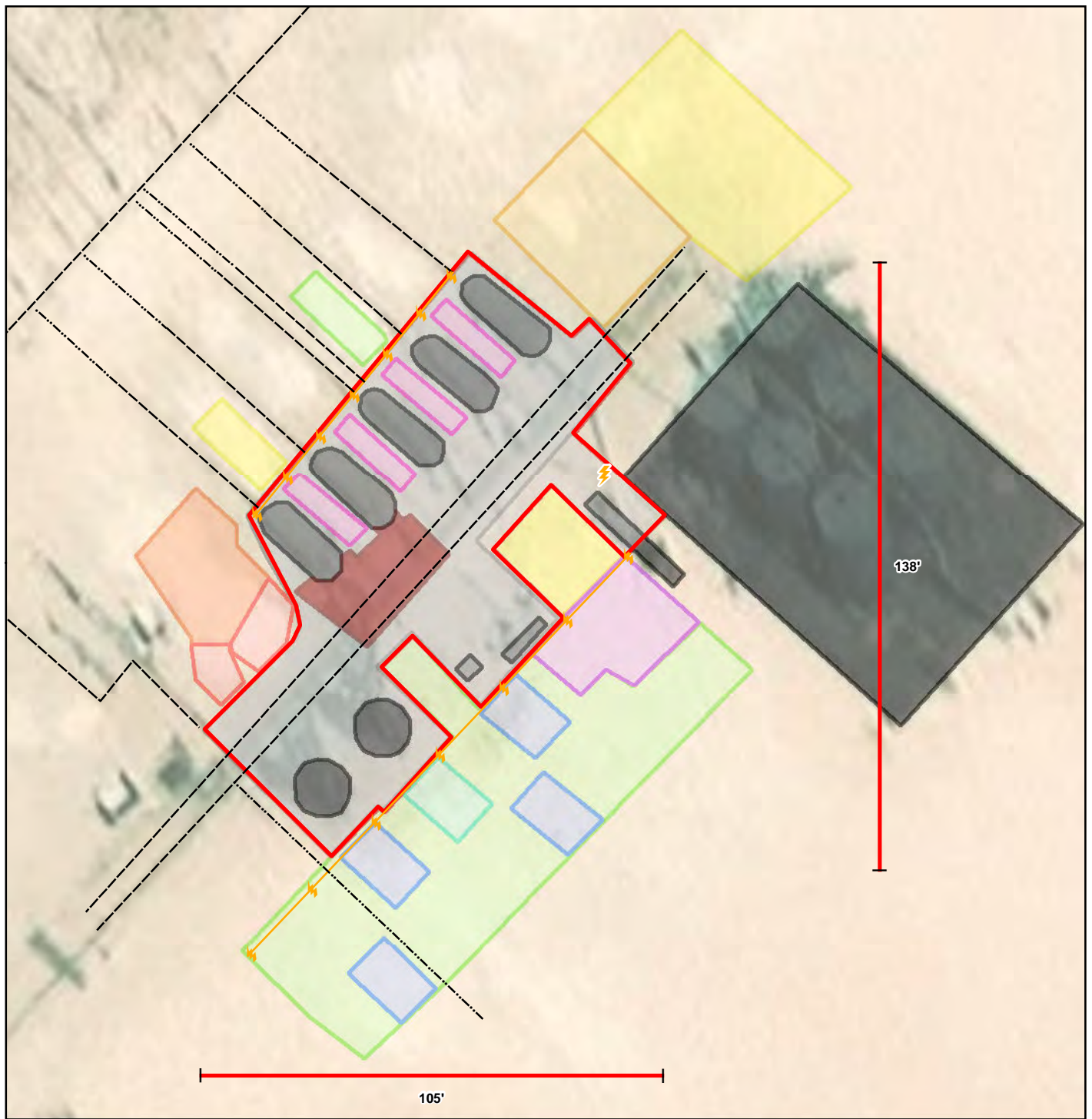


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Note: Georeferenced image from Esri, 2022. Features from GPS. Vertex Professional Services Ltd., 2023.

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Document Path: C:\Users\cantan\Vertex Resource Group Ltd\Vertex US Operations - General\Environmental Services\10 - Geomatics\SPC\Devon 23E-01653 Agate PWU 21 22 #062H\Figure 3 Deferral Area Request Schematic 23E-01653 Req 17532.mxd



- | | | |
|---------------------------------------|---|--|
| Power Pole | Excavation to 2 ft. bgs (~4,520 sq.ft.) | Excavation to 7.5 ft. bgs (~602 sq.ft.) |
| Buried Electric Line | Excavation to 2.5 ft. bgs (~744 sq.ft.) | Excavation to 8 ft. bgs (~274 sq.ft.) |
| Pipeline (Aboveground) | Excavation to 3 ft. bgs (~187 sq.ft.) | Deferred Excavation to 0.5 ft. bgs (~5,917 sq.ft.) |
| Pipeline (Underground) | Excavation to 3.5 ft. bgs (~605 sq.ft.) | Deferred Excavation to 1 ft. bgs (~469 sq.ft.) |
| Excavation to 1 ft. bgs (~416 sq.ft.) | Excavation to 4 ft. bgs (~2,291 sq.ft.) | Deferral Request Area (~6,417 sq.ft.) |
| | Excavation to 5 ft. bgs (~980 sq.ft.) | Production Equipment |



0 5 10 20 ft.
NAD 1983 UTM Zone 13N
Date: Dec 12/23

Map Center:
Lat: 32.645709,
Long: -104.085912



Deferral Area Request Schematic Agate PWU 21 22 #062H

FIGURE:

3



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Note: Georeferenced image from Esri, 2022. Features from GPS. Vertex Professional Services Ltd., 2023.

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Document Path: S:\04 - Geomatics\1-Projects\US PROJECTS\Devon Energy Corporation\2023\23E-01653-Agate PWU 21 22 #062H\Figure 4 Deferral Request Characterization Sampling Site Schematic (23E-01653)ID 18553.mxd



- ◆ Borehole (Prefixed by "BH24-")
- Base Sample
- ▲ Wall Sample
- Deferral Request Area (~6,417 sq. ft.)
- Approximate Lease Boundary



0 10 20 ft
NAD 1983 UTM Zone 13N
Date: May 31/24

Map Center:
Lat: 32.645708,
Long: -104.085985



Deferral Request Characterization Sampling Site Schematic Agate PWU 21 22 #062H

FIGURE:
4



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

Note: Georeferenced image from ESRI, 2021. Site features from GPS, Vertex Professional Services Ltd. (Vertex), 2024. Lease boundary approximate from imagery by Vertex, 2024.

VERSATILITY. EXPERTISE.

TABLES

Client Name: Devon Energy Production Company, LP

Site Name: Agate PWU 21 22 #062H

NMOCD Tracking #: NAB1810145936

Project #: 23E-01653

Lab Reports: 2304915, 2306178, 2306188, 2305348, 2306D42, 2308H10, and 885-2010-1

Table 3. Initial Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater <50 feet bgs

Table 3. Initial Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater <50 feet bgs													
Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Volatile		Extractable					
						Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH23-01	0	April 19, 2023	-	-	3,362	ND	ND	ND	7200	4700	7,200	11,900	300
	2	June 2, 2023	-	-	925	ND	ND	ND	ND	ND	ND	ND	430
	4	June 2, 2023	-	-	1,250	ND	ND	ND	27	ND	27	27	1800
	6	June 2, 2023	-	37	238	ND	ND	ND	49	ND	49	49	620
	7	September 1, 2023	-	59	693	ND	ND	ND	ND	ND	ND	ND	360
BH23-02	0	April 19, 2023	-	-	1,805	-	-	-	-	-	-	-	-
BH23-03	0	April 19, 2023	-	-	1,291	ND	ND	15	11000	6400	11,015	17,415	280
BH23-04	0	April 19, 2023	-	1,004	3,107	ND	ND	ND	13000	9000	13,000	22,000	2200
	2	June 2, 2023	-	434	575	ND	ND	ND	160	83	160	243	380
	4	June 2, 2023	-	22	425	ND	ND	ND	ND	ND	ND	ND	130
BH23-05	0	April 19, 2023	-	935	2,391	ND	ND	ND	16000	10000	16,000	26,000	ND
	2	June 2, 2023	-	23	288	ND	ND	ND	ND	ND	ND	ND	70
BH23-06	0	April 19, 2023	-	90	2,636	ND	ND	ND	13	ND	13	13	100
	2	June 2, 2023	-	4	268	ND	ND	ND	ND	ND	ND	ND	140
BH23-07	0	April 19, 2023	-	427	2,980	ND	ND	ND	93	170	93	263	110
	2	June 2, 2023	-	41	320	ND	ND	ND	ND	ND	ND	ND	ND
BH23-08	0	April 19, 2023	-	204	3,155	ND	ND	ND	36	69	36	105	470
BH23-09	0	April 19, 2023	-	423	2,791	ND	ND	ND	66	95	66	161	ND
BH23-10	0	April 19, 2023	-	-	3,146	-	-	-	-	-	-	-	-
BH23-11	0	April 19, 2023	-	-	3,074	-	-	-	-	-	-	-	-
BH23-12	0	April 19, 2023	-	-	2,524	ND	ND	ND	ND	ND	ND	ND	ND
	2	June 2, 2023	-	36	550	ND	ND	ND	ND	ND	ND	ND	ND
BH23-13	0	April 19, 2023	-	-	962	ND	ND	ND	3700	3100	3,700	6,800	97
	2	June 2, 2023	-	22	575	ND	ND	ND	ND	ND	ND	ND	120
BH23-14	0	April 19, 2023	-	44	1,063	ND	ND	ND	ND	ND	ND	ND	61
	2	June 2, 2023	-	67	1,050	ND	ND	ND	ND	ND	ND	ND	220
BH23-15	0	April 19, 2023	-	-	3,033	ND	ND	ND	77	92	77	169	75
	2	June 2, 2023	-	22	450	ND	ND	ND	ND	ND	ND	ND	ND
BH23-16	0	June 1, 2023	-	45	350	ND	ND	ND	ND	ND	ND	ND	160
	2	June 2, 2023	-	24	313	ND	ND	ND	ND	ND	ND	ND	ND
BH23-17	0	April 19, 2023	-	32	1,018	ND	ND	ND	ND	ND	ND	ND	ND
	2	June 2, 2023	-	32	328	ND	ND	ND	ND	ND	ND	ND	ND
BH23-18	0	April 19, 2023	-	-	1,713	-	-	-	-	-	-	-	-
BH23-19	0	June 1, 2023	-	41	248	ND	ND	ND	ND	ND	ND	ND	79
	2	June 2, 2023	-	33	388	ND	ND	ND	ND	ND	ND	ND	ND
BH23-20	0	May 4, 2023	-	97	2,198	ND	ND	ND	ND	ND	ND	ND	120
	1	May 4, 2023	-	78	2,078	ND	ND	ND	ND	ND	ND	ND	110
BH23-21	0	May 4, 2023	-	86	2,994	ND	ND	ND	ND	ND	ND	ND	110
	1	May 4, 2023	-	92	2,560	ND	ND	ND	ND	ND	ND	ND	ND
BH23-22	0	May 4, 2023	-	64	2,795	ND	ND	ND	ND	ND	ND	ND	ND
	2	June 2, 2024	-	73	225	ND	ND	ND	ND	ND	ND	ND	ND
BH23-23	0	May 4, 2023	-	51	1,418	ND	ND	ND	ND	ND	ND	ND	ND
	2	June 2, 2026	-	65	238	ND	ND	ND	ND	ND	ND	ND	ND
BH23-24	0	May 4, 2023	-	1,087	253	ND	ND	ND	5,000	4,600	5,000	9,600	95
	1	May 4, 2023	-	897	57	ND	ND	ND	5,700	5,800	5,700	11,500	160
	2	June 2, 2023	-	-	1,460	ND	ND	ND	23	ND	23	23	710
	4	June 2, 2023	-	21	550	ND	ND	ND	ND	ND	ND	ND	260
BH23-25	0	May 4, 2023	-	45	1,132	ND	ND	ND	ND	ND	ND	ND	ND
	2	June 2, 2023	-	81	263	ND	ND	ND	ND	ND	ND	ND	ND
BH23-26	0	May 4, 2023	-	43	106	ND	ND	ND	ND	ND	ND	ND	ND
	2	June 2, 2023	-	43	1,375	ND	ND	ND	ND	ND	ND	ND	820
BH23-27	0	May 5, 2023	-	103	701	-	-	-	-	-	-	-	-
	0-0.5	March 27, 2024	0	18	520	ND	ND	ND	ND	ND	ND	ND	320
BH23-28	0	May 5, 2023	-	96	1,111	-	-	-	-	-	-	-	-
	0-0.5	March 27, 2024	0	28	558	ND	ND	ND	ND	ND	ND	ND	110
BH23-29	0	May 5, 2023	-	90	2,251	-	-	-	-	-	-	-	-
	0-0.5	March 27, 2024	0	13	345	ND	ND	ND	ND	ND	ND	ND	ND

Client Name: Devon Energy Production Company, LP

Site Name: Agate PWU 21 22 #062H

NMOCD Tracking #: NAB1810145936

Project #: 23E-01653

Lab Reports: 2304915, 2306178, 2306188, 2305348, 2306D42, 2308H10, and 885-2010-1

Table 3. Initial Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater <50 feet bgs

Table 3. Initial Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater <50 feet bgs													
Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Volatile		Extractable					
						Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
BH23-30	0	May 5, 2023	-	71	1,072	-	-	-	-	-	-	-	-
	0-0.5	March 27, 2024	0	19	378	ND	ND	ND	ND	ND	ND	ND	ND
BH23-31	0	May 5, 2023	-	84	2,140	-	-	-	-	-	-	-	-
	0-0.5	March 27, 2024	0	20	420	ND	ND	ND	ND	ND	ND	ND	88
BH23-32	0	May 5, 2023	-	30	2,740	-	-	-	-	-	-	-	-
	0-0.5	March 27, 2024	0	26	345	ND	ND	ND	ND	ND	ND	ND	ND
BH23-33	0	May 5, 2023	-	73	2,948	-	-	-	-	-	-	-	-
	0-0.5	March 27, 2024	0	16	225	ND	ND	ND	ND	ND	ND	ND	ND
BH23-34	0	May 5, 2023	-	32	2,105	-	-	-	-	-	-	-	-
	0-0.5	March 27, 2024	0	25	375	ND	ND	ND	ND	ND	ND	ND	ND
BH23-35	0	May 5, 2023	-	47	2,671	-	-	-	-	-	-	-	-
	0-0.5	March 27, 2024	0	29	425	ND	ND	ND	ND	ND	ND	ND	ND
	2	June 2, 2023	-	58	550	ND	ND	ND	ND	ND	ND	ND	ND
BH23-36	0	May 5, 2023	-	-	2,540	-	-	-	-	-	-	-	-
	0-0.5	March 27, 2024	0	30	333	ND	ND	ND	ND	ND	ND	ND	150
BH23-37	0	May 5, 2023	-	-	3,404	-	-	-	-	-	-	-	-
	0-0.5	March 27, 2024	0	34	418	ND	ND	ND	ND	ND	ND	ND	110
BH23-38	0	May 5, 2023	-	-	3,085	-	-	-	-	-	-	-	-
	0-0.5	March 27, 2024	0	10	303	ND	ND	ND	10	ND	10	10	ND
BH23-39	0	May 5, 2023	-	-	288	-	-	-	-	-	-	-	-
	0-0.5	March 27, 2024	0	19	315	ND	ND	ND	ND	ND	ND	ND	ND
BH23-40	0	May 5, 2023	-	-	2,752	-	-	-	-	-	-	-	-
	0-0.5	March 27, 2024	0	32	363	ND	ND	ND	ND	ND	ND	ND	ND
BH23-41	0	May 5, 2023	-	-	2,882	-	-	-	-	-	-	-	-
	0-0.5	March 27, 2024	0	27	443	ND	ND	ND	ND	ND	ND	ND	ND
BH23-42	0	May 5, 2023	-	-	2,794	-	-	-	-	-	-	-	-
	0-0.5	March 27, 2024	0	55	430	ND	ND	ND	ND	ND	ND	ND	120
BH23-43	0	June 1, 2023	-	45	251	ND	ND	ND	ND	ND	ND	ND	ND
	2	June 2, 2023	-	18	310	ND	ND	ND	ND	ND	ND	ND	ND
BH23-44	0	June 2, 2023	-	38	375	ND	ND	ND	ND	ND	ND	ND	ND
	2	June 2, 2023	-	73	213	ND	ND	ND	ND	ND	ND	ND	ND
BH23-45	0	June 2, 2023	-	65	425	ND	ND	ND	ND	ND	ND	ND	ND
	2	June 2, 2023	-	87	550	ND	ND	ND	ND	ND	ND	ND	ND
BH23-46	0	June 2, 2023	-	61	463	ND	ND	ND	ND	ND	ND	ND	170
	2	June 2, 2023	-	-	2,613	ND	ND	ND	ND	ND	ND	ND	2,400
BH23-47	0	June 23, 2023	0	-	2,000	ND	ND	ND	ND	ND	ND	ND	10,000
	2	June 23, 2023	0	-	1,210	ND	ND	ND	ND	ND	ND	ND	760
BH23-48	0	June 23, 2023	0	48	297	ND	ND	ND	ND	ND	ND	ND	74
	2	June 23, 2023	0	33	382	ND	ND	ND	ND	ND	ND	ND	75
TP23-01	0	August 29, 2023	0	456	1,162	0.96	62.86	560	41,000	17,000	41,560	58,560	10,000

"ND" Not Detected at the Reporting Limit

"-" indicates not analyzed/assessed

Bold and grey shaded indicates exceedance outside of NMOCD Remediation Closure Criteria

Table 4. Confirmation Laboratory Results - Depth to Groundwater <50 feet bgs
 Devon Energy Production Company, LP
 Agate PWU 21 22 #062H
 NMOCD Tracking #: NAB1810145936
 Project #: 23E-01653
 Lab Reports: 2309848, 2309919, 2309973, 2309D01, 2310381 and 2310425

Sample Description			Petroleum Hydrocarbons										Inorganic
Sample ID	Depth (ft)	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Criteria	NMOCD - NMAC <50 ft 19.15.29 (2018)		10	-	-	-	50	-	-	-	-	100	600
2023 Confirmation													
WS23-22	0-2	September 13, 2023	ND	ND	ND	ND	ND	ND	930	520	930	1450	990
WS23-23	0-2	September 14, 2023	ND	ND	ND	ND	ND	ND	140	100	140	240	250
		October 5, 2023	ND	ND	ND	ND	ND	ND	67	ND	67	67	76
WS23-24	0-2	September 14, 2023	ND	ND	ND	ND	ND	ND	120	110	120	230	310
		October 5, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	71
WS23-25	0-2	September 14, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	170
WS23-26	0-2	October 5, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WS23-27	0-2	October 5, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WS23-28	0-4	September 14, 2023	ND	ND	ND	ND	ND	ND	360	260	360	620	440
WS23-28	0-3.5	October 5, 2023	ND	ND	ND	ND	ND	ND	84	ND	84	84	61
WS23-29	0-4	September 14, 2023	ND	ND	ND	ND	ND	ND	370	260	370	630	180
WS23-30	0-4	September 14, 2023	ND	ND	ND	ND	ND	ND	120	100	120	220	940
WS23-39	0-1	September 15, 2023	ND	ND	ND	ND	ND	ND	6300	6200	6300	12500	ND
WS23-40	0-1	September 15, 2023	ND	ND	ND	ND	ND	ND	2900	2300	2900	5200	1200
WS23-43	0-1	September 15, 2023	ND	ND	ND	ND	ND	ND	7000	4400	7000	11400	5300
WS23-44	0-1	September 15, 2023	ND	ND	ND	ND	ND	ND	9900	4500	7000	11500	3700
WS23-46	0-1	September 15, 2023	ND	ND	ND	ND	ND	ND	7100	4400	7100	11500	4100
WS23-47	0-1	September 15, 2023	ND	ND	ND	ND	ND	ND	1300	1200	1300	2500	85
WS23-49	0-1	September 15, 2023	ND	ND	ND	ND	ND	ND	1400	1000	1400	2400	160
WS23-50	0-1	September 15, 2023	ND	ND	ND	ND	ND	ND	970	1100	970	2070	250
WS23-72	0-5	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	140
WS23-73	0-5	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	61
WS23-74	0-4	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	93
WS23-75	0-4	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WS23-76	0-4	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WS23-77	0-4	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	68
WS23-78	0-5	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	98
WS23-79	0-5	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WS23-82	0-2	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WS23-83	0-2	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WS23-85	0-4	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WS23-86	0-4	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WS23-87	0-7	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	280
WS23-88	0-7	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WS23-89	0-7	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	290
WS23-90	0-7	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	410
WS23-91	0-7	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	110
WS23-96	0-1	October 5, 2023	ND	ND	ND	ND	ND	ND	1300	1300	1300	2600	1100
WS23-104	0-1	October 5, 2023	ND	ND	ND	ND	ND	ND	4000	2800	4000	6800	1800
WS23-111	0-4	October 6, 2023	ND	ND	ND	ND	ND	ND	1100	360	1100	1460	320
WS23-112	0-2	October 5, 2023	ND	ND	ND	ND	ND	ND	2700	1400	2700	4100	430
BS23-01	2	September 13, 2023	ND	ND	ND	ND	ND	ND	13	ND	13	13	ND
BS23-02	2	September 13, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	230
BE23-03	2	September 13, 2023	ND	ND	ND	ND	ND	ND	12	ND	12	12	ND
BS23-04	2	September 13, 2023	ND	ND	ND	ND	ND	ND	210	160	210	370	ND
	2.5	October 5, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-05	2	September 13, 2023	ND	ND	ND	ND	ND	ND	51	ND	51	51	100
BS23-06	2	September 13, 2023	ND	ND	ND	ND	ND	ND	11	ND	11	11	ND
BS23-07	2	September 13, 2023	ND	ND	ND	ND	ND	ND	160	120	160	280	ND
	2.5	October 5, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-08	2	September 13, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-09	2	September 13, 2023	ND	ND	ND	ND	ND	ND	50	ND	50	50	140

Table 4. Confirmation Laboratory Results - Depth to Groundwater <50 feet bgs
Devon Energy Production Company, LP
Agate PWU 21 22 #062H
NMOCD Tracking #: NAB1810145936
Project #: 23E-01653
Lab Reports: 2309848, 2309919, 2309973, 2309D01, 2310381 and 2310425

Sample Description			Petroleum Hydrocarbons										Inorganic
Sample ID	Depth (ft)	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
Criteria	NMOCD - NMAC <50 ft 19.15.29 (2018)		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			10	-	-	-	50	-	-	-	-	100	600
2023 Confirmation													
BS23-10	2	September 13, 2023	ND	ND	ND	ND	ND	ND	24	ND	24	24	ND
BS23-11	2	September 13, 2023	ND	ND	ND	ND	ND	ND	71	52	71	123	ND
	3	October 5, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-12	2	September 13, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-13	2	September 13, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	64
BS23-14	2	September 13, 2023	ND	ND	ND	ND	ND	ND	100	74	100	174	ND
	2.5	October 5, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-15	2	September 13, 2023	ND	ND	ND	ND	ND	ND	23	ND	23	23	250
BS23-16	2	September 13, 2023	ND	ND	ND	ND	ND	ND	20	ND	20	20	ND
BS23-17	2	September 13, 2023	ND	ND	ND	ND	ND	ND	80	87	80	167	ND
	2.5	October 5, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-18	2	September 13, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-19	2	September 13, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-20	2	September 13, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-21	2	September 13, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-31	0.5	September 15, 2023	ND	ND	ND	ND	ND	ND	4800	3300	4800	8100	290
BS23-32	0.5	September 15, 2023	ND	ND	ND	ND	ND	ND	4400	2800	4400	7200	2500
BS23-33	0.5	September 15, 2023	ND	ND	ND	ND	ND	ND	3800	4000	3800	7800	120
BS23-34	0.5	September 15, 2023	ND	ND	ND	ND	ND	ND	4700	2900	4700	7600	2200
BS23-35	0.5	September 15, 2023	ND	ND	ND	ND	ND	ND	2100	2600	2100	4700	ND
BS23-36	0.5	September 15, 2023	ND	ND	ND	ND	ND	ND	5200	4600	5200	9800	4600
BS23-37	0.5	September 15, 2023	ND	ND	ND	ND	ND	ND	4100	4300	4100	8400	ND
BS23-38	1	September 15, 2023	ND	ND	ND	ND	ND	ND	6000	3200	6000	9200	1800
BS23-41	1	October 5, 2023	ND	ND	ND	ND	ND	ND	7900	4100	7900	12000	3000
BS23-42	1	September 15, 2023	ND	ND	ND	ND	ND	ND	1500	1100	1500	1100	1800
BS23-45	1	September 15, 2023	ND	ND	ND	ND	ND	ND	2100	1300	2100	3400	ND
BS23-48	1	September 15, 2023	ND	ND	ND	ND	ND	ND	250	250	250	500	130
BS23-51	0.5	September 15, 2023	ND	ND	ND	ND	ND	ND	6700	3800	6700	10500	2200
BS23-52	7	September 15, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	91
BS23-53	7	September 15, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	110
BS23-54	7	September 15, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	92
BS23-55	8	October 5, 2023	ND	ND	ND	ND	ND	ND	15	ND	15	15	ND
BS23-56	7	September 15, 2023	ND	ND	ND	ND	ND	ND	90	100	90	190	230
	8	October 5, 2023	ND	ND	ND	ND	ND	ND	33	ND	33	33	ND
BS23-57	5	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-58	5	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-59	5	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-60	5	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-61	5	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-62	5	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	67
BS23-63	4	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-64	4	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-65	4	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-66	4	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-67	4	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-68	4	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-69	4	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	79
BS23-70	4	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-71	4	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-80	4	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-81	2	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-84	4	September 21, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4. Confirmation Laboratory Results - Depth to Groundwater <50 feet bgs
 Devon Energy Production Company, LP
 Agate PWU 21 22 #062H
 NMOCD Tracking #: NAB1810145936
 Project #: 23E-01653
 Lab Reports: 2309848, 2309919, 2309973, 2309D01, 2310381 and 2310425

Sample Description			Petroleum Hydrocarbons										Inorganic
Sample ID	Depth (ft)	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Criteria	NMOCD - NMAC <50 ft 19.15.29 (2018)		10	-	-	-	50	-	-	-	-	100	600
2023 Confirmation													
BS23-92	2	October 5, 2023	ND	ND	ND	ND	ND	ND	53	ND	53	53	100
BS23-93	0.5	October 5, 2023	ND	ND	ND	ND	ND	ND	4600	3600	4600	8200	270
BS23-94	0.5	October 5, 2023	ND	ND	ND	ND	ND	ND	2100	1800	2100	3900	ND
BS23-95	0.5	October 5, 2023	ND	ND	ND	ND	ND	ND	3000	1700	3000	4700	590
BS23-97	1	October 5, 2023	ND	ND	0.07	0.55	0.62	66	40000	14000	40066	54066	2200
BS23-98	0.5	October 5, 2023	ND	ND	ND	ND	ND	ND	400	390	400	790	ND
BS23-99	0.5	October 5, 2023	ND	ND	ND	ND	ND	ND	180	160	180	340	ND
BS23-100	0.5	October 5, 2023	ND	ND	ND	ND	ND	ND	650	750	650	1400	90
BS23-101	0.5	October 5, 2023	ND	ND	ND	ND	ND	ND	270	270	270	540	ND
BS23-102	0.5	October 5, 2023	ND	ND	ND	ND	ND	ND	670	710	670	1380	260
BS23-103	0.5	October 5, 2023	ND	ND	ND	ND	ND	ND	940	870	940	1810	310
BS23-105	3.5	October 5, 2023	ND	ND	ND	ND	ND	ND	22	ND	22	22	ND
BS23-106	3.5	October 5, 2023	ND	ND	ND	ND	ND	ND	76	ND	76	76	ND
BS23-107	3.5	October 5, 2023	ND	ND	ND	ND	ND	ND	37	ND	37	37	ND
BS23-108	4	October 6, 2023	ND	ND	ND	ND	ND	ND	14	ND	14	14	ND
BS23-109	4	October 6, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS23-110	4	October 6, 2023	ND	ND	ND	ND	ND	ND	12	ND	12	12	ND

NMAC - New Mexico Administrative Code (Title 19, Chapter 15, Part 29; 2018)

ND - Not Detected at the Reporting Limit

- Denotes no standard/not analyzed

Bold and grey shaded indicates exceedance outside of NMOCD Closure Criteria (on-pad)

Purple shaded indicates exceedance outside of NMOCD Closure Criteria and in Deferral Request area

Client Name: Devon Energy Production Company, LP

Site Name: Agate PWU 21 22 #062H

NMOCD Tracking #: NAB1810145936

Project #: 23E-01653

Lab Reports: 2402409, 2402411, 2402525, 2402490, 885-2010-1, and 885-2144-1

Table 5. Deferral Area Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater <50 feet bgs

Table 5. Deferral Area Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater <50 feet bgs													
Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic Chloride Concentration
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Volatile		Extractable					
						Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH24-01	2	February 5, 2024	0	33	405	ND	ND	ND	ND	ND	ND	ND	110
	4	February 5, 2024	0	48	1,320	ND	ND	ND	ND	ND	ND	ND	980
	6	February 6, 2024	0	4	210	ND	ND	ND	ND	ND	ND	ND	72
BH24-02	2	February 5, 2024	0	6,324	350	ND	0.47	86	18,000	5,700	18,086	23,786	100
	4	February 5, 2024	0	70	472	ND	ND	ND	190	65	255	255	96
BH24-03	2	February 5, 2024	0	46	1,747	ND	ND	ND	ND	ND	ND	ND	1,400
	4	February 5, 2024	0	27	250	ND	ND	ND	ND	ND	ND	ND	69
BH24-04	2	February 6, 2024	0	16	4,082	ND	ND	ND	ND	ND	ND	ND	4,500
	4	February 6, 2024	0	0	225	ND	ND	ND	ND	ND	ND	ND	ND
BH24-05	2	February 6, 2024	0	8	755	ND	ND	ND	ND	ND	ND	ND	440
	4	February 6, 2024	0	20	787	ND	ND	ND	ND	ND	ND	ND	770
	6	February 6, 2024	0	14	255	ND	ND	ND	ND	ND	ND	ND	220
BH24-06	2	February 6, 2024	0	127	1,295	ND	ND	ND	130	58	130	188	1,000
	4	February 6, 2024	0	33	507	ND	ND	ND	15	ND	15	15	550
BH24-07	2	February 6, 2024	0	0	268	ND	ND	ND	ND	ND	ND	ND	ND
	4	February 6, 2024	0	0	250	ND	ND	ND	ND	ND	ND	ND	66
BH24-08	2	February 6, 2024	0	0	273	ND	ND	7.5	490	210	498	708	150
	4	February 6, 2024	0	0	295	ND	ND	ND	49	ND	49	49	160
BH24-09	2	February 6, 2024	0	3	548	ND	ND	ND	44	ND	44	44	120
	4	February 6, 2024	0	0	565	ND	ND	ND	15	ND	15	15	600
BH24-10	2	February 7, 2024	0	0	350	ND	ND	ND	ND	ND	ND	ND	ND
	4	February 7, 2024	0	0	360	ND	ND	ND	ND	ND	ND	ND	ND
BH24-11	2	February 7, 2024	0	0	390	ND	ND	ND	ND	ND	ND	ND	ND
	4	February 7, 2024	0	18	500	ND	ND	ND	ND	ND	ND	ND	160
BH24-12	2	February 7, 2024	0	104	490	ND	ND	ND	300	110	300	410	ND
	4	February 7, 2024	0	37	1,000	ND	ND	ND	38	ND	38	38	340
	6	February 8, 2024	0	0	395	ND	ND	ND	ND	ND	ND	ND	86
BH24-13	2	February 7, 2024	0	0	440	ND	ND	ND	ND	ND	ND	ND	ND
	4	February 7, 2024	0	0	587	ND	ND	ND	13	ND	13	13	220
BH24-14	2	February 8, 2024	0	76	425	ND	ND	ND	100	110	100	210	260
	4	February 8, 2024	0	0	532	ND	ND	ND	ND	ND	ND	ND	64
BH24-15	2	February 8, 2024	2	48	3,937	ND	ND	ND	39	ND	39	39	4,800
	4	February 8, 2024	2	5	2,385	ND	ND	ND	63	ND	63	63	2,400
	6	February 8, 2024	0	16	507	ND	ND	ND	ND	ND	ND	ND	350
BH24-16	2	February 8, 2024	0	0	515	ND	ND	ND	ND	ND	ND	ND	440
	4	February 8, 2024	0	0	250	ND	ND	ND	12	ND	12	12	230
BH24-17	2	February 8, 2024	4	8	1,125	ND	ND	ND	57	ND	57	57	760
	4	February 8, 2024	1	0	552	ND	ND	ND	ND	ND	ND	ND	420
BH24-18	2	February 8, 2024	0	0	295	ND	ND	ND	ND	ND	ND	ND	ND
	4	February 8, 2024	0	0	167	ND	ND	ND	ND	ND	ND	ND	ND
BH24-19	2	February 8, 2024	0	0	86	ND	ND	ND	ND	ND	ND	ND	61
	4	February 8, 2024	0	0	205	ND	ND	ND	ND	ND	ND	ND	ND
BH24-20	2	February 8, 2024	0	0	228	ND	ND	ND	ND	ND	ND	ND	110
	4	February 8, 2024	0	0	325	ND	ND	ND	ND	ND	ND	ND	200
BH24-21	2	February 8, 2024	0	6	375	ND	ND	ND	ND	ND	ND	ND	400
	4	February 8, 2024	0	0	440	ND	ND	ND	ND	ND	ND	ND	190
BH24-22	2	February 8, 2024	0	0	405	ND	ND	ND	ND	ND	ND	ND	270
	4	February 8, 2024	0	0	380	ND	ND	ND	ND	ND	ND	ND	170
BH24-23	2	March 28, 2024	0	13	460	ND	ND	ND	ND	ND	ND	ND	16
	4	March 28, 2024	0	14	540	ND	ND	ND	ND	ND	ND	ND	25
BH24-24	2	March 28, 2024	0	12	408	ND	ND	ND	ND	ND	ND	ND	23
	4	March 28, 2024	0	15	580	ND	ND	ND	ND	ND	ND	ND	67
BH24-25	2	March 27, 2024	0	23	855	ND	ND	ND	ND	ND	ND	ND	210
	4	March 27, 2024	0	29	2,200	ND	ND	ND	ND	ND	ND	ND	1,400
	6	March 28, 2024	0	77	735	ND	ND	ND	ND	ND	ND	ND	360
	8	March 28, 2024	0	16	278	ND	ND	ND	ND	ND	ND	ND	37

Client Name: Devon Energy Production Company, LP

Site Name: Agate PWU 21 22 #062H

NMOCD Tracking #: NAB1810145936

Project #: 23E-01653

Lab Reports: 2402409, 2402411, 2402525, 2402490, 885-2010-1, and 885-2144-1

Table 5. Deferral Area Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater <50 feet bgs													
Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (Petroflag)	Chloride Concentration	Volatile		Extractable					
						Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH24-26	2	March 28, 2024	0	8	530	ND	ND	ND	ND	ND	ND	ND	59
	4	March 28, 2024	0	11	323	ND	ND	ND	ND	ND	ND	ND	100
BH24-27	2	March 28, 2024	0	9	325	ND	ND	ND	ND	ND	ND	ND	17
	4	March 28, 2024	0	10	468	ND	ND	ND	ND	ND	ND	ND	220
BH24-28	2	March 28, 2024	0	27	895	ND	ND	ND	23	ND	23	23	400
	4	March 28, 2024	0	30	568	ND	ND	ND	ND	ND	ND	ND	260
BH24-29	2	March 28, 2024	0	20	1,293	ND	ND	ND	ND	ND	ND	ND	750
	4	March 28, 2024	0	11	1,078	ND	ND	ND	ND	ND	ND	ND	710
	6	March 28, 2024	0	14	785	ND	ND	ND	ND	ND	ND	ND	700
	8	March 28, 2024	0	33	523	ND	ND	ND	ND	ND	ND	ND	180

"ND" Not Detected at the Reporting Limit

"." indicates not analyzed/assessed

Bold and grey shaded indicates exceedance outside of NMOCD Remediation Closure Criteria

APPENDIX A - NMOCD C-141 Report

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

Form C-141
Revised April 3, 2017
Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

RECEIVED

APR 06 2018

Release Notification and Corrective Action

DAB1810145936

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Devon Energy Production Company 6137	Contact Hubert Perry
Address 6488 Seven Rivers Hwy Artesia, NM 88210	Telephone No. 575-748-3371
Facility Name Agate PWU 21 22 62H (release occurred on the Agate PWU 21 CTB I)	Facility Type Oil

Surface Owner State	Mineral Owner State	API No. 30-015-44201
---------------------	---------------------	----------------------

LOCATION OF RELEASE

Unit Letter L	Section 21	Township 19S	Range 29E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
------------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	----------------

Latitude 32.645720 Longitude 104.086021 NAD83

NATURE OF RELEASE

Type of Release Oil & Produced Water	Volume of Release 8 bbls of Oil & 4 bbls of Produced Water	Volume Recovered 0 bbls
Source of Release Separator	Date and Hour of Occurrence March 23, 2018 6:00 AM MST	Date and Hour of Discovery March 23, 2018 6:00 AM MST
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? N/A	
By Whom? N/A	Date and Hour N/A	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*
N/A

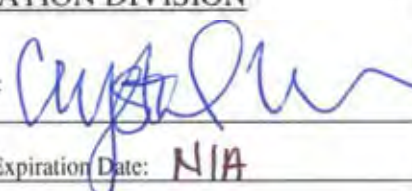
Describe Cause of Problem and Remedial Action Taken.*

The water dump valve on the separator had been washed out with sand causing a release. The well was immediately shut in to prevent further release.

Describe Area Affected and Cleanup Action Taken.*

Approximately 8 bbls of oil and 4 bbls of produced water was released from the separator. The area affected is approximately 50'x100'. All release fluids were contained on the location. An environmental contractor will be contacted to assist with delineation and remediation efforts.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: Michael Shoemaker		OIL CONSERVATION DIVISION	
Printed Name: Michael Shoemaker		Approved by Environmental Specialist: 	
Title: Environmental Professional		Approval Date: 4/10/18	Expiration Date: N/A
E-mail Address: mike.shoemaker@dmv.com		Conditions of Approval: see attached	
Date: 04/06/18	Phone: 575.748.3371	Attached 	

* Attach Additional Sheets If Necessary

4/11/18 AB

Incident ID	nAB1810145936
District RP	2RP-4695
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u><50</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

<p>Characterization Report Checklist: <i>Each of the following items must be included in the report.</i></p> <ul style="list-style-type: none"><input checked="" type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.<input checked="" type="checkbox"/> Field data<input checked="" type="checkbox"/> Data table of soil contaminant concentration data<input checked="" type="checkbox"/> Depth to water determination<input checked="" type="checkbox"/> Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release<input checked="" type="checkbox"/> Boring or excavation logs<input checked="" type="checkbox"/> Photographs including date and GIS information<input checked="" type="checkbox"/> Topographic/Aerial maps<input checked="" type="checkbox"/> Laboratory data including chain of custody

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

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	nAB1810145936
District RP	2RP-4695
Facility ID	
Application ID	

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

Printed Name: Dale Woodall Title: Env. Professional

Signature: _____ Date: _____

email: dale.woodall@dvn.com Telephone: 575-748-1838

OCD Only

Received by: _____ Date: _____

Incident ID	nAB1810145936
District RP	2RP-4695
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: Dale Woodall Title: Env. Professional

Signature: _____ Date: _____

email: dale.woodall@dvn.com Telephone: 575-748-1838**OCD Only**

Received by: _____ Date: _____

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

Signature: _____ Date: _____

Incident ID	nAB1810145936
District RP	2RP-4695
Facility ID	
Application ID	

Closure

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

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

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

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

Printed Name: Dale Woodall Title: Env. Professional

Signature: _____ Date: _____

email: dale.woodall@dvn.com Telephone: 575-748-1838

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

APPENDIX B – Closure Criteria Research Documentation

Nearest Well Map_Agate PWU 21 22 #062H



3/5/2024, 4:00:56 PM

- Override 1

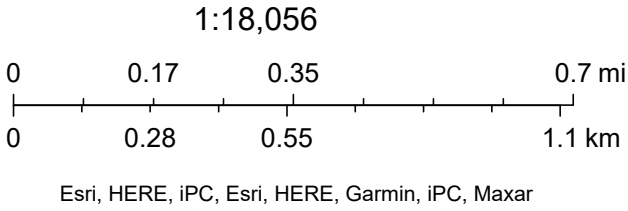
● GIS WATERS PODs

● Active

● Pending

● Plugged
- — NHD Flowlines

— Stream River
- OSE District Boundary



Agate PWU 21 22 #062H

-USGS 323900104052901

Well site is 0.42 miles or 2,220 ft from release.




Well groundwater level measurement was least read in 1983 at 67.2 ft.

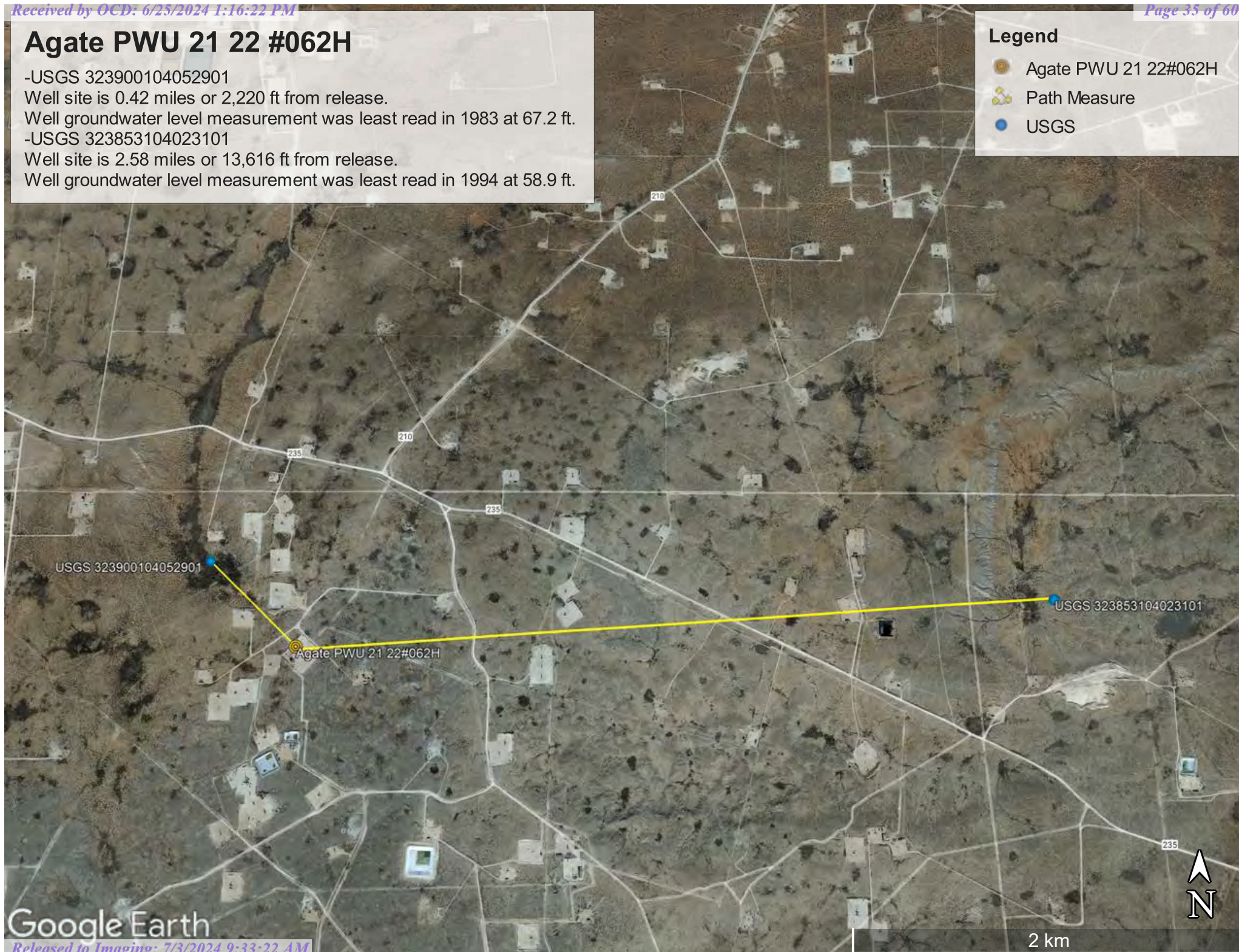
-USGS 323853104023101

Well site is 2.58 miles or 13,616 ft from release.

Well groundwater level measurement was least read in 1994 at 58.9 ft.

Legend

-  Agate PWU 21 22#062H
-  Path Measure
-  USGS





New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,
O=orphaned,
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
CP 00681		CP	ED	1	1	3	34	19S	29E	587230	3609127*	3586			
CP 00741		CP	ED	1	3	2	34	19S	29E	588030	3609533*	3666	230	60	170
CP 01090 POD1		CP	LE		1	2	31	20S	33E	586045	3608526	3868			
CP 00646		CP	ED	1	1	4	07	19S	29E	583155	3615551	4079	199	150	49
CP 00830 POD1		CP	LE		2	1	04	20S	29E	586118	3608193*	4206	120		
CP 01231 POD1		CP	ED	4	4	2	36	19S	28E	582311	3609372	4547	300	75	225
CP 00698 POD1		CP	ED		3	1	03	20S	29E	587393	3608010	4679			

Average Depth to Water: **95 feet**

Minimum Depth: **60 feet**

Maximum Depth: **150 feet**

Record Count: 7

UTM NAD83 Radius Search (in meters):

Easting (X): 585721

Northing (Y): 3612381

Radius: 5000

*UTM location was derived from PLSS - see Help

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

4/6/23 9:05 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category:Groundwater

Geographic Area:United States

GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

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

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 323900104052901

Minimum number of levels = 1

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

USGS 323900104052901 19S.29E.20.24111 RATLSNAKE

Eddy County, New Mexico
Latitude 32°39'00", Longitude 104°05'29" NAD27
Land-surface elevation 3,306 feet above NAVD88
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measured data
1948-12-13			D 62610		3241.75	NGVD29	P		Z	
1948-12-13			D 62611		3243.27	NAVD88	P		Z	
1948-12-13			D 72019	62.73			P		Z	
1965-12-09			D 62610		3239.07	NGVD29	P		Z	
1965-12-09			D 62611		3240.59	NAVD88	P		Z	
1965-12-09			D 72019	65.41			P		Z	
1968-04-02			D 62610		3235.89	NGVD29	1		Z	
1968-04-02			D 62611		3237.41	NAVD88	1		Z	
1968-04-02			D 72019	68.59			1		Z	
1971-02-01			D 62610		3237.61	NGVD29	1		Z	
1971-02-01			D 62611		3239.13	NAVD88	1		Z	
1971-02-01			D 72019	66.87			1		Z	
1976-12-07			D 62610		3234.17	NGVD29	P		Z	
1976-12-07			D 62611		3235.69	NAVD88	P		Z	
1976-12-07			D 72019	70.31			P		Z	
1983-01-12			D 62610		3237.27	NGVD29	1		Z	
1983-01-12			D 62611		3238.79	NAVD88	1		Z	

Date	Time	<div>?</div> Water-level date-time accuracy	<div>?</div> Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	<div>?</div> Status	<div>?</div> Method of measurement	<div>?</div> Measuring agency	<div>?</div> Source of measurement
1983-01-12			D	72019	67.21		1	Z		

Explanation		
Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Status	P	Pumping
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Title: Groundwater for USA: Water Levels
URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)
Page Last Modified: 2024-03-15 21:36:55 EDT
0.3 0.27 nadww02

Revised December 1975

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

Declaration of Owner of Underground Water Right

Declaration No. CP-1000 Date received 9/25/08 2-24078 1°BASIN NAME Capitan

STATEMENT

#415452

1. Name of Declarant Dagger Draw Ranch, Inc (NM Corporation)
 Mailing Address Box 1061 Carlsbad
 County of Eddy, State of New Mexico
2. Source of water supply shallow
 (artesian or shallow water aquifer)
3. Describe the well location under one of the following subheadings:
 a. NW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ of Sec. 20 Twp. 19S Rge. 29E N.M.P.M., in
 County.
 b. Tract No. _____ of Map No. _____ of the _____
 c. X = _____ feet, Y = _____ feet, N. M. Coordinate System _____ Zone
 in the _____ Grant.
 On land owned by _____
4. Description of well: date drilled Prior to 1948 driller unknown depth 150 feet.
 outside diameter of casing 7 inches; original capacity unk gal. per min.; present capacity unk
 gal. per min.; pumping lift _____ feet; static water level 68 feet (above) (below) land surface;
 make and type of pump unequipped
 make, type, horsepower, etc., of power plant _____
 Fractional or percentage interest claimed in well 100%
5. Quantity of water appropriated and beneficially used 3.0
 for Livestock watering (acre feet per acre) (acre feet per annum) purposes.
6. Acreage actually irrigated _____ acres, located and described as follows (describe only lands actually irrigated):

Subdivision	Sec.	Twp.	Range	Acres Irrigated	Owner
FIELD					
UNDER NEW MEXICO WATER DECLARATION ACT					
ONLY AS APPLICABLE TO DECLARATION ACT					
ACCORD TO SECTION 10-1-100 DOES NOT					
CONSTITUTE A VIOLATION OF THE ACT					
OF THE CLAIM					

(Note: location of well and acreage actually irrigated must be shown on plat on reverse side.)

7. Water was first applied to beneficial use Prior to 1948
 month _____ day _____ year _____ and since that time
 has been used fully and continuously on all of the above described lands or for the above described purposes except
 as follows: _____

8. Additional statements or explanations The well is known as the Rattlesnake well, well
is presently unused, but plans are to reuse the well in the future. Dagger
Draw Ranch, Inc (a New Mexico Corporation) is owned by Steve and Michelle McCutcheon.

I, Steve McCutcheon

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



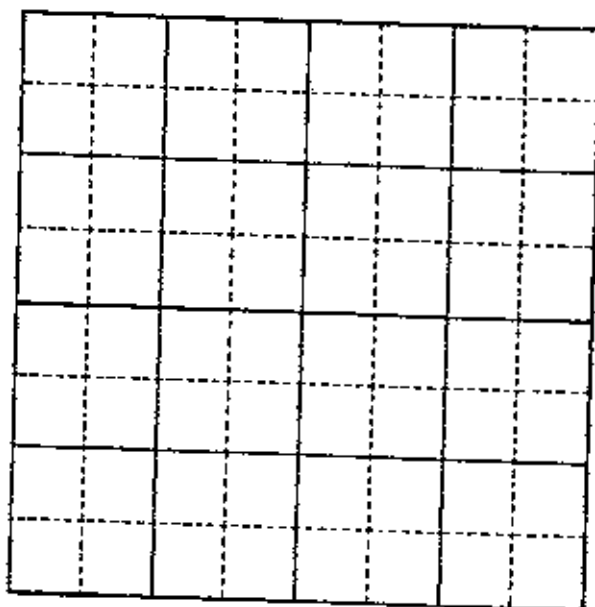
OFFICIAL SEAL
 LaVaughn Boroughs
 NOTARY PUBLIC
 STATE OF NEW MEXICO
 My Commission Expires 12-26-2010

Subscribed and sworn to before me this _____ day of _____, A.D. 2008

My commission expires 12-26-2010by: Steve McCutcheon president23 day of Sept, A.D. 2008LaVaughn Boroughs Notary Public

Locate well and areas My irrigated as accurately as possible c owing plat:

Section (s) _____ Township _____ Range _____ N. M. P. M.



INSTRUCTIONS

Declaration shall be executed (preferably typewritten) in triplicate and must be accompanied by a \$1.00 filing fee. Each of triplicate copies must be properly signed and attested.

A separate declaration must be filed for each well in use.

All blanks shall be filled out fully. Required information which cannot be sworn to by declarant shall be supplied by affidavit of person or persons familiar with the facts and shall be submitted herewith.

Secs. 1-3. Complete all blanks.

Sec. 4. Fill out all blanks applicable as fully as possible.

Sec. 5. Irrigation use shall be stated in acre feet of water per acre per year applied on the land. If used for domestic, municipal, or other purposes, state total quantity in acre feet used annually.

Sec. 6. Describe only the acreage actually irrigated. When necessary to clearly define irrigated acreages, describe to nearest $2\frac{1}{2}$ acre subdivision. If located on unsurveyed lands, describe by legal subdivision "as projected" from the nearest government survey corners, or describe by metes and bounds and tie survey to some permanent, easily-located natural object.

Sec. 7. Explain and give dates as nearly as possible of any years when all or part of acreage claimed was not irrigated.

Sec. 8. If well irrigates or supplies supplemental water to any other land than that described above, or if land is also irrigated from any other source, explain under this section. Give any other data necessary to fully describe water right.

If additional space is necessary, use a separate sheet or sheets and attach securely hereto.



STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER
ROSWELL

JOHN R. D'ANTONIO, JR. P.E.
State Engineer

DISTRICT II
1900 WEST SECOND ST.
ROSWELL, NEW MEXICO 88201
(575) 622-6521

September 30, 2008

Dagger Draw Ranch, Inc.
% Steve & Michelle McCutcheon
Box 1061
Carlsbad, NM 88220

REF: CP-1000

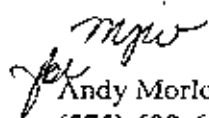
Greetings:

Enclosed is your copy of Declaration of Ownership of Water Right, as numbered above, which has been accepted for filing in the Office of the State Engineer.

Please refer to this number in all future correspondence concerning this declaration.

The acceptance for filing of this declaration by this office does not indicate affirmation or rejection of the statements contained therein.

Sincerely,


Andy Morley
(575) 622-6521, ext 113

Enclosure

cc: Santa Fe

Locator Tool Report

General Information:

Application ID: 28Date: 09-26-2008Time: 15:12:41

WR File Number: CP-01000Purpose: POINT OF DIVERSION

Applicant First Name: DAGGER DRAWApplicant Last Name: RANCH

GW Basin: CAPITANCounty: EDDY

Critical Management Area Name(s): NONESpecial Condition Area Name(s): NONELand Grant Name: NON GRANT

PLSS Description (New Mexico Principal Meridian):

SE 1/4 of NW 1/4 of SE 1/4 of NE 1/4 of Section 20, Township 19S, Range 29E.

Coordinate System Details:

Geographic Coordinates:

Latitude: 32 Degrees 38 Minutes 55.2 Seconds N

Longitude: 104 Degrees 5 Minutes 29.7 Seconds W

Universal Transverse Mercator Zone: 13N

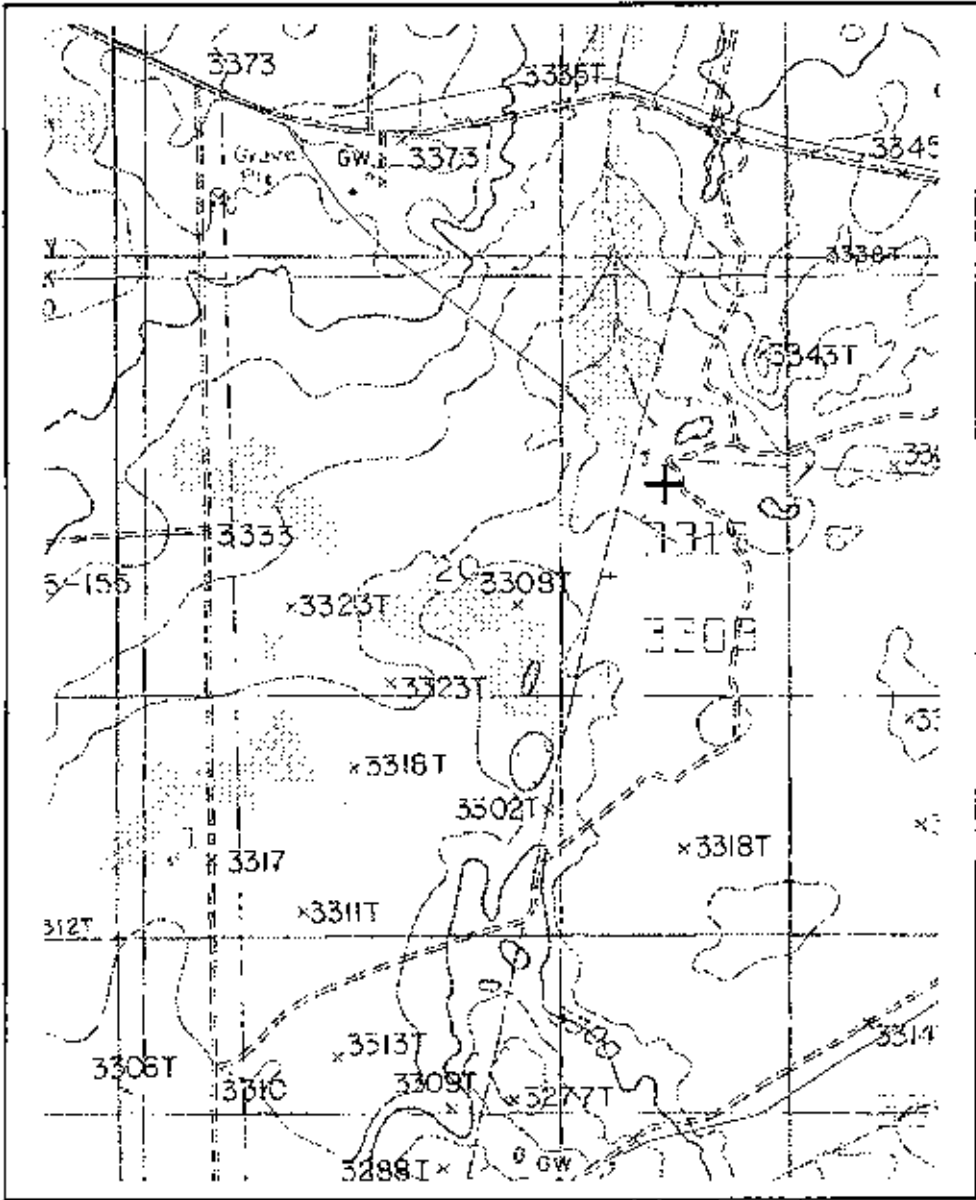
NAD 1983(92) (Meters)	N: 3,612,704	E: 585,197
NAD 1983(92) (Survey Feet)	N: 11,852,681	E: 1,919,935
NAD 1927 (Meters)	N: 3,612,502	E: 585,247
NAD 1927 (Survey Feet)	N: 11,852,018	E: 1,920,097

State Plane Coordinate System Zone: New Mexico East

NAD 1983(92) (Meters)	N: 182,820	E: 187,680
NAD 1983(92) (Survey Feet)	N: 599,803	E: 615,747
NAD 1927 (Meters)	N: 182,801	E: 175,128
NAD 1927 (Survey Feet)	N: 599,741	E: 574,567

NEW MEXICO OFFICE OF STATE ENGINEER

Locator Tool Report



WR File Number: CP-01000 Scale: 1:18,181
Northing/Easting: UTM83(92) (Meter): N: 3,612,704 E: 585,197
Northing/Easting: SPCS83(92) (Feet): N: 599,803 E: 615,747
GW Basin: Capitan

OFFICE OF THE STATE ENGINEER/INTERSTATE STREAM COMMISSION – ROSWELL OFFICE

OFFICIAL RECEIPT NUMBER: 2-26078 DATE: 06/25/2024 FILE NO.: 12-12-11

TOTAL: 1,000.00 RECEIVED: 1,000.00 DOLLARS CHECK NO.: 1000000000 CASH: 0

PAYOR: State of New Mexico ADDRESS: 1000 1st St NW CITY: Albuquerque STATE: NM

ZIP: 87102 RECEIVED BY: [Signature]

INSTRUCTIONS: Indicate the number of actions to the left of the appropriate type of filing. Complete the receipt information. Original to payor, pink copy to Program Support/ASD, yellow copy to Water Rights, Santa Fe Office, and goldenrod copy for district file. If you make a mistake, void original and all copies and submit to Program Support/ASD along with valid receipts.

Ground Water Rights Filing Fees

1. Declaration of Water Right	\$ 1.00
2. Application to Appropriate Domestic (72-12-1.1)	\$125.00
3. Application for Stock Well	\$ 5.00
4. Application to Repair or Deepen (72-12-1.1)	\$ 75.00
5. Application to Replacement 72-12-1.1 Well	\$ 75.00
6. Application for Supplemental 72-12-1 Well	\$125.00
7. Application to Change Purpose of Use of 72-12-1 Well	\$ 75.00
8. Application to Appropriate Irrig., Mun., Ind., or Comm. Use	\$ 25.00
9. Application for Supplemental Well	\$ 25.00
10. Application to Change Location of Non-72-12-1 Well	\$ 25.00
11. Application to Change Place or Purpose of Use	\$ 25.00
12. Application to Change Location of Well and/or Place and/or Purpose of Use	\$ 50.00
13. Application to Combine Wells and/or Use	\$ 25.00
14. Application for Extension of Time	\$ 25.00
15. Proof of Completion of Well	\$ 25.00
16. Proof of Application to Beneficial Use	\$ 25.00
17. Application for Plan of Replacement	\$ 25.00
18. Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Ground Water	\$ 50.00
19. Application for Test, Exploratory, or Observation Well	\$ 5.00
20. Change of Ownership of Water Right	\$ 2.00

Surface Water Rights Filing Fees

1. Declaration of Water Right	\$ 10.00
2. Amended Declaration	\$ 25.00
3. Declaration of Livestock Water Impoundment	\$ 10.00
4. Application for Livestock Water Impoundment	\$ 10.00
5. Application to Appropriate	\$ 25.00
6. Notice of Intent to Appropriate	\$ 25.00
7. Application to Change Point of Diversion	\$100.00
8. Application to Change Place and/or Purpose of Use	\$100.00
9. Application to Change Point of Diversion and Place and/or Purpose of Use	\$200.00
10. Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Surface Water	\$200.00
11. Application for Extension of Time	\$ 50.00
12. Supplemental Well to a Surface Right	\$100.00
13. Return Flow Credit	\$100.00
14. Proof of Completion of Works	\$ 25.00
15. Proof of Application of Water to Beneficial Use	\$ 25.00
16. Water Development Plan	\$100.00
17. Change of Ownership	\$ 5.00

Miscellaneous Fees

1. Application for Well Driller's License	\$ 50.00
2. Application for Renewal of Well Driller's License	\$ 50.00
3. Application to Amend Well Driller's License	\$ 50.00

Reproduction of Documents

\$0.20/copy (max)	\$ _____
-------------------	----------

Certification

\$ _____

Other

\$ _____









COMMENTS:

Intermittent 6,258 feet



March 16, 2024

Wetlands

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

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

Agate PWU 21 CTB 1

Legend

Yellow radius: 450 feet from center of release/remediation area




White line: 1,170 ft (0.22 miles) from nearest observable sinkhole/potential karst feature



Agate PWU 21 22 #062H

-Nearest occupied dwelling (residence) is 7.61 miles or 40,193 ft from release.

Legend

-  Agate PWU 21 22#062H
-  Path Measure
-  Residence







New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)										(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE) C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)										
WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q	q	q	Sec	Tws	Rng	X	Y	Distance	
CP 01000	CP	PLS		3 DAGGER DRAW RANCH INC	LE	CP 01000 POD1					1	4	2	20	19S	29E	585196	3612703		615
					ED	CP 01000 POD2					1	4	2	20	19S	29E	585123	3612693		674

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 585721

Northing (Y): 3612381

Radius: 1610



Sorted by: Distance

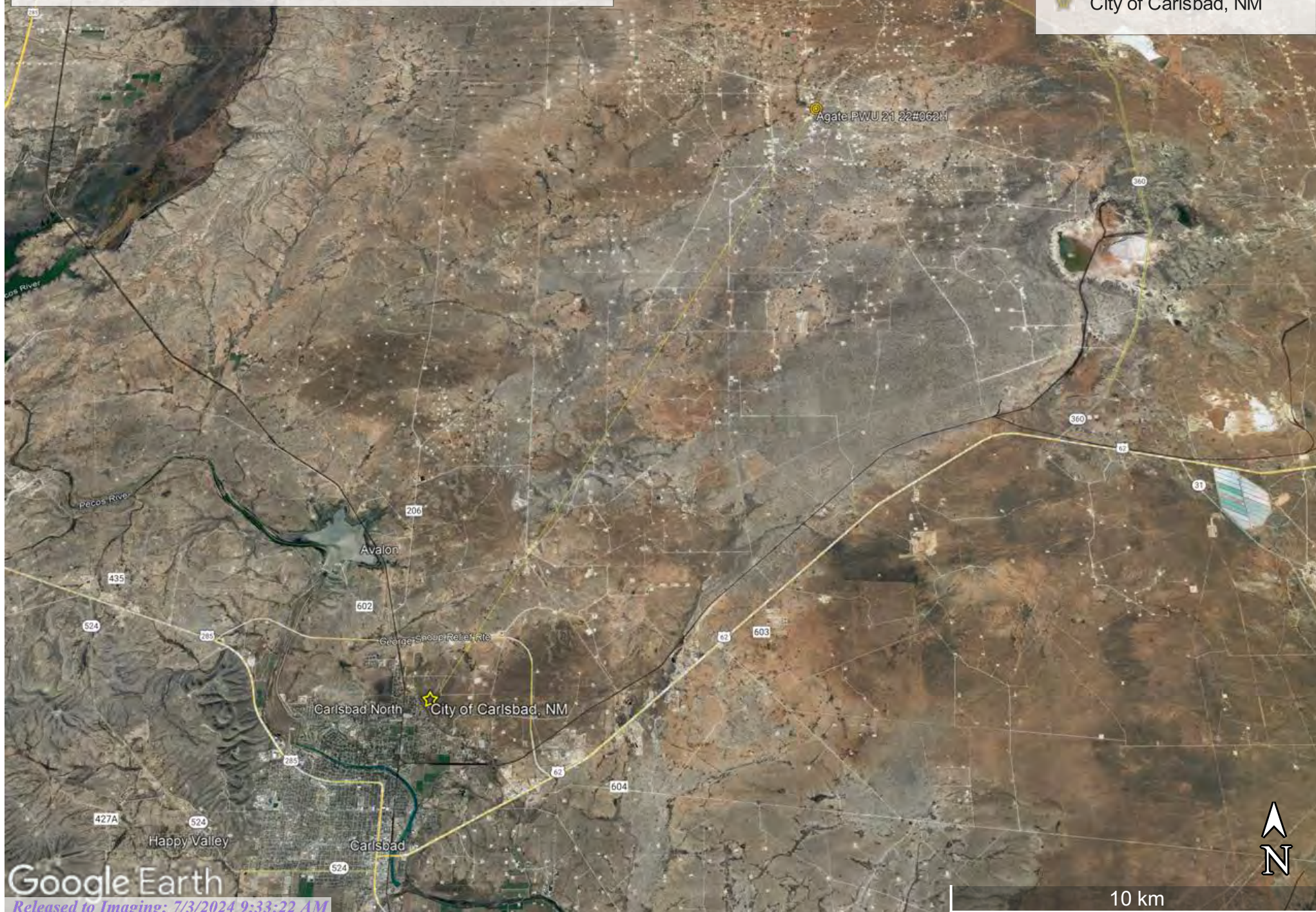
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

Agate PWU 21 22 #062H

-Nearest City: Carlsbad, NM 15 miles or 79,970 ft from release point.

Legend

-  Agate PWU 21 22#062H
-  City of Carlsbad, NM





Agate PWU 21 22 #062H Wetland 0.37mi



April 6, 2023

Wetlands

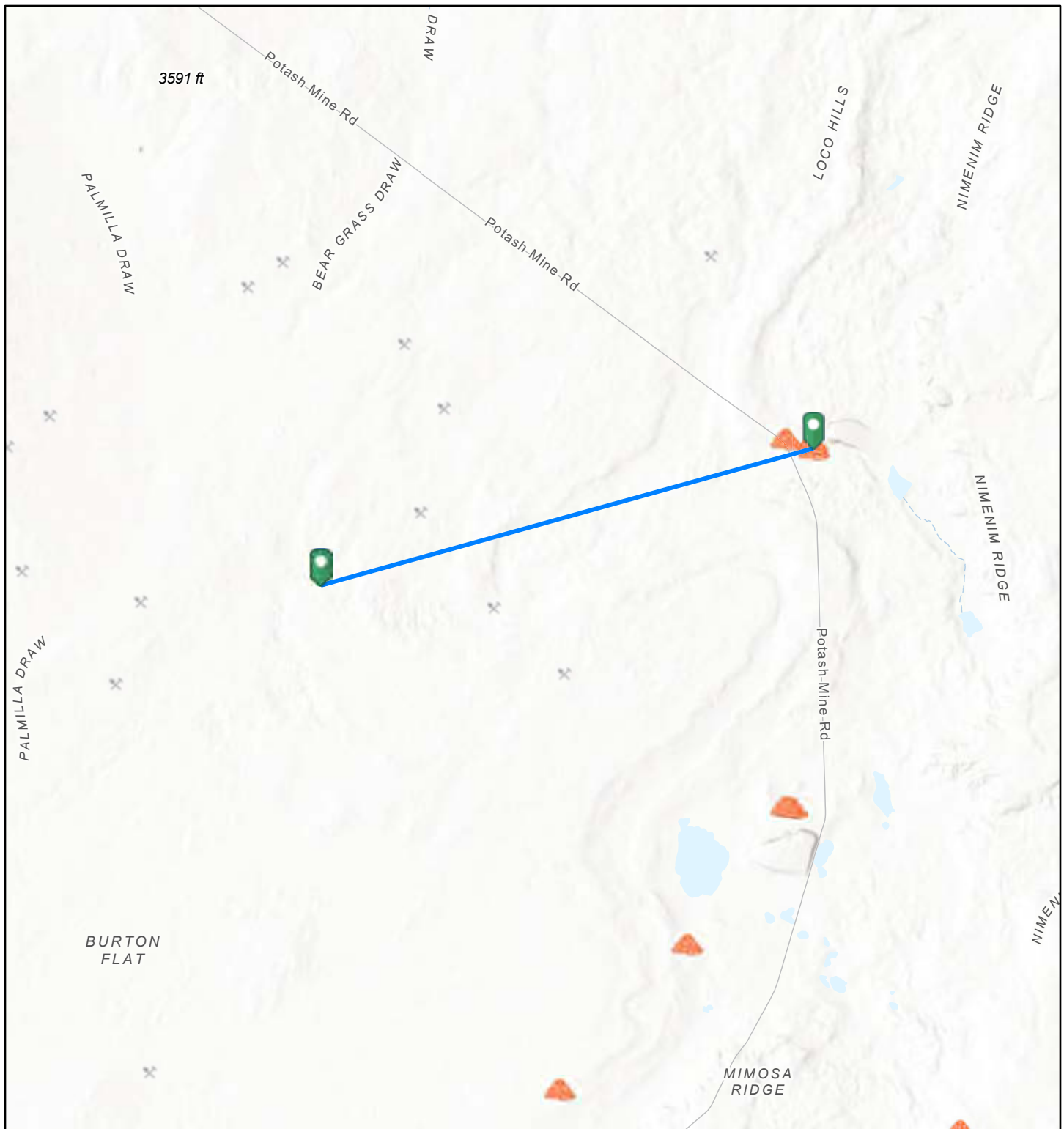
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine



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

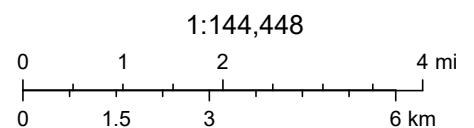
Agate PWU 21 22 #062H_Mine_36,841 feet (6.98 miles)



3/5/2024, 10:24:22 AM

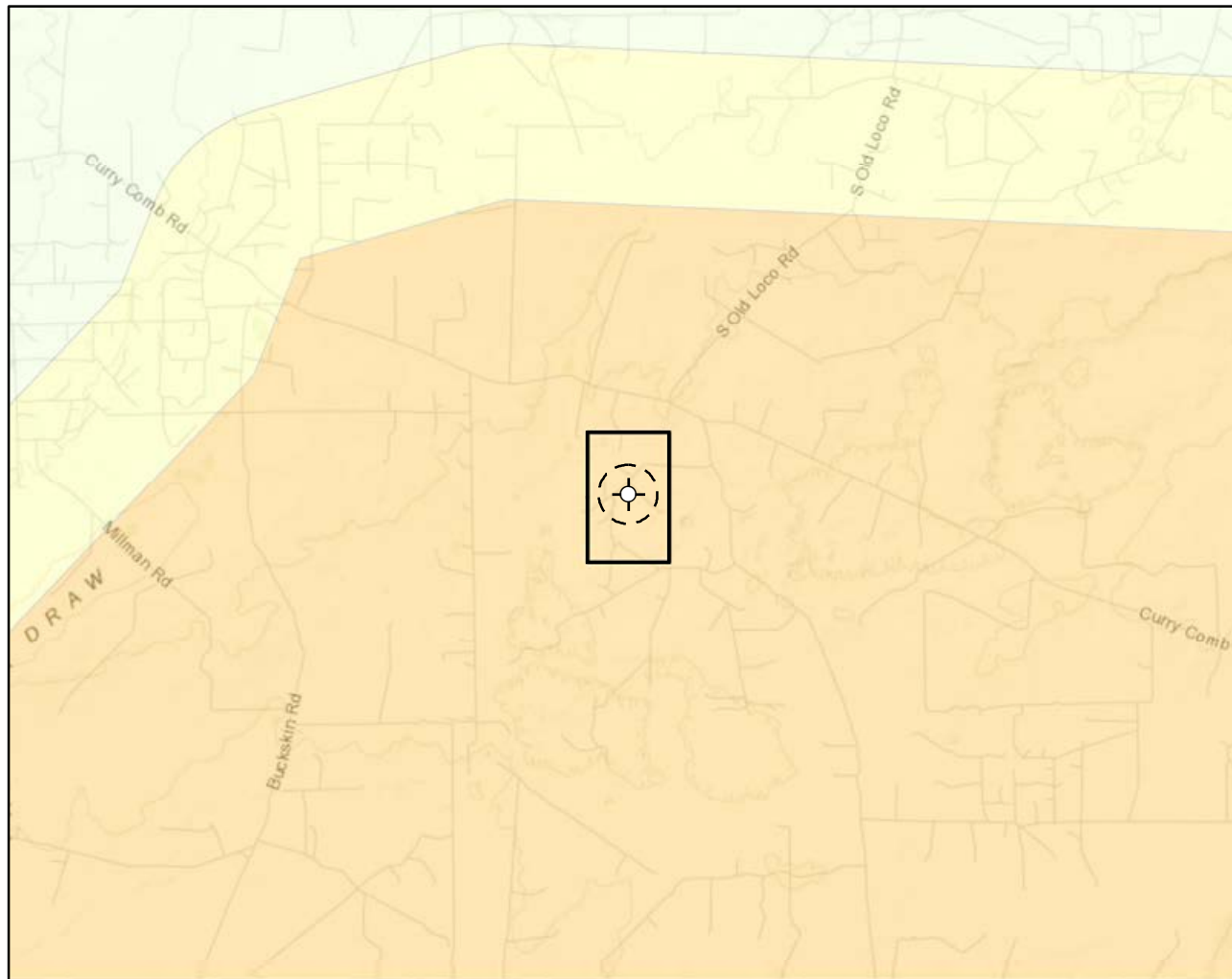
Registered Mines

-  Aggregate, Stone etc.
-  Potash



Esri, NASA, NGA, USGS, Texas Parks & Wildlife, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS

Document Path: G:\Projects\US PROJECTS\Devon Energy Corporation\2023\23E-01663-Agate PWU 21 22 #062H\Figure X Karst Potential Schematic_Agate PWU 21 22 #062H(23E-01663).mxd



Karst Potential

- Critical
- High
- Medium
- Low

- Site Location
- Site Buffer (1,000 ft.)

Overview Map

0 0.25 0.5 1 mi



Detail Map

0 150 300 600 ft.



Map Center:
Lat/Long: 32.645720, -104.086021

NAD 1983 UTM Zone 13N
Date: Apr 11/23



**Karst Potential Schematic
Agate PWU 21 22 #062H**

FIGURE:

X



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

Note: Inset Map, ESRI 2023; Overview Map: ESRI World Topographic. Karst potential data sourced from Rosswell Field Office, Bureau of Land Management, 2020 or United States Department of the Interior, Bureau of Land Management. (2018). Karst Potential.

VERSATILITY. EXPERTISE.

National Flood Hazard Layer (NFHL) Metadata



104°5'28"W 32°39'N



Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage area of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee See Note sZone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert or Storm Sewer
OTHER FEATURES		Levee, Dike or Floodwall
		Channel, Culvert or Storm Sewer
MAP PANELS		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Base Line
		Profile Base Line
MAP PANELS		Hydrographic Feature
		Hydrographic Feature
MAP PANELS		Digital Data Available
		No Digital Data Available
MAP PANELS		Unmapped
		Unmapped

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




The flood hazard information is derived directly from the authoritative NFHL we use vice provided by FEMA. This map was exported on 4/3/2023 at 3:34 PM and does not reflect change or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

Agate PWU 21 22 #062H

4081.6 feet to FEMA Flood Zone A

Legend

-  4081.6 feet (0.77 miles)
-  Agate PWU 21 22 #062H
-  FEMA Flood Zone A

32.645720, -104.086021

Google Earth

4000 ft





United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Eddy Area, New Mexico



April 3, 2023

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

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scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.


Custom Soil Resource Report Soil Map



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MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)


Soils


 Soil Map Unit Polygons


 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit


 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole


 Slide or Slip


 Sodic Spot


 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals


Transportation

 Rails


 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 18, Sep 8, 2022

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

Date(s) aerial images were photographed: Nov 12, 2022—Dec 2, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

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Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
RG	Reeves-Gypsum land complex, 0 to 3 percent slopes	7.3	100.0%
Totals for Area of Interest		7.3	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

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An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

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Eddy Area, New Mexico**RG—Reeves-Gypsum land complex, 0 to 3 percent slopes****Map Unit Setting**

National map unit symbol: 1w5f
Elevation: 1,250 to 5,000 feet
Mean annual precipitation: 10 to 25 inches
Mean annual air temperature: 57 to 70 degrees F
Frost-free period: 190 to 235 days
Farmland classification: Not prime farmland

Map Unit Composition

Reeves and similar soils: 55 percent
Gypsum land: 30 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Reeves**Setting**

Landform: Ridges, plains, hills
Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope
Landform position (three-dimensional): Side slope, head slope, nose slope, crest
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Residuum weathered from gypsum

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 32 inches: clay loam
H3 - 32 to 60 inches: gypsiferous material

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 25 percent
Gypsum, maximum content: 80 percent
Maximum salinity: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

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Description of Gypsum Land**Setting**

Landform: Ridges, plains, hills

Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope

Landform position (three-dimensional): Side slope, head slope, nose slope, crest

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Residuum weathered from gypsum

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: No

Minor Components**Largo**

Percent of map unit: 5 percent

Ecological site: R070BC007NM - Loamy

Hydric soil rating: No

Reagan

Percent of map unit: 5 percent

Ecological site: R070BC007NM - Loamy

Hydric soil rating: No

Cottonwood

Percent of map unit: 5 percent

Ecological site: R070BC033NM - Salty Bottomland

Hydric soil rating: No

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Ecological site R070BC007NM

Loamy

Accessed: 04/03/2023

General information

Provisional. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

Figure 1. Mapped extent

Areas shown in blue indicate the maximum mapped extent of this ecological site. Other ecological sites likely occur within the highlighted areas. It is also possible for this ecological site to occur outside of highlighted areas if detailed soil survey has not been completed or recently updated.

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

This site occurs on uplands landforms, mainly on hill slopes, ridges, plains, terraces and some fan remnants. Slopes range from 1 to 5 percent and average about 3 percent. Average annual precipitation is about 8 to 14 inches. Elevations range from 2,842 to 5,000 feet.

Table 2. Representative physiographic features

Landforms	(1) Plain (2) Terrace (3) Fan piedmont
Flooding frequency	None
Ponding frequency	None
Elevation	2,842–5,000 ft
Slope	0–5%
Aspect	E, S, W

Climatic features

The average annual precipitation ranges from 8 to 13 inches. Variations of 5 inches, more or less, are common. Over 80 percent of the precipitation falls from April through October. Most of the summer precipitation comes in the form of high intensity short duration thunderstorms. Temperatures are characterized by distinct seasonal changes and large annual and diurnal temperature changes. The average annual temperature is 61 degrees with extremes of 25 degrees below zero in the winter to 112 degrees in the summer. The average frost-free season is 207 to 220 days. The last killing frost is in late March or early April, and the first killing frost is in late October or early November. Temperature and rainfall both favor warm season perennial plant growth. In years of abundant spring moisture, annual forbs and cool season grasses can make up an important component of this site. Strong winds blow from the southwest in January through June rapidly drying out the soil during a critical time for cool season plant growth.

Climate data was obtained from <http://www.wrcc.sage.dri.edu/summary/climsmnm.html> web site using 50% probability for freeze-free and frost-free seasons using 28.5 degrees F and 32.5 degrees F respectively.

Table 3. Representative climatic features

Frost-free period (average)	221 days
Freeze-free period (average)	240 days
Precipitation total (average)	13 in

Influencing water features

This site is not influenced by wetland or streams.

Soil features

The soils of this site are deep to moderately deep. The moderately deep soils have either a petrocalcic, petrogypsic or gypsum horizon between 30 and 40 inches.

Surface textures are loam, silt loam, very fine sandy loam, or clay loam. Substratum textures are loam, silty clay loam, clay loam, or silt loams. Subsoil textures are silt loam , clay loam silty clay loam, gravelly loam, gravelly clay loam or very gravelly loam. Permeability is moderate to slow and the available water holding capacity is high to moderate. The Atoka, Reeves, Russler, Milner soils may have highr amounts of CaC03, ranging as high as 40 percent in the subsoil. Rock fragments range fro 5 to 50 percent in the subsoil. Reeves, Rusler, Milner, Holloman soils will have 40 to 80 percent gypsum in the underlying material.

Maximum and minimum values listed below represent the characteristic soils for this site.

Characteristic Soils:

- Atoka (petrocalcic)
- Bigetty
- Reagan
- Reakor
- Reeves (gypsum)
- Russler (gypsum)
- Largo
- Russler (gypsum)
- Largo
- Berino
- Tinney
- Midessa
- Ratliff
- Holloman (gypsum)
- Milner (gypsum)

Table 4. Representative soil features

Surface texture	(1) Loam (2) Very fine sandy loam (3) Silt loam
Family particle size	(1) Loamy
Drainage class	Well drained to somewhat excessively drained
Permeability class	Moderate to slow
Soil depth	30–72 in

Surface fragment cover <=3"	0–5%
Surface fragment cover >3"	0%
Available water capacity (0-40in)	5–12 in
Calcium carbonate equivalent (0-40in)	0–10%
Electrical conductivity (0-40in)	0–8 mmhos/cm
Sodium adsorption ratio (0-40in)	0–6
Soil reaction (1:1 water) (0-40in)	6.6–8.4
Subsurface fragment volume <=3" (Depth not specified)	0–5%
Subsurface fragment volume >3" (Depth not specified)	0%

Ecological dynamics

Overview: The Loamy site is associated with the Gyp Upland ecological site with which it intergrades. There is a pronounced increase in alkali sacaton along this interface. The loamy site is also associated with the Gravelly and Shallow ecological sites from which it receives run-on water. The Draw site often dissects Loamy sites and is distinguished from the Loamy site by increased production or greater densities of woody species. The historic plant community has a grassland aspect, dominated by grasses with shrubs and half-shrubs sparse and evenly distributed. Tobosa, black grama and blue grama are the dominant species. Retrogression within this state is characterized by a decrease in black and blue grama and an increase in burrograss. Continuous overgrazing and drought can initiate a transition to a Burrograss- Grassland state. Continued reduction in grass cover and resulting infiltration problems may eventually effect a change to a Bare State, with very little or no remaining grass cover. Alternatively, creosotebush, tarbush or mesquite may expand or invade. Transitions back to a Grassland State from a Bare or Shrub-Dominated state are costly and may not be economically feasible. Decreased fire frequency may play a part in the transition to the Grass/Succulent Mix state with increased amounts of cholla and prickly pear.

State and transition model

wide variety of soils, with surface textures ranging from sandy loams to clay loams. Soil depths range from shallow to very deep and can include sub surface features such as calcic, petrocalcic, and gypsic horizons. These variations cause differences in plant community composition and dynamics. Black grama is found at highest densities on coarser textured sandy loams, with blue grama preferring finer textured loam and silt loam, and tobosa favoring lower landscape positions and loam to clay loam surface textures. Burrograss may often be the dominant grass species on silty soils, perhaps in part due to the seedlings ability to auger into and establish on physically crusted soils. Gypsum influenced soils typically have greater amounts of tobosa, burrograss, and ephedra. There is greater representation of sideoats and vine mesquite within the tobosa-blue grama community. Retrogression under continuous heavy grazing results in a decrease of black grama, blue grama, sideoats grama, plains bristlegrass, bush muhly, cane bluestem, vine mesquite, winterfat, and fourwing saltbush. Species such as burrograss, threeawns, sand dropseed, sand muhly, and broom snakeweed increase under continuous heavy grazing or prolonged periods of drought. Under continued retrogression burrograss can completely dominate the site. Creosotebush, tarbush, and mesquite, can also dominate. Cholla and prickly pear can increase on areas that are disturbed or overgrazed. Diagnosis: Tobosa, black grama, and blue grama are the dominant species. Grass cover is uniformly distributed with few large bare areas. Shrubs are sparse and evenly distributed. Slopes range from level to gently sloping and usually display limited evidence of active rills and gully formation if plant cover remains intact. Litter movement associated with overland flow is limited to smaller size class litter and short distances. Other shrubs include: yucca, mesquite, tarbush, cholla and creosote bush. Other forbs include: desert holly, scorpionweed, bladderpod, flax, nama, fleabane, Indianwheat, Indian blanket flower, groundcherry, deerstongue, and rayless goldenrod.

Table 5. Annual production by plant type

Plant Type	Low (Lb/Acre)	Representative Value (Lb/Acre)	High (Lb/Acre)
Grass/Grasslike	585	833	1080
Forb	39	55	72
Shrub/Vine	26	37	48
Total	650	925	1200

Table 6. Ground cover

Tree foliar cover	0%
Shrub/vine/liana foliar cover	0%
Grass/grasslike foliar cover	15-30%
Forb foliar cover	0%
Non-vascular plants	0%
Biological crusts	0%
Litter	25-30%
Surface fragments >0.25" and <=3"	0%
Surface fragments >3"	0%
Bedrock	0%
Water	0%
Bare ground	40-50%

Figure 5. Plant community growth curve (percent production by month).
NM2807, R042XC007NM Loamy HCPC. R042XC007NM Loamy HCPC Warm
Season Plant Community..

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	0	5	10	10	25	30	15	5	0	0

State 2

Burrograss-Grassland

Community 2.1

Burrograss-Grassland

Burrograss-Grassland: Changes in hydrology resulting in decreased available soil moisture, reduces grass cover and increases bare ground. Burrograss is the dominant grass. Tobosa cover is variable and can range from sizeable areas to small patches occupying only depressions or the lowest and wettest positions within the site. Threeawns, ear muhly, sand muhly, and fluffgrass occur at increased densities compared to the grassland state. Shrub densities may increase especially mesquite, creosotebush or tarbush. Retrogression within this state is characterized by a further decrease in grass cover and increased bare ground. Further deterioration of this site can result in the transition to a bare state or becoming shrub dominated. Diagnosis: Burrograss is the dominant species. Grass cover is no longer uniformly distributed, instead tending to be patchy with large areas of bare ground present. Physical crusts are present in bare areas reducing infiltration and suppressing seedling establishment by any grass species other than burrograss. Transition to Burrograss-Grassland (1a): Transitions from grassland to a burrograss-grassland state may occur due to changes in hydrology. Gullies, roads or obstructions that alter natural water flow patterns may cause this transition. Changes in surface hydrology may also occur due to overgrazing or drought. The reduction in grass cover promotes increased soil physical crusts and reduces infiltration. 5 Key indicators of approach to transition: ? Diversion of overland flow resulting in decreased soil moisture. ? Increase in amount of burrograss cover ? Reduction in grass cover and increase in size and frequency of bare patches. ? Formation of physical crusts—indicating reduced infiltration. ? Evidence of litter movement—indicating loss or redistribution of organic matter. Transition back to Grassland (1b) The natural hydrology of the site must be returned. Culverts, turnouts, or rerouting roads may help re-establish natural overland flow, if roads or trails have altered the hydrology. Erosion control structures or shaping and filling gullies may help regain natural flow patterns and establish vegetation if the flow has been channeled. Breaking up physical crusts by soil disturbance may promote infiltration and seedling emergence. Allow natural revegetation to take place. Prescribed grazing will help ensure proper forage utilization and reduce grass loss due to grazing.

State 3

Bare State

Community 3.1

Bare State

Bare State: Extremely low ground cover, soil degradation and erosion characterize this state. Very little vegetation remains. Burrograss is the dominant grass and cover is extremely patchy. Physical soil crusts are extensive. Erosion and resource depletion increase as site degrades. Diagnosis: Very little cover remains. Erosion is evident by soil sealing, water flow patterns, pedestals or terracettes. Rills and gullies may be present and active. Transition to Bare State (2a): Extended drought, continuous heavy grazing, or other disturbance that severely depletes grass cover can effect this transition. As grass cover decreases, sheet flow and erosion increase, and physical soil crusts form, thereby further reducing infiltration. Key indicators of approach to transition: ? Continued reduction in grass cover. ? Increased soil surface sealing. ? Increased erosion. ? Reduced aggregate stability in bare areas. Transition back to Grassland (2b) Restore the hydrology, see (1a). With the extent of grass loss range seeding may be necessary. Utilizing livestock or mechanical means to break up the physical crusts may increase infiltration and aid seedling establishment. Prescribed grazing will help ensure adequate deferment period following seeding, and proper forage utilization once the grass stand is well established. The degree to which this site is capable of recovery depends on the restoration of hydrology, extent of degradation to soil resources, and adequate rainfall necessary to establish grasses.

State 4

Grass/Succulent Mix

Community 4.1

Grass/Succulent Mix

Grass / Succulent Mix: Increased representations of succulents characterize this site. Increased densities of cholla or pricklypear is recognized as a management concern, but their impact on grass production is unclear. Light to

medium cholla or prickly pear infestation doesn't seem to greatly reduce grass production, however it limits access to palatable grasses and interferes with livestock movement and handling. Tobosa and blue grama are the dominant species on this site. Retrogression within this site is characterized by a decrease in blue grama and an increase in succulents, tobosa and burrograss. Diagnosis: Cholla or prickly pear is found at increased densities. Grass cover is variable ranging from uniformly distributed to patchy with frequent areas of bare ground present. Tobosa or blue grama is the dominant grass species. Transition to Grass/Succulent Mix (3a): If fire was historically a part of desert grassland ecosystem and played a role in suppressing seedlings of shrubs and succulents, then fire suppression may favor the increase of succulents.¹ Heavy grazing by livestock or other physical disturbances may help disseminate seed and increase the establishment of succulents. Areas historically overgrazed by sheep are sometimes associated with higher densities of Succulents. Intense hailstorms can spread pricklypear by breaking off joints causing new plants to take root.³ During severe drought perennial grass cover can decline significantly, leaving resources available for use by more drought tolerant succulents. Cholla and pricklypear are both adapted to and favored by drought due to the ability of their shallow, wide spreading root systems to absorb and store water.⁴ Key indicators of approach to transition: ? Decrease or change in distribution of grass cover. ? Increase in amount of succulent seedlings. ? Increased cover of succulents. Transition back to Grassland (3b) Fire is an effective means of controlling cholla and prickly pear if adequate grass cover remains to carry fire.² Cholla greater than two feet tall or pricklypear with a large amount of pads (>15-20) are harder to kill. Chemical control is effective in controlling prickly pear and cholla; apply when growth starts in May. Hand grubbing is also effective if cholla or pricklypear is severed 2-4 inches below ground and care is taken not to let broken joints or pads take root. Stacking and burning piles and grubbing during winter or drought help keeps broken joints and pads from rooting. Prescribed grazing will help ensure proper forage utilization and sustain grass cover.

State 5 Shrub Dominated

Community 5.1 Shrub Dominated

Shrub Dominated: Increased shrub cover characterizes this state. Mesquite, creosotebush, and/or tarbush are the dominant shrub species. Burrograss or tobosa is the dominant grass species. Grass cover is decreased, typically patchy with large bare areas present; however, sometimes grass cover can remain relatively high for extended periods when associated with light to moderate infestations of mesquite. Variations in soil characteristics play a part in determining which shrub species increase. Mesquite is well adapted to a wide range of soil types, but increases more often on deep soils low in carbonates, that have a sandy surface overlying finer textured soils. Tarbush prefers finer textured, calcareous soils, usually in lower positions that receive some extra water. Creosotebush is less tolerant of fine textured soils, preferring sandy, calcareous soils that have some gravel. Creosotebush also does well on soils that are shallow over caliche. Retrogression within this state is characterized by a decrease in tobosa, and an increase in burrograss. As the site continues to degrade shrub cover continues to increase and grass cover is severely reduced. Diagnosis: Mesquite, Creosotebush, and/or tarbush are the dominant shrubs. Blue grama and black grama cover is low or absent. Burrograss or tobosa are the dominant grasses. Typically grass cover is patchy with large interconnected bare areas present. Physical soil crusts are present, especially on silt loam surface soils. Transition to Shrub Dominated (4a): Wildlife and livestock consume and disperse mesquite seeds. Flood events may wash creosote or tarbush seeds off adjacent gravelly sites onto the loamy site and supply adequate moisture for germination. Persistent loss of grass cover due to overgrazing or drought can cause large bare patches, providing competition free areas for shrub seedling establishment. As shrub cover increases, competition for soil resources, especially water, becomes a major factor in further reducing grass cover. Reduction of fire, due to either fire suppression policy or loss of adequate fine fuels may increase the probability of shrub encroachment. Increased soil surface physical crusts and associated decreased infiltration, may prevent the establishment of grass seedlings. Transition to Shrub Dominated (5): The dispersal of creosotebush, tarbush or mesquite seed, combined with loss of grass cover and resource competition by shrubs may cause this transition. Key indicators of approach to transition: ? Decreased grass and litter cover. ? Increased bare patch size. ? Increased physical soil crusts. ? Increased amount of mesquite, creosotebush, or tarbush seedlings. ? Increased shrub cover. Transition back to Grassland (4b) Brush control will be necessary to remove shrubs and eliminate competition for resources necessary for grass establishment or reproduction. Seeding may be necessary on those sites where desired grass species are absent or very limited. Pitting and seeding may increase the chances of successful grass establishment. Prescribed grazing will help ensure adequate time is elapsed before grazing seeded area is allowed and proper forage utilization following seeding establishment. Transition to Bare State (6): If grass cover on the shrub-dominated state is

severely limited and shrubs are removed a bare state may result. This transition will depend on amount of grasses or seed remaining, whether site is seeded, or if seeding is successful. Transition to Bare State (7): Removal of succulents and continued overgrazing or drought may cause loss of remaining grasses and erosion. Soil surface physical crusting may also be an important factor in inhibiting grass seedling establishment

Additional community tables

Table 7. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)
Grass/Grasslike					
1	Warm Season			278–324	
	tobosagrass	PLMU3	<i>Pleuraphis mutica</i>	278–324	–
2	Warm Season			9–46	
	burrograss	SCBR2	<i>Scleropogon brevifolius</i>	9–46	–
3	Warm Season			231–278	
	black grama	BOER4	<i>Bouteloua eriopoda</i>	231–278	–
	blue grama	BOGR2	<i>Bouteloua gracilis</i>	231–278	–
4	Warm Season			28–46	
	sideoats grama	BOCU	<i>Bouteloua curtipendula</i>	28–46	–
5	Warm Season			46–93	
	bush muhly	MUPO2	<i>Muhlenbergia porteri</i>	46–93	–
	plains bristlegrass	SEVU2	<i>Setaria vulpiseta</i>	46–93	–
6	Warm Season			9–28	
	Arizona cottontop	DICA8	<i>Digitaria californica</i>	9–28	–
7	Warm Season			46–93	
	threeawn	ARIST	<i>Aristida</i>	46–93	–
	muhly	MUHLE	<i>Muhlenbergia</i>	46–93	–
	sand dropseed	SPCR	<i>Sporobolus cryptandrus</i>	46–93	–
8	Warm Season			28–46	
	Graminoid (grass or grass-like)	2GRAM	<i>Graminoid (grass or grass-like)</i>	28–46	–
Shrub/Vine					
9	Shrub			9–28	
	fourwing saltbush	ATCA2	<i>Atriplex canescens</i>	9–28	–
	jointfir	EPHED	<i>Ephedra</i>	9–28	–
	winterfat	KRLA2	<i>Krascheninnikovia lanata</i>	9–28	–
	cane bluestem	BOBA3	<i>Bothriochloa barbinodis</i>	5–24	–
	Arizona cottontop	DICA8	<i>Digitaria californica</i>	5–24	–
	plains bristlegrass	SEVU2	<i>Setaria vulpiseta</i>	5–24	–
10	Shrub			9–28	
	javelina bush	COER5	<i>Condalia ericoides</i>	9–28	–
	broom snakeweed	GUSA2	<i>Gutierrezia sarothrae</i>	9–28	–
	Grass, annual	2GA	<i>Grass, annual</i>	5–15	–
11	Shrubs			9–28	
	Shrub (>.5m)	2SHRUB	<i>Shrub (>.5m)</i>	9–28	–
Forb					

12	Forb			9–46	
	threadleaf ragwort	SEFLF	<i>Senecio flaccidus</i> var. <i>flaccidus</i>	9–46	–
	globemallow	SPHAE	<i>Sphaeralcea</i>	9–46	–
	verbena	VEPO4	<i>Verbena polystachya</i>	9–46	–
	broom snakeweed	GUSA2	<i>Gutierrezia sarothrae</i>	5–15	–
	pricklypear	OPUNT	<i>Opuntia</i>	5–15	–
13	Forb			9–28	
	croton	CROTO	<i>Croton</i>	9–28	–
	woolly groundsel	PACA15	<i>Packera cana</i>	9–28	–
14	Forb			9–28	
	Goodding's tansyaster	MAPIG2	<i>Machaeranthera pinnatifida</i> ssp. <i>gooddingii</i> var. <i>gooddingii</i>	9–28	–
	woolly paperflower	PSTA	<i>Psilostrophe tagetina</i>	9–28	–
15	Forb			9–28	
	redstem stork's bill	ERCI6	<i>Erodium cicutarium</i>	9–28	–
	Texas stork's bill	ERTE13	<i>Erodium texanum</i>	9–28	–
16	Forb			9–28	
	Forb (herbaceous, not grass nor grass-like)	2FORB	<i>Forb (herbaceous, not grass nor grass-like)</i>	9–28	–

Animal community

This site provides habitats which support a resident animal community that is characterized by pronghorn antelope, black-tailed jackrabbit, black tailed prairie dog, yellow-faced pocket gopher, banner-tailed kangaroo rat, hispid cotton rat, swift fox, burrowing owl, horned lark, mockingbird, meadowlark, mourning dove, scaled quail, Great Plains toad, plains spadefoot toad, prairie rattlesnake and western coachwhip snake.

Hydrological functions

The runoff curve numbers are determined by field investigations using hydraulic cover conditions and hydrologic soil groups.

Hydrologic Interpretations
 Soil Series Hydrologic Group
 Atoka C
 Bigetty B
 Ratliff B
 Reyab B
 Holloman B
 Largo B
 Holloman B
 Bigetty B
 Berino B
 Reagan B
 Reakor B
 Reeves B
 Russler C

Recreational uses

This site offers limited potential for hiking, horseback riding, nature observation and photography. Game bird, antelope and predator hunting are also limited.

Wood products

This site has no potential for wood products

Other products

This site is suitable for grazing by all kinds and classes of livestock, during all seasons of the year. Under retrogression, such plants as black grama, blue grama, sideoats grama, bush muhly, plains bristlegrass, Arizona cottontop, fourwing saltbush and winterfat decrease and there is an increase in burrograss, threeawns, sand dropseed, muhlys, broom snakeweed and javilinabush. Under continued retrogression, burrograss can completely dominate the site. Creosotebush, mesquite, and tarbush can also dominate. Grazing management alone will not improve the site in the above situation. This site is well suited to a system of management that rotates the season of use.

Other information

Guide to Suggested Initial Stocking Rate Acres per Animal Unit Month

Similarity Index Ac/AUM

100 - 76 3.0 – 4.2

75 – 51 4.1 – 5.5

50 – 26 5.3 – 7.0

25 – 0 7.1 +

Inventory data references

Other References:

Data collection for this site was done in conjunction with the progressive soil surveys within the Southern Desertic Basins, Plains and Mountains, Major Land Resource Areas of New Mexico. This site has been mapped and correlated with soils in the following soil surveys. Eddy County Lea County and Chavez County.

Other references

Literature References:

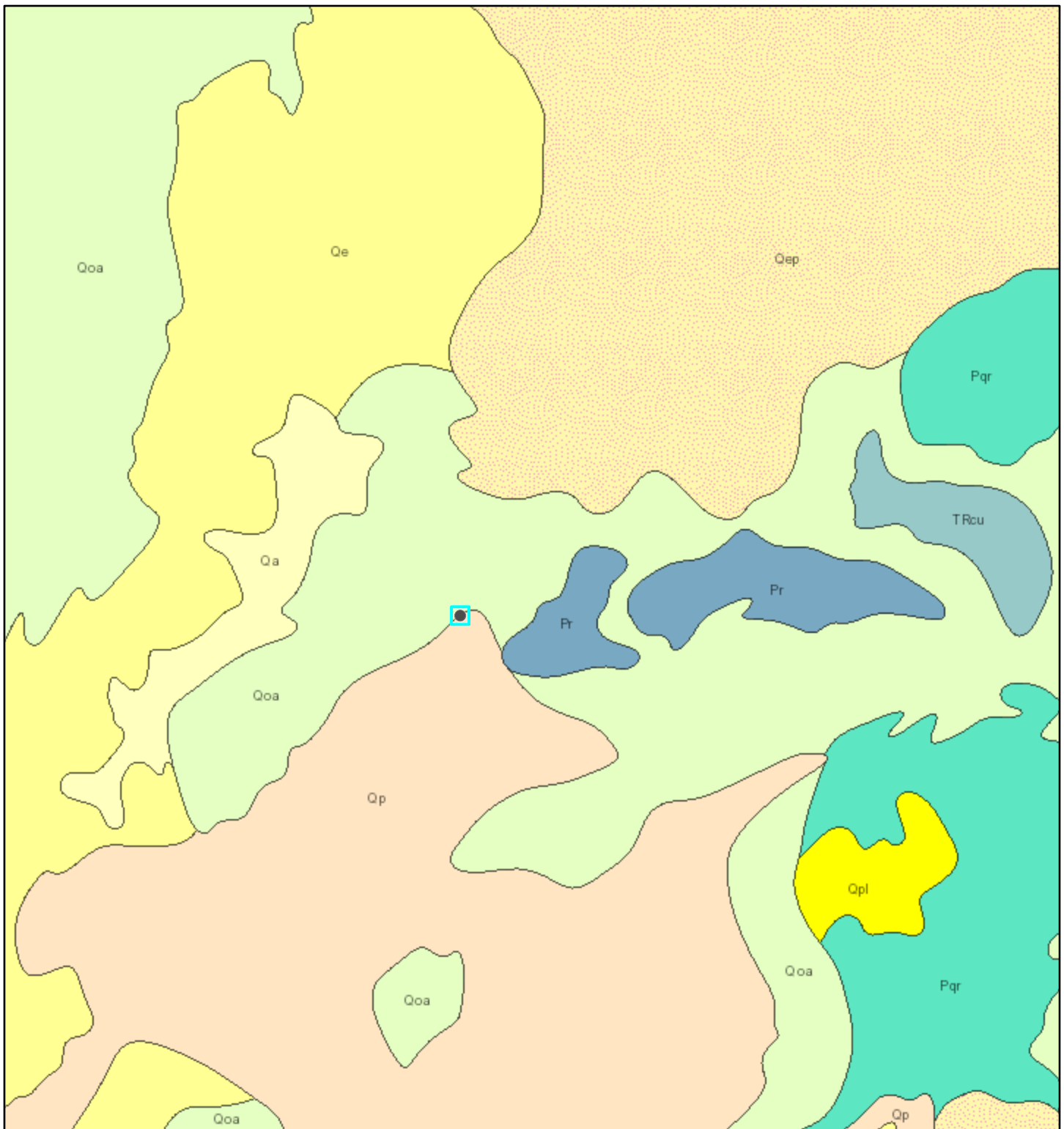
1. Brooks, M.L., AND D.A. Pyke. 2001. Invasive plants and fire in the deserts of North America. Pages 1–14 in K.E.M. Galley and T.P. Wilson (eds.). Proceedings of the Invasive Species Workshop: the Role of Fire in the Control and Spread of Invasive Species.
2. Bunting, S.C., H.A. Wright, and L.F. Neuenschwander. 1980. Long-term effects of fire on cactus in the Southern Mixed Prairie of Texas. J. Range. Manage. 33: 85-88.
3. Laycock, W.A. 1982. Hail as an ecological factor in the increase of prickly pear cactus. p. 359-361. In: J.A. Smith and V.W. Hays (eds.) Proc. XIV Int. Grassland Congr. Westview Press, Boulder, Colo.
4. Vallentine, J.F. 1989. Range Developments and Improvements. 3rd Edition. Academic Press. San Diego, California.
5. U.S. Department of Agriculture, Natural Resources Conservation Service. 2001. Soil Quality Information Sheet. Rangeland Soil Quality—Physical and Biological Soil Crusts. Rangeland Sheet 6, [Online]. Available: <http://www.statlab.iastate.edu/survey/SQL/range.html>

Contributors

David Trujillo

Don Sylvester

Agate PWU 21 22 #062H

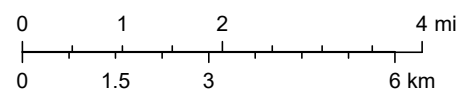


4/3/2023, 1:39:15 PM

1:144,448

Lithologic Units

- Playa—Alluvium and evaporite deposits (Holocene)
- Water—Perennial standing water
- Qa—Alluvium (Holocene to upper Pleistocene)



Esri, NASA, NGA, USGS, USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data;

ArcGIS Web AppBuilder

APPENDIX C – Daily Field and Sampling Reports



Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	
Site Location Name:	Agate PWU 21 22 #062H	Report Run Date:	6/2/2023 10:27 PM
Client Contact Name:	Wes Matthews	API #:	30-015-44201
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site

Departed Site

Field Notes

9:19 On site to delineate.

10:29 Grabbed samples 06, 19, 17, and 43 at 2' depth. Samples tested clean.

10:31 Gathered samples 04, 05, 07, 15, 16. Samples were clean except for 04 which tested high for TPH.

12:01 Gathered samples 12, 14, 22, 23, 25, 26 at 2' depth. All were clean except for 14 and 26 which were high in chlorides. This pushes out the horizontal delineation further.

12:00 Gathered sample 4 at 4' depth, which tested clean.

13:52 Gathered samples 01, 13, and 24 at 2' depth. 13 was clean, but 01 and 24 were high for chlorides.

13:54 Grabbed samples 01 and 24 at 4' depth. 01 was high in chlorides. 24 was clean.

13:56 Gathered samples 35 at 2', and samples 44, 45, and 46 at surface and 2'. All tested clean except for 46 at 2' was high in chlorides.

15:12 Gathered sample 01 at 6', which tested clean.

15:12 Could not find a clean edge northeast of sample 26, so we may need to continue horizontal delineation in that direction.

Next Steps & Recommendations

Daily Site Visit Report

1





Daily Site Visit Report

Site Photos

Viewing Direction: Southeast



Excavating crew pot holing.

Viewing Direction: Southeast



Sample location 19

Viewing Direction: South



Sample 06 location

Viewing Direction: East



Sample 17 location.



Daily Site Visit Report

Viewing Direction: East



Sample 43 location.

Viewing Direction: East



Digging sample 22

Viewing Direction: East



Area of samples 35, 45, 46.

Viewing Direction: East



Sample area.

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Zachery Englebert

Signature:

A handwritten signature in black ink, appearing to read 'Zachery Englebert', written over a horizontal line. The word 'Signature' is printed in small text to the left of the line.



Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	8/29/2023
Site Location Name:	Agate PWU 21 22 #062H	Report Run Date:	8/29/2023 8:54 PM
Client Contact Name:	Jim Raley	API #:	30-015-44201
Client Contact Phone #:	575-748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	8/29/2023 10:15 AM
Departed Site	8/29/2023 3:00 PM

Field Notes

- 10:52** Completed safety meeting and site walkthrough with crew
- 10:54** Crew continuing to move excavated dirt and load trucks. Discussed tolerance zone adjustments with foreman to meet Vertex company policy.
- 13:42** Collected TP23-01 at 0' bgs and screened it for chloride, TPH, and BTEX. It was high on all three. Preparing the sample for lab.
- 13:44** Crew putting up fencing around completed excavations
- 14:46** Truck count: + 60yds caliche for berm, - 100 yds contaminated soil to landfill

Next Steps & Recommendations

- 1 Continue excavation east of pipe rack

Daily Site Visit Report



Site Photos

Viewing Direction: Northeast



Electric line spotted by hydrovac

Viewing Direction: East



6" deferral excavation between separators

Viewing Direction: Southeast



2' excavation and 6" deferral excavation between separators

Viewing Direction: Northwest

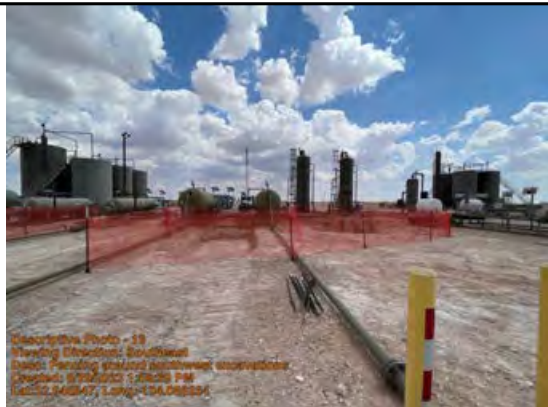


6" deferral excavation between separators



Daily Site Visit Report

Viewing Direction: Southeast



Fencing around southwest excavations

Viewing Direction: Southeast



Fencing around excavation between separators 61H and 9H

Viewing Direction: Southwest



Pipe rack behind separators





Viewing Direction: East



Stockpile



Daily Site Visit Report

<p>Viewing Direction: Southwest</p>  <p>Descriptive Photo - 2 Viewing Direction: Southwest Desc: Electric line daylighted Created: 8/29/2023 1:16:22 PM Lat: 32.645601, Long: -104.286908</p> <p>Electric line daylighted</p>	<p>Viewing Direction: Southeast</p>  <p>Descriptive Photo - 3 Viewing Direction: Southeast Desc: Buried gas line exposed Created: 8/29/2023 1:16:22 PM Lat: 32.645601, Long: -104.286908</p> <p>Buried gas line exposed</p>
<p>Viewing Direction: Northwest</p>  <p>Descriptive Photo - 4 Viewing Direction: Northwest Desc: Placard Created: 8/29/2023 1:16:22 PM Lat: 32.645601, Long: -104.286908</p> <p>Placard</p>	<p>Viewing Direction: West</p>  <p>Descriptive Photo - 5 Viewing Direction: West Desc: 8/28/23 release area Created: 8/29/2023 1:16:22 PM Lat: 32.645601, Long: -104.286908</p> <p>8/28/23 release area</p>



Daily Site Visit Report

Viewing Direction: West



8/28/23 point of release

Viewing Direction: South



6.5' excavation

Viewing Direction: East



3' excavation

Viewing Direction: South



6' deferral excavation between separators

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Sally Carttar

Signature:


Signature



Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	9/16/2023
Site Location Name:	Agate PWU 21 22 #062H	Report Run Date:	9/16/2023 9:00 PM
Client Contact Name:	Dale Woodall	API #:	30-015-44201
Client Contact Phone #:	405-318-4697		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	9/16/2023 7:30 AM
Departed Site	9/16/2023 9:30 AM

Field Notes

- 8:14** Completed safety paperwork on site.
- 8:15** On site to continue confirmation sampling.
- 8:16** ***previous day rain event has made excavations unable to sample with standing water and washing out of means of egress. Will need to wait for site to dry.

Next Steps & Recommendations

- 1 Wait for site to dry out and continue confirmation sampling.

Daily Site Visit Report



Site Photos

Viewing Direction: West



Far east excavation washed out from rain event. Cannot sample.

Viewing Direction: Southeast



Far west excavation washed out from rain event. Cannot sample.

Viewing Direction: South



Excavations between separators has approximately 6" standing water. Cannot sample.

Viewing Direction: South



Excavations between separators has approximately 6" standing water. Cannot sample.



Daily Site Visit Report

Viewing Direction: South



Excavations between separators has standing water.

Viewing Direction: North



Means of egress to excavation to sample has been washed out. Cannot access to sample. As well standing water, cannot sample.

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Austin Harris

Signature:

A handwritten signature in black ink, appearing to be 'AH' with a long horizontal stroke extending to the right.

Signature



Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	9/26/2023
Site Location Name:	Agate PWU 21 22 #062H	Report Run Date:	9/26/2023 7:13 PM
Client Contact Name:	Dale Woodall	API #:	30-015-44201
Client Contact Phone #:	405-318-4697		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	9/26/2023 9:20 AM
Departed Site	9/26/2023 12:00 PM

Field Notes

- 11:45** Arrived on site and completed safety documents and assessment.
Collected GPS data for excavation and visual inspection.
- 11:47** Measured depth of each excavation and documented.
Mapped out boundaries of each excavation at various depths and updated GIS information regarding site.

Next Steps & Recommendations

- 1 Recollect confirmation samples and excavate as necessary

Daily Site Visit Report



Site Photos

Viewing Direction: South



7ft Excavation

Viewing Direction: West



2 ft excavation, west side with inlet near vertical separator

Viewing Direction: North



Site information placard





Viewing Direction: East



2ft Excavation, east side



Daily Site Visit Report

<p>Viewing Direction: South</p>  <p>Descriptive Photo - 04 Viewing Direction: South Desc: 2ft Excavation Created: 9/26/2023 11:24:47 AM Lat:32.646922, Long:-104.08721</p> <p>2ft Excavation</p>	<p>Viewing Direction: East</p>  <p>Descriptive Photo - 04 Viewing Direction: East Desc: 3.5 ft Excavation Created: 9/26/2023 11:24:47 AM Lat:32.646922, Long:-104.08721</p> <p>3.5 ft Excavation</p>
<p>Viewing Direction: South</p>  <p>Descriptive Photo - 04 Viewing Direction: South Desc: 4ft Excavation Created: 9/26/2023 11:33:21 AM Lat:32.646922, Long:-104.08721</p> <p>4ft excavation (acknowledge 6 inch excavation in area on surface)</p>	<p>Viewing Direction: North</p>  <p>Descriptive Photo - 04 Viewing Direction: North Desc: 4ft excavation north of tank containment Created: 9/26/2023 11:33:21 AM Lat:32.646922, Long:-104.08721</p> <p>4ft excavation north of tank containment</p>



Daily Site Visit Report

Viewing Direction: North



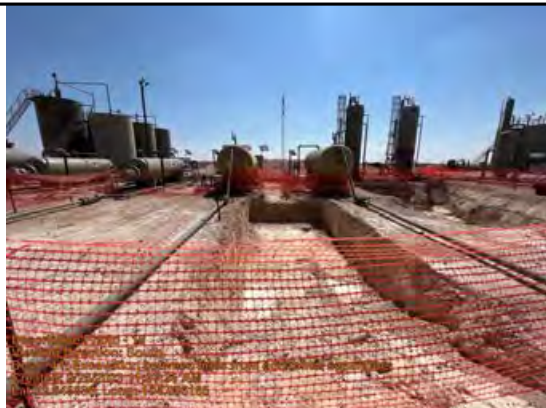
5 ft Excavation east of horizontal separators

Viewing Direction: South



2 ft Excavation between lines from horizontal separators

Viewing Direction: South



4 ft Excavation between lines from horizontal separators

Viewing Direction: South



7ft excavation



Daily Site Visit Report

Viewing Direction: West



Scrape to 6" Deferral area along equipment and under lines

Viewing Direction: North



1ft Excavations between horizontal separators

Viewing Direction: West



6 inch to 1' Deferral area along equipment and under lines

Viewing Direction: South



4ft to 3.5ft to 2ft Excavations



Daily Site Visit Report

Viewing Direction: West



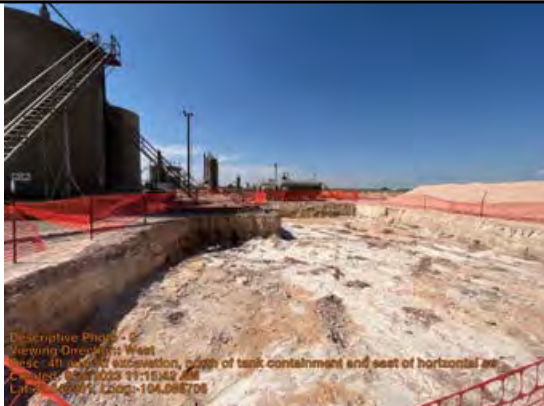
4ft to 3.5 ft to full view of 2ft excavation

Viewing Direction: Northwest



2ft Excavation

Viewing Direction: West



4ft and 5ft excavation, north of tank containment and east of horizontal separators

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Stephanie McCartyM

Signature:

A handwritten signature in black ink, appearing to read 'Steph McCartyM', written over a thin horizontal line. The word 'Signature' is printed in small text below the line on the left.



Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	9/29/2023
Site Location Name:	Agate PWU 21 22 #062H	Report Run Date:	9/29/2023 8:45 PM
Client Contact Name:	Dale Woodall	API #:	30-015-44201
Client Contact Phone #:	405-318-4697		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	9/29/2023 7:40 AM
Departed Site	9/29/2023 2:20 PM

Field Notes

- 13:49** Arrived on site at 07:30 and completed safety assessment for job and documents. Met with Devon contractors, discussing work plan for the day and safety and signing safety documents.
- 13:52** Marked out areas to advance in depth to achieve below criteria clean up. (See photos). 08:30
- 13:54** Collected samples as excavations were completed and field screened, readdressing with advancement in depth as needed.
- 14:02** Achieved below criteria at 2.5 ft at BS23-04, -07, -14, and -17, at 3 ft at BS23-11 and at 8 ft at BS23-55 and -56. Reassessed WS23-22, -23, -24 (0-2 ft) and -28 (0-3.5). Field screening for WS23-23 and -24 appear to provide below criteria field screening. WS23-22 and -28 could not be advanced due to equipment. Additionally, BS23-92, near WS23-22, between vertical separator, flare, above ground lines and pipes and electrical panel was advised to not be advanced in depth either due to proximity to equipment.

Next Steps & Recommendations

- 1 Confirmation sampling and lab data report



Daily Site Visit Report

Site Photos

Viewing Direction: Northeast



Marked areas for additional excavation BS23-04, -07, -11, -14, -17 at 2 ft to 2.5 ft

Viewing Direction: North



2 ft excavation with 2.5 ft and 3 ft advanced excavations

Viewing Direction: Northwest



Safety fencing returned to excavations

Viewing Direction: Northwest



BS23-92 between vertical separator, flare, pipes and electrical panel



Daily Site Visit Report

Viewing Direction: South



BS23-56 and BS23-55 7.5ft

Viewing Direction: Southeast



Excavated and sampled areas for additional excavation BS23-04, -07, -11, -14, -17 at 2 ft to 2.5 ft

Viewing Direction: North



Excavated and sampled area of BS23-11 3ft

Viewing Direction: West



Reassessed WS23-22 and WS23-23 0-2ft and WS23-24 0-2ft



Daily Site Visit Report

Viewing Direction: Northwest



Site information placard

Viewing Direction: North



Reassessed WS23-28 0-3.5 ft

Viewing Direction: South



BS23-56 and BS23-55 8ft

Viewing Direction: South



7ft excavation and BS23-56 and BS23-55 8ft

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Stephanie McCartyM

Signature:

A handwritten signature in black ink, appearing to read 'Steph M', written over a horizontal line. The word 'Signature' is faintly visible below the line.



Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	10/5/2023
Site Location Name:	Agate PWU 21 22 #062H	Report Run Date:	10/6/2023 11:21 PM
Client Contact Name:	Dale Woodall	API #:	30-015-44201
Client Contact Phone #:	405-318-4697		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	10/5/2023 8:00 AM
Departed Site	10/5/2023 4:20 PM

Field Notes

12:41 Arrived on site and completed safety assessment for job and documents. Met with Devon contractors, discussing work plan for the day and safety and signing safety documents. 08:00

13:54 Collected confirmation samples, pictured below. 12:00

Field screened samples for chlorides with silver nitrate titration. 13:20

16:15 Field screened samples for TPH with Dextsil Petroflag . 15:30

16:20 Closing discussion with project manager and excavation crew. Prepared samples for lab. 16:00

Next Steps & Recommendations

1 Continue collecting confirmation samples

Daily Site Visit Report



Site Photos

Viewing Direction: Northwest



2 ft excavation, samples BS23-04, BS23-07, BS23-11, BS23-14, BS23-17, WS23-23 and WS23-24

Viewing Direction: Northwest



2 ft excavation, samples WS23-22 and WS23-112

Viewing Direction: North



WS23-28 3.5 ft

Viewing Direction: North



Site Excavation



Daily Site Visit Report

Viewing Direction: West



0.5 ft and 2 ft excavations with samples BS23-92, BS23-93, BS23-94

Viewing Direction: Northwest



Site information placard

Viewing Direction: North



0.5 ft Deferral area samples BS23-98 and BS23-99

Viewing Direction: West



0.5 ft Deferral area samples BS23-100, BS23-101 and BS23-102



Daily Site Visit Report

Viewing Direction: Northwest



1 ft Deferral area samples WS23-104 and BS23-41

Viewing Direction: Northeast



2 ft and 3.5 ft excavation samples BS23-105, BS23-106, BS23-107 and WS23-26 and WS23-27

Viewing Direction: Northwest



4 ft excavation samples BS23-108, BS23-109, BS23-110 and WS23-111

Viewing Direction: Southeast



7-8 ft excavation samples BS23-55 and BS23-56

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Stephanie McCartyM

Signature:

A handwritten signature in black ink, appearing to read 'Steph M', written over a horizontal line. The word 'Signature' is printed in small text below the line.



Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	10/6/2023
Site Location Name:	Agate PWU 21 22 #062H	Report Run Date:	10/6/2023 11:22 PM
Client Contact Name:	Dale Woodall	API #:	30-015-44201
Client Contact Phone #:	405-318-4697		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	10/6/2023 10:30 AM
Departed Site	10/6/2023 2:20 PM

Field Notes

- 14:13** Arrived on site and completed safety assessment for job and documents. Met with Devon contractors, discussing work plan for the day and safety and signing safety documents. 10:30
- 14:14** Collected sample pictures below. 12:15
Field screened for TPH with Dextsil Petroflag and Chlorides with silver nitrate. 13:30
- 14:16** Discussed results with project manager and plans excavation crew. 13:45
Prepared samples for lab and cleaned up. Collected remaining documented for site. 14:15
- 14:19** Note: Area between antenna tower, electrical panels, conduit and pipe run and vertical separators was determined to be a hazard to continue excavating vertically and may still contain contamination at 2 ft.

Next Steps & Recommendations

- 1 Collect lab data
- 2 Backfill

Daily Site Visit Report



Site Photos

Viewing Direction: Northwest



Site information placard

Viewing Direction: North



4 ft excavation samples WS23-111, BS23-108, BS23-109, BS23-110

Viewing Direction: North



2ft excavation WS23-23

Viewing Direction: Northeast



3.5 ft excavation samples WS23-28, BS24-105, BS24-106, BS24-107



Daily Site Visit Report

Viewing Direction: North



2 ft, 3.5 ft and 4 ft excavation adjacent to area of proposed deferral with excavation up to equipment.

Viewing Direction: Northwest



2 ft excavation adjacent to area of proposed deferral with excavation up to equipment.

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Stephanie McCartyM

Signature:

A handwritten signature in black ink, appearing to read 'Steph M', written over a thin horizontal line. The word 'Signature' is faintly visible below the line.



Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	10/23/2023
Site Location Name:	Agate PWU 21 22 #062H	Report Run Date:	10/23/2023 10:55 PM
Client Contact Name:	Dale Woodall	API #:	30-015-44201
Client Contact Phone #:	405-318-4697		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	10/23/2023 3:30 PM
Departed Site	10/23/2023 4:00 PM

Field Notes

15:57 Arrived on site, examined site and completed safety assessment for job and documents.
Documented site remediations' backfill completion.
See photographs and descriptions below.

15:59 Site has been completely backfilled and graded with remaining clean backfill on the northeast edge of the pad.

Next Steps & Recommendations

1 Prepare closure report

Daily Site Visit Report



Site Photos

Viewing Direction: Northwest



Site information placard

Viewing Direction: Northeast



East end of 2 ft excavations, 3.5 ft and 4 ft excavations backfilled

Viewing Direction: Northeast



North most section, 4 ft and 5 ft excavations backfilled

Viewing Direction: West



East end, looking towards 0.5 ft and 1 ft excavations, of deferral request area backfilled



Daily Site Visit Report

Viewing Direction: Southeast



Northwest edge of pad looking at 1 ft excavations between separators and 2 ft and 4 ft excavations between pipelines backfilled

Viewing Direction: Southeast



Northwest edge of pad looking at 7.5 ft to 8 ft excavation backfilled

Viewing Direction: East



From vertical separators looking at 0.5 and 1 ft excavations, of deferral request area, between vertical and horizontal separators between pipelines backfilled

Viewing Direction: Northwest



Center of pad looking at 0.5 ft excavations of deferral request area and 2 ft excavation between separators and antenna and electrical panel backfilled



Daily Site Visit Report

Viewing Direction: Northwest



Center of pad looking at 0.5 ft excavations between vertical separators backfilled and 2 ft excavation west backfilled

Viewing Direction: West



Center of pad looking at 2 ft excavation west backfilled

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Stephanie McCartyM

Signature:

A handwritten signature in black ink, appearing to read 'Steph McCarty', written over a faint horizontal line.



Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	2/6/2024
Site Location Name:	Agate PWU 21 22 #062H	Report Run Date:	2/6/2024 11:17 PM
Client Contact Name:	Jim Raley	API #:	30-015-44201
Client Contact Phone #:	575-748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	2/6/2024 8:00 AM
Departed Site	2/6/2024 3:00 PM

Field Notes

- 14:05** Completed safety paperwork and line locate upon arrival to site
- 14:06** On site to complete delineation efforts along the west side of pipe rack, within deferred area.
- 14:07** Obtained :
BH24-01 @ 6'
BH24-04 to 09 all at 2' and 4' depths.
- BH24-05 barely high on chlorides at 4', taken to 6' where it passed.



Daily Site Visit Report

16:12 Bh24-01 former BS23-32
BH24-02 former BS23-35
BH24-03 former BS23-97
BH24-04 former BS23-41
BH24-05 former BS23-51
BH24-06 former BS23-102
BH24-07 former BS23-101
BH24-08 former BS23-99
BH24-09 former BS23-98

Next Steps & Recommendations

1 Send samples to lab

Daily Site Visit Report



Site Photos

Viewing Direction: North



BH24-01

Viewing Direction: North



BH24-04

Viewing Direction: North



BH24-05

Viewing Direction: North



BH24-06



Daily Site Visit Report

Viewing Direction: North



BH24-07

Viewing Direction: North



BH24-08

Viewing Direction: South



BH24-09

Viewing Direction: North



Field screen form

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Austin Harris

Signature:

A handwritten signature in black ink, appearing to be 'AH', written over a horizontal line.

Signature

APPENDIX D – Notifications



Dhugal Hanton <vertexresourcegroupusa@gmail.com>

AGATE PWU 21 22 #062H,2 Day Confirmation Sampling notice

5 messages

Dhugal Hanton <vertexresourcegroupusa@gmail.com>

Fri, Sep 8, 2023 at 1:49 PM

To: "Wells, Shelly, EMNRD" <shelly.wells@emnrd.nm.gov>, "Bratcher, Mike, EMNRD" <Mike.Bratcher@state.nm.us>, "Hamlet, Robert, EMNRD" <Robert.Hamlet@emnrd.nm.gov>

All,

Please accept this email as notification that Vertex Resource Services has scheduled a sampling event to be conducted at the following release.

AGATE PWU 21 22 #062H,30-015-44201, NAB1810145936

On Wednesday September 13, 2023 through Monday, September 18, 2023, Vertex will be on-site to conduct a final confirmation sampling. If you have any questions regarding this notification, please call at 346-814-1413.

Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>

Fri, Sep 8, 2023 at 1:56 PM

To: Dhugal Hanton <vertexresourcegroupusa@gmail.com>, "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>, "Hamlet, Robert, EMNRD" <Robert.Hamlet@emnrd.nm.gov>
Cc: "Maxwell, Ashley, EMNRD" <Ashley.Maxwell@emnrd.nm.gov>

Hi,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

Shelly Wells * Environmental Specialist-Advanced

Environmental Bureau

EMNRD-Oil Conservation Division

1220 S. St. Francis Drive|Santa Fe, NM 87505

(505)469-7520|Shelly.Wells@emnrd.nm.gov<http://www.emnrd.state.nm.us/OCD/>

From: Dhugal Hanton <vertexresourcegroupusa@gmail.com>

Sent: Friday, September 8, 2023 1:49 PM

To: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>

Subject: [EXTERNAL] AGATE PWU 21 22 #062H,2 Day Confirmation Sampling notice

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

[Quoted text hidden]

Dhugal Hanton <vertexresourcegroupusa@gmail.com>
To: "Wells, Shelly, EMNRD" <Shelly.Wells@emnrd.nm.gov>

Mon, Sep 18, 2023 at 7:18 AM

Shelly,

Please accept this email as notification that Vertex Resource Services has scheduled a sampling event to be conducted at the following release.

AGATE PWU 21 22 #062H,30-015-44201, NAB1810145936

On Wednesday September 20, 2023 through Monday, September 25, 2023, Vertex will be on-site to conduct a final confirmation sampling. If you have any questions regarding this notification, please call at 346-814-1413.

[Quoted text hidden]

Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
To: Dhugal Hanton <vertexresourcegroupusa@gmail.com>
Cc: "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>, "Maxwell, Ashley, EMNRD" <Ashley.Maxwell@emnrd.nm.gov>

Mon, Sep 18, 2023 at 7:44 AM

Hi,

Please email these notices directly to the OCD Enviro email box as I will be out of the office for the next two weeks. The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

[Quoted text hidden]

Dhugal Hanton <vertexresourcegroupusa@gmail.com>
To: "Wells, Shelly, EMNRD" <Shelly.Wells@emnrd.nm.gov>

Thu, Sep 28, 2023 at 4:28 PM

Shelly,

Please accept this email as notification that Vertex Resource Services has scheduled a confirmation sampling event to be conducted at the following release.

AGATE PWU 21 22 #062H,30-015-44201, NAB1810145936

On Tuesday October 03, 2023 through Friday, October 06, 2023, Vertex will be on-site to conduct a final confirmation sampling. If you have any questions regarding this notification, please call at

346-814-1413.

Thanks

Kent

Kent Stallings P.G.
Senior Geologist
Vertex Resource Services Inc.
3101 Boyd Drive,
Carlsbad, NM 88220

P 575.725.5001 ext 706
C 346.814.1413

[Quoted text hidden]

APPENDIX E – Laboratory Data Reports and Chain of Custody Forms



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

May 03, 2023

Kent Stallings

Devon Energy

6488 Seven Rivers Highway

Artesia, NM 88210

TEL: (505) 350-1336

FAX:

RE: Agate PWU 21 22 62H

OrderNo.: 2304915

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 13 sample(s) on 4/21/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2304915

Date Reported: 5/3/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BH23-01 0'

Project: Agate PWU 21 22 62H

Collection Date: 4/19/2023 9:00:00 AM

Lab ID: 2304915-001

Matrix: SOIL

Received Date: 4/21/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	7200	200		mg/Kg	20	4/25/2023 7:00:38 PM
Motor Oil Range Organics (MRO)	4700	980		mg/Kg	20	4/25/2023 7:00:38 PM
Surr: DNOP	0	69-147	S	%Rec	20	4/25/2023 7:00:38 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/27/2023 9:21:29 PM
Surr: BFB	79.4	37.7-212		%Rec	1	4/27/2023 9:21:29 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	4/27/2023 9:21:29 PM
Toluene	ND	0.048		mg/Kg	1	4/27/2023 9:21:29 PM
Ethylbenzene	ND	0.048		mg/Kg	1	4/27/2023 9:21:29 PM
Xylenes, Total	ND	0.096		mg/Kg	1	4/27/2023 9:21:29 PM
Surr: 4-Bromofluorobenzene	89.2	70-130		%Rec	1	4/27/2023 9:21:29 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	300	60		mg/Kg	20	4/26/2023 7:46:22 PM

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

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

Page 1 of 17

Analytical Report

Lab Order 2304915

Date Reported: 5/3/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BH23-03 0'

Project: Agate PWU 21 22 62H

Collection Date: 4/19/2023 9:11:00 AM

Lab ID: 2304915-002

Matrix: SOIL

Received Date: 4/21/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	11000	190		mg/Kg	20	4/27/2023 12:28:56 PM
Motor Oil Range Organics (MRO)	6400	960		mg/Kg	20	4/27/2023 12:28:56 PM
Surr: DNOP	301	69-147	S	%Rec	20	4/27/2023 12:28:56 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: CCM
Gasoline Range Organics (GRO)	15	4.7		mg/Kg	1	4/27/2023 10:40:00 PM
Surr: BFB	131	37.7-212		%Rec	1	4/27/2023 10:40:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: CCM
Benzene	ND	0.024		mg/Kg	1	4/27/2023 10:40:00 PM
Toluene	ND	0.047		mg/Kg	1	4/27/2023 10:40:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	4/27/2023 10:40:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	4/27/2023 10:40:00 PM
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	4/27/2023 10:40:00 PM
EPA METHOD 300.0: ANIONS						Analyst: JMT
Chloride	280	60		mg/Kg	20	4/27/2023 2:39:51 PM

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

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

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Analytical Report

Lab Order 2304915

Date Reported: 5/3/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BH23-04 0'

Project: Agate PWU 21 22 62H

Collection Date: 4/19/2023 9:19:00 AM

Lab ID: 2304915-003

Matrix: SOIL

Received Date: 4/21/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	13000	480		mg/Kg	50	4/27/2023 1:09:51 PM
Motor Oil Range Organics (MRO)	9000	2400		mg/Kg	50	4/27/2023 1:09:51 PM
Surr: DNOP	0	69-147	S	%Rec	50	4/27/2023 1:09:51 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/27/2023 11:02:00 PM
Surr: BFB	111	37.7-212		%Rec	1	4/27/2023 11:02:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: CCM
Benzene	ND	0.024		mg/Kg	1	4/27/2023 11:02:00 PM
Toluene	ND	0.048		mg/Kg	1	4/27/2023 11:02:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	4/27/2023 11:02:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	4/27/2023 11:02:00 PM
Surr: 4-Bromofluorobenzene	84.8	70-130		%Rec	1	4/27/2023 11:02:00 PM
EPA METHOD 300.0: ANIONS						Analyst: NAI
Chloride	2200	150		mg/Kg	50	4/28/2023 10:12:39 AM

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

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

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Analytical Report

Lab Order 2304915

Date Reported: 5/3/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BH23-05 0'

Project: Agate PWU 21 22 62H

Collection Date: 4/19/2023 9:25:00 AM

Lab ID: 2304915-004

Matrix: SOIL

Received Date: 4/21/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	16000	190		mg/Kg	20	4/27/2023 1:36:39 AM
Motor Oil Range Organics (MRO)	10000	950		mg/Kg	20	4/27/2023 1:36:39 AM
Surr: DNOP	0	69-147	S	%Rec	20	4/27/2023 1:36:39 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/27/2023 11:23:00 PM
Surr: BFB	85.6	37.7-212		%Rec	1	4/27/2023 11:23:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/27/2023 11:23:00 PM
Toluene	ND	0.049		mg/Kg	1	4/27/2023 11:23:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	4/27/2023 11:23:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	4/27/2023 11:23:00 PM
Surr: 4-Bromofluorobenzene	80.4	70-130		%Rec	1	4/27/2023 11:23:00 PM
EPA METHOD 300.0: ANIONS						Analyst: JMT
Chloride	ND	60		mg/Kg	20	4/27/2023 3:04:41 PM

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

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

Analytical Report

Lab Order 2304915

Date Reported: 5/3/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BH23-06 0'

Project: Agate PWU 21 22 62H

Collection Date: 4/19/2023 9:34:00 AM

Lab ID: 2304915-005

Matrix: SOIL

Received Date: 4/21/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	13	9.3		mg/Kg	1	4/27/2023 2:17:17 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/27/2023 2:17:17 AM
Surr: DNOP	84.8	69-147		%Rec	1	4/27/2023 2:17:17 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/27/2023 11:45:00 PM
Surr: BFB	89.6	37.7-212		%Rec	1	4/27/2023 11:45:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: CCM
Benzene	ND	0.024		mg/Kg	1	4/27/2023 11:45:00 PM
Toluene	ND	0.048		mg/Kg	1	4/27/2023 11:45:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	4/27/2023 11:45:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	4/27/2023 11:45:00 PM
Surr: 4-Bromofluorobenzene	82.6	70-130		%Rec	1	4/27/2023 11:45:00 PM
EPA METHOD 300.0: ANIONS						Analyst: JMT
Chloride	100	60		mg/Kg	20	4/27/2023 3:41:54 PM

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

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

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Analytical Report

Lab Order 2304915

Date Reported: 5/3/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BH23-07 0'

Project: Agate PWU 21 22 62H

Collection Date: 4/19/2023 9:46:00 AM

Lab ID: 2304915-006

Matrix: SOIL

Received Date: 4/21/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	93	9.9		mg/Kg	1	4/27/2023 2:38:35 AM
Motor Oil Range Organics (MRO)	170	49		mg/Kg	1	4/27/2023 2:38:35 AM
Surr: DNOP	92.7	69-147		%Rec	1	4/27/2023 2:38:35 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/28/2023 12:06:00 AM
Surr: BFB	88.2	37.7-212		%Rec	1	4/28/2023 12:06:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: CCM
Benzene	ND	0.024		mg/Kg	1	4/28/2023 12:06:00 AM
Toluene	ND	0.048		mg/Kg	1	4/28/2023 12:06:00 AM
Ethylbenzene	ND	0.048		mg/Kg	1	4/28/2023 12:06:00 AM
Xylenes, Total	ND	0.095		mg/Kg	1	4/28/2023 12:06:00 AM
Surr: 4-Bromofluorobenzene	84.1	70-130		%Rec	1	4/28/2023 12:06:00 AM
EPA METHOD 300.0: ANIONS						Analyst: JMT
Chloride	110	60		mg/Kg	20	4/27/2023 3:54:18 PM

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

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

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Analytical Report

Lab Order 2304915

Date Reported: 5/3/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BH23-08 0'

Project: Agate PWU 21 22 62H

Collection Date: 4/19/2023 9:57:00 AM

Lab ID: 2304915-007

Matrix: SOIL

Received Date: 4/21/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	36	9.6		mg/Kg	1	4/27/2023 2:49:23 AM
Motor Oil Range Organics (MRO)	69	48		mg/Kg	1	4/27/2023 2:49:23 AM
Surr: DNOP	85.6	69-147		%Rec	1	4/27/2023 2:49:23 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/28/2023 12:28:00 AM
Surr: BFB	91.7	37.7-212		%Rec	1	4/28/2023 12:28:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/28/2023 12:28:00 AM
Toluene	ND	0.049		mg/Kg	1	4/28/2023 12:28:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	4/28/2023 12:28:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	4/28/2023 12:28:00 AM
Surr: 4-Bromofluorobenzene	83.8	70-130		%Rec	1	4/28/2023 12:28:00 AM
EPA METHOD 300.0: ANIONS						Analyst: JMT
Chloride	470	60		mg/Kg	20	4/27/2023 4:06:42 PM

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

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

Analytical Report

Lab Order 2304915

Date Reported: 5/3/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BH23-12 0'

Project: Agate PWU 21 22 62H

Collection Date: 4/19/2023 12:26:00 PM

Lab ID: 2304915-009

Matrix: SOIL

Received Date: 4/21/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	4/27/2023 3:10:56 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/27/2023 3:10:56 AM
Surr: DNOP	99.7	69-147		%Rec	1	4/27/2023 3:10:56 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/28/2023 1:32:00 AM
Surr: BFB	91.5	37.7-212		%Rec	1	4/28/2023 1:32:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: CCM
Benzene	ND	0.023		mg/Kg	1	4/28/2023 1:32:00 AM
Toluene	ND	0.047		mg/Kg	1	4/28/2023 1:32:00 AM
Ethylbenzene	ND	0.047		mg/Kg	1	4/28/2023 1:32:00 AM
Xylenes, Total	ND	0.094		mg/Kg	1	4/28/2023 1:32:00 AM
Surr: 4-Bromofluorobenzene	86.8	70-130		%Rec	1	4/28/2023 1:32:00 AM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	4/27/2023 2:40:48 PM

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

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

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Analytical Report

Lab Order 2304915

Date Reported: 5/3/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BH23-13 0'

Project: Agate PWU 21 22 62H

Collection Date: 4/19/2023 12:30:00 PM

Lab ID: 2304915-010

Matrix: SOIL

Received Date: 4/21/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	3700	190		mg/Kg	20	4/27/2023 3:21:41 AM
Motor Oil Range Organics (MRO)	3100	930		mg/Kg	20	4/27/2023 3:21:41 AM
Surr: DNOP	0	69-147	S	%Rec	20	4/27/2023 3:21:41 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/28/2023 1:54:00 AM
Surr: BFB	92.3	37.7-212		%Rec	1	4/28/2023 1:54:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: CCM
Benzene	ND	0.024		mg/Kg	1	4/28/2023 1:54:00 AM
Toluene	ND	0.048		mg/Kg	1	4/28/2023 1:54:00 AM
Ethylbenzene	ND	0.048		mg/Kg	1	4/28/2023 1:54:00 AM
Xylenes, Total	ND	0.095		mg/Kg	1	4/28/2023 1:54:00 AM
Surr: 4-Bromofluorobenzene	85.0	70-130		%Rec	1	4/28/2023 1:54:00 AM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	97	60		mg/Kg	20	4/27/2023 3:18:01 PM

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

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

Analytical Report

Lab Order 2304915

Date Reported: 5/3/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BH23-14 0'

Project: Agate PWU 21 22 62H

Collection Date: 4/19/2023 12:34:00 PM

Lab ID: 2304915-011

Matrix: SOIL

Received Date: 4/21/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/27/2023 4:02:13 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/27/2023 4:02:13 AM
Surr: DNOP	90.3	69-147		%Rec	1	4/27/2023 4:02:13 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/28/2023 2:16:00 AM
Surr: BFB	91.0	37.7-212		%Rec	1	4/28/2023 2:16:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: CCM
Benzene	ND	0.025		mg/Kg	1	4/28/2023 2:16:00 AM
Toluene	ND	0.049		mg/Kg	1	4/28/2023 2:16:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	4/28/2023 2:16:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	4/28/2023 2:16:00 AM
Surr: 4-Bromofluorobenzene	86.3	70-130		%Rec	1	4/28/2023 2:16:00 AM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	61	60		mg/Kg	20	4/27/2023 3:30:26 PM

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

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

Analytical Report

Lab Order 2304915

Date Reported: 5/3/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BH23-15 0'

Project: Agate PWU 21 22 62H

Collection Date: 4/19/2023 12:29:00 PM

Lab ID: 2304915-012

Matrix: SOIL

Received Date: 4/21/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	77	9.8		mg/Kg	1	4/27/2023 4:12:56 AM
Motor Oil Range Organics (MRO)	92	49		mg/Kg	1	4/27/2023 4:12:56 AM
Surr: DNOP	103	69-147		%Rec	1	4/27/2023 4:12:56 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/28/2023 2:37:00 AM
Surr: BFB	93.9	37.7-212		%Rec	1	4/28/2023 2:37:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: CCM
Benzene	ND	0.024		mg/Kg	1	4/28/2023 2:37:00 AM
Toluene	ND	0.047		mg/Kg	1	4/28/2023 2:37:00 AM
Ethylbenzene	ND	0.047		mg/Kg	1	4/28/2023 2:37:00 AM
Xylenes, Total	ND	0.094		mg/Kg	1	4/28/2023 2:37:00 AM
Surr: 4-Bromofluorobenzene	86.6	70-130		%Rec	1	4/28/2023 2:37:00 AM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	75	60		mg/Kg	20	4/27/2023 3:42:51 PM

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

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

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Analytical Report

Lab Order 2304915

Date Reported: 5/3/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BH23-17 0'

Project: Agate PWU 21 22 62H

Collection Date: 4/19/2023 12:48:00 PM

Lab ID: 2304915-013

Matrix: SOIL

Received Date: 4/21/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	4/27/2023 4:23:37 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	4/27/2023 4:23:37 AM
Surr: DNOP	91.8	69-147		%Rec	1	4/27/2023 4:23:37 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/28/2023 2:59:00 AM
Surr: BFB	90.7	37.7-212		%Rec	1	4/28/2023 2:59:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: CCM
Benzene	ND	0.024		mg/Kg	1	4/28/2023 2:59:00 AM
Toluene	ND	0.049		mg/Kg	1	4/28/2023 2:59:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	4/28/2023 2:59:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	4/28/2023 2:59:00 AM
Surr: 4-Bromofluorobenzene	85.6	70-130		%Rec	1	4/28/2023 2:59:00 AM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	4/27/2023 3:55:15 PM

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

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

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2304915

03-May-23

Client: Devon Energy
Project: Agate PWU 21 22 62H

Sample ID: MB-74584	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBS	Batch ID: 74584		RunNo: 96342							
Prep Date: 4/26/2023	Analysis Date: 4/26/2023		SeqNo: 3489317		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-74584	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSS	Batch ID: 74584		RunNo: 96342							
Prep Date: 4/26/2023	Analysis Date: 4/26/2023		SeqNo: 3489318		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.5	90	110			

Sample ID: MB-74614	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBS	Batch ID: 74614		RunNo: 96377							
Prep Date: 4/27/2023	Analysis Date: 4/27/2023		SeqNo: 3490687		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-74614	SampType: lcs		TestCode: EPA Method 300.0: Anions							
Client ID: LCSS	Batch ID: 74614		RunNo: 96377							
Prep Date: 4/27/2023	Analysis Date: 4/27/2023		SeqNo: 3490688		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.3	90	110			

Sample ID: MB-74601	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBS	Batch ID: 74601		RunNo: 96357							
Prep Date: 4/27/2023	Analysis Date: 4/27/2023		SeqNo: 3490739		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-74601	SampType: lcs		TestCode: EPA Method 300.0: Anions							
Client ID: LCSS	Batch ID: 74601		RunNo: 96357							
Prep Date: 4/27/2023	Analysis Date: 4/27/2023		SeqNo: 3490740		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.1	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2304915

03-May-23

Client: Devon Energy
Project: Agate PWU 21 22 62H

Sample ID: LCS-74548	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 74548		RunNo: 96314							
Prep Date: 4/25/2023	Analysis Date: 4/25/2023		SeqNo: 3488048		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	93.5	61.9	130			
Surr: DNOP	4.5		5.000		90.6	69	147			

Sample ID: MB-74548	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 74548		RunNo: 96314							
Prep Date: 4/25/2023	Analysis Date: 4/25/2023		SeqNo: 3488050		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	9.1		10.00		91.0	69	147			

Sample ID: LCS-74583	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 74583		RunNo: 96315							
Prep Date: 4/26/2023	Analysis Date: 4/26/2023		SeqNo: 3489050		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	82.6	61.9	130			
Surr: DNOP	4.4		5.000		88.6	69	147			

Sample ID: MB-74583	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 74583		RunNo: 96315							
Prep Date: 4/26/2023	Analysis Date: 4/26/2023		SeqNo: 3489053		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	9.3		10.00		92.8	69	147			

Sample ID: LCS-74617	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 74617		RunNo: 96349							
Prep Date: 4/27/2023	Analysis Date: 4/28/2023		SeqNo: 3490871		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		5.000		103	69	147			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 2304915
03-May-23

Client: Devon Energy
Project: Agate PWU 21 22 62H

Sample ID: Ics-74524	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 74524			RunNo: 96350						
Prep Date: 4/24/2023	Analysis Date: 4/27/2023			SeqNo: 3489752		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	87.2	70	130			
Surr: BFB	5000		1000		503	37.7	212			S

Sample ID: mb-74524	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 74524			RunNo: 96350						
Prep Date: 4/24/2023	Analysis Date: 4/27/2023			SeqNo: 3489753		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	1100		1000		105	37.7	212			

Sample ID: Ics-74569	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 74569			RunNo: 96355						
Prep Date: 4/26/2023	Analysis Date: 4/27/2023			SeqNo: 3490359		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	84.2	70	130			
Surr: BFB	1900		1000		195	37.7	212			

Sample ID: mb-74569	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 74569			RunNo: 96355						
Prep Date: 4/26/2023	Analysis Date: 4/27/2023			SeqNo: 3490360		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	930		1000		92.9	37.7	212			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quantitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2304915

03-May-23

Client: Devon Energy

Project: Agate PWU 21 22 62H

Sample ID: LCS-74524	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 74524		RunNo: 96350							
Prep Date: 4/24/2023	Analysis Date: 4/27/2023		SeqNo: 3489755		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.3	80	120			
Toluene	0.94	0.050	1.000	0	94.0	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.2	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.5	80	120			
Surr: 4-Bromofluorobenzene	0.98		1.000		98.4	70	130			

Sample ID: mb-74524	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 74524		RunNo: 96350							
Prep Date: 4/24/2023	Analysis Date: 4/27/2023		SeqNo: 3489757		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		97.1	70	130			

Sample ID: lcs-74569	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 74569		RunNo: 96355							
Prep Date: 4/26/2023	Analysis Date: 4/27/2023		SeqNo: 3490404		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	88.6	80	120			
Toluene	0.88	0.050	1.000	0	87.5	80	120			
Ethylbenzene	0.85	0.050	1.000	0	85.0	80	120			
Xylenes, Total	2.5	0.10	3.000	0	84.0	80	120			
Surr: 4-Bromofluorobenzene	0.87		1.000		87.5	70	130			

Sample ID: mb-74569	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 74569		RunNo: 96355							
Prep Date: 4/26/2023	Analysis Date: 4/27/2023		SeqNo: 3490405		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	0.86		1.000		85.8	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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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: Devon Energy

Work Order Number: 2304915

RcptNo: 1

Received By: Juan Rojas 4/21/2023 7:30:00 AM

Completed By: Tracy Casarrubias 4/21/2023 8:13:42 AM

Reviewed By: *WJ* 4/21/23

Juan Rojas

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 $>0^{\circ}\text{C}$ 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: *JW* 4/21/23

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: _____

Mailing address, phone number and Email missing on COC - TMC 4/21/23

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.5	Good	Yes	Morty		

Chain-of-Custody Record

Client: Devon / VertexMailing Address: on file

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC ☐ Other☐ EDD (Type)

Turn-Around Time:

☒ Standard☒ Rush 5 days

Project Name:

Agoke Pluu 2122-#62H

Project #:

23 E-01653

Project Manager:

Kend StallingSampler: SMOn Ice: ☒ Yes ☐ No# of Coolers: 1Cooler Temp (including CF): 7.4 + 0.1 = 7.5 (°C)

Container

Preservative

Type and #

HEAL No.

Date 4/19/23 Time 12:48 Matrix Soil Sample Name BH23-17 0'4oz jar ice0132304915

Analysis Request

TPH:8015D(GRO / DRO / MRO) ☒

8081 Pesticides/8082 PCB's

EDB (Method 504.1)

PAHs by 8310 or 8270SIMS

RCRA 8 Metals

8270 (Semi-VOA)

8260 (VOA)

8270 (Semi-VOA)

Total Coliform (Present/Absent)

Date:

Time: 1830

Relinquished by:

Relinquished by:

Received by:

Via:

Date:

Time: 4/20/23 9:45

Date:

Time: 4/20/23 7:130

Remarks:

Direct Bill: Devon w/o: 2114553QuinnQuinn4/20/23 9:454/20/23 7:130CL. Smccarty@vertex.copg 2 of 2



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

May 17, 2023

Kent Stallings

Vertex Resources Services, Inc.

3101 Boyd Drive

Carlsbad, NM 88220

TEL: (505) 506-0040

FAX:

RE: Agate PWU 2122 062H

OrderNo.: 2305348

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 10 sample(s) on 5/6/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2305348

Date Reported: 5/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-20 0'

Project: Agate PWU 2122 062H

Collection Date: 5/4/2023 10:00:00 AM

Lab ID: 2305348-001

Matrix: SOIL

Received Date: 5/6/2023 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/11/2023 10:47:29 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/11/2023 10:47:29 PM
Surr: DNOP	80.4	69-147		%Rec	1	5/11/2023 10:47:29 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/12/2023 1:27:48 AM
Surr: BFB	69.0	15-244		%Rec	1	5/12/2023 1:27:48 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.023		mg/Kg	1	5/12/2023 1:27:48 AM
Toluene	ND	0.047		mg/Kg	1	5/12/2023 1:27:48 AM
Ethylbenzene	ND	0.047		mg/Kg	1	5/12/2023 1:27:48 AM
Xylenes, Total	ND	0.094		mg/Kg	1	5/12/2023 1:27:48 AM
Surr: 4-Bromofluorobenzene	83.8	39.1-146		%Rec	1	5/12/2023 1:27:48 AM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	120	60		mg/Kg	20	5/12/2023 9:23:23 PM

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

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

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Analytical Report

Lab Order 2305348

Date Reported: 5/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-21 0'

Project: Agate PWU 2122 062H

Collection Date: 5/4/2023 10:15:00 AM

Lab ID: 2305348-002

Matrix: SOIL

Received Date: 5/6/2023 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/11/2023 10:58:19 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/11/2023 10:58:19 PM
Surr: DNOP	75.3	69-147		%Rec	1	5/11/2023 10:58:19 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/12/2023 1:51:20 AM
Surr: BFB	71.4	15-244		%Rec	1	5/12/2023 1:51:20 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	5/12/2023 1:51:20 AM
Toluene	ND	0.050		mg/Kg	1	5/12/2023 1:51:20 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/12/2023 1:51:20 AM
Xylenes, Total	ND	0.10		mg/Kg	1	5/12/2023 1:51:20 AM
Surr: 4-Bromofluorobenzene	84.7	39.1-146		%Rec	1	5/12/2023 1:51:20 AM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	110	60		mg/Kg	20	5/12/2023 9:35:48 PM

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

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

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Analytical Report

Lab Order 2305348

Date Reported: 5/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-22 0'

Project: Agate PWU 2122 062H

Collection Date: 5/4/2023 10:30:00 AM

Lab ID: 2305348-003

Matrix: SOIL

Received Date: 5/6/2023 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/11/2023 11:09:07 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/11/2023 11:09:07 PM
Surr: DNOP	99.2	69-147		%Rec	1	5/11/2023 11:09:07 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2023 2:14:55 AM
Surr: BFB	72.3	15-244		%Rec	1	5/12/2023 2:14:55 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	5/12/2023 2:14:55 AM
Toluene	ND	0.049		mg/Kg	1	5/12/2023 2:14:55 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/12/2023 2:14:55 AM
Xylenes, Total	ND	0.097		mg/Kg	1	5/12/2023 2:14:55 AM
Surr: 4-Bromofluorobenzene	83.6	39.1-146		%Rec	1	5/12/2023 2:14:55 AM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	ND	60		mg/Kg	20	5/12/2023 10:13:00 PM

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

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

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Analytical Report

Lab Order 2305348

Date Reported: 5/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-24 0'

Project: Agate PWU 2122 062H

Collection Date: 5/4/2023 11:00:00 AM

Lab ID: 2305348-004

Matrix: SOIL

Received Date: 5/6/2023 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	5000	190		mg/Kg	20	5/11/2023 6:05:18 PM
Motor Oil Range Organics (MRO)	4600	960		mg/Kg	20	5/11/2023 6:05:18 PM
Surr: DNOP	0	69-147	S	%Rec	20	5/11/2023 6:05:18 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2023 2:38:28 AM
Surr: BFB	63.8	15-244		%Rec	1	5/12/2023 2:38:28 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	5/12/2023 2:38:28 AM
Toluene	ND	0.049		mg/Kg	1	5/12/2023 2:38:28 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/12/2023 2:38:28 AM
Xylenes, Total	ND	0.098		mg/Kg	1	5/12/2023 2:38:28 AM
Surr: 4-Bromofluorobenzene	82.8	39.1-146		%Rec	1	5/12/2023 2:38:28 AM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	95	60		mg/Kg	20	5/12/2023 10:25:25 PM

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

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

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Analytical Report

Lab Order 2305348

Date Reported: 5/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-23 0'

Project: Agate PWU 2122 062H

Collection Date: 5/4/2023 10:45:00 AM

Lab ID: 2305348-005

Matrix: SOIL

Received Date: 5/6/2023 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/11/2023 11:19:54 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/11/2023 11:19:54 PM
Surr: DNOP	80.6	69-147		%Rec	1	5/11/2023 11:19:54 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/12/2023 3:02:04 AM
Surr: BFB	61.0	15-244		%Rec	1	5/12/2023 3:02:04 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	5/12/2023 3:02:04 AM
Toluene	ND	0.048		mg/Kg	1	5/12/2023 3:02:04 AM
Ethylbenzene	ND	0.048		mg/Kg	1	5/12/2023 3:02:04 AM
Xylenes, Total	ND	0.096		mg/Kg	1	5/12/2023 3:02:04 AM
Surr: 4-Bromofluorobenzene	83.2	39.1-146		%Rec	1	5/12/2023 3:02:04 AM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	ND	60		mg/Kg	20	5/12/2023 10:37:50 PM

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

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

Analytical Report

Lab Order 2305348

Date Reported: 5/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-25 0'

Project: Agate PWU 2122 062H

Collection Date: 5/4/2023 11:15:00 AM

Lab ID: 2305348-006

Matrix: SOIL

Received Date: 5/6/2023 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/11/2023 11:41:22 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/11/2023 11:41:22 PM
Surr: DNOP	74.4	69-147		%Rec	1	5/11/2023 11:41:22 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/12/2023 3:25:39 AM
Surr: BFB	62.2	15-244		%Rec	1	5/12/2023 3:25:39 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	5/12/2023 3:25:39 AM
Toluene	ND	0.050		mg/Kg	1	5/12/2023 3:25:39 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/12/2023 3:25:39 AM
Xylenes, Total	ND	0.099		mg/Kg	1	5/12/2023 3:25:39 AM
Surr: 4-Bromofluorobenzene	81.8	39.1-146		%Rec	1	5/12/2023 3:25:39 AM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	ND	60		mg/Kg	20	5/12/2023 11:15:04 PM

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

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

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Analytical Report

Lab Order 2305348

Date Reported: 5/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-26 0'

Project: Agate PWU 2122 062H

Collection Date: 5/4/2023 11:30:00 AM

Lab ID: 2305348-007

Matrix: SOIL

Received Date: 5/6/2023 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/11/2023 11:52:05 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/11/2023 11:52:05 PM
Surr: DNOP	76.0	69-147		%Rec	1	5/11/2023 11:52:05 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2023 4:12:41 AM
Surr: BFB	67.0	15-244		%Rec	1	5/12/2023 4:12:41 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	5/12/2023 4:12:41 AM
Toluene	ND	0.049		mg/Kg	1	5/12/2023 4:12:41 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/12/2023 4:12:41 AM
Xylenes, Total	ND	0.098		mg/Kg	1	5/12/2023 4:12:41 AM
Surr: 4-Bromofluorobenzene	82.9	39.1-146		%Rec	1	5/12/2023 4:12:41 AM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	ND	60		mg/Kg	20	5/12/2023 11:52:17 PM

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2305348
Date Reported: 5/17/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH23-20 1'
Project: Agate PWU 2122 062H Collection Date: 5/4/2023 1:00:00 PM
Lab ID: 2305348-008 Matrix: SOIL Received Date: 5/6/2023 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	5/12/2023 12:02:48 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/12/2023 12:02:48 AM
Surr: DNOP	72.3	69-147		%Rec	1	5/12/2023 12:02:48 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/12/2023 4:36:11 AM
Surr: BFB	71.9	15-244		%Rec	1	5/12/2023 4:36:11 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	5/12/2023 4:36:11 AM
Toluene	ND	0.047		mg/Kg	1	5/12/2023 4:36:11 AM
Ethylbenzene	ND	0.047		mg/Kg	1	5/12/2023 4:36:11 AM
Xylenes, Total	ND	0.095		mg/Kg	1	5/12/2023 4:36:11 AM
Surr: 4-Bromofluorobenzene	83.8	39.1-146		%Rec	1	5/12/2023 4:36:11 AM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	110	60		mg/Kg	20	5/13/2023 12:54:22 AM

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

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

Analytical Report

Lab Order 2305348

Date Reported: 5/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-21 1'

Project: Agate PWU 2122 062H

Collection Date: 5/4/2023 1:15:00 PM

Lab ID: 2305348-009

Matrix: SOIL

Received Date: 5/6/2023 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/12/2023 12:13:29 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/12/2023 12:13:29 AM
Surr: DNOP	79.2	69-147		%Rec	1	5/12/2023 12:13:29 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2023 4:59:40 AM
Surr: BFB	66.0	15-244		%Rec	1	5/12/2023 4:59:40 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	5/12/2023 4:59:40 AM
Toluene	ND	0.049		mg/Kg	1	5/12/2023 4:59:40 AM
Ethylbenzene	ND	0.049		mg/Kg	1	5/12/2023 4:59:40 AM
Xylenes, Total	ND	0.099		mg/Kg	1	5/12/2023 4:59:40 AM
Surr: 4-Bromofluorobenzene	82.6	39.1-146		%Rec	1	5/12/2023 4:59:40 AM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	ND	60		mg/Kg	20	5/13/2023 1:06:46 AM

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

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

Analytical Report

Lab Order 2305348

Date Reported: 5/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-24 1'

Project: Agate PWU 2122 062H

Collection Date: 5/4/2023 1:30:00 PM

Lab ID: 2305348-010

Matrix: SOIL

Received Date: 5/6/2023 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	5700	190		mg/Kg	20	5/11/2023 6:16:11 PM
Motor Oil Range Organics (MRO)	5800	930		mg/Kg	20	5/11/2023 6:16:11 PM
Surr: DNOP	0	69-147	S	%Rec	20	5/11/2023 6:16:11 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/12/2023 5:23:10 AM
Surr: BFB	58.3	15-244		%Rec	1	5/12/2023 5:23:10 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.023		mg/Kg	1	5/12/2023 5:23:10 AM
Toluene	ND	0.047		mg/Kg	1	5/12/2023 5:23:10 AM
Ethylbenzene	ND	0.047		mg/Kg	1	5/12/2023 5:23:10 AM
Xylenes, Total	ND	0.093		mg/Kg	1	5/12/2023 5:23:10 AM
Surr: 4-Bromofluorobenzene	80.3	39.1-146		%Rec	1	5/12/2023 5:23:10 AM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	160	60		mg/Kg	20	5/13/2023 1:19:11 AM

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2305348

17-May-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 2122 062H

Sample ID: MB-74927	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 74927	RunNo: 96724
Prep Date: 5/12/2023	Analysis Date: 5/12/2023	SeqNo: 3507859 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-74927	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 74927	RunNo: 96724
Prep Date: 5/12/2023	Analysis Date: 5/12/2023	SeqNo: 3507860 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	14	1.5 15.00 0 92.1 90 110

Sample ID: MB-74931	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 74931	RunNo: 96724
Prep Date: 5/12/2023	Analysis Date: 5/12/2023	SeqNo: 3507891 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-74931	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 74931	RunNo: 96724
Prep Date: 5/12/2023	Analysis Date: 5/12/2023	SeqNo: 3507892 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 Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2305348

17-May-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 2122 062H

Sample ID: LCS-74874	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 74874	RunNo: 96702								
Prep Date: 5/10/2023	Analysis Date: 5/11/2023	SeqNo: 3506800	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	88.4	61.9	130			
Surr: DNOP	4.9		5.000		97.4	69	147			

Sample ID: MB-74874	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 74874	RunNo: 96702								
Prep Date: 5/10/2023	Analysis Date: 5/11/2023	SeqNo: 3506803	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	10		10.00		102	69	147			

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2305348

17-May-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 2122 062H

Sample ID: Ics-74864	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 74864		RunNo: 96676							
Prep Date: 5/10/2023	Analysis Date: 5/11/2023		SeqNo: 3506809		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	82.4	70	130			
Surr: BFB	5000		1000		503	15	244			S

Sample ID: mb-74864	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 74864		RunNo: 96676							
Prep Date: 5/10/2023	Analysis Date: 5/11/2023		SeqNo: 3506810		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	760		1000		75.7	15	244			

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2305348

17-May-23

Client: Vertex Resources Services, Inc.**Project:** Agate PWU 2122 062H

Sample ID: LCS-74864	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 74864		RunNo: 96676							
Prep Date: 5/10/2023	Analysis Date: 5/11/2023		SeqNo: 3506872		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.78	0.025	1.000	0	77.9	70	130			
Toluene	0.81	0.050	1.000	0	81.0	70	130			
Ethylbenzene	0.81	0.050	1.000	0	81.4	70	130			
Xylenes, Total	2.5	0.10	3.000	0	81.8	70	130			
Surr: 4-Bromofluorobenzene	0.87		1.000		87.0	39.1	146			

Sample ID: mb-74864	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 74864		RunNo: 96676							
Prep Date: 5/10/2023	Analysis Date: 5/11/2023		SeqNo: 3506873		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	0.86		1.000		85.8	39.1	146			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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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: Vertex Resources
Services, Inc.

Work Order Number: 2305348

RcptNo: 1

Received By: Cheyenne Cason

5/6/2023 8:45:00 AM

Chad

Completed By: Cheyenne Cason

5/6/2023 8:53:14 AM

Chad

Reviewed By: *JP 5/6/23*

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 $>0^{\circ}\text{C}$ 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: *CMC 5/6/23*

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:

No email, address or Phone number on COC

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.8	Good	Not Present	Yogi		

Chain-of-Custody Record

Client: Vertex (Devon)

Mailing Address: on file

Phone #: _____

email or Fax#: _____

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

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time: ☒ Standard ☒ Rush 5 Day

Project Name: Agate PMU 2122#0624

Project #: 23E-01653

Project Manager: Kent Stallings

Sampler: Zach Englebert

On Ice: ☒ Yes ☐ No Yag

of Coolers: 1

Cooler Temp (Including CF): 5.8-0±5.8 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
5-4-23	10	soil	BH23-20	jar-1	ice	2305348
	10 15		BH23-21			001
	10 30		BH23-22			002
	11 00		BH23-24			003
	10 45		BH23-23			004
	11 15		BH23-25			005
	11 30		BH23-26			006
	13 00		BH23-20			007
	13 15		BH23-21			008
	13 30		BH23-24			009
						010

Date: 5/4/23 Time: 1600

Relinquished by: Zach Englebert gme

Date: 5/13/23 Time: 1900

Relinquished by: allumina

Received by: allumina Date: 5/13/23 Time: 945

Received by: one corr Date: 5/16/23 Time: 0845



HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Analysis Request

8081 Pesticides/8082 PCBs	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	(C), F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
PH: 8015D (GRO / DRO / MRO)	BTX / MTBE / TMBs (8021)						

Remarks: Direct Bill to Devon



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

June 13, 2023

Kent Stallings

Devon Energy

6488 Seven Rivers Highway

Artesia, NM 88210

TEL: (505) 350-1336

FAX:

RE: Agate PWU 21 22 62H

OrderNo.: 2306178

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 3 sample(s) on 6/6/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2306178

Date Reported: 6/13/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BH23-16 0'

Project: Agate PWU 21 22 62H

Collection Date: 6/1/2023 10:30:00 AM

Lab ID: 2306178-001

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/7/2023 9:15:31 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/7/2023 9:15:31 PM
Surr: DNOP	90.4	69-147		%Rec	1	6/7/2023 9:15:31 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/10/2023 1:06:13 PM
Surr: BFB	98.8	15-244		%Rec	1	6/10/2023 1:06:13 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	6/10/2023 1:06:13 PM
Toluene	ND	0.049		mg/Kg	1	6/10/2023 1:06:13 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/10/2023 1:06:13 PM
Xylenes, Total	ND	0.098		mg/Kg	1	6/10/2023 1:06:13 PM
Surr: 4-Bromofluorobenzene	91.6	39.1-146		%Rec	1	6/10/2023 1:06:13 PM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	160	60		mg/Kg	20	6/9/2023 2:41:30 PM

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

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

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Analytical Report

Lab Order 2306178

Date Reported: 6/13/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BH23-19 0'

Project: Agate PWU 21 22 62H

Collection Date: 6/1/2023 10:35:00 AM

Lab ID: 2306178-002

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/7/2023 9:26:23 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/7/2023 9:26:23 PM
Surr: DNOP	91.7	69-147		%Rec	1	6/7/2023 9:26:23 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/10/2023 1:29:46 PM
Surr: BFB	101	15-244		%Rec	1	6/10/2023 1:29:46 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	6/10/2023 1:29:46 PM
Toluene	ND	0.049		mg/Kg	1	6/10/2023 1:29:46 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/10/2023 1:29:46 PM
Xylenes, Total	ND	0.098		mg/Kg	1	6/10/2023 1:29:46 PM
Surr: 4-Bromofluorobenzene	93.3	39.1-146		%Rec	1	6/10/2023 1:29:46 PM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	79	60		mg/Kg	20	6/9/2023 2:53:55 PM

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

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

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Analytical Report

Lab Order 2306178

Date Reported: 6/13/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BH23-43 0'

Project: Agate PWU 21 22 62H

Collection Date: 6/1/2023 10:40:00 AM

Lab ID: 2306178-003

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/7/2023 9:37:12 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/7/2023 9:37:12 PM
Surr: DNOP	90.6	69-147		%Rec	1	6/7/2023 9:37:12 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/10/2023 2:16:57 PM
Surr: BFB	100	15-244		%Rec	1	6/10/2023 2:16:57 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	6/10/2023 2:16:57 PM
Toluene	ND	0.047		mg/Kg	1	6/10/2023 2:16:57 PM
Ethylbenzene	ND	0.047		mg/Kg	1	6/10/2023 2:16:57 PM
Xylenes, Total	ND	0.095		mg/Kg	1	6/10/2023 2:16:57 PM
Surr: 4-Bromofluorobenzene	92.4	39.1-146		%Rec	1	6/10/2023 2:16:57 PM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	ND	60		mg/Kg	20	6/9/2023 3:06:19 PM

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

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

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306178

13-Jun-23

Client: Devon Energy

Project: Agate PWU 21 22 62H

Sample ID: MB-75493	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 75493	RunNo: 97339								
Prep Date: 6/9/2023	Analysis Date: 6/9/2023	SeqNo: 3536201	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-75493	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 75493	RunNo: 97339								
Prep Date: 6/9/2023	Analysis Date: 6/9/2023	SeqNo: 3536202	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.4	90	110			

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306178

13-Jun-23

Client: Devon Energy

Project: Agate PWU 21 22 62H

Sample ID: LCS-75399	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 75399		RunNo: 97270							
Prep Date: 6/6/2023	Analysis Date: 6/7/2023		SeqNo: 3533133		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		86.4	69	147			

Sample ID: LCS-75406	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 75406		RunNo: 97270							
Prep Date: 6/7/2023	Analysis Date: 6/7/2023		SeqNo: 3533134		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.2	61.9	130			
Surr: DNOP	4.7		5.000		93.1	69	147			

Sample ID: MB-75399	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 75399		RunNo: 97270							
Prep Date: 6/6/2023	Analysis Date: 6/7/2023		SeqNo: 3533137		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.6		10.00		96.3	69	147			

Sample ID: MB-75406	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 75406		RunNo: 97270							
Prep Date: 6/7/2023	Analysis Date: 6/7/2023		SeqNo: 3533138		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	9.5		10.00		95.3	69	147			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306178
13-Jun-23

Client: Devon Energy
Project: Agate PWU 21 22 62H

Sample ID: lcs-75393	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 75393		RunNo: 97323							
Prep Date: 6/6/2023	Analysis Date: 6/10/2023		SeqNo: 3537032		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.4	70	130			
Surr: BFB	1900		1000		192	15	244			

Sample ID: mb-75393	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 75393		RunNo: 97323							
Prep Date: 6/6/2023	Analysis Date: 6/10/2023		SeqNo: 3537034		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	960		1000		95.8	15	244			

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306178
13-Jun-23

Client: Devon Energy

Project: Agate PWU 21 22 62H

Sample ID: LCS-75393		SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
Client ID: LCSS		Batch ID: 75393			RunNo: 97323					
Prep Date: 6/6/2023		Analysis Date: 6/10/2023			SeqNo: 3537094		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.1	70	130			
Toluene	0.90	0.050	1.000	0	90.5	70	130			
Ethylbenzene	0.89	0.050	1.000	0	88.8	70	130			
Xylenes, Total	2.7	0.10	3.000	0	90.0	70	130			
Surr: 4-Bromofluorobenzene	0.94		1.000		94.1	39.1	146			

Sample ID: mb-75393		SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID: PBS		Batch ID: 75393			RunNo: 97323					
Prep Date: 6/6/2023		Analysis Date: 6/10/2023			SeqNo: 3537096		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	0.90		1.000		89.7	39.1	146			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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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: Devon Energy

Work Order Number: 2306178

RcptNo: 1

Received By: Joseph Alderette 6/6/2023 8:35:00 AM

Completed By: Tracy Casarrubias 6/6/2023 8:46:08 AM

Reviewed By:

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 $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐

5. Sample(s) in proper container(s)? Yes ☒ No ☐

6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐

7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐

8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐

9. Received at least 1 vial with headspace $<1/4$ " for AQ VOA? Yes ☐ No ☐ NA ☒

10. Were any sample containers received broken? Yes ☐ No ☒

11. Does paperwork match bottle labels? Yes ☒ No ☐

(Note discrepancies on chain of custody)

12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐

13. Is it clear what analyses were requested? Yes ☒ No ☐

14. Were all holding times able to be met? Yes ☒ No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? ☐

Checked by: jm 6/6/23

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: Mailing address, phone number, and Email are missing on COC- TMC 6/6/23

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.8	Good	Yes	Morty		



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

June 19, 2023

Kent Stallings

Vertex Resources Services, Inc.

3101 Boyd Drive

Carlsbad, NM 88220

TEL: (505) 506-0040

FAX

RE: Agate PWU 21 22 062H

OrderNo.: 2306188

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 29 sample(s) on 6/6/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2306188
Date Reported: 6/19/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH23-01 2'
Project: Agate PWU 21 22 062H Collection Date: 6/2/2023 9:00:00 AM
Lab ID: 2306188-001 Matrix: SOIL Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	6/7/2023 9:48:05 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/7/2023 9:48:05 PM
Surr: DNOP	99.5	69-147		%Rec	1	6/7/2023 9:48:05 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/10/2023 5:26:51 PM
Surr: BFB	103	15-244		%Rec	1	6/10/2023 5:26:51 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.023		mg/Kg	1	6/10/2023 5:26:51 PM
Toluene	ND	0.047		mg/Kg	1	6/10/2023 5:26:51 PM
Ethylbenzene	ND	0.047		mg/Kg	1	6/10/2023 5:26:51 PM
Xylenes, Total	ND	0.094		mg/Kg	1	6/10/2023 5:26:51 PM
Surr: 4-Bromofluorobenzene	95.0	39.1-146		%Rec	1	6/10/2023 5:26:51 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	430	60		mg/Kg	20	6/9/2023 12:24:28 AM

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

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

Analytical Report

Lab Order 2306188

Date Reported: 6/19/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-01 4'

Project: Agate PWU 21 22 062H

Collection Date: 6/2/2023 9:10:00 AM

Lab ID: 2306188-002

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	27	9.4		mg/Kg	1	6/7/2023 10:09:48 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/7/2023 10:09:48 PM
Surr: DNOP	94.9	69-147		%Rec	1	6/7/2023 10:09:48 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/10/2023 5:50:34 PM
Surr: BFB	102	15-244		%Rec	1	6/10/2023 5:50:34 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	6/10/2023 5:50:34 PM
Toluene	ND	0.049		mg/Kg	1	6/10/2023 5:50:34 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/10/2023 5:50:34 PM
Xylenes, Total	ND	0.097		mg/Kg	1	6/10/2023 5:50:34 PM
Surr: 4-Bromofluorobenzene	91.9	39.1-146		%Rec	1	6/10/2023 5:50:34 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	1800	60		mg/Kg	20	6/9/2023 12:36:49 AM

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

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

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Analytical Report

Lab Order 2306188

Date Reported: 6/19/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-01 6'

Project: Agate PWU 21 22 062H

Collection Date: 6/2/2023 9:20:00 AM

Lab ID: 2306188-003

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	49	10		mg/Kg	1	6/8/2023 3:12:18 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/8/2023 3:12:18 AM
Surr: DNOP	93.5	69-147		%Rec	1	6/8/2023 3:12:18 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/10/2023 4:01:00 PM
Surr: BFB	103	15-244		%Rec	1	6/10/2023 4:01:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	6/10/2023 4:01:00 PM
Toluene	ND	0.047		mg/Kg	1	6/10/2023 4:01:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	6/10/2023 4:01:00 PM
Xylenes, Total	ND	0.095		mg/Kg	1	6/10/2023 4:01:00 PM
Surr: 4-Bromofluorobenzene	95.8	39.1-146		%Rec	1	6/10/2023 4:01:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	620	60		mg/Kg	20	6/9/2023 12:49:10 AM

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

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

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Analytical Report

Lab Order 2306188

Date Reported: 6/19/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-04 2'

Project: Agate PWU 21 22 062H

Collection Date: 6/2/2023 9:30:00 AM

Lab ID: 2306188-004

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	160	9.4		mg/Kg	1	6/8/2023 3:45:30 AM
Motor Oil Range Organics (MRO)	83	47		mg/Kg	1	6/8/2023 3:45:30 AM
Surr: DNOP	93.6	69-147		%Rec	1	6/8/2023 3:45:30 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/10/2023 5:06:00 PM
Surr: BFB	101	15-244		%Rec	1	6/10/2023 5:06:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	6/10/2023 5:06:00 PM
Toluene	ND	0.049		mg/Kg	1	6/10/2023 5:06:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/10/2023 5:06:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	6/10/2023 5:06:00 PM
Surr: 4-Bromofluorobenzene	97.1	39.1-146		%Rec	1	6/10/2023 5:06:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	380	60		mg/Kg	20	6/9/2023 1:01:31 AM

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

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

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Analytical Report

Lab Order 2306188

Date Reported: 6/19/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-04 4'

Project: Agate PWU 21 22 062H

Collection Date: 6/2/2023 9:40:00 AM

Lab ID: 2306188-005

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/8/2023 3:56:31 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/8/2023 3:56:31 AM
Surr: DNOP	94.5	69-147		%Rec	1	6/8/2023 3:56:31 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/10/2023 6:12:00 PM
Surr: BFB	103	15-244		%Rec	1	6/10/2023 6:12:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	6/10/2023 6:12:00 PM
Toluene	ND	0.047		mg/Kg	1	6/10/2023 6:12:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	6/10/2023 6:12:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	6/10/2023 6:12:00 PM
Surr: 4-Bromofluorobenzene	95.0	39.1-146		%Rec	1	6/10/2023 6:12:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	130	60		mg/Kg	20	6/9/2023 1:13:52 AM

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

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

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Analytical Report

Lab Order 2306188

Date Reported: 6/19/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-05 2'

Project: Agate PWU 21 22 062H

Collection Date: 6/2/2023 9:50:00 AM

Lab ID: 2306188-006

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	6/8/2023 4:07:30 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/8/2023 4:07:30 AM
Surr: DNOP	93.1	69-147		%Rec	1	6/8/2023 4:07:30 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/10/2023 6:34:00 PM
Surr: BFB	103	15-244		%Rec	1	6/10/2023 6:34:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	6/10/2023 6:34:00 PM
Toluene	ND	0.048		mg/Kg	1	6/10/2023 6:34:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	6/10/2023 6:34:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	6/10/2023 6:34:00 PM
Surr: 4-Bromofluorobenzene	97.7	39.1-146		%Rec	1	6/10/2023 6:34:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	70	60		mg/Kg	20	6/9/2023 1:26:13 AM

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

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

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Analytical Report

Lab Order 2306188

Date Reported: 6/19/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-06 2'

Project: Agate PWU 21 22 062H

Collection Date: 6/2/2023 10:00:00 AM

Lab ID: 2306188-007

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	6/8/2023 4:18:30 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/8/2023 4:18:30 AM
Surr: DNOP	94.9	69-147		%Rec	1	6/8/2023 4:18:30 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/10/2023 6:56:00 PM
Surr: BFB	100	15-244		%Rec	1	6/10/2023 6:56:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	6/10/2023 6:56:00 PM
Toluene	ND	0.049		mg/Kg	1	6/10/2023 6:56:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/10/2023 6:56:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	6/10/2023 6:56:00 PM
Surr: 4-Bromofluorobenzene	96.2	39.1-146		%Rec	1	6/10/2023 6:56:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	140	60		mg/Kg	20	6/9/2023 1:38:33 AM

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

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

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Analytical Report

Lab Order 2306188

Date Reported: 6/19/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-07 2'

Project: Agate PWU 21 22 062H

Collection Date: 6/2/2023 10:10:00 AM

Lab ID: 2306188-008

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	6/8/2023 4:29:28 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/8/2023 4:29:28 AM
Surr: DNOP	97.7	69-147		%Rec	1	6/8/2023 4:29:28 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/10/2023 7:18:00 PM
Surr: BFB	101	15-244		%Rec	1	6/10/2023 7:18:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	6/10/2023 7:18:00 PM
Toluene	ND	0.047		mg/Kg	1	6/10/2023 7:18:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	6/10/2023 7:18:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	6/10/2023 7:18:00 PM
Surr: 4-Bromofluorobenzene	96.5	39.1-146		%Rec	1	6/10/2023 7:18:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/9/2023 1:50:55 AM

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2306188
Date Reported: 6/19/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH23-12 2'
Project: Agate PWU 21 22 062H Collection Date: 6/2/2023 10:20:00 AM
Lab ID: 2306188-009 Matrix: SOIL Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/8/2023 4:40:24 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/8/2023 4:40:24 AM
Surr: DNOP	97.1	69-147		%Rec	1	6/8/2023 4:40:24 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/10/2023 7:40:00 PM
Surr: BFB	104	15-244		%Rec	1	6/10/2023 7:40:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	6/10/2023 7:40:00 PM
Toluene	ND	0.050		mg/Kg	1	6/10/2023 7:40:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/10/2023 7:40:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	6/10/2023 7:40:00 PM
Surr: 4-Bromofluorobenzene	96.0	39.1-146		%Rec	1	6/10/2023 7:40:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/9/2023 2:03:14 AM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2306188
Date Reported: 6/19/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH23-13 2'
Project: Agate PWU 21 22 062H Collection Date: 6/2/2023 10:30:00 AM
Lab ID: 2306188-010 Matrix: SOIL Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/8/2023 4:51:18 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/8/2023 4:51:18 AM
Surr: DNOP	86.2	69-147		%Rec	1	6/8/2023 4:51:18 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/10/2023 8:02:00 PM
Surr: BFB	103	15-244		%Rec	1	6/10/2023 8:02:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	6/10/2023 8:02:00 PM
Toluene	ND	0.050		mg/Kg	1	6/10/2023 8:02:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/10/2023 8:02:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	6/10/2023 8:02:00 PM
Surr: 4-Bromofluorobenzene	95.3	39.1-146		%Rec	1	6/10/2023 8:02:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	120	60		mg/Kg	20	6/9/2023 2:15:36 AM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2306188
Date Reported: 6/19/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH23-14 2'
Project: Agate PWU 21 22 062H Collection Date: 6/2/2023 10:40:00 AM
Lab ID: 2306188-011 Matrix: SOIL Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	6/8/2023 5:02:12 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/8/2023 5:02:12 AM
Surr: DNOP	94.5	69-147		%Rec	1	6/8/2023 5:02:12 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/10/2023 8:24:00 PM
Surr: BFB	99.8	15-244		%Rec	1	6/10/2023 8:24:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	6/10/2023 8:24:00 PM
Toluene	ND	0.049		mg/Kg	1	6/10/2023 8:24:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/10/2023 8:24:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	6/10/2023 8:24:00 PM
Surr: 4-Bromofluorobenzene	93.6	39.1-146		%Rec	1	6/10/2023 8:24:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	220	60		mg/Kg	20	6/9/2023 2:52:39 AM

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

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

Analytical Report

Lab Order 2306188

Date Reported: 6/19/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-15 2'

Project: Agate PWU 21 22 062H

Collection Date: 6/2/2023 10:50:00 AM

Lab ID: 2306188-012

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	6/8/2023 5:13:02 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/8/2023 5:13:02 AM
Surr: DNOP	93.2	69-147		%Rec	1	6/8/2023 5:13:02 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/10/2023 8:46:00 PM
Surr: BFB	101	15-244		%Rec	1	6/10/2023 8:46:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	6/10/2023 8:46:00 PM
Toluene	ND	0.049		mg/Kg	1	6/10/2023 8:46:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/10/2023 8:46:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	6/10/2023 8:46:00 PM
Surr: 4-Bromofluorobenzene	94.1	39.1-146		%Rec	1	6/10/2023 8:46:00 PM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/9/2023 3:05:01 AM

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2306188
Date Reported: 6/19/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH23-16 2'
Project: Agate PWU 21 22 062H Collection Date: 6/2/2023 11:00:00 AM
Lab ID: 2306188-013 Matrix: SOIL Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/8/2023 5:23:54 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/8/2023 5:23:54 AM
Surr: DNOP	97.6	69-147		%Rec	1	6/8/2023 5:23:54 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/13/2023 1:47:37 AM
Surr: BFB	96.8	15-244		%Rec	1	6/13/2023 1:47:37 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	6/13/2023 1:47:37 AM
Toluene	ND	0.050		mg/Kg	1	6/13/2023 1:47:37 AM
Ethylbenzene	ND	0.050		mg/Kg	1	6/13/2023 1:47:37 AM
Xylenes, Total	ND	0.099		mg/Kg	1	6/13/2023 1:47:37 AM
Surr: 4-Bromofluorobenzene	87.3	39.1-146		%Rec	1	6/13/2023 1:47:37 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/9/2023 3:17:22 AM

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

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

Analytical Report

Lab Order 2306188

Date Reported: 6/19/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-17 2'

Project: Agate PWU 21 22 062H

Collection Date: 6/2/2023 11:10:00 AM

Lab ID: 2306188-014

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/8/2023 5:34:41 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/8/2023 5:34:41 AM
Surr: DNOP	102	69-147		%Rec	1	6/8/2023 5:34:41 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/13/2023 2:11:01 AM
Surr: BFB	95.7	15-244		%Rec	1	6/13/2023 2:11:01 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	6/13/2023 2:11:01 AM
Toluene	ND	0.050		mg/Kg	1	6/13/2023 2:11:01 AM
Ethylbenzene	ND	0.050		mg/Kg	1	6/13/2023 2:11:01 AM
Xylenes, Total	ND	0.099		mg/Kg	1	6/13/2023 2:11:01 AM
Surr: 4-Bromofluorobenzene	85.7	39.1-146		%Rec	1	6/13/2023 2:11:01 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/9/2023 3:29:42 AM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2306188
Date Reported: 6/19/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH23-19 2'
Project: Agate PWU 21 22 062H Collection Date: 6/2/2023 11:20:00 AM
Lab ID: 2306188-015 Matrix: SOIL Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/8/2023 5:45:28 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/8/2023 5:45:28 AM
Surr: DNOP	99.0	69-147		%Rec	1	6/8/2023 5:45:28 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/13/2023 2:34:32 AM
Surr: BFB	95.5	15-244		%Rec	1	6/13/2023 2:34:32 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.023		mg/Kg	1	6/13/2023 2:34:32 AM
Toluene	ND	0.047		mg/Kg	1	6/13/2023 2:34:32 AM
Ethylbenzene	ND	0.047		mg/Kg	1	6/13/2023 2:34:32 AM
Xylenes, Total	ND	0.094		mg/Kg	1	6/13/2023 2:34:32 AM
Surr: 4-Bromofluorobenzene	85.3	39.1-146		%Rec	1	6/13/2023 2:34:32 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/9/2023 3:42:03 AM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2306188
Date Reported: 6/19/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH23-22 2'
Project: Agate PWU 21 22 062H Collection Date: 6/2/2023 11:30:00 AM
Lab ID: 2306188-016 Matrix: SOIL Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	6/8/2023 5:56:15 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/8/2023 5:56:15 AM
Surr: DNOP	102	69-147		%Rec	1	6/8/2023 5:56:15 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/13/2023 2:58:02 AM
Surr: BFB	94.9	15-244		%Rec	1	6/13/2023 2:58:02 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	6/13/2023 2:58:02 AM
Toluene	ND	0.048		mg/Kg	1	6/13/2023 2:58:02 AM
Ethylbenzene	ND	0.048		mg/Kg	1	6/13/2023 2:58:02 AM
Xylenes, Total	ND	0.096		mg/Kg	1	6/13/2023 2:58:02 AM
Surr: 4-Bromofluorobenzene	84.6	39.1-146		%Rec	1	6/13/2023 2:58:02 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/9/2023 3:54:23 AM

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

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

Analytical Report

Lab Order 2306188

Date Reported: 6/19/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-23 2'

Project: Agate PWU 21 22 062H

Collection Date: 6/2/2023 11:40:00 AM

Lab ID: 2306188-017

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/8/2023 6:07:01 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/8/2023 6:07:01 AM
Surr: DNOP	89.7	69-147		%Rec	1	6/8/2023 6:07:01 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/13/2023 3:21:30 AM
Surr: BFB	98.0	15-244		%Rec	1	6/13/2023 3:21:30 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	6/13/2023 3:21:30 AM
Toluene	ND	0.048		mg/Kg	1	6/13/2023 3:21:30 AM
Ethylbenzene	ND	0.048		mg/Kg	1	6/13/2023 3:21:30 AM
Xylenes, Total	ND	0.096		mg/Kg	1	6/13/2023 3:21:30 AM
Surr: 4-Bromofluorobenzene	87.5	39.1-146		%Rec	1	6/13/2023 3:21:30 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/9/2023 4:06:45 AM

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2306188
Date Reported: 6/19/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH23-24 2'
Project: Agate PWU 21 22 062H Collection Date: 6/2/2023 11:50:00 AM
Lab ID: 2306188-018 Matrix: SOIL Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	23	9.6		mg/Kg	1	6/8/2023 6:17:43 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/8/2023 6:17:43 AM
Surr: DNOP	88.4	69-147		%Rec	1	6/8/2023 6:17:43 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/13/2023 3:45:11 AM
Surr: BFB	93.9	15-244		%Rec	1	6/13/2023 3:45:11 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.023		mg/Kg	1	6/13/2023 3:45:11 AM
Toluene	ND	0.047		mg/Kg	1	6/13/2023 3:45:11 AM
Ethylbenzene	ND	0.047		mg/Kg	1	6/13/2023 3:45:11 AM
Xylenes, Total	ND	0.094		mg/Kg	1	6/13/2023 3:45:11 AM
Surr: 4-Bromofluorobenzene	83.7	39.1-146		%Rec	1	6/13/2023 3:45:11 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	710	60		mg/Kg	20	6/9/2023 4:19:04 AM

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

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

CLIENT: Vertex Resources Services, Inc.
Project: Agate PWU 21 22 062H
Lab ID: 2306188-019

Client Sample ID: BH23-24 4'
Collection Date: 6/2/2023 1:00:00 PM
Received Date: 6/6/2023 8:35:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/8/2023 6:28:25 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/8/2023 6:28:25 AM
Surr: DNOP	89.9	69-147		%Rec	1	6/8/2023 6:28:25 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/13/2023 4:08:49 AM
Surr: BFB	95.3	15-244		%Rec	1	6/13/2023 4:08:49 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	6/13/2023 4:08:49 AM
Toluene	ND	0.049		mg/Kg	1	6/13/2023 4:08:49 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/13/2023 4:08:49 AM
Xylenes, Total	ND	0.098		mg/Kg	1	6/13/2023 4:08:49 AM
Surr: 4-Bromofluorobenzene	86.0	39.1-146		%Rec	1	6/13/2023 4:08:49 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	260	60		mg/Kg	20	6/9/2023 4:31:24 AM

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

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

Analytical Report

Lab Order 2306188

Date Reported: 6/19/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-25 2'

Project: Agate PWU 21 22 062H

Collection Date: 6/2/2023 1:10:00 PM

Lab ID: 2306188-020

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/8/2023 6:39:04 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/8/2023 6:39:04 AM
Surr: DNOP	90.0	69-147		%Rec	1	6/8/2023 6:39:04 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/13/2023 4:32:21 AM
Surr: BFB	94.0	15-244		%Rec	1	6/13/2023 4:32:21 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	6/13/2023 4:32:21 AM
Toluene	ND	0.047		mg/Kg	1	6/13/2023 4:32:21 AM
Ethylbenzene	ND	0.047		mg/Kg	1	6/13/2023 4:32:21 AM
Xylenes, Total	ND	0.095		mg/Kg	1	6/13/2023 4:32:21 AM
Surr: 4-Bromofluorobenzene	84.8	39.1-146		%Rec	1	6/13/2023 4:32:21 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	6/9/2023 4:43:45 AM

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2306188

Date Reported: 6/19/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH23-26 2'
Project: Agate PWU 21 22 062H Collection Date: 6/2/2023 1:20:00 PM
Lab ID: 2306188-021 Matrix: SOIL Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/8/2023 6:49:38 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/8/2023 6:49:38 AM
Surr: DNOP	84.8	69-147		%Rec	1	6/8/2023 6:49:38 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/13/2023 4:55:55 AM
Surr: BFB	95.5	15-244		%Rec	1	6/13/2023 4:55:55 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	6/13/2023 4:55:55 AM
Toluene	ND	0.049		mg/Kg	1	6/13/2023 4:55:55 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/13/2023 4:55:55 AM
Xylenes, Total	ND	0.097		mg/Kg	1	6/13/2023 4:55:55 AM
Surr: 4-Bromofluorobenzene	84.7	39.1-146		%Rec	1	6/13/2023 4:55:55 AM
EPA METHOD 300.0: ANIONS						Analyst: JMT
Chloride	820	60		mg/Kg	20	6/8/2023 9:54:36 PM

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

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

Analytical Report

Lab Order 2306188

Date Reported: 6/19/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-35 2'

Project: Agate PWU 21 22 062H

Collection Date: 6/2/2023 1:30:00 PM

Lab ID: 2306188-022

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/8/2023 7:00:15 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/8/2023 7:00:15 AM
Surr: DNOP	89.8	69-147		%Rec	1	6/8/2023 7:00:15 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/13/2023 5:19:29 AM
Surr: BFB	98.8	15-244		%Rec	1	6/13/2023 5:19:29 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	6/13/2023 5:19:29 AM
Toluene	ND	0.049		mg/Kg	1	6/13/2023 5:19:29 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/13/2023 5:19:29 AM
Xylenes, Total	ND	0.099		mg/Kg	1	6/13/2023 5:19:29 AM
Surr: 4-Bromofluorobenzene	88.3	39.1-146		%Rec	1	6/13/2023 5:19:29 AM
EPA METHOD 300.0: ANIONS						Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/8/2023 10:07:01 PM

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

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

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Analytical Report

Lab Order 2306188

Date Reported: 6/19/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-43 2'

Project: Agate PWU 21 22 062H

Collection Date: 6/2/2023 1:40:00 PM

Lab ID: 2306188-023

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/8/2023 8:18:17 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/8/2023 8:18:17 AM
Surr: DNOP	107	69-147		%Rec	1	6/8/2023 8:18:17 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/13/2023 12:17:00 PM
Surr: BFB	98.3	15-244		%Rec	1	6/13/2023 12:17:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	6/13/2023 12:17:00 PM
Toluene	ND	0.050		mg/Kg	1	6/13/2023 12:17:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/13/2023 12:17:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/13/2023 12:17:00 PM
Surr: 4-Bromofluorobenzene	92.8	39.1-146		%Rec	1	6/13/2023 12:17:00 PM
EPA METHOD 300.0: ANIONS						Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/8/2023 10:19:26 PM

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

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

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Analytical Report

Lab Order 2306188

Date Reported: 6/19/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-44 0'

Project: Agate PWU 21 22 062H

Collection Date: 6/2/2023 1:50:00 PM

Lab ID: 2306188-024

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	6/8/2023 8:50:03 AM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	6/8/2023 8:50:03 AM
Surr: DNOP	84.3	69-147		%Rec	1	6/8/2023 8:50:03 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/13/2023 1:23:00 PM
Surr: BFB	101	15-244		%Rec	1	6/13/2023 1:23:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	6/13/2023 1:23:00 PM
Toluene	ND	0.047		mg/Kg	1	6/13/2023 1:23:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	6/13/2023 1:23:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	6/13/2023 1:23:00 PM
Surr: 4-Bromofluorobenzene	96.1	39.1-146		%Rec	1	6/13/2023 1:23:00 PM
EPA METHOD 300.0: ANIONS						Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/8/2023 10:31:50 PM

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2306188

Date Reported: 6/19/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH23-44 2'
Project: Agate PWU 21 22 062H Collection Date: 6/2/2023 2:00:00 PM
Lab ID: 2306188-025 Matrix: SOIL Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/8/2023 9:00:40 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/8/2023 9:00:40 AM
Surr: DNOP	102	69-147		%Rec	1	6/8/2023 9:00:40 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/13/2023 2:28:00 PM
Surr: BFB	101	15-244		%Rec	1	6/13/2023 2:28:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	6/13/2023 2:28:00 PM
Toluene	ND	0.047		mg/Kg	1	6/13/2023 2:28:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	6/13/2023 2:28:00 PM
Xylenes, Total	ND	0.095		mg/Kg	1	6/13/2023 2:28:00 PM
Surr: 4-Bromofluorobenzene	95.1	39.1-146		%Rec	1	6/13/2023 2:28:00 PM
EPA METHOD 300.0: ANIONS						Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/8/2023 10:44:15 PM

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

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

Analytical Report

Lab Order 2306188

Date Reported: 6/19/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-45 0'

Project: Agate PWU 21 22 062H

Collection Date: 6/2/2023 2:10:00 PM

Lab ID: 2306188-026

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/8/2023 9:11:17 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/8/2023 9:11:17 AM
Surr: DNOP	74.0	69-147		%Rec	1	6/8/2023 9:11:17 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/13/2023 2:49:00 PM
Surr: BFB	100	15-244		%Rec	1	6/13/2023 2:49:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.023		mg/Kg	1	6/13/2023 2:49:00 PM
Toluene	ND	0.047		mg/Kg	1	6/13/2023 2:49:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	6/13/2023 2:49:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	6/13/2023 2:49:00 PM
Surr: 4-Bromofluorobenzene	95.2	39.1-146		%Rec	1	6/13/2023 2:49:00 PM
EPA METHOD 300.0: ANIONS						Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/8/2023 10:56:40 PM

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

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

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Analytical Report

Lab Order 2306188

Date Reported: 6/19/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-45 2'

Project: Agate PWU 21 22 062H

Collection Date: 6/2/2023 2:20:00 PM

Lab ID: 2306188-027

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/8/2023 9:21:56 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/8/2023 9:21:56 AM
Surr: DNOP	93.8	69-147		%Rec	1	6/8/2023 9:21:56 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/13/2023 3:11:00 PM
Surr: BFB	102	15-244		%Rec	1	6/13/2023 3:11:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	6/13/2023 3:11:00 PM
Toluene	ND	0.050		mg/Kg	1	6/13/2023 3:11:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/13/2023 3:11:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	6/13/2023 3:11:00 PM
Surr: 4-Bromofluorobenzene	94.9	39.1-146		%Rec	1	6/13/2023 3:11:00 PM
EPA METHOD 300.0: ANIONS						Analyst: JMT
Chloride	ND	60		mg/Kg	20	6/8/2023 11:33:54 PM

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

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

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CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-46 0'

Project: Agate PWU 21 22 062H

Collection Date: 6/2/2023 2:30:00 PM

Lab ID: 2306188-028

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	6/8/2023 9:32:34 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/8/2023 9:32:34 AM
Surr: DNOP	78.4	69-147		%Rec	1	6/8/2023 9:32:34 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	6/13/2023 3:33:00 PM
Surr: BFB	98.6	15-244		%Rec	1	6/13/2023 3:33:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.023		mg/Kg	1	6/13/2023 3:33:00 PM
Toluene	ND	0.046		mg/Kg	1	6/13/2023 3:33:00 PM
Ethylbenzene	ND	0.046		mg/Kg	1	6/13/2023 3:33:00 PM
Xylenes, Total	ND	0.092		mg/Kg	1	6/13/2023 3:33:00 PM
Surr: 4-Bromofluorobenzene	94.9	39.1-146		%Rec	1	6/13/2023 3:33:00 PM
EPA METHOD 300.0: ANIONS						Analyst: JMT
Chloride	170	60		mg/Kg	20	6/8/2023 11:46:18 PM

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

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

Analytical Report

Lab Order 2306188

Date Reported: 6/19/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-46 2'

Project: Agate PWU 21 22 062H

Collection Date: 6/2/2023 2:40:00 PM

Lab ID: 2306188-029

Matrix: SOIL

Received Date: 6/6/2023 8:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/8/2023 9:53:53 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/8/2023 9:53:53 AM
Surr: DNOP	87.3	69-147		%Rec	1	6/8/2023 9:53:53 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/13/2023 3:55:00 PM
Surr: BFB	103	15-244		%Rec	1	6/13/2023 3:55:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	6/13/2023 3:55:00 PM
Toluene	ND	0.047		mg/Kg	1	6/13/2023 3:55:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	6/13/2023 3:55:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	6/13/2023 3:55:00 PM
Surr: 4-Bromofluorobenzene	95.7	39.1-146		%Rec	1	6/13/2023 3:55:00 PM
EPA METHOD 300.0: ANIONS						Analyst: JMT
Chloride	2400	150		mg/Kg	50	6/12/2023 8:07:50 AM

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306188

19-Jun-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Sample ID: MB-75476	SampType: mblk	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 75476	RunNo: 97318
Prep Date: 6/8/2023	Analysis Date: 6/8/2023	SeqNo: 3535395 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-75476	SampType: lcs	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 75476	RunNo: 97318
Prep Date: 6/8/2023	Analysis Date: 6/8/2023	SeqNo: 3535396 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	14	1.5 15.00 0 94.7 90 110

Sample ID: MB-75466	SampType: mblk	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 75466	RunNo: 97331
Prep Date: 6/8/2023	Analysis Date: 6/8/2023	SeqNo: 3536022 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-75466	SampType: lcs	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 75466	RunNo: 97331
Prep Date: 6/8/2023	Analysis Date: 6/8/2023	SeqNo: 3536023 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	14	1.5 15.00 0 94.8 90 110

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306188

19-Jun-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Sample ID: 2306188-003AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: BH23-01 6'	Batch ID: 75423	RunNo: 97270
Prep Date: 6/7/2023	Analysis Date: 6/8/2023	SeqNo: 3533111 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	160	9.2 45.96 49.42 245 54.2 135 S
Surr: DNOP	4.3	4.596 94.4 69 147

Sample ID: 2306188-003AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: BH23-01 6'	Batch ID: 75423	RunNo: 97270
Prep Date: 6/7/2023	Analysis Date: 6/8/2023	SeqNo: 3533112 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	88	9.6 48.12 49.42 80.6 54.2 135 58.9 29.2 R
Surr: DNOP	4.4	4.812 91.1 69 147 0 0

Sample ID: LCS-75406	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 75406	RunNo: 97270
Prep Date: 6/7/2023	Analysis Date: 6/7/2023	SeqNo: 3533134 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	48	10 50.00 0 95.2 61.9 130
Surr: DNOP	4.7	5.000 93.1 69 147

Sample ID: LCS-75423	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 75423	RunNo: 97270
Prep Date: 6/7/2023	Analysis Date: 6/8/2023	SeqNo: 3533135 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	42	10 50.00 0 83.8 61.9 130
Surr: DNOP	4.1	5.000 82.9 69 147

Sample ID: MB-75406	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 75406	RunNo: 97270
Prep Date: 6/7/2023	Analysis Date: 6/7/2023	SeqNo: 3533138 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	9.5	10.00 95.3 69 147

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306188

19-Jun-23

Client: Vertex Resources Services, Inc.
Project: Agate PWU 21 22 062H

Sample ID: MB-75423	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 75423	RunNo: 97270								
Prep Date: 6/7/2023	Analysis Date: 6/8/2023	SeqNo: 3533139	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	8.6		10.00		85.8	69	147			

Sample ID: 2306188-023AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: BH23-43 2'	Batch ID: 75442	RunNo: 97297								
Prep Date: 6/7/2023	Analysis Date: 6/8/2023	SeqNo: 3535025	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	9.8	49.07	0	82.1	54.2	135			
Surr: DNOP	4.0		4.907		81.7	69	147			

Sample ID: 2306188-023AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: BH23-43 2'	Batch ID: 75442	RunNo: 97297								
Prep Date: 6/7/2023	Analysis Date: 6/8/2023	SeqNo: 3535026	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.3	46.47	0	97.2	54.2	135	11.3	29.2	
Surr: DNOP	6.1		4.647		131	69	147	0	0	

Sample ID: LCS-75442	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 75442	RunNo: 97297								
Prep Date: 6/7/2023	Analysis Date: 6/8/2023	SeqNo: 3535107	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	61.9	130			
Surr: DNOP	4.7		5.000		94.0	69	147			

Sample ID: MB-75442	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 75442	RunNo: 97297								
Prep Date: 6/7/2023	Analysis Date: 6/8/2023	SeqNo: 3535118	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	9.0		10.00		90.4	69	147			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306188

19-Jun-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Sample ID: lcs-75393	SampType: LCS				TestCode: EPA Method 8015D: Gasoline Range					
Client ID: LCSS	Batch ID: 75393				RunNo: 97323					
Prep Date: 6/6/2023	Analysis Date: 6/10/2023				SeqNo: 3537032	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.4	70	130			
Surr: BFB	1900		1000		192	15	244			

Sample ID: mb-75393	SampType: MBLK				TestCode: EPA Method 8015D: Gasoline Range					
Client ID: PBS	Batch ID: 75393				RunNo: 97323					
Prep Date: 6/6/2023	Analysis Date: 6/10/2023				SeqNo: 3537034	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	960		1000		95.8	15	244			

Sample ID: lcs-75402	SampType: LCS				TestCode: EPA Method 8015D: Gasoline Range					
Client ID: LCSS	Batch ID: 75402				RunNo: 97349					
Prep Date: 6/6/2023	Analysis Date: 6/10/2023				SeqNo: 3537212	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.5	70	130			
Surr: BFB	2200		1000		220	15	244			

Sample ID: mb-75402	SampType: MBLK				TestCode: EPA Method 8015D: Gasoline Range					
Client ID: PBS	Batch ID: 75402				RunNo: 97349					
Prep Date: 6/6/2023	Analysis Date: 6/10/2023				SeqNo: 3537213	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		104	15	244			

Sample ID: 2306188-003ams	SampType: MS				TestCode: EPA Method 8015D: Gasoline Range					
Client ID: BH23-01 6'	Batch ID: 75402				RunNo: 97349					
Prep Date: 6/6/2023	Analysis Date: 6/10/2023				SeqNo: 3537215	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.7	23.63	0	92.8	70	130			
Surr: BFB	2100		945.2		222	15	244			

Sample ID: 2306188-003amsd	SampType: MSD				TestCode: EPA Method 8015D: Gasoline Range					
Client ID: BH23-01 6'	Batch ID: 75402				RunNo: 97349					
Prep Date: 6/6/2023	Analysis Date: 6/10/2023				SeqNo: 3537216	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306188

19-Jun-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Sample ID: 2306188-003amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range
Client ID: BH23-01 6'	Batch ID: 75402	RunNo: 97349
Prep Date: 6/6/2023	Analysis Date: 6/10/2023	SeqNo: 3537216 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	22	4.7 23.72 0 91.4 70 130 1.14 20
Surr: BFB	2100	948.8 224 15 244 0 0

Sample ID: lcs-75402	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range
Client ID: LCSS	Batch ID: 75402	RunNo: 97366
Prep Date: 6/6/2023	Analysis Date: 6/13/2023	SeqNo: 3537960 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	23	5.0 25.00 0 92.3 70 130
Surr: BFB	2000	1000 198 15 244

Sample ID: mb-75402	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range
Client ID: PBS	Batch ID: 75402	RunNo: 97366
Prep Date: 6/6/2023	Analysis Date: 6/13/2023	SeqNo: 3537961 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	980	1000 98.1 15 244

Sample ID: lcs-75417	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range
Client ID: LCSS	Batch ID: 75417	RunNo: 97409
Prep Date: 6/7/2023	Analysis Date: 6/13/2023	SeqNo: 3538690 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 97.5 70 130
Surr: BFB	2100	1000 213 15 244

Sample ID: mb-75417	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range
Client ID: PBS	Batch ID: 75417	RunNo: 97409
Prep Date: 6/7/2023	Analysis Date: 6/13/2023	SeqNo: 3538691 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 100 15 244

Sample ID: 2306188-023ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range
Client ID: BH23-43 2'	Batch ID: 75417	RunNo: 97409
Prep Date: 6/7/2023	Analysis Date: 6/13/2023	SeqNo: 3538693 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306188

19-Jun-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Sample ID: 2306188-023ams		SampType: MS			TestCode: EPA Method 8015D: Gasoline Range					
Client ID: BH23-43 2'		Batch ID: 75417			RunNo: 97409					
Prep Date: 6/7/2023		Analysis Date: 6/13/2023			SeqNo: 3538693		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	24.80	0	85.3	70	130			
Surr: BFB	2000		992.1		205	15	244			

Sample ID: 2306188-023amsd		SampType: MSD			TestCode: EPA Method 8015D: Gasoline Range					
Client ID: BH23-43 2'		Batch ID: 75417			RunNo: 97409					
Prep Date: 6/7/2023		Analysis Date: 6/13/2023			SeqNo: 3538694		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	24.83	0	90.3	70	130	5.84	20	
Surr: BFB	2100		993.0		210	15	244	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306188

19-Jun-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Sample ID: LCS-75393	SampType: LCS			TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batch ID: 75393			RunNo: 97323						
Prep Date: 6/6/2023	Analysis Date: 6/10/2023			SeqNo: 3537094			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.1	70	130			
Toluene	0.90	0.050	1.000	0	90.5	70	130			
Ethylbenzene	0.89	0.050	1.000	0	88.8	70	130			
Xylenes, Total	2.7	0.10	3.000	0	90.0	70	130			
Surr: 4-Bromofluorobenzene	0.94		1.000		94.1	39.1	146			

Sample ID: mb-75393	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch ID: 75393			RunNo: 97323						
Prep Date: 6/6/2023	Analysis Date: 6/10/2023			SeqNo: 3537096			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	0.90		1.000		89.7	39.1	146			

Sample ID: lcs-75402	SampType: LCS			TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batch ID: 75402			RunNo: 97349						
Prep Date: 6/6/2023	Analysis Date: 6/10/2023			SeqNo: 3537244			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.1	70	130			
Toluene	0.98	0.050	1.000	0	97.8	70	130			
Ethylbenzene	0.97	0.050	1.000	0	97.5	70	130			
Xylenes, Total	2.9	0.10	3.000	0	97.4	70	130			
Surr: 4-Bromofluorobenzene	0.98		1.000		97.8	39.1	146			

Sample ID: mb-75402	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch ID: 75402			RunNo: 97349						
Prep Date: 6/6/2023	Analysis Date: 6/10/2023			SeqNo: 3537245			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	0.98		1.000		97.7	39.1	146			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306188

19-Jun-23

Client: Vertex Resources Services, Inc.
Project: Agate PWU 21 22 062H

Sample ID: 2306188-004ams		SampType: MS			TestCode: EPA Method 8021B: Volatiles					
Client ID: BH23-04 2'		Batch ID: 75402			RunNo: 97349					
Prep Date: 6/6/2023		Analysis Date: 6/10/2023			SeqNo: 3537248		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.024	0.9756	0	97.3	70	130			
Toluene	0.96	0.049	0.9756	0	98.1	70	130			
Ethylbenzene	0.97	0.049	0.9756	0	99.6	70	130			
Xylenes, Total	2.9	0.098	2.927	0	99.5	70	130			
Surr: 4-Bromofluorobenzene	0.96		0.9756		98.8	39.1	146			

Sample ID: 2306188-004amsd		SampType: MSD		TestCode: EPA Method 8021B: Volatiles						
Client ID: BH23-04 2'		Batch ID: 75402		RunNo: 97349						
Prep Date: 6/6/2023		Analysis Date: 6/10/2023		SeqNo: 3537249		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	0.9804	0	96.8	70	130	0.0284	20	
Toluene	0.96	0.049	0.9804	0	97.7	70	130	0.120	20	
Ethylbenzene	0.96	0.049	0.9804	0	98.2	70	130	0.868	20	
Xylenes, Total	2.9	0.098	2.941	0	98.1	70	130	0.985	20	
Surr: 4-Bromofluorobenzene	0.95		0.9804		97.1	39.1	146	0	0	

Sample ID: LCS-75402		SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
Client ID: LCSS		Batch ID: 75402			RunNo: 97366					
Prep Date: 6/6/2023		Analysis Date: 6/13/2023			SeqNo: 3537977		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	87.6	70	130			
Toluene	0.87	0.050	1.000	0	86.9	70	130			
Ethylbenzene	0.86	0.050	1.000	0	85.5	70	130			
Xylenes, Total	2.6	0.10	3.000	0	86.9	70	130			
Surr: 4-Bromofluorobenzene	0.89		1.000		89.0	39.1	146			

Sample ID: mb-75402		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS		Batch ID: 75402		RunNo: 97366						
Prep Date: 6/6/2023		Analysis Date: 6/13/2023		SeqNo: 3537978		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	0.89		1.000		88.6	39.1	146			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 37 of 38

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306188

19-Jun-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Sample ID: lcs-75417	SampType: LCS			TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batch ID: 75417			RunNo: 97409						
Prep Date: 6/7/2023	Analysis Date: 6/13/2023			SeqNo: 3538704		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	94.9	70	130			
Toluene	0.95	0.050	1.000	0	95.1	70	130			
Ethylbenzene	0.94	0.050	1.000	0	94.3	70	130			
Xylenes, Total	2.8	0.10	3.000	0	93.8	70	130			
Surr: 4-Bromofluorobenzene	0.93		1.000		93.0	39.1	146			

Sample ID: mb-75417	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch ID: 75417			RunNo: 97409						
Prep Date: 6/7/2023	Analysis Date: 6/13/2023			SeqNo: 3538705		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	0.93		1.000		93.2	39.1	146			

Sample ID: 2306188-024ams	SampType: MS			TestCode: EPA Method 8021B: Volatiles						
Client ID: BH23-44 0'	Batch ID: 75417			RunNo: 97409						
Prep Date: 6/7/2023	Analysis Date: 6/13/2023			SeqNo: 3538708		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.024	0.9443	0	88.2	70	130			
Toluene	0.84	0.047	0.9443	0	89.0	70	130			
Ethylbenzene	0.84	0.047	0.9443	0	89.1	70	130			
Xylenes, Total	2.5	0.094	2.833	0	88.7	70	130			
Surr: 4-Bromofluorobenzene	0.91		0.9443		96.2	39.1	146			

Sample ID: 2306188-024amsd	SampType: MSD			TestCode: EPA Method 8021B: Volatiles						
Client ID: BH23-44 0'	Batch ID: 75417			RunNo: 97409						
Prep Date: 6/7/2023	Analysis Date: 6/13/2023			SeqNo: 3538709		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.81	0.023	0.9372	0	86.1	70	130	3.15	20	
Toluene	0.81	0.047	0.9372	0	86.9	70	130	3.16	20	
Ethylbenzene	0.82	0.047	0.9372	0	87.4	70	130	2.72	20	
Xylenes, Total	2.4	0.094	2.812	0	86.8	70	130	2.86	20	
Surr: 4-Bromofluorobenzene	0.91		0.9372		96.9	39.1	146	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit



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

Sample Log-In Check List

Client Name: Vertex Resources
Services, Inc.

Work Order Number: 2306188

RcptNo: 1

Received By: Joseph Alderette 6/6/2023 8:35:00 AM

Completed By: Tracy Casarrubias 6/6/2023 9:07:44 AM

Reviewed By: JA 6-6-23

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: JR 6/6/23

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: Mailing address, phone number and Email are missing on COC- TMC 6/6/23

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.8	Good	Yes	Morty		

Turn-Around Time:
☒ Standard ☒ Rush 5 Day

Project Name:
Agate PWU 21 22 #062H

Project #:
23E-01653

Project Manager:
Kent Stalling

Sampler: Zach Englebert

On Ice: ☒ Yes ☐ No

of Coolers: 1

Cooler Temp (including CP): 5.7 46.1 = 5.8 °C

Container Type and #

Preservative Type

HEAL No.
2306180

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
6-2-23	9:00	soil	BH23-01 2'	1 jar (4 oz.)	ice	001
	9:10	soil	BH23-01 4'	1 jar (4 oz.)	ice	002
	9:20	soil	BH23-01 6'	1 jar (4 oz.)	ice	003
	9:30	soil	BH23-04 2'	1 jar (4 oz.)	ice	004
	9:40	soil	BH23-04 4'	1 jar (4 oz.)	ice	005
	9:50	soil	BH23-05 2'	1 jar (4 oz.)	ice	006
	10:00	soil	BH23-06 2'	1 jar (4 oz.)	ice	007
	10:10	soil	BH23-07 2'	1 jar (4 oz.)	ice	008
	10:20	soil	BH23-12 2'	1 jar (4 oz.)	ice	009
	10:30	soil	BH23-13 2'	1 jar (4 oz.)	ice	010
	10:40	soil	BH23-14 2'	1 jar (4 oz.)	ice	011
	10:50	soil	BH23-15 2'	1 jar (4 oz.)	ice	012

Relinquished by: Zach Englebert gach Englebert

Time: 1700

Date: 6-3-23

Received by: [Signature]

Time: 1015

Date: 6-6-23

Received by: [Signature]

Time: 8:35

Date: 6-6-23

Analysis Request									
8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl ⁻ , Br ⁻ , NO ₃ ⁻ , NO ₂ ⁻ , PO ₄ ³⁻ , SO ₄ ²⁻	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)		
TPH 8015D (GRO / DRO / MRO)									
BTX (MTBE / TMB's (8021)									

Remarks: Direct Bill to Devon

Received by OGD: 6/25/2024 4:16:22 PM
Chain-of-Custody Record

Client: Vertex (Devon)

Mailing Address on file

Phone #: on file

email or Fax#: on file

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

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☒ Rush 5 Day

Project Name:
Agate PWU 21 22 #062H

Project #:
23E-01653

Project Manager:
Kent Stalling

Sampler:
Zach Englebert

On Ice: ☒ Yes ☐ No

of Coolers: 1

Cooler Temp (including CFI): 5.7 to 5.8 °C

Container Type and #
Preservative Type
HEAL No.
2306188

Date	Time	Matrix	Sample Name
6-23	11:10	soil	BH23-16 2'
	11:10	soil	BH23-17 2'
	11:20	soil	BH23-19 2'
	11:30	soil	BH23-22 2'
	11:40	soil	BH23-23 2'
	11:50	soil	BH23-24 2'
	13:00	soil	BH23-24 4'
	13:10	soil	BH23-25 2'
	13:20	soil	BH23-26 2'
	13:30	soil	BH23-35 2'
	13:40	soil	BH23-43 2'
	13:50	soil	BH23-44 0'
Date: 6-23	Time: 17:00	Relinquished by: Zach Englebert	
Date: 6/23	Time: 1900		

Analysis Request

8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	CH F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
(TPH)8015D(GRO / DRO / MRO)							
(BTEX) MTBE / TMB's (8021)							

Remarks: Direct Bill to Devon

Received by: [Signature] Date: 6/23 10:15
Via: courier
Received by: [Signature] Date: 6-23 8:35
Via:

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

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 noted on the analytical report.

Released to Imaging: 7/3/2024 9:33:22 AM

2 of 3



HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com

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

Turn-Around Time: ☒ Standard ☒ Rush 6 Day

Project Name: Agate PWU 21 22 #062H

Project #: 23E-01653

Project Manager: Kent Stalling

Sampler: Zach Englebert

On Ice: ☒ Yes ☐ No

of Coolers: 1

Cooler Temp (including CF): 5.7 +0.1 = 5.8 °C

Container Type and # 1 jar (4 oz.) Preservative Type ice HEAL No. 23061908

Container Type and # 1 jar (4 oz.) Preservative Type ice HEAL No. 025

Container Type and # 1 jar (4 oz.) Preservative Type ice HEAL No. 026

Container Type and # 1 jar (4 oz.) Preservative Type ice HEAL No. 027

Container Type and # 1 jar (4 oz.) Preservative Type ice HEAL No. 028

Container Type and # 1 jar (4 oz.) Preservative Type ice HEAL No. 029

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

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

EDD (Type): Level 4

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
6-2-23	14:00	soil	BH23-44 2'	1 jar (4 oz.)	ice	025
	14:10	soil	BH23-45 0'	1 jar (4 oz.)	ice	026
	14:20	soil	BH23-45 2'	1 jar (4 oz.)	ice	027
	14:30	soil	BH23-46 0'	1 jar (4 oz.)	ice	028
✓	14:40	soil	BH23-46 2'	1 jar (4 oz.)	ice	029

Relinquished by: Zach Englebert Date: 6-3-23 Time: 17:00

Received by: Alumina Date: 6-6-23 Time: 8:35

Received by: Alumina Date: 6-6-23 Time: 8:35



HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com

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

Turn-Around Time: ☒ Standard ☒ Rush 6 Day

Project Name: Agate PWU 21 22 #062H

Project #: 23E-01653

Project Manager: Kent Stalling

Sampler: Zach Englebert

On Ice: ☒ Yes ☐ No

of Coolers: 1

Cooler Temp (including CF): 5.7 +0.1 = 5.8 °C

Container Type and # 1 jar (4 oz.) Preservative Type ice HEAL No. 23061908

Container Type and # 1 jar (4 oz.) Preservative Type ice HEAL No. 025

Container Type and # 1 jar (4 oz.) Preservative Type ice HEAL No. 026

Container Type and # 1 jar (4 oz.) Preservative Type ice HEAL No. 027

Container Type and # 1 jar (4 oz.) Preservative Type ice HEAL No. 028

Container Type and # 1 jar (4 oz.) Preservative Type ice HEAL No. 029

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

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

EDD (Type): Level 4

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
6-2-23	14:00	soil	BH23-44 2'	1 jar (4 oz.)	ice	025
	14:10	soil	BH23-45 0'	1 jar (4 oz.)	ice	026
	14:20	soil	BH23-45 2'	1 jar (4 oz.)	ice	027
	14:30	soil	BH23-46 0'	1 jar (4 oz.)	ice	028
✓	14:40	soil	BH23-46 2'	1 jar (4 oz.)	ice	029

Relinquished by: Zach Englebert Date: 6-3-23 Time: 17:00

Received by: Alumina Date: 6-6-23 Time: 8:35

Received by: Alumina Date: 6-6-23 Time: 8:35



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

July 06, 2023

Kent Stallings

Devon Energy

6488 Seven Rivers Highway

Artesia, NM 88210

TEL: (505) 350-1336

FAX:

RE: Agate PWU 21 22 06214

OrderNo.: 2306D42

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/27/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2306D42

Date Reported: 7/6/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BH23-47 0.0'

Project: Agate PWU 21 22 06214

Collection Date: 6/23/2023 1:00:00 PM

Lab ID: 2306D42-001

Matrix: SOIL

Received Date: 6/27/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/28/2023 2:14:57 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/28/2023 2:14:57 PM
Surr: DNOP	84.9	69-147		%Rec	1	6/28/2023 2:14:57 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/28/2023 1:52:55 PM
Surr: BFB	104	15-244		%Rec	1	6/28/2023 1:52:55 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	6/28/2023 1:52:55 PM
Toluene	ND	0.047		mg/Kg	1	6/28/2023 1:52:55 PM
Ethylbenzene	ND	0.047		mg/Kg	1	6/28/2023 1:52:55 PM
Xylenes, Total	ND	0.095		mg/Kg	1	6/28/2023 1:52:55 PM
Surr: 4-Bromofluorobenzene	91.3	39.1-146		%Rec	1	6/28/2023 1:52:55 PM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	10000	600		mg/Kg	200	6/30/2023 9:17:04 PM

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

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

Page 1 of 8

Analytical Report

Lab Order 2306D42

Date Reported: 7/6/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BH23-47 2.0'

Project: Agate PWU 21 22 06214

Collection Date: 6/23/2023 1:10:00 PM

Lab ID: 2306D42-002

Matrix: SOIL

Received Date: 6/27/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/28/2023 2:38:53 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/28/2023 2:38:53 PM
Surr: DNOP	74.8	69-147		%Rec	1	6/28/2023 2:38:53 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2023 2:16:56 PM
Surr: BFB	107	15-244		%Rec	1	6/28/2023 2:16:56 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	6/28/2023 2:16:56 PM
Toluene	ND	0.049		mg/Kg	1	6/28/2023 2:16:56 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2023 2:16:56 PM
Xylenes, Total	ND	0.097		mg/Kg	1	6/28/2023 2:16:56 PM
Surr: 4-Bromofluorobenzene	93.9	39.1-146		%Rec	1	6/28/2023 2:16:56 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	760	60		mg/Kg	20	6/29/2023 5:01:05 PM

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

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

Analytical Report

Lab Order 2306D42

Date Reported: 7/6/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BH23-48 0.0'

Project: Agate PWU 21 22 06214

Collection Date: 6/23/2023 1:20:00 PM

Lab ID: 2306D42-003

Matrix: SOIL

Received Date: 6/27/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/28/2023 3:02:48 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/28/2023 3:02:48 PM
Surr: DNOP	86.3	69-147		%Rec	1	6/28/2023 3:02:48 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/28/2023 2:41:02 PM
Surr: BFB	108	15-244		%Rec	1	6/28/2023 2:41:02 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	6/28/2023 2:41:02 PM
Toluene	ND	0.048		mg/Kg	1	6/28/2023 2:41:02 PM
Ethylbenzene	ND	0.048		mg/Kg	1	6/28/2023 2:41:02 PM
Xylenes, Total	ND	0.095		mg/Kg	1	6/28/2023 2:41:02 PM
Surr: 4-Bromofluorobenzene	93.9	39.1-146		%Rec	1	6/28/2023 2:41:02 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	74	61		mg/Kg	20	6/29/2023 5:13:26 PM

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

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

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Analytical Report

Lab Order 2306D42

Date Reported: 7/6/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BH23-48 2.0'

Project: Agate PWU 21 22 06214

Collection Date: 6/23/2023 1:30:00 PM

Lab ID: 2306D42-004

Matrix: SOIL

Received Date: 6/27/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	6/28/2023 3:26:40 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/28/2023 3:26:40 PM
Surr: DNOP	86.4	69-147		%Rec	1	6/28/2023 3:26:40 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/28/2023 3:05:18 PM
Surr: BFB	107	15-244		%Rec	1	6/28/2023 3:05:18 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.023		mg/Kg	1	6/28/2023 3:05:18 PM
Toluene	ND	0.047		mg/Kg	1	6/28/2023 3:05:18 PM
Ethylbenzene	ND	0.047		mg/Kg	1	6/28/2023 3:05:18 PM
Xylenes, Total	ND	0.094		mg/Kg	1	6/28/2023 3:05:18 PM
Surr: 4-Bromofluorobenzene	91.1	39.1-146		%Rec	1	6/28/2023 3:05:18 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	75	60		mg/Kg	20	6/29/2023 5:25:46 PM

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

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

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306D42

06-Jul-23

Client: Devon Energy

Project: Agate PWU 21 22 06214

Sample ID: MB-75902	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 75902	RunNo: 97846								
Prep Date: 6/28/2023	Analysis Date: 6/29/2023	SeqNo: 3559150	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-75902	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 75902	RunNo: 97846								
Prep Date: 6/28/2023	Analysis Date: 6/29/2023	SeqNo: 3559151	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.6	90	110			

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306D42
06-Jul-23

Client: Devon Energy
Project: Agate PWU 21 22 06214

Sample ID: MB-75885	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 75885	RunNo: 97798								
Prep Date: 6/28/2023	Analysis Date: 6/28/2023	SeqNo: 3557496		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	8.4		10.00		83.8	69	147			

Sample ID: LCS-75885	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 75885	RunNo: 97798								
Prep Date: 6/28/2023	Analysis Date: 6/28/2023	SeqNo: 3557497		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	36	10	50.00	0	71.8	61.9	130			
Surr: DNOP	4.2		5.000		83.9	69	147			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306D42

06-Jul-23

Client: Devon Energy

Project: Agate PWU 21 22 06214

Sample ID: ics-75866	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 75866		RunNo: 97780							
Prep Date: 6/27/2023	Analysis Date: 6/28/2023		SeqNo: 3556466		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.3	70	130			
Surr: BFB	2000		1000		202	15	244			

Sample ID: mb-75866	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 75866		RunNo: 97780							
Prep Date: 6/27/2023	Analysis Date: 6/28/2023		SeqNo: 3556467		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		99.7	15	244			

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306D42

06-Jul-23

Client: Devon Energy

Project: Agate PWU 21 22 06214

Sample ID: LCS-75866	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 75866	RunNo: 97780								
Prep Date: 6/27/2023	Analysis Date: 6/28/2023	SeqNo: 3556470			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	86.8	70	130			
Toluene	0.88	0.050	1.000	0	87.5	70	130			
Ethylbenzene	0.87	0.050	1.000	0	87.2	70	130			
Xylenes, Total	2.6	0.10	3.000	0	86.8	70	130			
Surr: 4-Bromofluorobenzene	0.95		1.000		94.7	39.1	146			

Sample ID: mb-75866	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 75866	RunNo: 97780								
Prep Date: 6/27/2023	Analysis Date: 6/28/2023	SeqNo: 3556471			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	0.89		1.000		89.0	39.1	146			

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit



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

Sample Log-In Check List

Client Name: Devon Energy

Work Order Number: 2306D42

RcptNo: 1

Received By: Tracy Casarrubias 6/27/2023 7:35:00 AM

Completed By: Tracy Casarrubias 6/27/2023 8:05:39 AM

Reviewed By: *m 6/27/23*

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 $>0^{\circ}\text{C}$ 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: *SCM 06/27/23*

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: Mailing address, phone number and Email/Fax are missing on COC- TMC 6/27/23

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.5	Good	Yes	Morty		



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

September 11, 2023

Kent Stallings

Vertex Resources Services, Inc.

3101 Boyd Drive

Carlsbad, NM 88220

TEL:

FAX:

RE: Agate PWU 21 22 CTB

OrderNo.: 2308H10

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/31/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2308H10

Date Reported: 9/11/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: TP23-01 0'

Project: Agate PWU 21 22 CTB

Collection Date: 8/29/2023 11:45:00 AM

Lab ID: 2308H10-001

Matrix: SOIL

Received Date: 8/31/2023 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: SB
Diesel Range Organics (DRO)	41000	990		mg/Kg	100	9/5/2023 6:16:45 PM
Motor Oil Range Organics (MRO)	17000	5000		mg/Kg	100	9/5/2023 6:16:45 PM
Surr: DNOP	0	69-147	S	%Rec	100	9/5/2023 6:16:45 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	560	49		mg/Kg	10	9/4/2023 6:12:18 PM
Surr: BFB	338	15-244	S	%Rec	10	9/4/2023 6:12:18 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	0.96	0.25		mg/Kg	10	9/4/2023 6:12:18 PM
Toluene	11	0.49		mg/Kg	10	9/4/2023 6:12:18 PM
Ethylbenzene	5.9	0.49		mg/Kg	10	9/4/2023 6:12:18 PM
Xylenes, Total	45	0.98		mg/Kg	10	9/4/2023 6:12:18 PM
Surr: 4-Bromofluorobenzene	128	39.1-146		%Rec	10	9/4/2023 6:12:18 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	10000	600		mg/Kg	200	9/5/2023 10:07:28 AM

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2308H10

11-Sep-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 CTB

Sample ID: MB-77260	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 77260	RunNo: 99442
Prep Date: 9/1/2023	Analysis Date: 9/1/2023	SeqNo: 3630002 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-77260	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 77260	RunNo: 99442
Prep Date: 9/1/2023	Analysis Date: 9/1/2023	SeqNo: 3630003 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	14	1.5 15.00 0 94.4 90 110

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2308H10

11-Sep-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 CTB

Sample ID: MB-77297	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 77297	RunNo: 99445								
Prep Date: 9/5/2023	Analysis Date: 9/5/2023	SeqNo: 3630327		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	8.9		10.00		89.1	69	147			

Sample ID: LCS-77297	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 77297	RunNo: 99445								
Prep Date: 9/5/2023	Analysis Date: 9/5/2023	SeqNo: 3630328		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	54	10	50.00	0	107	61.9	130			
Surr: DNOP	4.2		5.000		84.4	69	147			

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2308H10

11-Sep-23

Client: Vertex Resources Services, Inc.
Project: Agate PWU 21 22 CTB

Sample ID: lcs-77243	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 77243	RunNo: 99436								
Prep Date: 8/31/2023	Analysis Date: 9/4/2023	SeqNo: 3629277	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.9	70	130			
Surr: BFB	2000		1000		195	15	244			

Sample ID: mb-77243	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 77243	RunNo: 99436								
Prep Date: 8/31/2023	Analysis Date: 9/4/2023	SeqNo: 3629278	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	960		1000		95.9	15	244			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 4 of 5

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2308H10

11-Sep-23

Client: Vertex Resources Services, Inc.
Project: Agate PWU 21 22 CTB

Sample ID: LCS-77243	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 77243	RunNo: 99436								
Prep Date: 8/31/2023	Analysis Date: 9/4/2023	SeqNo: 3629357			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.2	70	130			
Toluene	0.99	0.050	1.000	0	99.3	70	130			
Ethylbenzene	0.99	0.050	1.000	0	99.2	70	130			
Xylenes, Total	3.0	0.10	3.000	0	101	70	130			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	39.1	146			

Sample ID: mb-77243	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 77243	RunNo: 99436								
Prep Date: 8/31/2023	Analysis Date: 9/4/2023	SeqNo: 3629358			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		1.000		0	39.1	146			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 Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 5 of 5



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: Vertex Resources
Services, Inc.

Work Order Number: 2308H10

RcptNo: 1

Received By: Tracy Casarrubias 8/31/2023 8:00:00 AM

Completed By: Cheyenne Cason 8/31/2023 8:38:35 AM

Reviewed By: *WC* 8/30/23
31 *WC* 8/31/23

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ 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: *WC* 8/31/23

Special Handling (if applicable)

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

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.8	Good	Not Present	Yogi		

Chain-of-Custody Record

Client: Vertex

Vertex.

(Devon)

Mailing Address: on file

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ Other

□ EDD (Type)

[illegible]

Date:	Time:	Relinquished by:
-------	-------	------------------

Gally Cartar

Date:	Time:	Relinquished by:
-------	-------	------------------

Summary

Received by: Via:

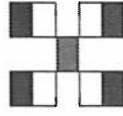
9/28/23 803

Received by: Via:

8/31/23

Remarks:

Direct bill Devon - WO# pending
Please contact kstallings@verier.ca



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

~~If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories.~~

Released to Imaging: 7/3/2024 9:33:22 AM

If necessary, samples submitted to Hell 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
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 14, 2023

Kent Stallings

Vertex Resources Services, Inc.

3101 Boyd Drive

Carlsbad, NM 88220

TEL:

FAX:

RE: Agate PWU 21 22 062H

OrderNo.: 2309273

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 1 sample(s) on 9/7/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

CLIENT: Vertex Resources Services, Inc.
Project: Agate PWU 21 22 062H
Lab ID: 2309273-001

Client Sample ID: BH23-01 7'
Collection Date: 9/1/2023 11:30:00 AM
Received Date: 9/7/2023 7:30:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/9/2023 1:29:44 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/9/2023 1:29:44 AM
Surr: DNOP	136	69-147		%Rec	1	9/9/2023 1:29:44 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/8/2023 10:08:00 PM
Surr: BFB	98.9	15-244		%Rec	1	9/8/2023 10:08:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/8/2023 10:08:00 PM
Toluene	ND	0.048		mg/Kg	1	9/8/2023 10:08:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/8/2023 10:08:00 PM
Xylenes, Total	ND	0.095		mg/Kg	1	9/8/2023 10:08:00 PM
Surr: 4-Bromofluorobenzene	109	39.1-146		%Rec	1	9/8/2023 10:08:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	360	60		mg/Kg	20	9/9/2023 1:09:09 PM

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309273

14-Sep-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Sample ID: MB-77401	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 77401	RunNo: 99580								
Prep Date: 9/9/2023	Analysis Date: 9/9/2023	SeqNo: 3637203		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-77401	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 77401	RunNo: 99580								
Prep Date: 9/9/2023	Analysis Date: 9/9/2023	SeqNo: 3637204		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.4	90	110			

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309273

14-Sep-23

Client: Vertex Resources Services, Inc.
Project: Agate PWU 21 22 062H

Sample ID: MB-77368	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 77368	RunNo: 99545								
Prep Date: 9/7/2023	Analysis Date: 9/8/2023	SeqNo: 3636490		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	13		10.00		130	69	147			

Sample ID: LCS-77368	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 77368	RunNo: 99545								
Prep Date: 9/7/2023	Analysis Date: 9/8/2023	SeqNo: 3636493		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	10	50.00	0	115	61.9	130			
Surr: DNOP	6.0		5.000		120	69	147			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 3 of 5

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309273

14-Sep-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Sample ID: ics-77363	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 77363			RunNo: 99554						
Prep Date: 9/7/2023	Analysis Date: 9/8/2023			SeqNo: 3636898		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.4	70	130			
Surr: BFB	2000		1000		205	15	244			

Sample ID: mb-77363	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 77363			RunNo: 99554						
Prep Date: 9/7/2023	Analysis Date: 9/8/2023			SeqNo: 3636901		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	15	244			

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309273

14-Sep-23

Client: Vertex Resources Services, Inc.
Project: Agate PWU 21 22 062H

Sample ID: LCS-77363		SampType: LCS		TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS		Batch ID: 77363		RunNo: 99554						
Prep Date: 9/7/2023		Analysis Date: 9/8/2023		SeqNo: 3636989			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	1.000	0	99.4	70	130			
Toluene	0.99	0.050	1.000	0	99.5	70	130			
Ethylbenzene	1.0	0.050	1.000	0	101	70	130			
Xylenes, Total	3.1	0.10	3.000	0	102	70	130			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	39.1	146			

Sample ID: mb-77363		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS		Batch ID: 77363		RunNo: 99554						
Prep Date: 9/7/2023		Analysis Date: 9/8/2023		SeqNo: 3636992			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	1.1		1.000		111	39.1	146			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 5 of 5



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: Vertex Resources
Services, Inc.

Work Order Number: 2309273

RcptNo: 1

Received By: Juan Rojas

9/7/2023 7:30:00 AM

Completed By: Tracy Casarrubias

9/7/2023 8:18:13 AM

Reviewed By: SCM 9/7/23

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 $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐

5. Sample(s) in proper container(s)? Yes ☒ No ☐

6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐

7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐

8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐

9. Received at least 1 vial with headspace $<1/4"$ for AQ VOA? Yes ☐ No ☐ NA ☒

10. Were any sample containers received broken? Yes ☐ No ☒

11. Does paperwork match bottle labels? Yes ☒ No ☐

(Note discrepancies on chain of custody)

12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐

13. Is it clear what analyses were requested? Yes ☒ No ☐

14. Were all holding times able to be met? Yes ☒ No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by: TM 9/7/23

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: Mailing address, phone number and Email/Fax are missing on COC - TMC 9/7/23

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.4	Good	Yes	Yogi		

Chain-of-Custody Record

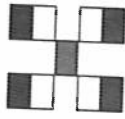
Client: <u>Vertex</u>	<input type="checkbox"/> Standard	<input checked="" type="checkbox"/> Rush	<u>72 hr</u>
<u>(Devon)</u>	Project Name:		
Mailing Address: <u>on file</u>	<u>Agate PNU 21 22 # 062H</u>		
Phone #:	Project #:		
email or Fax#:	<u>23E-01653</u>		
QA/QC Package:	Project Manager:		
<input type="checkbox"/> Standard	<u>Kent Stallings</u>		
Accreditation: <input type="checkbox"/> Az Compliance	Sampler: <u>SPC</u>		
<input type="checkbox"/> NELAC	On Ice: <input type="checkbox"/> Yes <input type="checkbox"/> No		
<input type="checkbox"/> EDD (Type)			

[illegible]

Date:	9/12/23	Time:	0605	Relinquished by:	Jelly Carter	Received by:		Via:		Date:	Time
Date:	9/14/23	Time:	1900	Relinquished by:	Aluminum	Received by:	Aluminum	Via:		Date:	Time

Remarks:

Direct bill Devon, W0# 21142553
Please upload to Vertex portal



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]



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

September 25, 2023

Kent Stallings

Vertex Resources Services, Inc.

3101 Boyd Drive

Carlsbad, NM 88220

TEL:

FAX:

RE: Agate PWU 21 22

OrderNo.: 2309848

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 21 sample(s) on 9/15/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2309848

Date Reported: 9/25/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-01

Project: Agate PWU 21 22

Collection Date: 9/13/2023 9:00:00 AM

Lab ID: 2309848-001

Matrix: SOIL

Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	13	8.5		mg/Kg	1	9/19/2023 11:04:39 AM
Motor Oil Range Organics (MRO)	ND	42		mg/Kg	1	9/19/2023 11:04:39 AM
Surr: DNOP	117	69-147		%Rec	1	9/19/2023 11:04:39 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/18/2023 12:02:13 PM
Surr: BFB	93.0	15-244		%Rec	1	9/18/2023 12:02:13 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/18/2023 12:02:13 PM
Toluene	ND	0.048		mg/Kg	1	9/18/2023 12:02:13 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/18/2023 12:02:13 PM
Xylenes, Total	ND	0.097		mg/Kg	1	9/18/2023 12:02:13 PM
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	9/18/2023 12:02:13 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/19/2023 8:52:19 PM

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

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

Analytical Report

Lab Order 2309848

Date Reported: 9/25/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-02

Project: Agate PWU 21 22

Collection Date: 9/13/2023 9:10:00 AM

Lab ID: 2309848-002

Matrix: SOIL

Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/19/2023 5:31:16 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/19/2023 5:31:16 PM
Surr: DNOP	109	69-147		%Rec	1	9/19/2023 5:31:16 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/18/2023 12:25:40 PM
Surr: BFB	95.4	15-244		%Rec	1	9/18/2023 12:25:40 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/18/2023 12:25:40 PM
Toluene	ND	0.048		mg/Kg	1	9/18/2023 12:25:40 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/18/2023 12:25:40 PM
Xylenes, Total	ND	0.095		mg/Kg	1	9/18/2023 12:25:40 PM
Surr: 4-Bromofluorobenzene	106	39.1-146		%Rec	1	9/18/2023 12:25:40 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	230	60		mg/Kg	20	9/19/2023 9:04:44 PM

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

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

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Analytical Report

Lab Order 2309848

Date Reported: 9/25/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-03

Project: Agate PWU 21 22

Collection Date: 9/13/2023 9:20:00 AM

Lab ID: 2309848-003

Matrix: SOIL

Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	9/19/2023 5:41:52 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	9/19/2023 5:41:52 PM
Surr: DNOP	116	69-147		%Rec	1	9/19/2023 5:41:52 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/18/2023 12:49:07 PM
Surr: BFB	95.8	15-244		%Rec	1	9/18/2023 12:49:07 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	9/18/2023 12:49:07 PM
Toluene	ND	0.050		mg/Kg	1	9/18/2023 12:49:07 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/18/2023 12:49:07 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/18/2023 12:49:07 PM
Surr: 4-Bromofluorobenzene	106	39.1-146		%Rec	1	9/18/2023 12:49:07 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/19/2023 9:17:08 PM

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

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

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Analytical Report

Lab Order 2309848

Date Reported: 9/25/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-04

Project: Agate PWU 21 22

Collection Date: 9/13/2023 9:30:00 AM

Lab ID: 2309848-004

Matrix: SOIL

Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	210	9.8		mg/Kg	1	9/19/2023 5:52:36 PM
Motor Oil Range Organics (MRO)	160	49		mg/Kg	1	9/19/2023 5:52:36 PM
Surr: DNOP	120	69-147		%Rec	1	9/19/2023 5:52:36 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/18/2023 1:12:34 PM
Surr: BFB	99.1	15-244		%Rec	1	9/18/2023 1:12:34 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/18/2023 1:12:34 PM
Toluene	ND	0.048		mg/Kg	1	9/18/2023 1:12:34 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/18/2023 1:12:34 PM
Xylenes, Total	ND	0.095		mg/Kg	1	9/18/2023 1:12:34 PM
Surr: 4-Bromofluorobenzene	105	39.1-146		%Rec	1	9/18/2023 1:12:34 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/19/2023 9:29:33 PM

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

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

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Analytical Report

Lab Order 2309848

Date Reported: 9/25/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-05

Project: Agate PWU 21 22

Collection Date: 9/13/2023 9:40:00 AM

Lab ID: 2309848-005

Matrix: SOIL

Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	51	8.8		mg/Kg	1	9/19/2023 6:03:26 PM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	9/19/2023 6:03:26 PM
Surr: DNOP	106	69-147		%Rec	1	9/19/2023 6:03:26 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/18/2023 1:36:02 PM
Surr: BFB	95.1	15-244		%Rec	1	9/18/2023 1:36:02 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/18/2023 1:36:02 PM
Toluene	ND	0.048		mg/Kg	1	9/18/2023 1:36:02 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/18/2023 1:36:02 PM
Xylenes, Total	ND	0.095		mg/Kg	1	9/18/2023 1:36:02 PM
Surr: 4-Bromofluorobenzene	106	39.1-146		%Rec	1	9/18/2023 1:36:02 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	100	60		mg/Kg	20	9/19/2023 10:06:47 PM

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

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

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Analytical Report

Lab Order 2309848

Date Reported: 9/25/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-06

Project: Agate PWU 21 22

Collection Date: 9/13/2023 9:50:00 AM

Lab ID: 2309848-006

Matrix: SOIL

Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	11	9.2		mg/Kg	1	9/19/2023 6:14:18 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/19/2023 6:14:18 PM
Surr: DNOP	118	69-147		%Rec	1	9/19/2023 6:14:18 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/18/2023 1:59:29 PM
Surr: BFB	97.9	15-244		%Rec	1	9/18/2023 1:59:29 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/18/2023 1:59:29 PM
Toluene	ND	0.048		mg/Kg	1	9/18/2023 1:59:29 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/18/2023 1:59:29 PM
Xylenes, Total	ND	0.096		mg/Kg	1	9/18/2023 1:59:29 PM
Surr: 4-Bromofluorobenzene	105	39.1-146		%Rec	1	9/18/2023 1:59:29 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/19/2023 10:19:12 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2309848
Date Reported: 9/25/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS23-07
Project: Agate PWU 21 22 Collection Date: 9/13/2023 10:00:00 AM
Lab ID: 2309848-007 Matrix: SOIL Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	160	9.6		mg/Kg	1	9/19/2023 6:25:13 PM
Motor Oil Range Organics (MRO)	120	48		mg/Kg	1	9/19/2023 6:25:13 PM
Surr: DNOP	110	69-147		%Rec	1	9/19/2023 6:25:13 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/18/2023 2:22:58 PM
Surr: BFB	100	15-244		%Rec	1	9/18/2023 2:22:58 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/18/2023 2:22:58 PM
Toluene	ND	0.048		mg/Kg	1	9/18/2023 2:22:58 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/18/2023 2:22:58 PM
Xylenes, Total	ND	0.096		mg/Kg	1	9/18/2023 2:22:58 PM
Surr: 4-Bromofluorobenzene	105	39.1-146		%Rec	1	9/18/2023 2:22:58 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/19/2023 11:21:14 PM

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

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

Analytical Report

Lab Order 2309848

Date Reported: 9/25/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-08

Project: Agate PWU 21 22

Collection Date: 9/13/2023 10:10:00 AM

Lab ID: 2309848-008

Matrix: SOIL

Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/19/2023 6:36:09 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/19/2023 6:36:09 PM
Surr: DNOP	109	69-147		%Rec	1	9/19/2023 6:36:09 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/18/2023 2:46:28 PM
Surr: BFB	99.6	15-244		%Rec	1	9/18/2023 2:46:28 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.023		mg/Kg	1	9/18/2023 2:46:28 PM
Toluene	ND	0.046		mg/Kg	1	9/18/2023 2:46:28 PM
Ethylbenzene	ND	0.046		mg/Kg	1	9/18/2023 2:46:28 PM
Xylenes, Total	ND	0.093		mg/Kg	1	9/18/2023 2:46:28 PM
Surr: 4-Bromofluorobenzene	106	39.1-146		%Rec	1	9/18/2023 2:46:28 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/19/2023 11:33:38 PM

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

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

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Analytical Report

Lab Order 2309848

Date Reported: 9/25/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-09

Project: Agate PWU 21 22

Collection Date: 9/13/2023 10:20:00 AM

Lab ID: 2309848-009

Matrix: SOIL

Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	50	9.0		mg/Kg	1	9/19/2023 6:47:08 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	9/19/2023 6:47:08 PM
Surr: DNOP	112	69-147		%Rec	1	9/19/2023 6:47:08 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/18/2023 3:09:54 PM
Surr: BFB	97.8	15-244		%Rec	1	9/18/2023 3:09:54 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	9/18/2023 3:09:54 PM
Toluene	ND	0.050		mg/Kg	1	9/18/2023 3:09:54 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/18/2023 3:09:54 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/18/2023 3:09:54 PM
Surr: 4-Bromofluorobenzene	108	39.1-146		%Rec	1	9/18/2023 3:09:54 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	140	60		mg/Kg	20	9/19/2023 11:46:02 PM

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

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

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Analytical Report

Lab Order 2309848

Date Reported: 9/25/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-10

Project: Agate PWU 21 22

Collection Date: 9/13/2023 10:30:00 AM

Lab ID: 2309848-010

Matrix: SOIL

Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	24	10		mg/Kg	1	9/19/2023 6:58:09 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/19/2023 6:58:09 PM
Surr: DNOP	109	69-147		%Rec	1	9/19/2023 6:58:09 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/18/2023 3:33:26 PM
Surr: BFB	96.9	15-244		%Rec	1	9/18/2023 3:33:26 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/18/2023 3:33:26 PM
Toluene	ND	0.048		mg/Kg	1	9/18/2023 3:33:26 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/18/2023 3:33:26 PM
Xylenes, Total	ND	0.096		mg/Kg	1	9/18/2023 3:33:26 PM
Surr: 4-Bromofluorobenzene	106	39.1-146		%Rec	1	9/18/2023 3:33:26 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/19/2023 11:58:27 PM

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

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

Analytical Report

Lab Order 2309848

Date Reported: 9/25/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-11

Project: Agate PWU 21 22

Collection Date: 9/13/2023 10:40:00 AM

Lab ID: 2309848-011

Matrix: SOIL

Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	71	9.0		mg/Kg	1	9/19/2023 7:09:09 PM
Motor Oil Range Organics (MRO)	52	45		mg/Kg	1	9/19/2023 7:09:09 PM
Surr: DNOP	108	69-147		%Rec	1	9/19/2023 7:09:09 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/18/2023 4:20:23 PM
Surr: BFB	93.6	15-244		%Rec	1	9/18/2023 4:20:23 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.023		mg/Kg	1	9/18/2023 4:20:23 PM
Toluene	ND	0.046		mg/Kg	1	9/18/2023 4:20:23 PM
Ethylbenzene	ND	0.046		mg/Kg	1	9/18/2023 4:20:23 PM
Xylenes, Total	ND	0.093		mg/Kg	1	9/18/2023 4:20:23 PM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	9/18/2023 4:20:23 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/20/2023 12:10:51 AM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2309848
Date Reported: 9/25/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS23-12
Project: Agate PWU 21 22 Collection Date: 9/13/2023 10:50:00 AM
Lab ID: 2309848-012 Matrix: SOIL Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	ND	8.4		mg/Kg	1	9/19/2023 7:20:10 PM
Motor Oil Range Organics (MRO)	ND	42		mg/Kg	1	9/19/2023 7:20:10 PM
Surr: DNOP	113	69-147		%Rec	1	9/19/2023 7:20:10 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/18/2023 4:43:49 PM
Surr: BFB	97.5	15-244		%Rec	1	9/18/2023 4:43:49 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.023		mg/Kg	1	9/18/2023 4:43:49 PM
Toluene	ND	0.047		mg/Kg	1	9/18/2023 4:43:49 PM
Ethylbenzene	ND	0.047		mg/Kg	1	9/18/2023 4:43:49 PM
Xylenes, Total	ND	0.094		mg/Kg	1	9/18/2023 4:43:49 PM
Surr: 4-Bromofluorobenzene	107	39.1-146		%Rec	1	9/18/2023 4:43:49 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/20/2023 12:23:16 AM

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

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

Analytical Report

Lab Order 2309848

Date Reported: 9/25/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-13

Project: Agate PWU 21 22

Collection Date: 9/13/2023 11:00:00 AM

Lab ID: 2309848-013

Matrix: SOIL

Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	9/19/2023 7:31:14 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	9/19/2023 7:31:14 PM
Surr: DNOP	113	69-147		%Rec	1	9/19/2023 7:31:14 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/18/2023 5:07:13 PM
Surr: BFB	93.9	15-244		%Rec	1	9/18/2023 5:07:13 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	9/18/2023 5:07:13 PM
Toluene	ND	0.050		mg/Kg	1	9/18/2023 5:07:13 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/18/2023 5:07:13 PM
Xylenes, Total	ND	0.099		mg/Kg	1	9/18/2023 5:07:13 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	9/18/2023 5:07:13 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	64	60		mg/Kg	20	9/20/2023 12:35:41 AM

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

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

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Analytical Report

Lab Order 2309848

Date Reported: 9/25/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-14

Project: Agate PWU 21 22

Collection Date: 9/13/2023 11:10:00 AM

Lab ID: 2309848-014

Matrix: SOIL

Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	100	9.3		mg/Kg	1	9/19/2023 7:42:18 PM
Motor Oil Range Organics (MRO)	74	47		mg/Kg	1	9/19/2023 7:42:18 PM
Surr: DNOP	119	69-147		%Rec	1	9/19/2023 7:42:18 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/18/2023 5:30:39 PM
Surr: BFB	96.2	15-244		%Rec	1	9/18/2023 5:30:39 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/18/2023 5:30:39 PM
Toluene	ND	0.049		mg/Kg	1	9/18/2023 5:30:39 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/18/2023 5:30:39 PM
Xylenes, Total	ND	0.098		mg/Kg	1	9/18/2023 5:30:39 PM
Surr: 4-Bromofluorobenzene	105	39.1-146		%Rec	1	9/18/2023 5:30:39 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/20/2023 12:48:05 AM

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

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

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Analytical Report

Lab Order 2309848

Date Reported: 9/25/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-15

Project: Agate PWU 21 22

Collection Date: 9/13/2023 11:20:00 AM

Lab ID: 2309848-015

Matrix: SOIL

Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	23	9.8		mg/Kg	1	9/19/2023 7:53:23 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/19/2023 7:53:23 PM
Surr: DNOP	115	69-147		%Rec	1	9/19/2023 7:53:23 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/18/2023 5:54:02 PM
Surr: BFB	94.2	15-244		%Rec	1	9/18/2023 5:54:02 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/18/2023 5:54:02 PM
Toluene	ND	0.048		mg/Kg	1	9/18/2023 5:54:02 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/18/2023 5:54:02 PM
Xylenes, Total	ND	0.097		mg/Kg	1	9/18/2023 5:54:02 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	9/18/2023 5:54:02 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	250	60		mg/Kg	20	9/20/2023 1:25:19 AM

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

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

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Analytical Report

Lab Order 2309848

Date Reported: 9/25/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-16

Project: Agate PWU 21 22

Collection Date: 9/13/2023 11:30:00 AM

Lab ID: 2309848-016

Matrix: SOIL

Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	20	9.9		mg/Kg	1	9/19/2023 8:04:36 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/19/2023 8:04:36 PM
Surr: DNOP	109	69-147		%Rec	1	9/19/2023 8:04:36 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/18/2023 6:17:26 PM
Surr: BFB	95.9	15-244		%Rec	1	9/18/2023 6:17:26 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	9/18/2023 6:17:26 PM
Toluene	ND	0.050		mg/Kg	1	9/18/2023 6:17:26 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/18/2023 6:17:26 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/18/2023 6:17:26 PM
Surr: 4-Bromofluorobenzene	106	39.1-146		%Rec	1	9/18/2023 6:17:26 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/20/2023 1:37:43 AM

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

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

Analytical Report

Lab Order 2309848

Date Reported: 9/25/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-17

Project: Agate PWU 21 22

Collection Date: 9/13/2023 11:40:00 AM

Lab ID: 2309848-017

Matrix: SOIL

Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	80	9.2		mg/Kg	1	9/19/2023 8:15:49 PM
Motor Oil Range Organics (MRO)	87	46		mg/Kg	1	9/19/2023 8:15:49 PM
Surr: DNOP	87.6	69-147		%Rec	1	9/19/2023 8:15:49 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/18/2023 6:40:57 PM
Surr: BFB	94.9	15-244		%Rec	1	9/18/2023 6:40:57 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/18/2023 6:40:57 PM
Toluene	ND	0.049		mg/Kg	1	9/18/2023 6:40:57 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/18/2023 6:40:57 PM
Xylenes, Total	ND	0.098		mg/Kg	1	9/18/2023 6:40:57 PM
Surr: 4-Bromofluorobenzene	105	39.1-146		%Rec	1	9/18/2023 6:40:57 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/20/2023 1:50:08 AM

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

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

Analytical Report

Lab Order 2309848

Date Reported: 9/25/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-18

Project: Agate PWU 21 22

Collection Date: 9/13/2023 11:50:00 AM

Lab ID: 2309848-018

Matrix: SOIL

Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/19/2023 8:27:01 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/19/2023 8:27:01 PM
Surr: DNOP	109	69-147		%Rec	1	9/19/2023 8:27:01 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/18/2023 7:04:18 PM
Surr: BFB	94.8	15-244		%Rec	1	9/18/2023 7:04:18 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/18/2023 7:04:18 PM
Toluene	ND	0.049		mg/Kg	1	9/18/2023 7:04:18 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/18/2023 7:04:18 PM
Xylenes, Total	ND	0.097		mg/Kg	1	9/18/2023 7:04:18 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	9/18/2023 7:04:18 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/20/2023 2:02:32 AM

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

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

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Analytical Report

Lab Order 2309848

Date Reported: 9/25/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-19

Project: Agate PWU 21 22

Collection Date: 9/13/2023 12:00:00 PM

Lab ID: 2309848-019

Matrix: SOIL

Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	ND	8.4		mg/Kg	1	9/19/2023 8:38:10 PM
Motor Oil Range Organics (MRO)	ND	42		mg/Kg	1	9/19/2023 8:38:10 PM
Surr: DNOP	110	69-147		%Rec	1	9/19/2023 8:38:10 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/18/2023 7:27:41 PM
Surr: BFB	94.8	15-244		%Rec	1	9/18/2023 7:27:41 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/18/2023 7:27:41 PM
Toluene	ND	0.047		mg/Kg	1	9/18/2023 7:27:41 PM
Ethylbenzene	ND	0.047		mg/Kg	1	9/18/2023 7:27:41 PM
Xylenes, Total	ND	0.095		mg/Kg	1	9/18/2023 7:27:41 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	9/18/2023 7:27:41 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/20/2023 2:14:57 AM

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2309848
Date Reported: 9/25/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS23-20
Project: Agate PWU 21 22 Collection Date: 9/13/2023 12:10:00 PM
Lab ID: 2309848-020 Matrix: SOIL Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/20/2023 11:59:58 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/20/2023 11:59:58 AM
Surr: DNOP	102	69-147		%Rec	1	9/20/2023 11:59:58 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/19/2023 12:56:00 PM
Surr: BFB	97.4	15-244		%Rec	1	9/19/2023 12:56:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/19/2023 12:56:00 PM
Toluene	ND	0.047		mg/Kg	1	9/19/2023 12:56:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	9/19/2023 12:56:00 PM
Xylenes, Total	ND	0.095		mg/Kg	1	9/19/2023 12:56:00 PM
Surr: 4-Bromofluorobenzene	87.4	39.1-146		%Rec	1	9/19/2023 12:56:00 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/20/2023 2:27:22 AM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2309848
Date Reported: 9/25/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS23-21
Project: Agate PWU 21 22 Collection Date: 9/13/2023 12:20:00 PM
Lab ID: 2309848-021 Matrix: SOIL Received Date: 9/15/2023 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/20/2023 12:10:55 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/20/2023 12:10:55 PM
Surr: DNOP	104	69-147		%Rec	1	9/20/2023 12:10:55 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/19/2023 2:01:00 PM
Surr: BFB	95.3	15-244		%Rec	1	9/19/2023 2:01:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/19/2023 2:01:00 PM
Toluene	ND	0.050		mg/Kg	1	9/19/2023 2:01:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/19/2023 2:01:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	9/19/2023 2:01:00 PM
Surr: 4-Bromofluorobenzene	86.5	39.1-146		%Rec	1	9/19/2023 2:01:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/20/2023 11:53:16 AM

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309848

25-Sep-23

Client: Vertex Resources Services, Inc.
Project: Agate PWU 21 22

Sample ID: MB-77624		SampType: mblk			TestCode: EPA Method 300.0: Anions					
Client ID: PBS		Batch ID: 77624			RunNo: 99834					
Prep Date: 9/19/2023		Analysis Date: 9/19/2023			SeqNo: 3649860		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-77624		SampType: lcs			TestCode: EPA Method 300.0: Anions					
Client ID: LCSS		Batch ID: 77624			RunNo: 99834					
Prep Date: 9/19/2023		Analysis Date: 9/19/2023			SeqNo: 3649861		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.5	90	110			

Sample ID: MB-77612		SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID: PBS		Batch ID: 77612			RunNo: 99856					
Prep Date: 9/19/2023		Analysis Date: 9/19/2023			SeqNo: 3650690		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-77612		SampType: LCS			TestCode: EPA Method 300.0: Anions					
Client ID: LCSS		Batch ID: 77612			RunNo: 99856					
Prep Date: 9/19/2023		Analysis Date: 9/19/2023			SeqNo: 3650691		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.5	90	110			

Sample ID: MB-77635		SampType: mblk			TestCode: EPA Method 300.0: Anions					
Client ID: PBS		Batch ID: 77635			RunNo: 99855					
Prep Date: 9/20/2023		Analysis Date: 9/20/2023			SeqNo: 3652477		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-77635		SampType: lcs			TestCode: EPA Method 300.0: Anions					
Client ID: LCSS		Batch ID: 77635			RunNo: 99855					
Prep Date: 9/20/2023		Analysis Date: 9/20/2023			SeqNo: 3652478		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.1	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309848

25-Sep-23

Client: Vertex Resources Services, Inc.**Project:** Agate PWU 21 22

Sample ID: MB-77583	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 77583	RunNo: 99809								
Prep Date: 9/18/2023	Analysis Date: 9/19/2023	SeqNo: 3648778 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	12		10.00		119	69	147			

Sample ID: LCS-77583	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 77583	RunNo: 99809								
Prep Date: 9/18/2023	Analysis Date: 9/19/2023	SeqNo: 3648780 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	61.9	130			
Surr: DNOP	5.4		5.000		109	69	147			

Sample ID: 2309848-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: BS23-01	Batch ID: 77583	RunNo: 99809								
Prep Date: 9/18/2023	Analysis Date: 9/19/2023	SeqNo: 3648783 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	8.5	42.37	13.40	82.6	54.2	135			
Surr: DNOP	4.5		4.237		106	69	147			

Sample ID: 2309848-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: BS23-01	Batch ID: 77583	RunNo: 99809								
Prep Date: 9/18/2023	Analysis Date: 9/19/2023	SeqNo: 3648784 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	66	8.9	44.29	13.40	118	54.2	135	30.3	29.2	R
Surr: DNOP	5.0		4.429		112	69	147	0	0	

Sample ID: MB-77580	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 77580	RunNo: 99810								
Prep Date: 9/19/2023	Analysis Date: 9/19/2023	SeqNo: 3648794 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	11		10.00		114	69	147			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309848
25-Sep-23

Client: Vertex Resources Services, Inc.
Project: Agate PWU 21 22

Sample ID: LCS-77580	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 77580	RunNo: 99810								
Prep Date: 9/19/2023	Analysis Date: 9/19/2023	SeqNo: 3648795	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	109	61.9	130			
Surr: DNOP	5.4		5.000		108	69	147			

Sample ID: MB-77579	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 77579	RunNo: 99809								
Prep Date: 9/18/2023	Analysis Date: 9/19/2023	SeqNo: 3649079	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		118	69	147			

Sample ID: LCS-77579	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 77579	RunNo: 99809								
Prep Date: 9/18/2023	Analysis Date: 9/19/2023	SeqNo: 3649081	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.5		5.000		110	69	147			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309848

25-Sep-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22

Sample ID: ics-77543	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 77543			RunNo: 99776						
Prep Date: 9/15/2023	Analysis Date: 9/18/2023			SeqNo: 3647073		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.6	70	130			
Surr: BFB	2000		1000		205	15	244			

Sample ID: mb-77543	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 77543			RunNo: 99776						
Prep Date: 9/15/2023	Analysis Date: 9/18/2023			SeqNo: 3647074		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		95.1	15	244			

Sample ID: 2309848-001ams	SampType: MS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: BS23-01	Batch ID: 77543			RunNo: 99776						
Prep Date: 9/15/2023	Analysis Date: 9/18/2023			SeqNo: 3647514		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.9	24.32	0	93.8	70	130			
Surr: BFB	2000		972.8		201	15	244			

Sample ID: 2309848-001amsd	SampType: MSD			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: BS23-01	Batch ID: 77543			RunNo: 99776						
Prep Date: 9/15/2023	Analysis Date: 9/18/2023			SeqNo: 3647515		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.8	24.18	0	87.3	70	130	7.78	20	
Surr: BFB	1900		967.1		198	15	244	0	0	

Sample ID: ics-77575	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 77575			RunNo: 99813						
Prep Date: 9/18/2023	Analysis Date: 9/19/2023			SeqNo: 3648847		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	95.0	70	130			
Surr: BFB	2200		1000		216	15	244			

Sample ID: mb-77575	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 77575			RunNo: 99813						
Prep Date: 9/18/2023	Analysis Date: 9/19/2023			SeqNo: 3648848		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309848

25-Sep-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22

Sample ID: mb-77575	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 77575	RunNo: 99813								
Prep Date: 9/18/2023	Analysis Date: 9/19/2023	SeqNo: 3648848			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	990		1000		99.1	15	244			

Sample ID: 2309848-020ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: BS23-20	Batch ID: 77575	RunNo: 99813								
Prep Date: 9/18/2023	Analysis Date: 9/19/2023	SeqNo: 3648851			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.7	23.67	0	95.4	70	130			
Surr: BFB	2000		947.0		212	15	244			

Sample ID: 2309848-020amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: BS23-20	Batch ID: 77575	RunNo: 99813								
Prep Date: 9/18/2023	Analysis Date: 9/19/2023	SeqNo: 3648852			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.7	23.56	0	98.5	70	130	2.75	20	
Surr: BFB	2100		942.5		225	15	244	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309848

25-Sep-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22

Sample ID: LCS-77543	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 77543		RunNo: 99776							
Prep Date: 9/15/2023	Analysis Date: 9/18/2023		SeqNo: 3647090		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	106	70	130			
Toluene	1.1	0.050	1.000	0	107	70	130			
Ethylbenzene	1.1	0.050	1.000	0	107	70	130			
Xylenes, Total	3.2	0.10	3.000	0	108	70	130			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	39.1	146			

Sample ID: mb-77543	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 77543		RunNo: 99776							
Prep Date: 9/15/2023	Analysis Date: 9/18/2023		SeqNo: 3647091		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	1.1		1.000		107	39.1	146			

Sample ID: 2309848-002ams	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: BS23-02	Batch ID: 77543		RunNo: 99776							
Prep Date: 9/15/2023	Analysis Date: 9/18/2023		SeqNo: 3647526		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9533	0	108	70	130			
Toluene	1.0	0.048	0.9533	0	108	70	130			
Ethylbenzene	1.1	0.048	0.9533	0	110	70	130			
Xylenes, Total	3.2	0.095	2.860	0	111	70	130			
Surr: 4-Bromofluorobenzene	1.0		0.9533		109	39.1	146			

Sample ID: 2309848-002amsd	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: BS23-02	Batch ID: 77543		RunNo: 99776							
Prep Date: 9/15/2023	Analysis Date: 9/18/2023		SeqNo: 3647527		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9497	0	106	70	130	2.07	20	
Toluene	1.0	0.047	0.9497	0	106	70	130	1.89	20	
Ethylbenzene	1.0	0.047	0.9497	0	108	70	130	2.40	20	
Xylenes, Total	3.1	0.095	2.849	0	109	70	130	2.58	20	
Surr: 4-Bromofluorobenzene	1.0		0.9497		106	39.1	146	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309848

25-Sep-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22

Sample ID: lcs-77575	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 77575		RunNo: 99813							
Prep Date: 9/18/2023	Analysis Date: 9/19/2023		SeqNo: 3648857		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	89.7	70	130			
Toluene	0.90	0.050	1.000	0	90.4	70	130			
Ethylbenzene	0.93	0.050	1.000	0	92.6	70	130			
Xylenes, Total	2.8	0.10	3.000	0	93.2	70	130			
Surr: 4-Bromofluorobenzene	0.89		1.000		88.9	39.1	146			

Sample ID: mb-77575	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 77575		RunNo: 99813							
Prep Date: 9/18/2023	Analysis Date: 9/19/2023		SeqNo: 3648858		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	0.89		1.000		89.3	39.1	146			

Sample ID: 2309848-021ams	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: BS23-21	Batch ID: 77575		RunNo: 99813							
Prep Date: 9/18/2023	Analysis Date: 9/19/2023		SeqNo: 3648862		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	0.9891	0	94.3	70	130			
Toluene	0.94	0.049	0.9891	0	95.4	70	130			
Ethylbenzene	0.97	0.049	0.9891	0	97.8	70	130			
Xylenes, Total	2.9	0.099	2.967	0	98.0	70	130			
Surr: 4-Bromofluorobenzene	0.87		0.9891		87.8	39.1	146			

Sample ID: 2309848-021amsd	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: BS23-21	Batch ID: 77575		RunNo: 99813							
Prep Date: 9/18/2023	Analysis Date: 9/19/2023		SeqNo: 3648863		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	0.9901	0	95.1	70	130	0.969	20	
Toluene	0.95	0.050	0.9901	0	96.3	70	130	1.03	20	
Ethylbenzene	0.98	0.050	0.9901	0	98.7	70	130	1.06	20	
Xylenes, Total	2.9	0.099	2.970	0	98.6	70	130	0.779	20	
Surr: 4-Bromofluorobenzene	0.88		0.9901		89.3	39.1	146	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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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: Vertex Resources
Services, Inc.

Work Order Number: 2309848

RcptNo: 1

Received By: Tracy Casarrubias 9/15/2023 7:00:00 AM

Completed By: Tracy Casarrubias 9/15/2023 7:23:41 AM

Reviewed By: SCM 9/15/23

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: 709/15/23

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: Mailing address, phone number, and Email/Fax are missing on COC- TMC 9/15/23

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.1	Good	Yes	Morty		



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

September 28, 2023

Kent Stallings
Devon Energy
6488 Seven Rivers Highway
Artesia, NM 88210
TEL: (575) 748-0176
FAX:

RE: Agate

OrderNo.: 2309919

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 9 sample(s) on 9/16/2023 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued September 22, 2023.

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. 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. All samples are reported as received unless otherwise indicated.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2309919

Date Reported: 9/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: WS23-23 0-2'

Project: Agate

Collection Date: 9/14/2023 9:10:00 AM

Lab ID: 2309919-002

Matrix: SOIL

Received Date: 9/16/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	140	9.4		mg/Kg	1	9/20/2023 4:49:43 AM
Motor Oil Range Organics (MRO)	100	47		mg/Kg	1	9/20/2023 4:49:43 AM
Surr: DNOP	107	69-147		%Rec	1	9/20/2023 4:49:43 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/19/2023 6:00:00 PM
Surr: BFB	143	15-244		%Rec	1	9/19/2023 6:00:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/19/2023 6:00:00 PM
Toluene	ND	0.050		mg/Kg	1	9/19/2023 6:00:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/19/2023 6:00:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/19/2023 6:00:00 PM
Surr: 4-Bromofluorobenzene	92.6	39.1-146		%Rec	1	9/19/2023 6:00:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	250	60		mg/Kg	20	9/20/2023 7:57:11 PM

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

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

Analytical Report

Lab Order 2309919

Date Reported: 9/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: WS23-24 0-2'

Project: Agate

Collection Date: 9/14/2023 9:20:00 AM

Lab ID: 2309919-003

Matrix: SOIL

Received Date: 9/16/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	120	9.9		mg/Kg	1	9/20/2023 5:00:34 AM
Motor Oil Range Organics (MRO)	110	49		mg/Kg	1	9/20/2023 5:00:34 AM
Surr: DNOP	97.3	69-147		%Rec	1	9/20/2023 5:00:34 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/19/2023 6:22:00 PM
Surr: BFB	104	15-244		%Rec	1	9/19/2023 6:22:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/19/2023 6:22:00 PM
Toluene	ND	0.049		mg/Kg	1	9/19/2023 6:22:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/19/2023 6:22:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	9/19/2023 6:22:00 PM
Surr: 4-Bromofluorobenzene	87.1	39.1-146		%Rec	1	9/19/2023 6:22:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	310	60		mg/Kg	20	9/20/2023 8:09:35 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2309919
Date Reported: 9/28/2023

CLIENT: Devon Energy
Project: Agate
Lab ID: 2309919-004
Matrix: SOIL
Client Sample ID: WS23-25 0-2'
Collection Date: 9/14/2023 9:30:00 AM
Received Date: 9/16/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/20/2023 5:11:26 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/20/2023 5:11:26 AM
Surr: DNOP	96.6	69-147		%Rec	1	9/20/2023 5:11:26 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/19/2023 6:43:00 PM
Surr: BFB	97.5	15-244		%Rec	1	9/19/2023 6:43:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/19/2023 6:43:00 PM
Toluene	ND	0.048		mg/Kg	1	9/19/2023 6:43:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/19/2023 6:43:00 PM
Xylenes, Total	ND	0.095		mg/Kg	1	9/19/2023 6:43:00 PM
Surr: 4-Bromofluorobenzene	87.0	39.1-146		%Rec	1	9/19/2023 6:43:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	170	60		mg/Kg	20	9/20/2023 8:22:00 PM

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

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

Analytical Report

Lab Order 2309919

Date Reported: 9/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: WS23-28 0-4'

Project: Agate

Collection Date: 9/14/2023 10:00:00 AM

Lab ID: 2309919-007

Matrix: SOIL

Received Date: 9/16/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	360	9.6		mg/Kg	1	9/20/2023 5:22:17 AM
Motor Oil Range Organics (MRO)	260	48		mg/Kg	1	9/20/2023 5:22:17 AM
Surr: DNOP	108	69-147		%Rec	1	9/20/2023 5:22:17 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/19/2023 7:05:00 PM
Surr: BFB	99.7	15-244		%Rec	1	9/19/2023 7:05:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/19/2023 7:05:00 PM
Toluene	ND	0.049		mg/Kg	1	9/19/2023 7:05:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/19/2023 7:05:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	9/19/2023 7:05:00 PM
Surr: 4-Bromofluorobenzene	87.7	39.1-146		%Rec	1	9/19/2023 7:05:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	440	60		mg/Kg	20	9/20/2023 8:34:25 PM

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

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

CLIENT: Devon Energy

Client Sample ID: WS23-29 0-4'

Project: Agate

Collection Date: 9/14/2023 10:10:00 AM

Lab ID: 2309919-008

Matrix: SOIL

Received Date: 9/16/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	370	9.6		mg/Kg	1	9/20/2023 5:33:08 AM
Motor Oil Range Organics (MRO)	260	48		mg/Kg	1	9/20/2023 5:33:08 AM
Surr: DNOP	109	69-147		%Rec	1	9/20/2023 5:33:08 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/19/2023 7:27:00 PM
Surr: BFB	95.6	15-244		%Rec	1	9/19/2023 7:27:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/19/2023 7:27:00 PM
Toluene	ND	0.049		mg/Kg	1	9/19/2023 7:27:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/19/2023 7:27:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	9/19/2023 7:27:00 PM
Surr: 4-Bromofluorobenzene	86.6	39.1-146		%Rec	1	9/19/2023 7:27:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	180	60		mg/Kg	20	9/20/2023 8:46:49 PM

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

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

Analytical Report

Lab Order 2309919

Date Reported: 9/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: WS23-30 0-4'

Project: Agate

Collection Date: 9/14/2023 10:20:00 AM

Lab ID: 2309919-009

Matrix: SOIL

Received Date: 9/16/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	120	9.6		mg/Kg	1	9/20/2023 5:43:58 AM
Motor Oil Range Organics (MRO)	100	48		mg/Kg	1	9/20/2023 5:43:58 AM
Surr: DNOP	102	69-147		%Rec	1	9/20/2023 5:43:58 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/19/2023 7:49:00 PM
Surr: BFB	96.1	15-244		%Rec	1	9/19/2023 7:49:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/19/2023 7:49:00 PM
Toluene	ND	0.050		mg/Kg	1	9/19/2023 7:49:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/19/2023 7:49:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/19/2023 7:49:00 PM
Surr: 4-Bromofluorobenzene	86.8	39.1-146		%Rec	1	9/19/2023 7:49:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	940	60		mg/Kg	20	9/20/2023 9:24:03 PM

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309919
28-Sep-23

Client: Devon Energy
Project: Agate

Sample ID: MB-77655		SampType: mblk		TestCode: EPA Method 300.0: Anions						
Client ID: PBS		Batch ID: 77655		RunNo: 99855						
Prep Date: 9/20/2023		Analysis Date: 9/20/2023		SeqNo: 3652507			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-77655		SampType: lcs		TestCode: EPA Method 300.0: Anions						
Client ID: LCSS		Batch ID: 77655		RunNo: 99855						
Prep Date: 9/20/2023		Analysis Date: 9/20/2023		SeqNo: 3652508			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.4	90	110			

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309919

28-Sep-23

Client: Devon Energy

Project: Agate

Sample ID: MB-77580	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 77580	RunNo: 99810								
Prep Date: 9/19/2023	Analysis Date: 9/19/2023	SeqNo: 3648794	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	11		10.00		114	69	147			

Sample ID: LCS-77580	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 77580	RunNo: 99810								
Prep Date: 9/19/2023	Analysis Date: 9/19/2023	SeqNo: 3648795	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	109	61.9	130			
Surr: DNOP	5.4		5.000		108	69	147			

- Qualifiers:
- *

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

- B

Analyte detected in the associated Method Blank
- E

Above Quantitation Range/Estimated Value
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309919

28-Sep-23

Client: Devon Energy

Project: Agate

Sample ID: lcs-77575	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 77575			RunNo: 99813						
Prep Date: 9/18/2023	Analysis Date: 9/19/2023			SeqNo: 3648847		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	95.0	70	130			
Surr: BFB	2200		1000		216	15	244			

Sample ID: mb-77575	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 77575			RunNo: 99813						
Prep Date: 9/18/2023	Analysis Date: 9/19/2023			SeqNo: 3648848		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	990		1000		99.1	15	244			

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309919

28-Sep-23

Client: Devon Energy

Project: Agate

Sample ID: lcs-77575	SampType: LCS			TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batch ID: 77575			RunNo: 99813						
Prep Date: 9/18/2023	Analysis Date: 9/19/2023			SeqNo: 3648857		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	89.7	70	130			
Toluene	0.90	0.050	1.000	0	90.4	70	130			
Ethylbenzene	0.93	0.050	1.000	0	92.6	70	130			
Xylenes, Total	2.8	0.10	3.000	0	93.2	70	130			
Surr: 4-Bromofluorobenzene	0.89		1.000		88.9	39.1	146			

Sample ID: mb-77575	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch ID: 77575			RunNo: 99813						
Prep Date: 9/18/2023	Analysis Date: 9/19/2023			SeqNo: 3648858		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	0.89		1.000		89.3	39.1	146			

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit



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

Sample Log-In Check List

Client Name: Devon Energy Work Order Number: 2309919 RcptNo: 1

Received By: Juan Rojas 9/16/2023 7:30:00 AM *[Signature]*
Completed By: Juan Rojas 9/16/2023 8:53:14 AM *[Signature]*
Reviewed By: *[Signature]* 9/18/23

Chain of Custody

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

Log In

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

of preserved bottles checked for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: 7/4/16/23

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: _____

Additional remarks:

Client missing mailing address, phone number and email address on COC. JR 9/16/23

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0	Good	No	Yogi		

Chain-of-Custody Record

Client: Vertex (Devon)Mailing Address: on file

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC ☐ Other☐ EDD (Type)

Turn-Around Time:

☒ Standard☒ Rush 3 days

Project Name:

Agate

Project #:

23E-01653

Project Manager:

Kent StallingsSampler: Zach EnglebertOn Ice: ☐ Yes ☐ No

of Coolers:

1Cooler Temp (including CF): 0.1-0.120 (°C)

Container

Type and #

Preservative

Type

HEAL No.

Date

Matrix

Sample Name

9-14-23 9:00

S

WS23-22

0-2'

9-14-23 9:00

S

WS23-23

0-2'

9-14-23 9:00

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WS23-24

0-2'

9-14-23 9:00

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WS23-25

0-2'

9-14-23 9:00

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WS23-26

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9-14-23 9:00

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WS23-27

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9-14-23 9:00

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WS23-28

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WS23-30

0-4'



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

September 29, 2023

Kent Stallings

Vertex Resources Services, Inc.

3101 Boyd Drive

Carlsbad, NM 88220

TEL:

FAX:

RE: Agate PWU 2122 062H

OrderNo.: 2309973

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 25 sample(s) on 9/19/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-31 .5'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 9:00:00 AM

Lab ID: 2309973-001

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	4800	190		mg/Kg	20	9/21/2023 9:03:51 AM
Motor Oil Range Organics (MRO)	3300	940		mg/Kg	20	9/21/2023 9:03:51 AM
Surr: DNOP	0	69-147	S	%Rec	20	9/21/2023 9:03:51 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/20/2023 5:12:00 PM
Surr: BFB	97.5	15-244		%Rec	1	9/20/2023 5:12:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/20/2023 5:12:00 PM
Toluene	ND	0.050		mg/Kg	1	9/20/2023 5:12:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/20/2023 5:12:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	9/20/2023 5:12:00 PM
Surr: 4-Bromofluorobenzene	83.5	39.1-146		%Rec	1	9/20/2023 5:12:00 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	290	59		mg/Kg	20	9/21/2023 11:09:04 AM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-32 .5'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 9:10:00 AM

Lab ID: 2309973-002

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	4400	100		mg/Kg	10.5	9/21/2023 9:25:09 AM
Motor Oil Range Organics (MRO)	2800	510		mg/Kg	10.5	9/21/2023 9:25:09 AM
Surr: DNOP	0	69-147	S	%Rec	10.5	9/21/2023 9:25:09 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/20/2023 6:17:00 PM
Surr: BFB	106	15-244		%Rec	1	9/20/2023 6:17:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/20/2023 6:17:00 PM
Toluene	ND	0.049		mg/Kg	1	9/20/2023 6:17:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/20/2023 6:17:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	9/20/2023 6:17:00 PM
Surr: 4-Bromofluorobenzene	86.0	39.1-146		%Rec	1	9/20/2023 6:17:00 PM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	2500	150		mg/Kg	50	9/22/2023 10:10:25 AM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-33 .5'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 9:20:00 AM

Lab ID: 2309973-003

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	3800	190		mg/Kg	20	9/21/2023 9:46:29 AM
Motor Oil Range Organics (MRO)	4000	970		mg/Kg	20	9/21/2023 9:46:29 AM
Surr: DNOP	0	69-147	S	%Rec	20	9/21/2023 9:46:29 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/20/2023 7:22:00 PM
Surr: BFB	99.3	15-244		%Rec	1	9/20/2023 7:22:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/20/2023 7:22:00 PM
Toluene	ND	0.050		mg/Kg	1	9/20/2023 7:22:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/20/2023 7:22:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/20/2023 7:22:00 PM
Surr: 4-Bromofluorobenzene	88.4	39.1-146		%Rec	1	9/20/2023 7:22:00 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	120	60		mg/Kg	20	9/21/2023 12:26:00 PM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-34 .5'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 9:30:00 AM

Lab ID: 2309973-004

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	4700	190		mg/Kg	20	9/21/2023 10:11:06 AM
Motor Oil Range Organics (MRO)	2900	940		mg/Kg	20	9/21/2023 10:11:06 AM
Surr: DNOP	0	69-147	S	%Rec	20	9/21/2023 10:11:06 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/20/2023 7:44:00 PM
Surr: BFB	100	15-244		%Rec	1	9/20/2023 7:44:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/20/2023 7:44:00 PM
Toluene	ND	0.050		mg/Kg	1	9/20/2023 7:44:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/20/2023 7:44:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/20/2023 7:44:00 PM
Surr: 4-Bromofluorobenzene	86.0	39.1-146		%Rec	1	9/20/2023 7:44:00 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	2200	60		mg/Kg	20	9/21/2023 12:38:21 PM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-35 .5'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 9:40:00 AM

Lab ID: 2309973-005

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	2100	200		mg/Kg	20	9/21/2023 10:32:25 AM
Motor Oil Range Organics (MRO)	2600	990		mg/Kg	20	9/21/2023 10:32:25 AM
Surr: DNOP	0	69-147	S	%Rec	20	9/21/2023 10:32:25 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/20/2023 8:06:00 PM
Surr: BFB	97.1	15-244		%Rec	1	9/20/2023 8:06:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/20/2023 8:06:00 PM
Toluene	ND	0.050		mg/Kg	1	9/20/2023 8:06:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/20/2023 8:06:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/20/2023 8:06:00 PM
Surr: 4-Bromofluorobenzene	86.5	39.1-146		%Rec	1	9/20/2023 8:06:00 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/21/2023 1:15:22 PM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-36 .5'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 9:50:00 AM

Lab ID: 2309973-006

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	5200	200		mg/Kg	20	9/21/2023 10:53:46 AM
Motor Oil Range Organics (MRO)	4600	1000		mg/Kg	20	9/21/2023 10:53:46 AM
Surr: DNOP	0	69-147	S	%Rec	20	9/21/2023 10:53:46 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	5.4	4.8		mg/Kg	1	9/20/2023 8:27:00 PM
Surr: BFB	144	15-244		%Rec	1	9/20/2023 8:27:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/20/2023 8:27:00 PM
Toluene	ND	0.048		mg/Kg	1	9/20/2023 8:27:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/20/2023 8:27:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	9/20/2023 8:27:00 PM
Surr: 4-Bromofluorobenzene	93.8	39.1-146		%Rec	1	9/20/2023 8:27:00 PM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	4600	150		mg/Kg	50	9/22/2023 10:22:46 AM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-37 .5'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 10:00:00 AM

Lab ID: 2309973-007

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	4100	190		mg/Kg	20	9/21/2023 11:15:12 AM
Motor Oil Range Organics (MRO)	4300	930		mg/Kg	20	9/21/2023 11:15:12 AM
Surr: DNOP	0	69-147	S	%Rec	20	9/21/2023 11:15:12 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/20/2023 9:11:00 PM
Surr: BFB	95.3	15-244		%Rec	1	9/20/2023 9:11:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/20/2023 9:11:00 PM
Toluene	ND	0.049		mg/Kg	1	9/20/2023 9:11:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/20/2023 9:11:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	9/20/2023 9:11:00 PM
Surr: 4-Bromofluorobenzene	85.7	39.1-146		%Rec	1	9/20/2023 9:11:00 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/21/2023 1:40:04 PM

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

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

CLIENT: Vertex Resources Services, Inc.
Project: Agate PWU 2122 062H
Lab ID: 2309973-008

Client Sample ID: BS23-38 1'
Collection Date: 9/15/2023 10:10:00 AM
Received Date: 9/19/2023 7:35:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	6000	200		mg/Kg	20	9/21/2023 11:36:31 AM
Motor Oil Range Organics (MRO)	3200	1000		mg/Kg	20	9/21/2023 11:36:31 AM
Surr: DNOP	0	69-147	S	%Rec	20	9/21/2023 11:36:31 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/20/2023 9:33:00 PM
Surr: BFB	96.2	15-244		%Rec	1	9/20/2023 9:33:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/20/2023 9:33:00 PM
Toluene	ND	0.049		mg/Kg	1	9/20/2023 9:33:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/20/2023 9:33:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	9/20/2023 9:33:00 PM
Surr: 4-Bromofluorobenzene	85.2	39.1-146		%Rec	1	9/20/2023 9:33:00 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	1800	60		mg/Kg	20	9/21/2023 1:54:07 PM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-39 1'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 10:20:00 AM

Lab ID: 2309973-009

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	6300	190		mg/Kg	20	9/21/2023 11:57:47 AM
Motor Oil Range Organics (MRO)	6200	970		mg/Kg	20	9/21/2023 11:57:47 AM
Surr: DNOP	0	69-147	S	%Rec	20	9/21/2023 11:57:47 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/20/2023 9:54:00 PM
Surr: BFB	95.8	15-244		%Rec	1	9/20/2023 9:54:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/20/2023 9:54:00 PM
Toluene	ND	0.048		mg/Kg	1	9/20/2023 9:54:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/20/2023 9:54:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	9/20/2023 9:54:00 PM
Surr: 4-Bromofluorobenzene	85.8	39.1-146		%Rec	1	9/20/2023 9:54:00 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/21/2023 2:06:27 PM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-40 1'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 10:30:00 AM

Lab ID: 2309973-010

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	2900	190		mg/Kg	20	9/21/2023 12:19:03 PM
Motor Oil Range Organics (MRO)	2300	960		mg/Kg	20	9/21/2023 12:19:03 PM
Surr: DNOP	0	69-147	S	%Rec	20	9/21/2023 12:19:03 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/20/2023 10:16:00 PM
Surr: BFB	95.4	15-244		%Rec	1	9/20/2023 10:16:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/20/2023 10:16:00 PM
Toluene	ND	0.049		mg/Kg	1	9/20/2023 10:16:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/20/2023 10:16:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	9/20/2023 10:16:00 PM
Surr: 4-Bromofluorobenzene	86.8	39.1-146		%Rec	1	9/20/2023 10:16:00 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	1200	60		mg/Kg	20	9/21/2023 2:18:48 PM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-42 1'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 10:50:00 AM

Lab ID: 2309973-011

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	1500	190		mg/Kg	20	9/21/2023 12:40:20 PM
Motor Oil Range Organics (MRO)	1100	940		mg/Kg	20	9/21/2023 12:40:20 PM
Surr: DNOP	0	69-147	S	%Rec	20	9/21/2023 12:40:20 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/20/2023 10:59:00 PM
Surr: BFB	103	15-244		%Rec	1	9/20/2023 10:59:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/20/2023 10:59:00 PM
Toluene	ND	0.049		mg/Kg	1	9/20/2023 10:59:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/20/2023 10:59:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	9/20/2023 10:59:00 PM
Surr: 4-Bromofluorobenzene	86.1	39.1-146		%Rec	1	9/20/2023 10:59:00 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	1800	61		mg/Kg	20	9/21/2023 2:31:08 PM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-43 1'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 11:00:00 AM

Lab ID: 2309973-012

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	7000	200		mg/Kg	20	9/21/2023 2:06:36 PM
Motor Oil Range Organics (MRO)	4400	980		mg/Kg	20	9/21/2023 2:06:36 PM
Surr: DNOP	0	69-147	S	%Rec	20	9/21/2023 2:06:36 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/20/2023 11:21:00 PM
Surr: BFB	121	15-244		%Rec	1	9/20/2023 11:21:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/20/2023 11:21:00 PM
Toluene	ND	0.049		mg/Kg	1	9/20/2023 11:21:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/20/2023 11:21:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	9/20/2023 11:21:00 PM
Surr: 4-Bromofluorobenzene	88.9	39.1-146		%Rec	1	9/20/2023 11:21:00 PM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	5300	300		mg/Kg	100	9/22/2023 10:35:06 AM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-44 1'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 11:10:00 AM

Lab ID: 2309973-013

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	9900	190		mg/Kg	20	9/21/2023 2:27:57 PM
Motor Oil Range Organics (MRO)	4500	960		mg/Kg	20	9/21/2023 2:27:57 PM
Surr: DNOP	0	69-147	S	%Rec	20	9/21/2023 2:27:57 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	15	4.8		mg/Kg	1	9/20/2023 11:43:00 PM
Surr: BFB	113	15-244		%Rec	1	9/20/2023 11:43:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/20/2023 11:43:00 PM
Toluene	ND	0.048		mg/Kg	1	9/20/2023 11:43:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/20/2023 11:43:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	9/20/2023 11:43:00 PM
Surr: 4-Bromofluorobenzene	97.2	39.1-146		%Rec	1	9/20/2023 11:43:00 PM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	3700	150		mg/Kg	50	9/22/2023 10:47:27 AM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-45 1'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 11:20:00 AM

Lab ID: 2309973-014

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	2100	190		mg/Kg	20	9/21/2023 3:06:07 PM
Motor Oil Range Organics (MRO)	1300	940		mg/Kg	20	9/21/2023 3:06:07 PM
Surr: DNOP	0	69-147	S	%Rec	20	9/21/2023 3:06:07 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/21/2023 12:05:00 AM
Surr: BFB	103	15-244		%Rec	1	9/21/2023 12:05:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/21/2023 12:05:00 AM
Toluene	ND	0.050		mg/Kg	1	9/21/2023 12:05:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	9/21/2023 12:05:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	9/21/2023 12:05:00 AM
Surr: 4-Bromofluorobenzene	87.6	39.1-146		%Rec	1	9/21/2023 12:05:00 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/21/2023 3:08:09 PM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-46 1'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 11:30:00 AM

Lab ID: 2309973-015

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	7100	190		mg/Kg	20	9/21/2023 3:38:06 PM
Motor Oil Range Organics (MRO)	4400	960		mg/Kg	20	9/21/2023 3:38:06 PM
Surr: DNOP	0	69-147	S	%Rec	20	9/21/2023 3:38:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	4.9	4.7		mg/Kg	1	9/21/2023 12:26:00 AM
Surr: BFB	141	15-244		%Rec	1	9/21/2023 12:26:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/21/2023 12:26:00 AM
Toluene	ND	0.047		mg/Kg	1	9/21/2023 12:26:00 AM
Ethylbenzene	ND	0.047		mg/Kg	1	9/21/2023 12:26:00 AM
Xylenes, Total	ND	0.095		mg/Kg	1	9/21/2023 12:26:00 AM
Surr: 4-Bromofluorobenzene	94.3	39.1-146		%Rec	1	9/21/2023 12:26:00 AM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	4100	150		mg/Kg	50	9/22/2023 10:59:49 AM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-47 1'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 11:40:00 AM

Lab ID: 2309973-016

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	1300	190		mg/Kg	20	9/21/2023 3:59:31 PM
Motor Oil Range Organics (MRO)	1200	950		mg/Kg	20	9/21/2023 3:59:31 PM
Surr: DNOP	0	69-147	S	%Rec	20	9/21/2023 3:59:31 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/21/2023 12:48:00 AM
Surr: BFB	97.0	15-244		%Rec	1	9/21/2023 12:48:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/21/2023 12:48:00 AM
Toluene	ND	0.050		mg/Kg	1	9/21/2023 12:48:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	9/21/2023 12:48:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	9/21/2023 12:48:00 AM
Surr: 4-Bromofluorobenzene	87.8	39.1-146		%Rec	1	9/21/2023 12:48:00 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	85	60		mg/Kg	20	9/21/2023 3:57:31 PM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-48 1'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 11:50:00 AM

Lab ID: 2309973-017

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	250	9.6		mg/Kg	1	9/21/2023 4:20:58 PM
Motor Oil Range Organics (MRO)	250	48		mg/Kg	1	9/21/2023 4:20:58 PM
Surr: DNOP	107	69-147		%Rec	1	9/21/2023 4:20:58 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/21/2023 1:10:00 AM
Surr: BFB	99.6	15-244		%Rec	1	9/21/2023 1:10:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/21/2023 1:10:00 AM
Toluene	ND	0.048		mg/Kg	1	9/21/2023 1:10:00 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/21/2023 1:10:00 AM
Xylenes, Total	ND	0.097		mg/Kg	1	9/21/2023 1:10:00 AM
Surr: 4-Bromofluorobenzene	89.0	39.1-146		%Rec	1	9/21/2023 1:10:00 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	130	60		mg/Kg	20	9/21/2023 4:09:51 PM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-49 1'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 12:00:00 PM

Lab ID: 2309973-018

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	1400	91		mg/Kg	10	9/22/2023 2:00:01 PM
Motor Oil Range Organics (MRO)	1000	450		mg/Kg	10	9/22/2023 2:00:01 PM
Surr: DNOP	0	69-147	S	%Rec	10	9/22/2023 2:00:01 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/21/2023 1:32:00 AM
Surr: BFB	102	15-244		%Rec	1	9/21/2023 1:32:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/21/2023 1:32:00 AM
Toluene	ND	0.048		mg/Kg	1	9/21/2023 1:32:00 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/21/2023 1:32:00 AM
Xylenes, Total	ND	0.097		mg/Kg	1	9/21/2023 1:32:00 AM
Surr: 4-Bromofluorobenzene	88.7	39.1-146		%Rec	1	9/21/2023 1:32:00 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	160	60		mg/Kg	20	9/21/2023 4:22:12 PM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-50 1'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 12:10:00 PM

Lab ID: 2309973-019

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	970	94		mg/Kg	10	9/22/2023 2:21:46 PM
Motor Oil Range Organics (MRO)	1100	470		mg/Kg	10	9/22/2023 2:21:46 PM
Surr: DNOP	0	69-147	S	%Rec	10	9/22/2023 2:21:46 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/21/2023 1:53:00 AM
Surr: BFB	93.3	15-244		%Rec	1	9/21/2023 1:53:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/21/2023 1:53:00 AM
Toluene	ND	0.049		mg/Kg	1	9/21/2023 1:53:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/21/2023 1:53:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	9/21/2023 1:53:00 AM
Surr: 4-Bromofluorobenzene	84.3	39.1-146		%Rec	1	9/21/2023 1:53:00 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	250	60		mg/Kg	20	9/21/2023 4:34:33 PM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-51 .5'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 12:20:00 PM

Lab ID: 2309973-020

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	6700	200		mg/Kg	20	9/21/2023 5:04:23 PM
Motor Oil Range Organics (MRO)	3800	990		mg/Kg	20	9/21/2023 5:04:23 PM
Surr: DNOP	0	69-147	S	%Rec	20	9/21/2023 5:04:23 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/21/2023 2:15:00 AM
Surr: BFB	101	15-244		%Rec	1	9/21/2023 2:15:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/21/2023 2:15:00 AM
Toluene	ND	0.049		mg/Kg	1	9/21/2023 2:15:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/21/2023 2:15:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	9/21/2023 2:15:00 AM
Surr: 4-Bromofluorobenzene	86.6	39.1-146		%Rec	1	9/21/2023 2:15:00 AM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	2200	150		mg/Kg	50	9/22/2023 11:12:09 AM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-52 7'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 1:45:00 PM

Lab ID: 2309973-021

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/22/2023 11:54:12 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/22/2023 11:54:12 AM
Surr: DNOP	162	69-147	S	%Rec	1	9/22/2023 11:54:12 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/22/2023 4:51:00 PM
Surr: BFB	95.4	15-244		%Rec	1	9/22/2023 4:51:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/22/2023 4:51:00 PM
Toluene	ND	0.049		mg/Kg	1	9/22/2023 4:51:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/22/2023 4:51:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	9/22/2023 4:51:00 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	9/22/2023 4:51:00 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	91	60		mg/Kg	20	9/21/2023 6:13:18 PM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-53 7'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 1:55:00 PM

Lab ID: 2309973-022

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/22/2023 12:04:56 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/22/2023 12:04:56 PM
Surr: DNOP	176	69-147	S	%Rec	1	9/22/2023 12:04:56 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/22/2023 5:14:26 PM
Surr: BFB	94.8	15-244		%Rec	1	9/22/2023 5:14:26 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	9/22/2023 5:14:26 PM
Toluene	ND	0.050		mg/Kg	1	9/22/2023 5:14:26 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/22/2023 5:14:26 PM
Xylenes, Total	ND	0.099		mg/Kg	1	9/22/2023 5:14:26 PM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	9/22/2023 5:14:26 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	110	60		mg/Kg	20	9/21/2023 6:25:38 PM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-54 7'

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 2:05:00 PM

Lab ID: 2309973-023

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/22/2023 12:15:41 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/22/2023 12:15:41 PM
Surr: DNOP	162	69-147	S	%Rec	1	9/22/2023 12:15:41 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/22/2023 5:37:47 PM
Surr: BFB	93.4	15-244		%Rec	1	9/22/2023 5:37:47 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	9/22/2023 5:37:47 PM
Toluene	ND	0.050		mg/Kg	1	9/22/2023 5:37:47 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/22/2023 5:37:47 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/22/2023 5:37:47 PM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	9/22/2023 5:37:47 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	92	60		mg/Kg	20	9/21/2023 7:02:40 PM

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

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

Analytical Report

Lab Order 2309973

Date Reported: 9/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-56

Project: Agate PWU 2122 062H

Collection Date: 9/15/2023 2:25:00 PM

Lab ID: 2309973-025

Matrix: SOIL

Received Date: 9/19/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JME
Diesel Range Organics (DRO)	110	9.3		mg/Kg	1	9/25/2023 12:09:28 PM
Motor Oil Range Organics (MRO)	180	47		mg/Kg	1	9/25/2023 12:09:28 PM
Surr: DNOP	102	69-147		%Rec	1	9/25/2023 12:09:28 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/22/2023 6:24:36 PM
Surr: BFB	94.6	15-244		%Rec	1	9/22/2023 6:24:36 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	9/22/2023 6:24:36 PM
Toluene	ND	0.050		mg/Kg	1	9/22/2023 6:24:36 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/22/2023 6:24:36 PM
Xylenes, Total	ND	0.099		mg/Kg	1	9/22/2023 6:24:36 PM
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	9/22/2023 6:24:36 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	230	60		mg/Kg	20	9/21/2023 7:15:01 PM

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309973

29-Sep-23

Client: Vertex Resources Services, Inc.**Project:** Agate PWU 2122 062H

Sample ID: MB-77666	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBS	Batch ID: 77666		RunNo: 99905							
Prep Date: 9/21/2023	Analysis Date: 9/21/2023		SeqNo: 3653515		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-77666	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSS	Batch ID: 77666		RunNo: 99905							
Prep Date: 9/21/2023	Analysis Date: 9/21/2023		SeqNo: 3653516		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.5	90	110			

Sample ID: MB-77667	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBS	Batch ID: 77667		RunNo: 99905							
Prep Date: 9/21/2023	Analysis Date: 9/21/2023		SeqNo: 3653545		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-77667	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSS	Batch ID: 77667		RunNo: 99905							
Prep Date: 9/21/2023	Analysis Date: 9/21/2023		SeqNo: 3653546		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.5	90	110			

Qualifiers:

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

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2309973

29-Sep-23

Client: Vertex Resources Services, Inc.**Project:** Agate PWU 2122 062H

Sample ID: LCS-77646	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 77646			RunNo: 99892						
Prep Date: 9/20/2023	Analysis Date: 9/21/2023			SeqNo: 3652778		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.3	61.9	130			
Surr: DNOP	4.6		5.000		91.6	69	147			

Sample ID: MB-77646	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 77646			RunNo: 99892						
Prep Date: 9/20/2023	Analysis Date: 9/21/2023			SeqNo: 3652779		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	9.4		10.00		94.4	69	147			

Sample ID: LCS-77648	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 77648			RunNo: 99892						
Prep Date: 9/20/2023	Analysis Date: 9/21/2023			SeqNo: 3653953		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		92.7	69	147			

Sample ID: MB-77648	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 77648			RunNo: 99892						
Prep Date: 9/20/2023	Analysis Date: 9/21/2023			SeqNo: 3653955		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.4		10.00		94.1	69	147			

Sample ID: MB-77647	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 77647			RunNo: 99915						
Prep Date: 9/20/2023	Analysis Date: 9/22/2023			SeqNo: 3654242		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	14		10.00		138	69	147			

Sample ID: LCS-77647	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 77647			RunNo: 99915						
Prep Date: 9/20/2023	Analysis Date: 9/22/2023			SeqNo: 3654243		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309973

29-Sep-23

Client: Vertex Resources Services, Inc.**Project:** Agate PWU 2122 062H

Sample ID: LCS-77647	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 77647		RunNo: 99915							
Prep Date: 9/20/2023	Analysis Date: 9/22/2023		SeqNo: 3654243		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	115	61.9	130			
Surr: DNOP	5.9		5.000		119	69	147			

Sample ID: MB-77734	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 77734		RunNo: 99951							
Prep Date: 9/25/2023	Analysis Date: 9/25/2023		SeqNo: 3656255		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	9.3		10.00		92.9	69	147			

Sample ID: LCS-77734	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 77734		RunNo: 99951							
Prep Date: 9/25/2023	Analysis Date: 9/25/2023		SeqNo: 3656260		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.8	61.9	130			
Surr: DNOP	4.9		5.000		98.6	69	147			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309973

29-Sep-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 2122 062H

Sample ID: ics-77616	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 77616			RunNo: 99842						
Prep Date: 9/19/2023	Analysis Date: 9/20/2023			SeqNo: 3651684		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.2	70	130			
Surr: BFB	2100		1000		211	15	244			

Sample ID: mb-77616	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 77616			RunNo: 99842						
Prep Date: 9/19/2023	Analysis Date: 9/20/2023			SeqNo: 3651685		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	920		1000		92.3	15	244			

Sample ID: 2309973-001ams	SampType: MS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: BS23-31 .5'	Batch ID: 77616			RunNo: 99842						
Prep Date: 9/19/2023	Analysis Date: 9/20/2023			SeqNo: 3651687		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	24.80	0	99.7	70	130			
Surr: BFB	2200		992.1		222	15	244			

Sample ID: 2309973-001amsd	SampType: MSD			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: BS23-31 .5'	Batch ID: 77616			RunNo: 99842						
Prep Date: 9/19/2023	Analysis Date: 9/20/2023			SeqNo: 3651688		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	24.78	0	94.1	70	130	5.84	20	
Surr: BFB	2100		991.1		217	15	244	0	0	

Sample ID: ics-77620	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 77620			RunNo: 99922						
Prep Date: 9/19/2023	Analysis Date: 9/22/2023			SeqNo: 3655351		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.7	70	130			
Surr: BFB	2000		1000		200	15	244			

Sample ID: MB-77620	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 77620			RunNo: 99922						
Prep Date: 9/19/2023	Analysis Date: 9/22/2023			SeqNo: 3655353		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**WO#: **2309973****29-Sep-23****Client:** Vertex Resources Services, Inc.**Project:** Agate PWU 2122 062H

Sample ID: MB-77620	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 77620		RunNo: 99922							
Prep Date: 9/19/2023	Analysis Date: 9/22/2023		SeqNo: 3655353		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	960		1000		95.6	15	244			

Sample ID: 2309973-021ams	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: BS23-52 7'	Batch ID: 77620		RunNo: 99922							
Prep Date: 9/19/2023	Analysis Date: 9/23/2023		SeqNo: 3655357		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.9	24.37	0	83.9	70	130			
Surr: BFB	1900		974.7		194	15	244			

Sample ID: 2309973-021amsd	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: BS23-52 7'	Batch ID: 77620		RunNo: 99922							
Prep Date: 9/19/2023	Analysis Date: 9/23/2023		SeqNo: 3655358		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.9	24.53	0	84.0	70	130	0.828	20	
Surr: BFB	1900		981.4		194	15	244	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309973

29-Sep-23

Client: Vertex Resources Services, Inc.
Project: Agate PWU 2122 062H

Sample ID: Ics-77616		SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
Client ID: LCSS		Batch ID: 77616			RunNo: 99842					
Prep Date: 9/19/2023		Analysis Date: 9/20/2023			SeqNo: 3651714		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	70	130			
Toluene	0.87	0.050	1.000	0	87.3	70	130			
Ethylbenzene	0.89	0.050	1.000	0	89.1	70	130			
Xylenes, Total	2.7	0.10	3.000	0	89.0	70	130			
Surr: 4-Bromofluorobenzene	0.89		1.000		88.9	39.1	146			

Sample ID: mb-77616		SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID: PBS		Batch ID: 77616			RunNo: 99842					
Prep Date: 9/19/2023		Analysis Date: 9/20/2023			SeqNo: 3651715		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	0.86		1.000		85.9	39.1	146			

Sample ID: 2309973-002ams		SampType: MS			TestCode: EPA Method 8021B: Volatiles					
Client ID: BS23-32 .5'		Batch ID: 77616			RunNo: 99842					
Prep Date: 9/19/2023		Analysis Date: 9/20/2023			SeqNo: 3651718		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	0.9862	0	91.0	70	130			
Toluene	0.90	0.049	0.9862	0	91.0	70	130			
Ethylbenzene	0.92	0.049	0.9862	0	92.9	70	130			
Xylenes, Total	2.7	0.099	2.959	0	92.1	70	130			
Surr: 4-Bromofluorobenzene	0.86		0.9862		87.1	39.1	146			

Sample ID: 2309973-002amsd		SampType: MSD			TestCode: EPA Method 8021B: Volatiles					
Client ID: BS23-32 .5'		Batch ID: 77616			RunNo: 99842					
Prep Date: 9/19/2023		Analysis Date: 9/20/2023			SeqNo: 3651719		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	0.9911	0	91.5	70	130	1.07	20	
Toluene	0.92	0.050	0.9911	0	92.4	70	130	2.02	20	
Ethylbenzene	0.93	0.050	0.9911	0	93.9	70	130	1.62	20	
Xylenes, Total	2.8	0.099	2.973	0	93.4	70	130	1.89	20	
Surr: 4-Bromofluorobenzene	0.91		0.9911		91.5	39.1	146	0	0	

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309973

29-Sep-23

Client: Vertex Resources Services, Inc.**Project:** Agate PWU 2122 062H

Sample ID: LCS-77620	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 77620		RunNo: 99922							
Prep Date: 9/19/2023	Analysis Date: 9/22/2023		SeqNo: 3655471		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	99.8	70	130			
Toluene	1.0	0.050	1.000	0	99.8	70	130			
Ethylbenzene	1.0	0.050	1.000	0	99.8	70	130			
Xylenes, Total	3.0	0.10	3.000	0	101	70	130			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	39.1	146			

Sample ID: MB-77620	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 77620		RunNo: 99922							
Prep Date: 9/19/2023	Analysis Date: 9/22/2023		SeqNo: 3655474		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		104	39.1	146			

Sample ID: 2309973-022ams	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: BS23-53 7'	Batch ID: 77620		RunNo: 99922							
Prep Date: 9/19/2023	Analysis Date: 9/23/2023		SeqNo: 3655529		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9901	0	104	70	130			
Toluene	1.0	0.050	0.9901	0	104	70	130			
Ethylbenzene	1.0	0.050	0.9901	0	105	70	130			
Xylenes, Total	3.1	0.099	2.970	0	106	70	130			
Surr: 4-Bromofluorobenzene	1.0		0.9901		102	39.1	146			

Sample ID: 2309973-022amsd	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: BS23-53 7'	Batch ID: 77620		RunNo: 99922							
Prep Date: 9/19/2023	Analysis Date: 9/23/2023		SeqNo: 3655530		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9921	0	105	70	130	1.53	20	
Toluene	1.0	0.050	0.9921	0	106	70	130	1.83	20	
Ethylbenzene	1.0	0.050	0.9921	0	106	70	130	0.748	20	
Xylenes, Total	3.2	0.099	2.976	0	106	70	130	0.617	20	
Surr: 4-Bromofluorobenzene	1.0		0.9921		101	39.1	146	0	0	

Qualifiers:

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



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: Vertex Resources
Services, Inc.

Work Order Number: 2309973

RcptNo: 1

Received By: Juan Rojas

9/19/2023 7:35:00 AM

Completed By: Tracy Casarrubias

9/19/2023 7:54:00 AM

Reviewed By: *JA 9-19-23*

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: *juan/9/23*

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: Mailing address, phone number and Email/Fax are missing on COC- TMC 9/19/23

16. Additional remarks: *Missing sample -024, mark off COC for Ema cme 9/19/23*

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good	Yes	Yogi		

Chain-of-Custody Record

Client: Vertex (Devon)Mailing Address: On File

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC ☐ Other☐ EDD (Type)

Turn-Around Time:

☐ Standard☒ Rush 3 DAY

Project Name:

2122Agate PWU #062H

Project #:

23E-01653

Project Manager:

Kent StallingsSampler: ZachOn Ice: ☐ Yes ☐ No# of Coolers: 1Cooler Temp (including CP): 7.3-10.1-2.4 (°C)

Container Type and #

Preservative Type

HEAL No.

7309973

Type and #

1 JarICE001002003004005006007008009010011012013014015016017018019020021022023024025026027028029030031032033034035036037038039040041042043044045046047048049050051052053054055056057058059060061062063064065066067068069070071072073074075076077078079080081082083084085086087088089090091092093094095096097098099100101102103104105106107108109110111112113114115116117118119120121122123124125126127128129130131132133134135136137138139140141142143144145146147148149150151152153154155156157158159160161162163164165166167168169170171172173174175176177178179180181182183184185186187188189190191192193194195196197198199200201202203204205206207208209210211212213214215216217218219220221222223224225226227228229230231232233234235236237238239240241242243244245246247248249250251252253254255256257258259260261262263264265266267268269270271272273274275276277278279280281282283284285286

Chain-of-Custody Record

Client: Vertex (Devon)

Mailing Address: On File

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC ☐ Other☐ EDD (Type)

Turn-Around Time:

☐ Standard ☒ Rush 3 DAY

Project Name: 2122

Agate RWL#062H

Project #:

23E-01653

Project Manager:

Kent Stallings

Sampler: Zach

On Ice: ☒ Yes ☐ No

of Coolers: 1

yocai

Cooler Temp (including cF): 73 to 81 = 2.9 (°C)

yocai

HEAL No. 7309973

Container Type and #

Preservative Type

ICE

013 012

014 013

015 014

016 015

017 016

018 017

019 018

020 019

021 020

022 021

023 022

024 023

025 024

026 025

027 026

028 027

029 028

030 029

031 030

032 031

033 032

034 033

035 034

036 035

037 036

038 037

Analysis Request

BTEX / MTBE / TMB's (8021)

TPH:8015D(GRO / DRO / MRO)

8081 Pesticides/8082 PCB's

EDB (Method 504.1)

PAHs by 8310 or 8270SIMS

RCRA 8 Metals

Cl, F, Br, NO₃, NO₂, PO₄, SO₄

8260 (VOA)

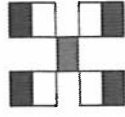
8270 (Semi-VOA)

Total Coliform (Present/Absent)

Remarks: direct bill to Devon

CC: Kstallings@vertex.ca

Chain-of-Custody Record

[illegible]

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

[illegible]



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

October 04, 2023

Kent Stallings

Vertex Resources Services, Inc.

3101 Boyd Drive

Carlsbad, NM 88220

TEL: (505) 506-0040

FAX:

RE: Agate PWU 21 22 062H

OrderNo.: 2309D01

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 35 sample(s) on 9/23/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2309D01
Date Reported: 10/4/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH23-57 5'
Project: Agate PWU 21 22 062H Collection Date: 9/21/2023 9:00:00 AM
Lab ID: 2309D01-001 Matrix: SOIL Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/26/2023 5:04:06 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/26/2023 5:04:06 PM
Surr: DNOP	95.1	69-147		%Rec	1	9/26/2023 5:04:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/27/2023 3:28:00 AM
Surr: BFB	100	15-244		%Rec	1	9/27/2023 3:28:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/27/2023 3:28:00 AM
Toluene	ND	0.048		mg/Kg	1	9/27/2023 3:28:00 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/27/2023 3:28:00 AM
Xylenes, Total	ND	0.096		mg/Kg	1	9/27/2023 3:28:00 AM
Surr: 4-Bromofluorobenzene	88.3	39.1-146		%Rec	1	9/27/2023 3:28:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/27/2023 9:34:13 AM

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

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

Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-58 5'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 9:10:00 AM

Lab ID: 2309D01-002

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/26/2023 5:15:18 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/26/2023 5:15:18 PM
Surr: DNOP	94.3	69-147		%Rec	1	9/26/2023 5:15:18 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/27/2023 3:50:00 AM
Surr: BFB	105	15-244		%Rec	1	9/27/2023 3:50:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.023		mg/Kg	1	9/27/2023 3:50:00 AM
Toluene	ND	0.046		mg/Kg	1	9/27/2023 3:50:00 AM
Ethylbenzene	ND	0.046		mg/Kg	1	9/27/2023 3:50:00 AM
Xylenes, Total	ND	0.092		mg/Kg	1	9/27/2023 3:50:00 AM
Surr: 4-Bromofluorobenzene	89.8	39.1-146		%Rec	1	9/27/2023 3:50:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/27/2023 9:46:37 AM

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

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

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Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-59 5'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 9:20:00 AM

Lab ID: 2309D01-003

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/26/2023 5:26:29 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/26/2023 5:26:29 PM
Surr: DNOP	95.2	69-147		%Rec	1	9/26/2023 5:26:29 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/27/2023 4:11:00 AM
Surr: BFB	100	15-244		%Rec	1	9/27/2023 4:11:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/27/2023 4:11:00 AM
Toluene	ND	0.048		mg/Kg	1	9/27/2023 4:11:00 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/27/2023 4:11:00 AM
Xylenes, Total	ND	0.096		mg/Kg	1	9/27/2023 4:11:00 AM
Surr: 4-Bromofluorobenzene	89.8	39.1-146		%Rec	1	9/27/2023 4:11:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/27/2023 11:13:28 AM

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

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

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Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-60 5'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 9:30:00 AM

Lab ID: 2309D01-004

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/26/2023 5:37:42 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/26/2023 5:37:42 PM
Surr: DNOP	96.1	69-147		%Rec	1	9/26/2023 5:37:42 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/27/2023 4:33:00 AM
Surr: BFB	99.8	15-244		%Rec	1	9/27/2023 4:33:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/27/2023 4:33:00 AM
Toluene	ND	0.049		mg/Kg	1	9/27/2023 4:33:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/27/2023 4:33:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	9/27/2023 4:33:00 AM
Surr: 4-Bromofluorobenzene	90.8	39.1-146		%Rec	1	9/27/2023 4:33:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	59		mg/Kg	20	9/27/2023 11:25:53 AM

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2309D01
Date Reported: 10/4/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH23-61 5'
Project: Agate PWU 21 22 062H Collection Date: 9/21/2023 9:40:00 AM
Lab ID: 2309D01-005 Matrix: SOIL Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/26/2023 5:48:59 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/26/2023 5:48:59 PM
Surr: DNOP	101	69-147		%Rec	1	9/26/2023 5:48:59 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/27/2023 4:55:00 AM
Surr: BFB	104	15-244		%Rec	1	9/27/2023 4:55:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/27/2023 4:55:00 AM
Toluene	ND	0.048		mg/Kg	1	9/27/2023 4:55:00 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/27/2023 4:55:00 AM
Xylenes, Total	ND	0.096		mg/Kg	1	9/27/2023 4:55:00 AM
Surr: 4-Bromofluorobenzene	92.3	39.1-146		%Rec	1	9/27/2023 4:55:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/27/2023 11:38:17 AM

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

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

Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-62 5'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 9:50:00 AM

Lab ID: 2309D01-006

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/26/2023 6:00:14 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/26/2023 6:00:14 PM
Surr: DNOP	94.4	69-147		%Rec	1	9/26/2023 6:00:14 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/27/2023 5:17:00 AM
Surr: BFB	103	15-244		%Rec	1	9/27/2023 5:17:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/27/2023 5:17:00 AM
Toluene	ND	0.049		mg/Kg	1	9/27/2023 5:17:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/27/2023 5:17:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	9/27/2023 5:17:00 AM
Surr: 4-Bromofluorobenzene	91.3	39.1-146		%Rec	1	9/27/2023 5:17:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	67	60		mg/Kg	20	9/27/2023 11:50:42 AM

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

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

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Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-63 4'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 10:00:00 AM

Lab ID: 2309D01-007

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/26/2023 6:11:30 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/26/2023 6:11:30 PM
Surr: DNOP	97.2	69-147		%Rec	1	9/26/2023 6:11:30 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/27/2023 5:38:00 AM
Surr: BFB	96.3	15-244		%Rec	1	9/27/2023 5:38:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/27/2023 5:38:00 AM
Toluene	ND	0.048		mg/Kg	1	9/27/2023 5:38:00 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/27/2023 5:38:00 AM
Xylenes, Total	ND	0.095		mg/Kg	1	9/27/2023 5:38:00 AM
Surr: 4-Bromofluorobenzene	88.6	39.1-146		%Rec	1	9/27/2023 5:38:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/27/2023 12:03:06 PM

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2309D01
Date Reported: 10/4/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH23-64 4'
Project: Agate PWU 21 22 062H Collection Date: 9/21/2023 10:10:00 AM
Lab ID: 2309D01-008 Matrix: SOIL Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/26/2023 6:22:47 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/26/2023 6:22:47 PM
Surr: DNOP	97.0	69-147		%Rec	1	9/26/2023 6:22:47 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/27/2023 6:00:00 AM
Surr: BFB	96.8	15-244		%Rec	1	9/27/2023 6:00:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/27/2023 6:00:00 AM
Toluene	ND	0.050		mg/Kg	1	9/27/2023 6:00:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	9/27/2023 6:00:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	9/27/2023 6:00:00 AM
Surr: 4-Bromofluorobenzene	86.3	39.1-146		%Rec	1	9/27/2023 6:00:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/27/2023 12:15:31 PM

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

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

Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-65 4'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 10:20:00 AM

Lab ID: 2309D01-009

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/26/2023 6:34:04 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/26/2023 6:34:04 PM
Surr: DNOP	95.3	69-147		%Rec	1	9/26/2023 6:34:04 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/27/2023 6:22:00 AM
Surr: BFB	101	15-244		%Rec	1	9/27/2023 6:22:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/27/2023 6:22:00 AM
Toluene	ND	0.049		mg/Kg	1	9/27/2023 6:22:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/27/2023 6:22:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	9/27/2023 6:22:00 AM
Surr: 4-Bromofluorobenzene	88.4	39.1-146		%Rec	1	9/27/2023 6:22:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/27/2023 12:52:44 PM

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

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

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CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-66 4'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 10:30:00 AM

Lab ID: 2309D01-010

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/26/2023 6:45:20 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/26/2023 6:45:20 PM
Surr: DNOP	96.3	69-147		%Rec	1	9/26/2023 6:45:20 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/27/2023 6:44:00 AM
Surr: BFB	96.4	15-244		%Rec	1	9/27/2023 6:44:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/27/2023 6:44:00 AM
Toluene	ND	0.049		mg/Kg	1	9/27/2023 6:44:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/27/2023 6:44:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	9/27/2023 6:44:00 AM
Surr: 4-Bromofluorobenzene	88.2	39.1-146		%Rec	1	9/27/2023 6:44:00 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	59		mg/Kg	20	9/27/2023 1:05:09 PM

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

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

Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-67 4'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 10:40:00 AM

Lab ID: 2309D01-011

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/27/2023 11:37:13 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/27/2023 11:37:13 AM
Surr: DNOP	106	69-147		%Rec	1	9/27/2023 11:37:13 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/27/2023 1:55:02 AM
Surr: BFB	93.7	15-244		%Rec	1	9/27/2023 1:55:02 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/27/2023 1:55:02 AM
Toluene	ND	0.048		mg/Kg	1	9/27/2023 1:55:02 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/27/2023 1:55:02 AM
Xylenes, Total	ND	0.096		mg/Kg	1	9/27/2023 1:55:02 AM
Surr: 4-Bromofluorobenzene	100	39.1-146		%Rec	1	9/27/2023 1:55:02 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/27/2023 1:17:34 PM

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

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

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Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH23-68 4'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 10:50:00 AM

Lab ID: 2309D01-012

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/27/2023 12:48:31 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/27/2023 12:48:31 PM
Surr: DNOP	104	69-147		%Rec	1	9/27/2023 12:48:31 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/27/2023 2:18:31 AM
Surr: BFB	93.4	15-244		%Rec	1	9/27/2023 2:18:31 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/27/2023 2:18:31 AM
Toluene	ND	0.048		mg/Kg	1	9/27/2023 2:18:31 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/27/2023 2:18:31 AM
Xylenes, Total	ND	0.096		mg/Kg	1	9/27/2023 2:18:31 AM
Surr: 4-Bromofluorobenzene	99.6	39.1-146		%Rec	1	9/27/2023 2:18:31 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/27/2023 1:29:58 PM

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

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

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Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-69 4'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 11:00:00 AM

Lab ID: 2309D01-013

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/27/2023 1:12:15 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/27/2023 1:12:15 PM
Surr: DNOP	135	69-147		%Rec	1	9/27/2023 1:12:15 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/27/2023 2:42:07 AM
Surr: BFB	95.3	15-244		%Rec	1	9/27/2023 2:42:07 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	9/27/2023 2:42:07 AM
Toluene	ND	0.050		mg/Kg	1	9/27/2023 2:42:07 AM
Ethylbenzene	ND	0.050		mg/Kg	1	9/27/2023 2:42:07 AM
Xylenes, Total	ND	0.10		mg/Kg	1	9/27/2023 2:42:07 AM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	9/27/2023 2:42:07 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	79	60		mg/Kg	20	9/27/2023 1:42:22 PM

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

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

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Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-70 4'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 11:10:00 AM

Lab ID: 2309D01-014

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/27/2023 4:49:06 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/27/2023 4:49:06 PM
Surr: DNOP	117	69-147		%Rec	1	9/27/2023 4:49:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/27/2023 3:05:42 AM
Surr: BFB	94.2	15-244		%Rec	1	9/27/2023 3:05:42 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/27/2023 3:05:42 AM
Toluene	ND	0.048		mg/Kg	1	9/27/2023 3:05:42 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/27/2023 3:05:42 AM
Xylenes, Total	ND	0.097		mg/Kg	1	9/27/2023 3:05:42 AM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	9/27/2023 3:05:42 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/27/2023 1:54:47 PM

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

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

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-71 4'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 11:20:00 AM

Lab ID: 2309D01-015

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/27/2023 5:13:12 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/27/2023 5:13:12 PM
Surr: DNOP	108	69-147		%Rec	1	9/27/2023 5:13:12 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/27/2023 3:29:21 AM
Surr: BFB	93.8	15-244		%Rec	1	9/27/2023 3:29:21 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/27/2023 3:29:21 AM
Toluene	ND	0.048		mg/Kg	1	9/27/2023 3:29:21 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/27/2023 3:29:21 AM
Xylenes, Total	ND	0.097		mg/Kg	1	9/27/2023 3:29:21 AM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	9/27/2023 3:29:21 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/27/2023 2:07:12 PM

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

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

Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-72 5'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 11:30:00 AM

Lab ID: 2309D01-016

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/27/2023 5:37:18 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/27/2023 5:37:18 PM
Surr: DNOP	106	69-147		%Rec	1	9/27/2023 5:37:18 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/27/2023 3:52:53 AM
Surr: BFB	93.5	15-244		%Rec	1	9/27/2023 3:52:53 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/27/2023 3:52:53 AM
Toluene	ND	0.048		mg/Kg	1	9/27/2023 3:52:53 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/27/2023 3:52:53 AM
Xylenes, Total	ND	0.096		mg/Kg	1	9/27/2023 3:52:53 AM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	9/27/2023 3:52:53 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	140	60		mg/Kg	20	9/27/2023 2:19:36 PM

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

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

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Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-73 5'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 11:40:00 AM

Lab ID: 2309D01-017

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/27/2023 6:01:40 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/27/2023 6:01:40 PM
Surr: DNOP	108	69-147		%Rec	1	9/27/2023 6:01:40 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/27/2023 4:16:28 AM
Surr: BFB	93.8	15-244		%Rec	1	9/27/2023 4:16:28 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/27/2023 4:16:28 AM
Toluene	ND	0.049		mg/Kg	1	9/27/2023 4:16:28 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/27/2023 4:16:28 AM
Xylenes, Total	ND	0.097		mg/Kg	1	9/27/2023 4:16:28 AM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	9/27/2023 4:16:28 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	61	60		mg/Kg	20	9/27/2023 2:32:01 PM

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

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

Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-74 4'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 11:50:00 AM

Lab ID: 2309D01-018

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/27/2023 6:26:16 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/27/2023 6:26:16 PM
Surr: DNOP	120	69-147		%Rec	1	9/27/2023 6:26:16 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/27/2023 4:40:03 AM
Surr: BFB	94.4	15-244		%Rec	1	9/27/2023 4:40:03 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/27/2023 4:40:03 AM
Toluene	ND	0.049		mg/Kg	1	9/27/2023 4:40:03 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/27/2023 4:40:03 AM
Xylenes, Total	ND	0.098		mg/Kg	1	9/27/2023 4:40:03 AM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	9/27/2023 4:40:03 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	93	61		mg/Kg	20	9/27/2023 2:44:25 PM

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

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

Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-75 4'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 12:00:00 PM

Lab ID: 2309D01-019

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/27/2023 7:15:44 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/27/2023 7:15:44 PM
Surr: DNOP	113	69-147		%Rec	1	9/27/2023 7:15:44 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/27/2023 5:03:43 AM
Surr: BFB	96.1	15-244		%Rec	1	9/27/2023 5:03:43 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	9/27/2023 5:03:43 AM
Toluene	ND	0.049		mg/Kg	1	9/27/2023 5:03:43 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/27/2023 5:03:43 AM
Xylenes, Total	ND	0.098		mg/Kg	1	9/27/2023 5:03:43 AM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	9/27/2023 5:03:43 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/27/2023 3:21:39 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2309D01
Date Reported: 10/4/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS23-76 4'
Project: Agate PWU 21 22 062H Collection Date: 9/21/2023 12:10:00 PM
Lab ID: 2309D01-020 Matrix: SOIL Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/27/2023 7:40:33 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/27/2023 7:40:33 PM
Surr: DNOP	103	69-147		%Rec	1	9/27/2023 7:40:33 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/27/2023 5:27:20 AM
Surr: BFB	93.9	15-244		%Rec	1	9/27/2023 5:27:20 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/27/2023 5:27:20 AM
Toluene	ND	0.048		mg/Kg	1	9/27/2023 5:27:20 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/27/2023 5:27:20 AM
Xylenes, Total	ND	0.096		mg/Kg	1	9/27/2023 5:27:20 AM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	9/27/2023 5:27:20 AM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	9/27/2023 3:34:03 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2309D01
Date Reported: 10/4/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS23-77 4'
Project: Agate PWU 21 22 062H Collection Date: 9/21/2023 12:20:00 PM
Lab ID: 2309D01-021 Matrix: SOIL Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/27/2023 8:05:14 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/27/2023 8:05:14 PM
Surr: DNOP	120	69-147		%Rec	1	9/27/2023 8:05:14 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/27/2023 10:02:59 AM
Surr: BFB	94.7	15-244		%Rec	1	9/27/2023 10:02:59 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	9/27/2023 10:02:59 AM
Toluene	ND	0.049		mg/Kg	1	9/27/2023 10:02:59 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/27/2023 10:02:59 AM
Xylenes, Total	ND	0.099		mg/Kg	1	9/27/2023 10:02:59 AM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	9/27/2023 10:02:59 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	68	60		mg/Kg	20	9/27/2023 2:02:26 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2309D01
Date Reported: 10/4/2023

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-78 5'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 12:30:00 PM

Lab ID: 2309D01-022

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/27/2023 8:29:58 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/27/2023 8:29:58 PM
Surr: DNOP	111	69-147		%Rec	1	9/27/2023 8:29:58 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/27/2023 10:26:23 AM
Surr: BFB	95.3	15-244		%Rec	1	9/27/2023 10:26:23 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/27/2023 10:26:23 AM
Toluene	ND	0.049		mg/Kg	1	9/27/2023 10:26:23 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/27/2023 10:26:23 AM
Xylenes, Total	ND	0.098		mg/Kg	1	9/27/2023 10:26:23 AM
Surr: 4-Bromofluorobenzene	105	39.1-146		%Rec	1	9/27/2023 10:26:23 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	98	60		mg/Kg	20	9/27/2023 3:28:52 PM

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

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

Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-79 5'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 12:40:00 PM

Lab ID: 2309D01-023

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/27/2023 8:54:40 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/27/2023 8:54:40 PM
Surr: DNOP	105	69-147		%Rec	1	9/27/2023 8:54:40 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/27/2023 10:49:43 AM
Surr: BFB	95.7	15-244		%Rec	1	9/27/2023 10:49:43 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/27/2023 10:49:43 AM
Toluene	ND	0.048		mg/Kg	1	9/27/2023 10:49:43 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/27/2023 10:49:43 AM
Xylenes, Total	ND	0.097		mg/Kg	1	9/27/2023 10:49:43 AM
Surr: 4-Bromofluorobenzene	106	39.1-146		%Rec	1	9/27/2023 10:49:43 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/27/2023 3:41:13 PM

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

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

Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-80 4'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 12:50:00 PM

Lab ID: 2309D01-024

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/27/2023 9:19:14 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/27/2023 9:19:14 PM
Surr: DNOP	107	69-147		%Rec	1	9/27/2023 9:19:14 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/27/2023 11:13:05 AM
Surr: BFB	95.8	15-244		%Rec	1	9/27/2023 11:13:05 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/27/2023 11:13:05 AM
Toluene	ND	0.049		mg/Kg	1	9/27/2023 11:13:05 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/27/2023 11:13:05 AM
Xylenes, Total	ND	0.098		mg/Kg	1	9/27/2023 11:13:05 AM
Surr: 4-Bromofluorobenzene	105	39.1-146		%Rec	1	9/27/2023 11:13:05 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/27/2023 3:53:35 PM

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

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

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Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-81 2'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 1:00:00 PM

Lab ID: 2309D01-025

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/27/2023 9:43:57 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/27/2023 9:43:57 PM
Surr: DNOP	104	69-147		%Rec	1	9/27/2023 9:43:57 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/27/2023 11:36:41 AM
Surr: BFB	94.0	15-244		%Rec	1	9/27/2023 11:36:41 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/27/2023 11:36:41 AM
Toluene	ND	0.048		mg/Kg	1	9/27/2023 11:36:41 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/27/2023 11:36:41 AM
Xylenes, Total	ND	0.097		mg/Kg	1	9/27/2023 11:36:41 AM
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	9/27/2023 11:36:41 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/27/2023 4:05:55 PM

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

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

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Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-82 2'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 1:10:00 PM

Lab ID: 2309D01-026

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/27/2023 10:08:39 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/27/2023 10:08:39 PM
Surr: DNOP	107	69-147		%Rec	1	9/27/2023 10:08:39 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/27/2023 12:00:12 PM
Surr: BFB	95.4	15-244		%Rec	1	9/27/2023 12:00:12 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/27/2023 12:00:12 PM
Toluene	ND	0.048		mg/Kg	1	9/27/2023 12:00:12 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/27/2023 12:00:12 PM
Xylenes, Total	ND	0.095		mg/Kg	1	9/27/2023 12:00:12 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	9/27/2023 12:00:12 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/27/2023 4:18:16 PM

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

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

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Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-83 2'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 1:20:00 PM

Lab ID: 2309D01-027

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/27/2023 10:33:17 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/27/2023 10:33:17 PM
Surr: DNOP	105	69-147		%Rec	1	9/27/2023 10:33:17 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/27/2023 12:23:35 PM
Surr: BFB	94.1	15-244		%Rec	1	9/27/2023 12:23:35 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/27/2023 12:23:35 PM
Toluene	ND	0.049		mg/Kg	1	9/27/2023 12:23:35 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/27/2023 12:23:35 PM
Xylenes, Total	ND	0.097		mg/Kg	1	9/27/2023 12:23:35 PM
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	9/27/2023 12:23:35 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/27/2023 4:30:37 PM

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

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

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CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BS23-84 4'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 1:30:00 PM

Lab ID: 2309D01-028

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/27/2023 10:57:52 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/27/2023 10:57:52 PM
Surr: DNOP	106	69-147		%Rec	1	9/27/2023 10:57:52 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/27/2023 12:46:56 PM
Surr: BFB	93.5	15-244		%Rec	1	9/27/2023 12:46:56 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/27/2023 12:46:56 PM
Toluene	ND	0.048		mg/Kg	1	9/27/2023 12:46:56 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/27/2023 12:46:56 PM
Xylenes, Total	ND	0.096		mg/Kg	1	9/27/2023 12:46:56 PM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	9/27/2023 12:46:56 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/27/2023 4:42:58 PM

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

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

Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-85 4'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 1:40:00 PM

Lab ID: 2309D01-029

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/27/2023 11:22:27 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/27/2023 11:22:27 PM
Surr: DNOP	106	69-147		%Rec	1	9/27/2023 11:22:27 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/27/2023 1:10:26 PM
Surr: BFB	95.1	15-244		%Rec	1	9/27/2023 1:10:26 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	9/27/2023 1:10:26 PM
Toluene	ND	0.049		mg/Kg	1	9/27/2023 1:10:26 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/27/2023 1:10:26 PM
Xylenes, Total	ND	0.098		mg/Kg	1	9/27/2023 1:10:26 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	9/27/2023 1:10:26 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/27/2023 4:55:18 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2309D01
Date Reported: 10/4/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS23-86 4'
Project: Agate PWU 21 22 062H Collection Date: 9/21/2023 1:50:00 PM
Lab ID: 2309D01-030 Matrix: SOIL Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/27/2023 11:47:00 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/27/2023 11:47:00 PM
Surr: DNOP	105	69-147		%Rec	1	9/27/2023 11:47:00 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/27/2023 1:33:49 PM
Surr: BFB	94.2	15-244		%Rec	1	9/27/2023 1:33:49 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	9/27/2023 1:33:49 PM
Toluene	ND	0.049		mg/Kg	1	9/27/2023 1:33:49 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/27/2023 1:33:49 PM
Xylenes, Total	ND	0.097		mg/Kg	1	9/27/2023 1:33:49 PM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	9/27/2023 1:33:49 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/27/2023 5:07:38 PM

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

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

Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-87 7'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 2:00:00 PM

Lab ID: 2309D01-031

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/27/2023 8:11:09 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/27/2023 8:11:09 AM
Surr: DNOP	99.7	69-147		%Rec	1	9/27/2023 8:11:09 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/27/2023 10:43:00 AM
Surr: BFB	99.2	15-244		%Rec	1	9/27/2023 10:43:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/27/2023 10:43:00 AM
Toluene	ND	0.050		mg/Kg	1	9/27/2023 10:43:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	9/27/2023 10:43:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	9/27/2023 10:43:00 AM
Surr: 4-Bromofluorobenzene	89.3	39.1-146		%Rec	1	9/27/2023 10:43:00 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	280	60		mg/Kg	20	9/27/2023 5:19:59 PM

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2309D01
Date Reported: 10/4/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS23-88 7'
Project: Agate PWU 21 22 062H Collection Date: 9/21/2023 2:10:00 PM
Lab ID: 2309D01-032 Matrix: SOIL Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/27/2023 8:21:51 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/27/2023 8:21:51 AM
Surr: DNOP	85.0	69-147		%Rec	1	9/27/2023 8:21:51 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/27/2023 11:48:00 AM
Surr: BFB	102	15-244		%Rec	1	9/27/2023 11:48:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/27/2023 11:48:00 AM
Toluene	ND	0.049		mg/Kg	1	9/27/2023 11:48:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/27/2023 11:48:00 AM
Xylenes, Total	ND	0.097		mg/Kg	1	9/27/2023 11:48:00 AM
Surr: 4-Bromofluorobenzene	91.8	39.1-146		%Rec	1	9/27/2023 11:48:00 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	9/27/2023 5:57:02 PM

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

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

Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-89 7'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 2:20:00 PM

Lab ID: 2309D01-033

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/27/2023 8:32:33 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/27/2023 8:32:33 AM
Surr: DNOP	86.7	69-147		%Rec	1	9/27/2023 8:32:33 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/27/2023 12:53:00 PM
Surr: BFB	104	15-244		%Rec	1	9/27/2023 12:53:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/27/2023 12:53:00 PM
Toluene	ND	0.048		mg/Kg	1	9/27/2023 12:53:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/27/2023 12:53:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	9/27/2023 12:53:00 PM
Surr: 4-Bromofluorobenzene	90.9	39.1-146		%Rec	1	9/27/2023 12:53:00 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	290	60		mg/Kg	20	9/27/2023 6:09:24 PM

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

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

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Analytical Report

Lab Order 2309D01

Date Reported: 10/4/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: WS23-90 7'

Project: Agate PWU 21 22 062H

Collection Date: 9/21/2023 2:30:00 PM

Lab ID: 2309D01-034

Matrix: SOIL

Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/27/2023 8:43:15 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/27/2023 8:43:15 AM
Surr: DNOP	86.6	69-147		%Rec	1	9/27/2023 8:43:15 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/27/2023 1:15:00 PM
Surr: BFB	99.6	15-244		%Rec	1	9/27/2023 1:15:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	9/27/2023 1:15:00 PM
Toluene	ND	0.048		mg/Kg	1	9/27/2023 1:15:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/27/2023 1:15:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	9/27/2023 1:15:00 PM
Surr: 4-Bromofluorobenzene	89.1	39.1-146		%Rec	1	9/27/2023 1:15:00 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	410	60		mg/Kg	20	9/27/2023 6:21:45 PM

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2309D01
Date Reported: 10/4/2023

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS23-91 7'
Project: Agate PWU 21 22 062H Collection Date: 9/21/2023 2:40:00 PM
Lab ID: 2309D01-035 Matrix: SOIL Received Date: 9/23/2023 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/27/2023 8:53:58 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/27/2023 8:53:58 AM
Surr: DNOP	87.1	69-147		%Rec	1	9/27/2023 8:53:58 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/27/2023 1:37:00 PM
Surr: BFB	103	15-244		%Rec	1	9/27/2023 1:37:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	9/27/2023 1:37:00 PM
Toluene	ND	0.049		mg/Kg	1	9/27/2023 1:37:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/27/2023 1:37:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	9/27/2023 1:37:00 PM
Surr: 4-Bromofluorobenzene	90.2	39.1-146		%Rec	1	9/27/2023 1:37:00 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	110	60		mg/Kg	20	9/27/2023 6:34:06 PM

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309D0104-Oct-23

Client: Vertex Resources Services, Inc.
Project: Agate PWU 21 22 062H

Sample ID: MB-77789	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 77789	RunNo: 100043
Prep Date: 9/27/2023	Analysis Date: 9/27/2023	SeqNo: 3660556Units: mg/Kg
Analyte	Result	PQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPD RPDLimitQual
Chloride	ND	1.5

Sample ID: LCS-77789	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 77789	RunNo: 100043
Prep Date: 9/27/2023	Analysis Date: 9/27/2023	SeqNo: 3660557Units: mg/Kg
Analyte	Result	PQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPD RPDLimitQual
Chloride	14	1.515.00092.690110

Sample ID: MB-77783	SampType: mblk	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 77783	RunNo: 100055
Prep Date: 9/27/2023	Analysis Date: 9/27/2023	SeqNo: 3661180Units: mg/Kg
Analyte	Result	PQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPD RPDLimitQual
Chloride	ND	1.5

Sample ID: LCS-77783	SampType: lcs	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 77783	RunNo: 100055
Prep Date: 9/27/2023	Analysis Date: 9/27/2023	SeqNo: 3661181Units: mg/Kg
Analyte	Result	PQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPD RPDLimitQual
Chloride	14	1.515.00093.190110

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309D01

04-Oct-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Sample ID: LCS-77762	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 77762		RunNo: 100003							
Prep Date: 9/26/2023	Analysis Date: 9/26/2023		SeqNo: 3658233		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.1	61.9	130			
Surr: DNOP	4.6		5.000		91.4	69	147			

Sample ID: LCS-77774	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 77774		RunNo: 100003							
Prep Date: 9/26/2023	Analysis Date: 9/27/2023		SeqNo: 3658235		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	106	61.9	130			
Surr: DNOP	4.8		5.000		96.7	69	147			

Sample ID: MB-77762	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 77762		RunNo: 100003							
Prep Date: 9/26/2023	Analysis Date: 9/26/2023		SeqNo: 3658241		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	9.2		10.00		91.7	69	147			

Sample ID: MB-77774	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 77774		RunNo: 100003							
Prep Date: 9/26/2023	Analysis Date: 9/27/2023		SeqNo: 3658244		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	69	147			

Sample ID: MB-77766	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 77766		RunNo: 100028							
Prep Date: 9/26/2023	Analysis Date: 9/27/2023		SeqNo: 3659773		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	11		10.00		108	69	147			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309D01

04-Oct-23

Client: Vertex Resources Services, Inc.**Project:** Agate PWU 21 22 062H

Sample ID: LCS-77766	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 77766		RunNo: 100028							
Prep Date: 9/26/2023	Analysis Date: 9/27/2023		SeqNo: 3659774		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	108	61.9	130			
Surr: DNOP	5.5		5.000		110	69	147			

Sample ID: 2309D01-011AMS	SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: BH23-67 4'	Batch ID: 77766		RunNo: 100028							
Prep Date: 9/26/2023	Analysis Date: 9/27/2023		SeqNo: 3659776		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	9.8	49.21	0	109	54.2	135			
Surr: DNOP	5.4		4.921		110	69	147			

Sample ID: 2309D01-011AMSD	SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: BH23-67 4'	Batch ID: 77766		RunNo: 100028							
Prep Date: 9/26/2023	Analysis Date: 9/27/2023		SeqNo: 3659777		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	9.7	48.54	0	103	54.2	135	7.45	29.2	
Surr: DNOP	5.0		4.854		104	69	147	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309D01

04-Oct-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Sample ID: mb-77745	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range
Client ID: PBS	Batch ID: 77745	RunNo: 99975
Prep Date: 9/25/2023	Analysis Date: 9/27/2023	SeqNo: 3658600 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	930	1000 92.7 15 244

Sample ID: lcs-77745	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range
Client ID: LCSS	Batch ID: 77745	RunNo: 99975
Prep Date: 9/25/2023	Analysis Date: 9/27/2023	SeqNo: 3658613 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	20	5.0 25.00 0 79.3 70 130
Surr: BFB	1900	1000 191 15 244

Sample ID: 2309d01-011ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range
Client ID: BH23-67 4'	Batch ID: 77745	RunNo: 99975
Prep Date: 9/25/2023	Analysis Date: 9/27/2023	SeqNo: 3658631 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	20	4.8 24.06 0 85.0 70 130
Surr: BFB	1900	962.5 201 15 244

Sample ID: 2309d01-011amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range
Client ID: BH23-67 4'	Batch ID: 77745	RunNo: 99975
Prep Date: 9/25/2023	Analysis Date: 9/27/2023	SeqNo: 3658632 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	19	4.8 23.99 0 80.9 70 130 5.30 20
Surr: BFB	1900	959.7 197 15 244 0 0

Sample ID: lcs-77741	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range
Client ID: LCSS	Batch ID: 77741	RunNo: 100014
Prep Date: 9/25/2023	Analysis Date: 9/26/2023	SeqNo: 3658960 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	23	5.0 25.00 0 90.4 70 130
Surr: BFB	2200	1000 216 15 244

Sample ID: mb-77741	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range
Client ID: PBS	Batch ID: 77741	RunNo: 100014
Prep Date: 9/25/2023	Analysis Date: 9/26/2023	SeqNo: 3658961 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309D01
04-Oct-23

Client: Vertex Resources Services, Inc.
Project: Agate PWU 21 22 062H

Sample ID: mb-77741	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 77741	RunNo: 100014								
Prep Date: 9/25/2023	Analysis Date: 9/26/2023	SeqNo: 3658961		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	970		1000		97.5	15	244			

Sample ID: lcs-77759	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 77759	RunNo: 100002								
Prep Date: 9/26/2023	Analysis Date: 9/27/2023	SeqNo: 3660788		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.6	70	130			
Surr: BFB	2300		1000		227	15	244			

Sample ID: mb-77759	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 77759	RunNo: 100002								
Prep Date: 9/26/2023	Analysis Date: 9/27/2023	SeqNo: 3660790		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	15	244			

Sample ID: 2309d01-031ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: WS23-87 7'	Batch ID: 77759	RunNo: 100002								
Prep Date: 9/26/2023	Analysis Date: 9/27/2023	SeqNo: 3660793		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	24.85	0	98.1	70	130			
Surr: BFB	2300		994.0		230	15	244			

Sample ID: 2309d01-031amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: WS23-87 7'	Batch ID: 77759	RunNo: 100002								
Prep Date: 9/26/2023	Analysis Date: 9/27/2023	SeqNo: 3660795		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	24.88	0	96.4	70	130	1.63	20	
Surr: BFB	2400		995.0		238	15	244	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309D01

04-Oct-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Sample ID: LCS-77745	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 77745		RunNo: 99975							
Prep Date: 9/25/2023	Analysis Date: 9/27/2023		SeqNo: 3658691		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.5	70	130			
Toluene	0.96	0.050	1.000	0	96.1	70	130			
Ethylbenzene	0.96	0.050	1.000	0	96.3	70	130			
Xylenes, Total	2.9	0.10	3.000	0	96.4	70	130			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	39.1	146			

Sample ID: mb-77745	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 77745		RunNo: 99975							
Prep Date: 9/25/2023	Analysis Date: 9/27/2023		SeqNo: 3658692		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	39.1	146			

Sample ID: 2309d01-012ams	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: BH23-68 4'	Batch ID: 77745		RunNo: 99975							
Prep Date: 9/25/2023	Analysis Date: 9/27/2023		SeqNo: 3658695		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.024	0.9579	0	95.3	70	130			
Toluene	0.93	0.048	0.9579	0	97.3	70	130			
Ethylbenzene	0.94	0.048	0.9579	0	98.6	70	130			
Xylenes, Total	2.8	0.096	2.874	0	98.6	70	130			
Surr: 4-Bromofluorobenzene	1.0		0.9579		105	39.1	146			

Sample ID: 2309d01-012amsd	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: BH23-68 4'	Batch ID: 77745		RunNo: 99975							
Prep Date: 9/25/2023	Analysis Date: 9/27/2023		SeqNo: 3658696		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.024	0.9533	0	99.4	70	130	3.73	20	
Toluene	0.96	0.048	0.9533	0	101	70	130	3.41	20	
Ethylbenzene	0.98	0.048	0.9533	0	103	70	130	4.06	20	
Xylenes, Total	2.9	0.095	2.860	0	103	70	130	3.97	20	
Surr: 4-Bromofluorobenzene	0.99		0.9533		103	39.1	146	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309D01

04-Oct-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Sample ID: ics-77741	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 77741		RunNo: 100014							
Prep Date: 9/25/2023	Analysis Date: 9/26/2023		SeqNo: 3659114		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	84.8	70	130			
Toluene	0.85	0.050	1.000	0	85.3	70	130			
Ethylbenzene	0.87	0.050	1.000	0	87.2	70	130			
Xylenes, Total	2.6	0.10	3.000	0	87.0	70	130			
Surr: 4-Bromofluorobenzene	0.88		1.000		88.2	39.1	146			

Sample ID: mb-77741	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 77741		RunNo: 100014							
Prep Date: 9/25/2023	Analysis Date: 9/26/2023		SeqNo: 3659115		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	0.88		1.000		87.7	39.1	146			

Sample ID: ics-77759	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 77759		RunNo: 100002							
Prep Date: 9/26/2023	Analysis Date: 9/27/2023		SeqNo: 3660850		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	87.7	70	130			
Toluene	0.88	0.050	1.000	0	88.1	70	130			
Ethylbenzene	0.91	0.050	1.000	0	91.0	70	130			
Xylenes, Total	2.7	0.10	3.000	0	91.4	70	130			
Surr: 4-Bromofluorobenzene	0.94		1.000		93.9	39.1	146			

Sample ID: mb-77759	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 77759		RunNo: 100002							
Prep Date: 9/26/2023	Analysis Date: 9/27/2023		SeqNo: 3660851		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.91		1.000		91.0	39.1	146			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309D01

04-Oct-23

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Sample ID: 2309d01-032ams	SampType: MS			TestCode: EPA Method 8021B: Volatiles						
Client ID: WS23-88 7'	Batch ID: 77759			RunNo: 100002						
Prep Date: 9/26/2023	Analysis Date: 9/27/2023			SeqNo: 3660854		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.024	0.9756	0	93.6	70	130			
Toluene	0.94	0.049	0.9756	0	96.5	70	130			
Ethylbenzene	0.97	0.049	0.9756	0	99.4	70	130			
Xylenes, Total	2.9	0.098	2.927	0	99.6	70	130			
Surr: 4-Bromofluorobenzene	0.87		0.9756		89.3	39.1	146			

Sample ID: 2309d01-032amsd	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: WS23-88 7'	Batch ID: 77759		RunNo: 100002							
Prep Date: 9/26/2023	Analysis Date: 9/27/2023		SeqNo: 3660855		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.024	0.9681	0	89.0	70	130	5.82	20	
Toluene	0.88	0.048	0.9681	0	91.2	70	130	6.42	20	
Ethylbenzene	0.91	0.048	0.9681	0	93.9	70	130	6.51	20	
Xylenes, Total	2.7	0.097	2.904	0	94.3	70	130	6.33	20	
Surr: 4-Bromofluorobenzene	0.87		0.9681		90.1	39.1	146	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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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: Vertex Resources Services, Inc.

Work Order Number: 2309D01

RcptNo: 1

Received By: Juan Rojas

9/23/2023 7:20:00 AM

[Signature]

Completed By: Juan Rojas

9/23/2023 7:38:48 AM

[Signature]

Reviewed By:

[Signature] 9/23/23

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 $>0^{\circ}\text{C}$ 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: *Julia/23/23*

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:

Client missing mailing address, phone number, and email address. JR 9/23/23

17. Cooler Information

Samples - 001 thru - 012 and 031-035: Sample IDs on COC don't match bottle labels

W 10/3/23

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	No	Yogi		



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

Kent Stallings
Devon Energy
6488 Seven Rivers Highway
Artesia, NM 88210
TEL: (575) 748-0176
FAX:

RE: Agate PWU 21 22 62H

OrderNo.: 2310381

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 31 sample(s) on 10/7/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-04 2.5'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 8:40:00 AM

Lab ID: 2310381-001

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	10/11/2023 12:45:09 PM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	10/11/2023 12:45:09 PM
Surr: DNOP	97.8	69-147		%Rec	1	10/11/2023 12:45:09 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/10/2023 12:51:19 PM
Surr: BFB	95.2	15-244		%Rec	1	10/10/2023 12:51:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	10/10/2023 12:51:19 PM
Toluene	ND	0.049		mg/Kg	1	10/10/2023 12:51:19 PM
Ethylbenzene	ND	0.049		mg/Kg	1	10/10/2023 12:51:19 PM
Xylenes, Total	ND	0.097		mg/Kg	1	10/10/2023 12:51:19 PM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	10/10/2023 12:51:19 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	10/10/2023 2:48:51 PM

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

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

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Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-07 2.5'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 8:20:00 AM

Lab ID: 2310381-002

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/11/2023 1:08:51 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/11/2023 1:08:51 PM
Surr: DNOP	109	69-147		%Rec	1	10/11/2023 1:08:51 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/10/2023 1:15:06 PM
Surr: BFB	94.2	15-244		%Rec	1	10/10/2023 1:15:06 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	10/10/2023 1:15:06 PM
Toluene	ND	0.049		mg/Kg	1	10/10/2023 1:15:06 PM
Ethylbenzene	ND	0.049		mg/Kg	1	10/10/2023 1:15:06 PM
Xylenes, Total	ND	0.097		mg/Kg	1	10/10/2023 1:15:06 PM
Surr: 4-Bromofluorobenzene	100	39.1-146		%Rec	1	10/10/2023 1:15:06 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	10/10/2023 3:26:03 PM

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

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

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Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-11 3'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 8:30:00 AM

Lab ID: 2310381-003

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	10/11/2023 1:32:40 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	10/11/2023 1:32:40 PM
Surr: DNOP	102	69-147		%Rec	1	10/11/2023 1:32:40 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/10/2023 1:38:29 PM
Surr: BFB	94.4	15-244		%Rec	1	10/10/2023 1:38:29 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.023		mg/Kg	1	10/10/2023 1:38:29 PM
Toluene	ND	0.046		mg/Kg	1	10/10/2023 1:38:29 PM
Ethylbenzene	ND	0.046		mg/Kg	1	10/10/2023 1:38:29 PM
Xylenes, Total	ND	0.093		mg/Kg	1	10/10/2023 1:38:29 PM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	10/10/2023 1:38:29 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	72	60		mg/Kg	20	10/10/2023 4:03:16 PM

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

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

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Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-14 2.5'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 8:38:00 AM

Lab ID: 2310381-004

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	10/11/2023 1:56:35 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	10/11/2023 1:56:35 PM
Surr: DNOP	99.1	69-147		%Rec	1	10/11/2023 1:56:35 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/10/2023 2:01:56 PM
Surr: BFB	97.1	15-244		%Rec	1	10/10/2023 2:01:56 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.023		mg/Kg	1	10/10/2023 2:01:56 PM
Toluene	ND	0.046		mg/Kg	1	10/10/2023 2:01:56 PM
Ethylbenzene	ND	0.046		mg/Kg	1	10/10/2023 2:01:56 PM
Xylenes, Total	ND	0.093		mg/Kg	1	10/10/2023 2:01:56 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	10/10/2023 2:01:56 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	10/10/2023 4:15:40 PM

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

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

Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-17 2.5'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 8:35:00 AM

Lab ID: 2310381-005

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	10/11/2023 2:20:28 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	10/11/2023 2:20:28 PM
Surr: DNOP	89.6	69-147		%Rec	1	10/11/2023 2:20:28 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/10/2023 2:25:21 PM
Surr: BFB	93.2	15-244		%Rec	1	10/10/2023 2:25:21 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	10/10/2023 2:25:21 PM
Toluene	ND	0.049		mg/Kg	1	10/10/2023 2:25:21 PM
Ethylbenzene	ND	0.049		mg/Kg	1	10/10/2023 2:25:21 PM
Xylenes, Total	ND	0.097		mg/Kg	1	10/10/2023 2:25:21 PM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	10/10/2023 2:25:21 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	10/10/2023 4:52:53 PM

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

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

Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: WS23-22 0-2'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 10:25:00 AM

Lab ID: 2310381-006

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	930	9.3		mg/Kg	1	10/11/2023 2:44:21 PM
Motor Oil Range Organics (MRO)	520	47		mg/Kg	1	10/11/2023 2:44:21 PM
Surr: DNOP	119	69-147		%Rec	1	10/11/2023 2:44:21 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/10/2023 2:48:42 PM
Surr: BFB	94.6	15-244		%Rec	1	10/10/2023 2:48:42 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	10/10/2023 2:48:42 PM
Toluene	ND	0.049		mg/Kg	1	10/10/2023 2:48:42 PM
Ethylbenzene	ND	0.049		mg/Kg	1	10/10/2023 2:48:42 PM
Xylenes, Total	ND	0.098		mg/Kg	1	10/10/2023 2:48:42 PM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	10/10/2023 2:48:42 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	990	60		mg/Kg	20	10/10/2023 5:05:18 PM

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2310381

Date Reported:

CLIENT: Devon Energy Client Sample ID: WS23-23 0-2'
Project: Agate PWU 21 22 62H Collection Date: 10/5/2023 8:45:00 AM
Lab ID: 2310381-007 Matrix: SOIL Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	67	9.7		mg/Kg	1	10/11/2023 11:19:39 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/11/2023 11:19:39 AM
Surr: DNOP	106	69-147		%Rec	1	10/11/2023 11:19:39 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/10/2023 3:12:08 PM
Surr: BFB	94.7	15-244		%Rec	1	10/10/2023 3:12:08 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	10/10/2023 3:12:08 PM
Toluene	ND	0.050		mg/Kg	1	10/10/2023 3:12:08 PM
Ethylbenzene	ND	0.050		mg/Kg	1	10/10/2023 3:12:08 PM
Xylenes, Total	ND	0.099		mg/Kg	1	10/10/2023 3:12:08 PM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	10/10/2023 3:12:08 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	76	60		mg/Kg	20	10/10/2023 5:17:43 PM

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

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

Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: WS23-24 0-2'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 8:48:00 AM

Lab ID: 2310381-008

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/11/2023 11:43:58 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/11/2023 11:43:58 AM
Surr: DNOP	104	69-147		%Rec	1	10/11/2023 11:43:58 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/10/2023 3:35:33 PM
Surr: BFB	94.8	15-244		%Rec	1	10/10/2023 3:35:33 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.025		mg/Kg	1	10/10/2023 3:35:33 PM
Toluene	ND	0.049		mg/Kg	1	10/10/2023 3:35:33 PM
Ethylbenzene	ND	0.049		mg/Kg	1	10/10/2023 3:35:33 PM
Xylenes, Total	ND	0.098		mg/Kg	1	10/10/2023 3:35:33 PM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	10/10/2023 3:35:33 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	71	60		mg/Kg	20	10/10/2023 5:30:07 PM

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

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

Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: WS23-26 0-2'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 10:30:00 AM

Lab ID: 2310381-009

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/11/2023 12:08:19 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/11/2023 12:08:19 PM
Surr: DNOP	86.6	69-147		%Rec	1	10/11/2023 12:08:19 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/10/2023 3:59:01 PM
Surr: BFB	96.0	15-244		%Rec	1	10/10/2023 3:59:01 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	10/10/2023 3:59:01 PM
Toluene	ND	0.048		mg/Kg	1	10/10/2023 3:59:01 PM
Ethylbenzene	ND	0.048		mg/Kg	1	10/10/2023 3:59:01 PM
Xylenes, Total	ND	0.096		mg/Kg	1	10/10/2023 3:59:01 PM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	10/10/2023 3:59:01 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	10/10/2023 5:42:32 PM

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

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

Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: WS23-27 0-2'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 10:35:00 AM

Lab ID: 2310381-010

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/11/2023 12:32:40 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/11/2023 12:32:40 PM
Surr: DNOP	89.7	69-147		%Rec	1	10/11/2023 12:32:40 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/10/2023 4:22:36 PM
Surr: BFB	93.5	15-244		%Rec	1	10/10/2023 4:22:36 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	10/10/2023 4:22:36 PM
Toluene	ND	0.048		mg/Kg	1	10/10/2023 4:22:36 PM
Ethylbenzene	ND	0.048		mg/Kg	1	10/10/2023 4:22:36 PM
Xylenes, Total	ND	0.097		mg/Kg	1	10/10/2023 4:22:36 PM
Surr: 4-Bromofluorobenzene	100	39.1-146		%Rec	1	10/10/2023 4:22:36 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	10/10/2023 5:54:56 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2310381
Date Reported:

CLIENT: Devon Energy
Project: Agate PWU 21 22 62H
Lab ID: 2310381-011

Matrix: SOIL

Client Sample ID: WS23-28 0-3.5'
Collection Date: 10/5/2023 3:30:00 PM
Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	84	10		mg/Kg	1	10/11/2023 12:57:03 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/11/2023 12:57:03 PM
Surr: DNOP	88.5	69-147		%Rec	1	10/11/2023 12:57:03 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/10/2023 5:09:45 PM
Surr: BFB	93.2	15-244		%Rec	1	10/10/2023 5:09:45 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	10/10/2023 5:09:45 PM
Toluene	ND	0.048		mg/Kg	1	10/10/2023 5:09:45 PM
Ethylbenzene	ND	0.048		mg/Kg	1	10/10/2023 5:09:45 PM
Xylenes, Total	ND	0.095		mg/Kg	1	10/10/2023 5:09:45 PM
Surr: 4-Bromofluorobenzene	98.6	39.1-146		%Rec	1	10/10/2023 5:09:45 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	61	60		mg/Kg	20	10/10/2023 6:07:20 PM

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

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

Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-55 8'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 11:25:00 AM

Lab ID: 2310381-012

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	15	8.6		mg/Kg	1	10/11/2023 1:21:35 PM
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	10/11/2023 1:21:35 PM
Surr: DNOP	84.6	69-147		%Rec	1	10/11/2023 1:21:35 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/10/2023 5:33:09 PM
Surr: BFB	93.1	15-244		%Rec	1	10/10/2023 5:33:09 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	10/10/2023 5:33:09 PM
Toluene	ND	0.048		mg/Kg	1	10/10/2023 5:33:09 PM
Ethylbenzene	ND	0.048		mg/Kg	1	10/10/2023 5:33:09 PM
Xylenes, Total	ND	0.096		mg/Kg	1	10/10/2023 5:33:09 PM
Surr: 4-Bromofluorobenzene	99.4	39.1-146		%Rec	1	10/10/2023 5:33:09 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	10/10/2023 6:19:45 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2310381

Date Reported:

CLIENT: Devon Energy Client Sample ID: BS23-56 8'
Project: Agate PWU 21 22 62H Collection Date: 10/5/2023 11:22:00 AM
Lab ID: 2310381-013 Matrix: SOIL Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	33	9.1		mg/Kg	1	10/11/2023 1:46:14 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	10/11/2023 1:46:14 PM
Surr: DNOP	95.4	69-147		%Rec	1	10/11/2023 1:46:14 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/10/2023 5:56:31 PM
Surr: BFB	92.7	15-244		%Rec	1	10/10/2023 5:56:31 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.023		mg/Kg	1	10/10/2023 5:56:31 PM
Toluene	ND	0.047		mg/Kg	1	10/10/2023 5:56:31 PM
Ethylbenzene	ND	0.047		mg/Kg	1	10/10/2023 5:56:31 PM
Xylenes, Total	ND	0.094		mg/Kg	1	10/10/2023 5:56:31 PM
Surr: 4-Bromofluorobenzene	98.3	39.1-146		%Rec	1	10/10/2023 5:56:31 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	10/10/2023 6:32:10 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2310381

Date Reported:

CLIENT: Devon Energy Client Sample ID: BS23-92 2'
Project: Agate PWU 21 22 62H Collection Date: 10/5/2023 9:05:00 AM
Lab ID: 2310381-014 Matrix: SOIL Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	53	9.4		mg/Kg	1	10/11/2023 2:10:53 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/11/2023 2:10:53 PM
Surr: DNOP	91.6	69-147		%Rec	1	10/11/2023 2:10:53 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/10/2023 6:19:52 PM
Surr: BFB	94.5	15-244		%Rec	1	10/10/2023 6:19:52 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	10/10/2023 6:19:52 PM
Toluene	ND	0.049		mg/Kg	1	10/10/2023 6:19:52 PM
Ethylbenzene	ND	0.049		mg/Kg	1	10/10/2023 6:19:52 PM
Xylenes, Total	ND	0.097		mg/Kg	1	10/10/2023 6:19:52 PM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	10/10/2023 6:19:52 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	100	60		mg/Kg	20	10/10/2023 6:44:34 PM

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

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

Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-93 0.5'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 8:55:00 AM

Lab ID: 2310381-015

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	4600	88		mg/Kg	10	10/11/2023 1:00:08 PM
Motor Oil Range Organics (MRO)	3600	440		mg/Kg	10	10/11/2023 1:00:08 PM
Surr: DNOP	0	69-147	S	%Rec	10	10/11/2023 1:00:08 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/10/2023 6:43:19 PM
Surr: BFB	91.4	15-244		%Rec	1	10/10/2023 6:43:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	10/10/2023 6:43:19 PM
Toluene	ND	0.048		mg/Kg	1	10/10/2023 6:43:19 PM
Ethylbenzene	ND	0.048		mg/Kg	1	10/10/2023 6:43:19 PM
Xylenes, Total	ND	0.097		mg/Kg	1	10/10/2023 6:43:19 PM
Surr: 4-Bromofluorobenzene	98.8	39.1-146		%Rec	1	10/10/2023 6:43:19 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	270	60		mg/Kg	20	10/10/2023 7:21:48 PM

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

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

Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-94 0.5'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 9:00:00 AM

Lab ID: 2310381-016

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	2100	94		mg/Kg	10	10/11/2023 2:48:35 PM
Motor Oil Range Organics (MRO)	1800	470		mg/Kg	10	10/11/2023 2:48:35 PM
Surr: DNOP	0	69-147	S	%Rec	10	10/11/2023 2:48:35 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/10/2023 7:06:52 PM
Surr: BFB	90.3	15-244		%Rec	1	10/10/2023 7:06:52 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	10/10/2023 7:06:52 PM
Toluene	ND	0.048		mg/Kg	1	10/10/2023 7:06:52 PM
Ethylbenzene	ND	0.048		mg/Kg	1	10/10/2023 7:06:52 PM
Xylenes, Total	ND	0.096		mg/Kg	1	10/10/2023 7:06:52 PM
Surr: 4-Bromofluorobenzene	99.2	39.1-146		%Rec	1	10/10/2023 7:06:52 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	10/10/2023 7:34:12 PM

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2310381

Date Reported:

CLIENT: Devon Energy Client Sample ID: BS23-95 0.5'
Project: Agate PWU 21 22 62H Collection Date: 10/5/2023 9:10:00 AM
Lab ID: 2310381-017 Matrix: SOIL Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	3000	93		mg/Kg	10	10/11/2023 3:00:16 PM
Motor Oil Range Organics (MRO)	1700	470		mg/Kg	10	10/11/2023 3:00:16 PM
Surr: DNOP	0	69-147	S	%Rec	10	10/11/2023 3:00:16 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/10/2023 7:30:22 PM
Surr: BFB	97.7	15-244		%Rec	1	10/10/2023 7:30:22 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	10/10/2023 7:30:22 PM
Toluene	ND	0.047		mg/Kg	1	10/10/2023 7:30:22 PM
Ethylbenzene	ND	0.047		mg/Kg	1	10/10/2023 7:30:22 PM
Xylenes, Total	ND	0.095		mg/Kg	1	10/10/2023 7:30:22 PM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	10/10/2023 7:30:22 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	590	60		mg/Kg	20	10/10/2023 7:46:37 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2310381

Date Reported:

CLIENT: Devon Energy Client Sample ID: WS23-96 0-1'
Project: Agate PWU 21 22 62H Collection Date: 10/5/2023 9:10:00 AM
Lab ID: 2310381-018 Matrix: SOIL Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	1300	87		mg/Kg	10	10/11/2023 3:10:48 PM
Motor Oil Range Organics (MRO)	1300	440		mg/Kg	10	10/11/2023 3:10:48 PM
Surr: DNOP	0	69-147	S	%Rec	10	10/11/2023 3:10:48 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/10/2023 7:53:57 PM
Surr: BFB	92.5	15-244		%Rec	1	10/10/2023 7:53:57 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	10/10/2023 7:53:57 PM
Toluene	ND	0.049		mg/Kg	1	10/10/2023 7:53:57 PM
Ethylbenzene	ND	0.049		mg/Kg	1	10/10/2023 7:53:57 PM
Xylenes, Total	ND	0.097		mg/Kg	1	10/10/2023 7:53:57 PM
Surr: 4-Bromofluorobenzene	99.6	39.1-146		%Rec	1	10/10/2023 7:53:57 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	1100	60		mg/Kg	20	10/10/2023 7:59:02 PM

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

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

Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-97 1'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 9:15:00 AM

Lab ID: 2310381-019

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	40000	470		mg/Kg	50	10/12/2023 11:24:47 AM
Motor Oil Range Organics (MRO)	14000	2400		mg/Kg	50	10/12/2023 11:24:47 AM
Surr: DNOP	0	69-147	S	%Rec	50	10/12/2023 11:24:47 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	66	4.8		mg/Kg	1	10/10/2023 8:17:34 PM
Surr: BFB	856	15-244	S	%Rec	1	10/10/2023 8:17:34 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	10/10/2023 8:17:34 PM
Toluene	ND	0.048		mg/Kg	1	10/10/2023 8:17:34 PM
Ethylbenzene	0.070	0.048		mg/Kg	1	10/10/2023 8:17:34 PM
Xylenes, Total	0.55	0.096		mg/Kg	1	10/10/2023 8:17:34 PM
Surr: 4-Bromofluorobenzene	119	39.1-146		%Rec	1	10/10/2023 8:17:34 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	2200	59		mg/Kg	20	10/10/2023 8:11:27 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2310381

Date Reported:

CLIENT: Devon Energy Client Sample ID: BS23-98 0.5'
Project: Agate PWU 21 22 62H Collection Date: 10/5/2023 9:33:00 AM
Lab ID: 2310381-020 Matrix: SOIL Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	400	18		mg/Kg	2	10/12/2023 11:48:26 AM
Motor Oil Range Organics (MRO)	390	88		mg/Kg	2	10/12/2023 11:48:26 AM
Surr: DNOP	109	69-147		%Rec	2	10/12/2023 11:48:26 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/10/2023 8:41:06 PM
Surr: BFB	126	15-244		%Rec	1	10/10/2023 8:41:06 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	10/10/2023 8:41:06 PM
Toluene	ND	0.048		mg/Kg	1	10/10/2023 8:41:06 PM
Ethylbenzene	ND	0.048		mg/Kg	1	10/10/2023 8:41:06 PM
Xylenes, Total	ND	0.096		mg/Kg	1	10/10/2023 8:41:06 PM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	10/10/2023 8:41:06 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	10/10/2023 8:23:51 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2310381

Date Reported:

CLIENT: Devon Energy Client Sample ID: BS23-99 0.5'
Project: Agate PWU 21 22 62H Collection Date: 10/5/2023 9:25:00 AM
Lab ID: 2310381-021 Matrix: SOIL Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	180	9.5		mg/Kg	1	10/11/2023 3:32:14 PM
Motor Oil Range Organics (MRO)	160	47		mg/Kg	1	10/11/2023 3:32:14 PM
Surr: DNOP	129	69-147		%Rec	1	10/11/2023 3:32:14 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/11/2023 3:54:00 PM
Surr: BFB	94.9	15-244		%Rec	1	10/11/2023 3:54:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	10/11/2023 3:54:00 PM
Toluene	ND	0.048		mg/Kg	1	10/11/2023 3:54:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	10/11/2023 3:54:00 PM
Xylenes, Total	ND	0.095		mg/Kg	1	10/11/2023 3:54:00 PM
Surr: 4-Bromofluorobenzene	84.1	39.1-146		%Rec	1	10/11/2023 3:54:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	10/10/2023 9:01:05 PM

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

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

Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-100 0.5'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 9:40:00 AM

Lab ID: 2310381-022

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	650	98		mg/Kg	10	10/11/2023 4:51:31 PM
Motor Oil Range Organics (MRO)	750	490		mg/Kg	10	10/11/2023 4:51:31 PM
Surr: DNOP	0	69-147	S	%Rec	10	10/11/2023 4:51:31 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/11/2023 4:16:00 PM
Surr: BFB	94.3	15-244		%Rec	1	10/11/2023 4:16:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	10/11/2023 4:16:00 PM
Toluene	ND	0.048		mg/Kg	1	10/11/2023 4:16:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	10/11/2023 4:16:00 PM
Xylenes, Total	ND	0.095		mg/Kg	1	10/11/2023 4:16:00 PM
Surr: 4-Bromofluorobenzene	82.9	39.1-146		%Rec	1	10/11/2023 4:16:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	90	60		mg/Kg	20	10/10/2023 9:13:29 PM

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

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

Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-101 0.5'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 9:42:00 AM

Lab ID: 2310381-023

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	270	9.1		mg/Kg	1	10/12/2023 12:12:10 PM
Motor Oil Range Organics (MRO)	270	46		mg/Kg	1	10/12/2023 12:12:10 PM
Surr: DNOP	125	69-147		%Rec	1	10/12/2023 12:12:10 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/11/2023 4:38:00 PM
Surr: BFB	97.0	15-244		%Rec	1	10/11/2023 4:38:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	10/11/2023 4:38:00 PM
Toluene	ND	0.048		mg/Kg	1	10/11/2023 4:38:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	10/11/2023 4:38:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	10/11/2023 4:38:00 PM
Surr: 4-Bromofluorobenzene	85.7	39.1-146		%Rec	1	10/11/2023 4:38:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	10/10/2023 10:40:22 PM

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

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

Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-102 0.5'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 9:48:00 AM

Lab ID: 2310381-024

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	670	97		mg/Kg	10	10/11/2023 3:24:59 PM
Motor Oil Range Organics (MRO)	710	480		mg/Kg	10	10/11/2023 3:24:59 PM
Surr: DNOP	0	69-147	S	%Rec	10	10/11/2023 3:24:59 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/11/2023 4:59:00 PM
Surr: BFB	91.6	15-244		%Rec	1	10/11/2023 4:59:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	10/11/2023 4:59:00 PM
Toluene	ND	0.049		mg/Kg	1	10/11/2023 4:59:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	10/11/2023 4:59:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	10/11/2023 4:59:00 PM
Surr: 4-Bromofluorobenzene	80.1	39.1-146		%Rec	1	10/11/2023 4:59:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	260	60		mg/Kg	20	10/10/2023 10:52:46 PM

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

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

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Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-103 0.5'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 9:55:00 AM

Lab ID: 2310381-025

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	940	93		mg/Kg	10	10/11/2023 3:49:38 PM
Motor Oil Range Organics (MRO)	870	460		mg/Kg	10	10/11/2023 3:49:38 PM
Surr: DNOP	0	69-147	S	%Rec	10	10/11/2023 3:49:38 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/11/2023 5:43:00 PM
Surr: BFB	98.0	15-244		%Rec	1	10/11/2023 5:43:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	10/11/2023 5:43:00 PM
Toluene	ND	0.049		mg/Kg	1	10/11/2023 5:43:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	10/11/2023 5:43:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	10/11/2023 5:43:00 PM
Surr: 4-Bromofluorobenzene	83.5	39.1-146		%Rec	1	10/11/2023 5:43:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	310	60		mg/Kg	20	10/10/2023 11:05:11 PM

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2310381

Date Reported:

CLIENT: Devon Energy Client Sample ID: WS23-104 0-1'
Project: Agate PWU 21 22 62H Collection Date: 10/5/2023 10:00:00 AM
Lab ID: 2310381-026 Matrix: SOIL Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	4000	98		mg/Kg	10	10/11/2023 4:14:18 PM
Motor Oil Range Organics (MRO)	2800	490		mg/Kg	10	10/11/2023 4:14:18 PM
Surr: DNOP	0	69-147	S	%Rec	10	10/11/2023 4:14:18 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/11/2023 6:04:00 PM
Surr: BFB	98.2	15-244		%Rec	1	10/11/2023 6:04:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	10/11/2023 6:04:00 PM
Toluene	ND	0.049		mg/Kg	1	10/11/2023 6:04:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	10/11/2023 6:04:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	10/11/2023 6:04:00 PM
Surr: 4-Bromofluorobenzene	80.9	39.1-146		%Rec	1	10/11/2023 6:04:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	1800	60		mg/Kg	20	10/10/2023 11:17:35 PM

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

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

Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-105 3.5'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 10:41:00 AM

Lab ID: 2310381-027

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	22	9.6		mg/Kg	1	10/11/2023 3:56:07 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/11/2023 3:56:07 PM
Surr: DNOP	118	69-147		%Rec	1	10/11/2023 3:56:07 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/11/2023 6:26:00 PM
Surr: BFB	104	15-244		%Rec	1	10/11/2023 6:26:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	10/11/2023 6:26:00 PM
Toluene	ND	0.048		mg/Kg	1	10/11/2023 6:26:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	10/11/2023 6:26:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	10/11/2023 6:26:00 PM
Surr: 4-Bromofluorobenzene	85.3	39.1-146		%Rec	1	10/11/2023 6:26:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	59		mg/Kg	20	10/10/2023 11:30:00 PM

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

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

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Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-106 3.5'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 10:47:00 AM

Lab ID: 2310381-028

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	76	9.6		mg/Kg	1	10/11/2023 4:20:07 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/11/2023 4:20:07 PM
Surr: DNOP	107	69-147		%Rec	1	10/11/2023 4:20:07 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/11/2023 6:48:00 PM
Surr: BFB	95.7	15-244		%Rec	1	10/11/2023 6:48:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	10/11/2023 6:48:00 PM
Toluene	ND	0.047		mg/Kg	1	10/11/2023 6:48:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	10/11/2023 6:48:00 PM
Xylenes, Total	ND	0.095		mg/Kg	1	10/11/2023 6:48:00 PM
Surr: 4-Bromofluorobenzene	84.3	39.1-146		%Rec	1	10/11/2023 6:48:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	10/10/2023 11:42:24 PM

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

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

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Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-107 3.5'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 10:50:00 AM

Lab ID: 2310381-029

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	37	9.6		mg/Kg	1	10/11/2023 4:44:03 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/11/2023 4:44:03 PM
Surr: DNOP	102	69-147		%Rec	1	10/11/2023 4:44:03 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/11/2023 7:09:00 PM
Surr: BFB	94.6	15-244		%Rec	1	10/11/2023 7:09:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	10/11/2023 7:09:00 PM
Toluene	ND	0.050		mg/Kg	1	10/11/2023 7:09:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	10/11/2023 7:09:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	10/11/2023 7:09:00 PM
Surr: 4-Bromofluorobenzene	84.3	39.1-146		%Rec	1	10/11/2023 7:09:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	10/11/2023 12:19:37 AM

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

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

Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-112 0-2'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 11:30:00 AM

Lab ID: 2310381-030

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	2700	96		mg/Kg	10	10/11/2023 5:03:31 PM
Motor Oil Range Organics (MRO)	1400	480		mg/Kg	10	10/11/2023 5:03:31 PM
Surr: DNOP	0	69-147	S	%Rec	10	10/11/2023 5:03:31 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/11/2023 7:31:00 PM
Surr: BFB	96.0	15-244		%Rec	1	10/11/2023 7:31:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.024		mg/Kg	1	10/11/2023 7:31:00 PM
Toluene	ND	0.049		mg/Kg	1	10/11/2023 7:31:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	10/11/2023 7:31:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	10/11/2023 7:31:00 PM
Surr: 4-Bromofluorobenzene	83.3	39.1-146		%Rec	1	10/11/2023 7:31:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	430	60		mg/Kg	20	10/11/2023 12:32:02 AM

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

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

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Analytical Report

Lab Order 2310381

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-41 1'

Project: Agate PWU 21 22 62H

Collection Date: 10/5/2023 10:05:00 AM

Lab ID: 2310381-031

Matrix: SOIL

Received Date: 10/7/2023 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	7900	97		mg/Kg	10	10/11/2023 5:52:42 PM
Motor Oil Range Organics (MRO)	4100	490		mg/Kg	10	10/11/2023 5:52:42 PM
Surr: DNOP	0	69-147	S	%Rec	10	10/11/2023 5:52:42 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/11/2023 7:53:00 PM
Surr: BFB	104	15-244		%Rec	1	10/11/2023 7:53:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.025		mg/Kg	1	10/11/2023 7:53:00 PM
Toluene	ND	0.049		mg/Kg	1	10/11/2023 7:53:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	10/11/2023 7:53:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	10/11/2023 7:53:00 PM
Surr: 4-Bromofluorobenzene	85.1	39.1-146		%Rec	1	10/11/2023 7:53:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	3000	150		mg/Kg	50	10/11/2023 6:06:06 PM

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

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

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2310381
18-Oct-23

Client: Devon Energy
Project: Agate PWU 21 22 62H

Sample ID: MB-78062	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 78062	RunNo: 100367
Prep Date: 10/10/2023	Analysis Date: 10/10/2023	SeqNo: 3676022 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-78062	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 78062	RunNo: 100367
Prep Date: 10/10/2023	Analysis Date: 10/10/2023	SeqNo: 3676023 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	14	1.5 15.00 0 90.9 90 110

Sample ID: MB-78070	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 78070	RunNo: 100367
Prep Date: 10/10/2023	Analysis Date: 10/10/2023	SeqNo: 3676052 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-78070	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 78070	RunNo: 100367
Prep Date: 10/10/2023	Analysis Date: 10/10/2023	SeqNo: 3676053 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	14	1.5 15.00 0 90.7 90 110

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2310381

18-Oct-23

Client: Devon Energy
Project: Agate PWU 21 22 62H

Sample ID: MB-78080	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 78080	RunNo: 100396								
Prep Date: 10/11/2023	Analysis Date: 10/11/2023	SeqNo: 3677210			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	11		10.00		115	69	147			

Sample ID: LCS-78080	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 78080	RunNo: 100396								
Prep Date: 10/11/2023	Analysis Date: 10/11/2023	SeqNo: 3677211			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	113	61.9	130			
Surr: DNOP	5.0		5.000		100	69	147			

Sample ID: MB-78083	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 78083	RunNo: 100396								
Prep Date: 10/11/2023	Analysis Date: 10/11/2023	SeqNo: 3677212			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	12		10.00		116	69	147			

Sample ID: LCS-78083	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 78083	RunNo: 100396								
Prep Date: 10/11/2023	Analysis Date: 10/11/2023	SeqNo: 3677213			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.00	0	113	61.9	130			
Surr: DNOP	5.0		5.000		99.4	69	147			

Sample ID: 2310381-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: BS23-04 2.5'	Batch ID: 78083	RunNo: 100397								
Prep Date: 10/11/2023	Analysis Date: 10/11/2023	SeqNo: 3678028			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.7	48.45	0	99.6	54.2	135			
Surr: DNOP	4.5		4.845		93.4	69	147			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2310381

18-Oct-23

Client: Devon Energy

Project: Agate PWU 21 22 62H

Sample ID: 2310381-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: BS23-04 2.5'	Batch ID: 78083	RunNo: 100397								
Prep Date: 10/11/2023	Analysis Date: 10/11/2023	SeqNo: 3678029 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.9	49.26	0	98.1	54.2	135	0.0850	29.2	
Surr: DNOP	4.4		4.926		89.0	69	147	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2310381
18-Oct-23

Client: Devon Energy
Project: Agate PWU 21 22 62H

Sample ID: ics-78036	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 78036			RunNo: 100364						
Prep Date: 10/9/2023	Analysis Date: 10/10/2023			SeqNo: 3675845		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	94.3	70	130			
Surr: BFB	1900		1000		194	15	244			

Sample ID: mb-78036	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 78036			RunNo: 100364						
Prep Date: 10/9/2023	Analysis Date: 10/10/2023			SeqNo: 3675846		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	940		1000		94.5	15	244			

Sample ID: 2310381-001ams	SampType: MS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: BS23-04 2.5'	Batch ID: 78036			RunNo: 100364						
Prep Date: 10/9/2023	Analysis Date: 10/10/2023			SeqNo: 3675868		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.9	24.34	0	105	70	130			
Surr: BFB	2100		973.7		212	15	244			

Sample ID: 2310381-001amsd	SampType: MSD			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: BS23-04 2.5'	Batch ID: 78036			RunNo: 100364						
Prep Date: 10/9/2023	Analysis Date: 10/10/2023			SeqNo: 3675869		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.9	24.37	0	101	70	130	4.09	20	
Surr: BFB	2000		974.7		208	15	244	0	0	

Sample ID: ics-78039	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 78039			RunNo: 100380						
Prep Date: 10/9/2023	Analysis Date: 10/11/2023			SeqNo: 3677741		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	94.0	70	130			
Surr: BFB	2200		1000		215	15	244			

Sample ID: mb-78039	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 78039			RunNo: 100380						
Prep Date: 10/9/2023	Analysis Date: 10/11/2023			SeqNo: 3677742		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 35 of 38

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 2310381
18-Oct-23

Client: Devon Energy
Project: Agate PWU 21 22 62H

Sample ID: mb-78039	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 78039	RunNo: 100380								
Prep Date: 10/9/2023	Analysis Date: 10/11/2023	SeqNo: 3677742			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	970		1000		96.8	15	244			

Sample ID: 2310381-021ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: BS23-99 0.5'	Batch ID: 78039	RunNo: 100380								
Prep Date: 10/9/2023	Analysis Date: 10/11/2023	SeqNo: 3677754			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.8	23.83	0	87.0	70	130			
Surr: BFB	1900		953.3		205	15	244			

Sample ID: 2310381-021amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: BS23-99 0.5'	Batch ID: 78039	RunNo: 100380								
Prep Date: 10/9/2023	Analysis Date: 10/11/2023	SeqNo: 3677755			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.7	23.72	0	86.4	70	130	1.17	20	
Surr: BFB	1900		948.8		202	15	244	0	0	

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2310381

18-Oct-23

Client: Devon Energy

Project: Agate PWU 21 22 62H

Sample ID: LCS-78036	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 78036		RunNo: 100364							
Prep Date: 10/9/2023	Analysis Date: 10/10/2023		SeqNo: 3675894		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	1.000	0	98.6	70	130			
Toluene	0.99	0.050	1.000	0	99.1	70	130			
Ethylbenzene	0.99	0.050	1.000	0	99.2	70	130			
Xylenes, Total	3.0	0.10	3.000	0	99.9	70	130			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	39.1	146			

Sample ID: mb-78036	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 78036		RunNo: 100364							
Prep Date: 10/9/2023	Analysis Date: 10/10/2023		SeqNo: 3675895		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		101	39.1	146			

Sample ID: 2310381-002ams	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: BS23-07 2.5'	Batch ID: 78036		RunNo: 100364							
Prep Date: 10/9/2023	Analysis Date: 10/10/2023		SeqNo: 3675914		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.024	0.9699	0	102	70	130			
Toluene	1.0	0.048	0.9699	0	104	70	130			
Ethylbenzene	1.0	0.048	0.9699	0	105	70	130			
Xylenes, Total	3.1	0.097	2.910	0	106	70	130			
Surr: 4-Bromofluorobenzene	0.98		0.9699		101	39.1	146			

Sample ID: 2310381-002amsd	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: BS23-07 2.5'	Batch ID: 78036		RunNo: 100364							
Prep Date: 10/9/2023	Analysis Date: 10/10/2023		SeqNo: 3675915		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.024	0.9699	0	96.6	70	130	5.12	20	
Toluene	0.95	0.048	0.9699	0	98.0	70	130	5.68	20	
Ethylbenzene	0.96	0.048	0.9699	0	99.3	70	130	5.52	20	
Xylenes, Total	2.9	0.097	2.910	0	99.8	70	130	6.23	20	
Surr: 4-Bromofluorobenzene	0.99		0.9699		102	39.1	146	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

Page 37 of 38

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2310381

18-Oct-23

Client: Devon Energy

Project: Agate PWU 21 22 62H

Sample ID: ics-78039	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 78039		RunNo: 100380							
Prep Date: 10/9/2023	Analysis Date: 10/11/2023		SeqNo: 3677705		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	85.3	70	130			
Toluene	0.85	0.050	1.000	0	85.2	70	130			
Ethylbenzene	0.87	0.050	1.000	0	87.5	70	130			
Xylenes, Total	2.6	0.10	3.000	0	86.6	70	130			
Surr: 4-Bromofluorobenzene	0.86		1.000		86.3	39.1	146			

Sample ID: mb-78039	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 78039		RunNo: 100380							
Prep Date: 10/9/2023	Analysis Date: 10/11/2023		SeqNo: 3677706		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	0.86		1.000		85.8	39.1	146			

Sample ID: 2310381-022ams	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: BS23-100 0.5'	Batch ID: 78039		RunNo: 100380							
Prep Date: 10/9/2023	Analysis Date: 10/11/2023		SeqNo: 3677724		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.77	0.024	0.9579	0	80.9	70	130			
Toluene	0.79	0.048	0.9579	0	82.2	70	130			
Ethylbenzene	0.80	0.048	0.9579	0	83.2	70	130			
Xylenes, Total	2.3	0.096	2.874	0	81.4	70	130			
Surr: 4-Bromofluorobenzene	0.79		0.9579		82.0	39.1	146			

Sample ID: 2310381-022amsd	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: BS23-100 0.5'	Batch ID: 78039		RunNo: 100380							
Prep Date: 10/9/2023	Analysis Date: 10/11/2023		SeqNo: 3677725		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.75	0.024	0.9533	0	78.9	70	130	2.96	20	
Toluene	0.76	0.048	0.9533	0	79.4	70	130	3.99	20	
Ethylbenzene	0.77	0.048	0.9533	0	81.0	70	130	3.16	20	
Xylenes, Total	2.3	0.095	2.860	0	79.3	70	130	3.14	20	
Surr: 4-Bromofluorobenzene	0.77		0.9533		81.3	39.1	146	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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Sample Log-In Check List

Client Name: Devon Energy

Work Order Number: 2310381

RcptNo: 1

Received By: **Juan Rojas**

10/7/2023 7:30:00 AM

Henry G.

Completed By: Joan Rader

1017123

Reviewed By:

10/7/23

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 <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 5. Sample(s) in proper container(s)? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 6. Sufficient sample volume for indicated test(s)? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 7. Are samples (except VOA and ONG) properly preserved? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 8. Was preservative added to bottles? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/> |
| 9. Received at least 1 vial with headspace $<1/4"$ for AQ VOA? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 10. Were any sample containers received broken? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | |
| 11. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 12. Are matrices correctly identified on Chain of Custody? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 13. Is it clear what analyses were requested? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 14. Were all holding times able to be met?
(If no, notify customer for authorization.) | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
- # of preserved bottles checked for pH: (<2)

Adjusted?

Checked by: _____

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:

Client missing mailing address, phone number, and email address on COC. JR 10/7/23

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.2	Good	No	Yogi		

Chain-of-Custody Record

Client: Devon / VertexMailing Address: On file

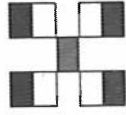
Phone #:

email or Fax#:

QA/QC Package:

☐ Standard☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC☐ Other☐ EDD (Type)

Date	Time	Matrix	Sample Name
10/5/23	11:22	Soil	BS23-56 8'
	9:05		BS23-92 2'
	8:55		BS23-93 0.5'
	9:00		BS23-94 0.5'
	9:10		BS23-95 0.5'
	9:10		WS23-96 0-1'
	9:15		BS23-97 1'
	9:33		BS23-98 0.5'
	9:25		BS23-99 0.5'
	9:40		BS23-100 0.5'
	9:42		BS23-101 0.5'
	9:48		BS23-102 0.5'

Date: 10/6/23 Time: 1500Relinquished by: Stephen McLearyDate: 10/16/23 Time: 1900Relinquished by: AnnunzioHALL ENVIRONMENTAL
ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

<input checked="" type="checkbox"/> TPH:8015D(GRO / DRO / MRO)	<input checked="" type="checkbox"/> EDB (Method 504.1)	<input checked="" type="checkbox"/> PAHs by 8310 or 8270SIMS	<input checked="" type="checkbox"/> RCRA 8 Metals	<input checked="" type="checkbox"/> 8270 (Semi-VOA)	<input checked="" type="checkbox"/> 8260 (VOA)	<input checked="" type="checkbox"/> F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	<input checked="" type="checkbox"/> Total Coliform (Present/Absent)
<input checked="" type="checkbox"/> 8081 Pesticides/8082 PCB's	<input checked="" type="checkbox"/> 8015 / MTBE / TMB's (8021)	<input checked="" type="checkbox"/> 8015 / MTBE / TMB's (8021)	<input checked="" type="checkbox"/> 8015 / MTBE / TMB's (8021)	<input checked="" type="checkbox"/> 8015 / MTBE / TMB's (8021)	<input checked="" type="checkbox"/> 8015 / MTBE / TMB's (8021)	<input checked="" type="checkbox"/> 8015 / MTBE / TMB's (8021)	<input checked="" type="checkbox"/> 8015 / MTBE / TMB's (8021)

Remarks:

Direct bill to: Devon
W/o # 21142553C. Stallings@vertex.ca
smccarty@vertex.ca

pg 2 of 3

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.

Chain-of-Custody Record

Client: Devon / VertexMailing Address: On file

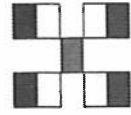
Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC ☐ Other☐ EDD (Type)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
10/5/23	8:40	Soil	BS23-04 2.5'	4 oz jar	Ice	7310381
	8:20		BS23-07 2.5'			-002
	8:30		BS23-11 3'			-003
	8:38		BS23-14 2.5'			-004
	8:35		BS23-17 2.5'			-005
	10:25		WS23-22 0-2'			-006
	8:45		WS23-23 0-2'			-007
	8:48		WS23-24 0-2'			-008
	10:30		WS23-26 0-2'			-009
	10:35		WS23-27 0-2'			-010
	15:30		WS23-28 0-3.5'			-011
	11:25		BS23-55 8'			-012

Date: 10/6/23 Time: 1500Relinquished by: Leah McCoyDate: 10/6/23 Time: 1900Relinquished by: Chad McCoyHALL ENVIRONMENTAL
ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

<input checked="" type="checkbox"/> TPH:8015D(GRO / DRO / MRO)	<input checked="" type="checkbox"/> EDB (Method 504.1)	<input type="checkbox"/> PAHs by 8310 or 8270SIMS	<input type="checkbox"/> RCRA 8 Metals	<input checked="" type="checkbox"/> C, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	<input type="checkbox"/> 8260 (VOA)	<input type="checkbox"/> 8270 (Semi-VOA)	<input type="checkbox"/> Total Coliform (Present/Absent)
--	--	---	--	---	-------------------------------------	--	--

Remarks: Direct bill to: Devon

W/O # : 21142553

cc. K Stallings@vertex.ca

SMccarty@vertex.ca

pg 1 of 3

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

October 18, 2023

Kent Stallings

Devon Energy

6488 Seven Rivers Highway

Artesia, NM 88210

TEL: (505) 350-1336

FAX:

RE: Agate PWU 21 22 62H

OrderNo.: 2310425

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 4 sample(s) on 10/10/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2310425

Date Reported: 10/18/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-108 4'

Project: Agate PWU 21 22 62H

Collection Date: 10/6/2023 11:00:00 AM

Lab ID: 2310425-001

Matrix: MEOH (SOIL)

Received Date: 10/10/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	14	9.5		mg/Kg	1	10/10/2023 4:37:23 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/10/2023 4:37:23 PM
Surr: DNOP	104	69-147		%Rec	1	10/10/2023 4:37:23 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	10/10/2023 12:15:00 PM
Surr: BFB	99.0	15-244		%Rec	1	10/10/2023 12:15:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.017		mg/Kg	1	10/10/2023 12:15:00 PM
Toluene	ND	0.033		mg/Kg	1	10/10/2023 12:15:00 PM
Ethylbenzene	ND	0.033		mg/Kg	1	10/10/2023 12:15:00 PM
Xylenes, Total	ND	0.067		mg/Kg	1	10/10/2023 12:15:00 PM
Surr: 4-Bromofluorobenzene	86.4	39.1-146		%Rec	1	10/10/2023 12:15:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	10/11/2023 7:08:08 PM

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

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

Analytical Report

Lab Order 2310425

Date Reported: 10/18/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-109 4'

Project: Agate PWU 21 22 62H

Collection Date: 10/6/2023 11:03:00 AM

Lab ID: 2310425-002

Matrix: MEOH (SOIL)

Received Date: 10/10/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	10/10/2023 4:48:10 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/10/2023 4:48:10 PM
Surr: DNOP	98.1	69-147		%Rec	1	10/10/2023 4:48:10 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	10/10/2023 12:37:00 PM
Surr: BFB	102	15-244		%Rec	1	10/10/2023 12:37:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.019		mg/Kg	1	10/10/2023 12:37:00 PM
Toluene	ND	0.039		mg/Kg	1	10/10/2023 12:37:00 PM
Ethylbenzene	ND	0.039		mg/Kg	1	10/10/2023 12:37:00 PM
Xylenes, Total	ND	0.077		mg/Kg	1	10/10/2023 12:37:00 PM
Surr: 4-Bromofluorobenzene	88.5	39.1-146		%Rec	1	10/10/2023 12:37:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	10/11/2023 7:45:22 PM

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

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

Analytical Report

Lab Order 2310425

Date Reported: 10/18/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: BS23-110 4'

Project: Agate PWU 21 22 62H

Collection Date: 10/6/2023 11:05:00 AM

Lab ID: 2310425-003

Matrix: MEOH (SOIL)

Received Date: 10/10/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	12	9.5		mg/Kg	1	10/10/2023 4:58:56 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/10/2023 4:58:56 PM
Surr: DNOP	117	69-147		%Rec	1	10/10/2023 4:58:56 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	10/10/2023 12:59:00 PM
Surr: BFB	97.8	15-244		%Rec	1	10/10/2023 12:59:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.017		mg/Kg	1	10/10/2023 12:59:00 PM
Toluene	ND	0.034		mg/Kg	1	10/10/2023 12:59:00 PM
Ethylbenzene	ND	0.034		mg/Kg	1	10/10/2023 12:59:00 PM
Xylenes, Total	ND	0.068		mg/Kg	1	10/10/2023 12:59:00 PM
Surr: 4-Bromofluorobenzene	86.8	39.1-146		%Rec	1	10/10/2023 12:59:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	10/11/2023 8:22:36 PM

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

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

Analytical Report

Lab Order 2310425

Date Reported: 10/18/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy

Client Sample ID: WS23-111 0-4'

Project: Agate PWU 21 22 62H

Collection Date: 10/6/2023 10:55:00 AM

Lab ID: 2310425-004

Matrix: MEOH (SOIL)

Received Date: 10/10/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: DGH
Diesel Range Organics (DRO)	1100	46		mg/Kg	5	10/12/2023 2:11:31 PM
Motor Oil Range Organics (MRO)	360	230		mg/Kg	5	10/12/2023 2:11:31 PM
Surr: DNOP	128	69-147		%Rec	5	10/12/2023 2:11:31 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	10/10/2023 1:20:00 PM
Surr: BFB	95.4	15-244		%Rec	1	10/10/2023 1:20:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: KMN
Benzene	ND	0.021		mg/Kg	1	10/10/2023 1:20:00 PM
Toluene	ND	0.041		mg/Kg	1	10/10/2023 1:20:00 PM
Ethylbenzene	ND	0.041		mg/Kg	1	10/10/2023 1:20:00 PM
Xylenes, Total	ND	0.082		mg/Kg	1	10/10/2023 1:20:00 PM
Surr: 4-Bromofluorobenzene	83.3	39.1-146		%Rec	1	10/10/2023 1:20:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	320	60		mg/Kg	20	10/11/2023 8:35:01 PM

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2310425
18-Oct-23

Client: Devon Energy
Project: Agate PWU 21 22 62H

Sample ID: MB-78097		SampType: mblk		TestCode: EPA Method 300.0: Anions						
Client ID: PBS		Batch ID: 78097		RunNo: 100387						
Prep Date: 10/11/2023		Analysis Date: 10/11/2023		SeqNo: 3677849		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-78097		SampType: lcs		TestCode: EPA Method 300.0: Anions						
Client ID: LCSS		Batch ID: 78097		RunNo: 100387						
Prep Date: 10/11/2023		Analysis Date: 10/11/2023		SeqNo: 3677850		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.4	90	110			

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2310425

18-Oct-23

Client: Devon Energy

Project: Agate PWU 21 22 62H

Sample ID: LCS-78052	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 78052	RunNo: 100378								
Prep Date: 10/10/2023	Analysis Date: 10/10/2023	SeqNo: 3676601		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	105	61.9	130			
Surr: DNOP	4.6		5.000		92.8	69	147			

Sample ID: MB-78052	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 78052	RunNo: 100378								
Prep Date: 10/10/2023	Analysis Date: 10/10/2023	SeqNo: 3676603		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	9.7		10.00		97.1	69	147			

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2310425

18-Oct-23

Client: Devon Energy

Project: Agate PWU 21 22 62H

Sample ID: 2.5ug gro lcs	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: GS100375		RunNo: 100375							
Prep Date:	Analysis Date: 10/10/2023		SeqNo: 3676485		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	102	70	130			
Surr: BFB	2200		1000		223	15	244			

Sample ID: mb	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: GS100375		RunNo: 100375							
Prep Date:	Analysis Date: 10/10/2023		SeqNo: 3676486		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	15	244			

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2310425
18-Oct-23

Client: Devon Energy
Project: Agate PWU 21 22 62H

Sample ID: 100ng btex lcs	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: BS100375		RunNo: 100375							
Prep Date:	Analysis Date: 10/10/2023		SeqNo: 3676520		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.025	1.000	0	83.2	70	130			
Toluene	0.84	0.050	1.000	0	84.4	70	130			
Ethylbenzene	0.87	0.050	1.000	0	86.9	70	130			
Xylenes, Total	2.6	0.10	3.000	0	87.0	70	130			
Surr: 4-Bromofluorobenzene	0.92		1.000		91.9	39.1	146			

Sample ID: mb	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: BS100375		RunNo: 100375							
Prep Date:	Analysis Date: 10/10/2023		SeqNo: 3676521		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	0.89		1.000		88.8	39.1	146			

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit



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

Sample Log-In Check List

Client Name: Devon Energy

Work Order Number: 2310425

RcptNo: 1

Received By: Tracy Casarrubias 10/10/2023 7:45:00 AM

Completed By: Tracy Casarrubias 10/10/2023 8:34:42 AM

Reviewed By: CMC 10/10/23

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels? Yes ☒ No ☐
- (Note discrepancies on chain of custody)
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met? Yes ☒ No ☐
- (If no, notify customer for authorization.)
- # of preserved bottles checked for pH: 7 (<2 or >12 unless noted)
- Adjusted? 7/10/10/23
- Checked by: 7/10/10/23

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: Mailing address, phone number and Email/Fax are missing on COC- TMC 10/10/23

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.8	Good	Yes	Morty		



*Eurofins Environment Testing South
Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com*

February 21, 2024

Kent Stallings

Devon Energy

6488 Seven Rivers Highway

Artesia, NM 88210

TEL: (505) 350-1336

FAX:

RE: Agate PWU 21 22 062H

OrderNo.: 2402409

Dear Kent Stallings:

Eurofins Environment Testing South Central, LLC received 6 sample(s) on 2/8/2024 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 do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

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

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

CLIENT: Devon Energy

Client Sample ID: BH24-01 2.0'

Project: Agate PWU 21 22 062H

Collection Date: 2/5/2024 11:00:00 AM

Lab ID: 2402409-001

Matrix: MEOH (SOIL)

Received Date: 2/8/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/14/2024 3:09:41 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/14/2024 3:09:41 AM
Surr: DNOP	102	61.2-134		%Rec	1	2/14/2024 3:09:41 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/15/2024 3:07:00 AM
Surr: BFB	103	15-244		%Rec	1	2/15/2024 3:07:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/15/2024 3:07:00 AM
Toluene	ND	0.049		mg/Kg	1	2/15/2024 3:07:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	2/15/2024 3:07:00 AM
Xylenes, Total	ND	0.097		mg/Kg	1	2/15/2024 3:07:00 AM
Surr: 4-Bromofluorobenzene	97.8	39.1-146		%Rec	1	2/15/2024 3:07:00 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	110	60		mg/Kg	20	2/13/2024 1:50:08 PM

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

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

Page 1 of 10

CLIENT: Devon Energy

Project: Agate PWU 21 22 062H

Lab ID: 2402409-002

Client Sample ID: BH24-01 4.0'

Collection Date: 2/5/2024 11:10:00 AM

Matrix: MEOH (SOIL) Received Date: 2/8/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/14/2024 3:41:05 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/14/2024 3:41:05 AM
Surr: DNOP	101	61.2-134		%Rec	1	2/14/2024 3:41:05 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/15/2024 4:34:00 AM
Surr: BFB	107	15-244		%Rec	1	2/15/2024 4:34:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/15/2024 4:34:00 AM
Toluene	ND	0.050		mg/Kg	1	2/15/2024 4:34:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	2/15/2024 4:34:00 AM
Xylenes, Total	ND	0.10		mg/Kg	1	2/15/2024 4:34:00 AM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	2/15/2024 4:34:00 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	980	60		mg/Kg	20	2/13/2024 2:05:18 PM

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

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

Page 2 of 10

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2402409
Date Reported: 2/21/2024

CLIENT: Devon Energy
Project: Agate PWU 21 22 062H
Lab ID: 2402409-003

Client Sample ID: BH24-02 2.0'
Collection Date: 2/5/2024 11:20:00 AM
Matrix: MEOH (SOIL) Received Date: 2/8/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	18000	980		mg/Kg	100	2/14/2024 4:40:21 PM
Motor Oil Range Organics (MRO)	5700	4900		mg/Kg	100	2/14/2024 4:40:21 PM
Surr: DNOP	0	61.2-134	S	%Rec	100	2/14/2024 4:40:21 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	86	4.9		mg/Kg	1	2/15/2024 4:56:00 AM
Surr: BFB	142	15-244		%Rec	1	2/15/2024 4:56:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/15/2024 4:56:00 AM
Toluene	ND	0.049		mg/Kg	1	2/15/2024 4:56:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	2/15/2024 4:56:00 AM
Xylenes, Total	0.47	0.099		mg/Kg	1	2/15/2024 4:56:00 AM
Surr: 4-Bromofluorobenzene	118	39.1-146		%Rec	1	2/15/2024 4:56:00 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	100	60		mg/Kg	20	2/13/2024 2:20:27 PM

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

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

CLIENT: Devon Energy

Project: Agate PWU 21 22 062H

Lab ID: 2402409-004

Client Sample ID: BH24-02 4.0'

Collection Date: 2/5/2024 11:30:00 AM

Matrix: MEOH (SOIL) Received Date: 2/8/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	190	9.8		mg/Kg	1	2/14/2024 4:52:43 PM
Motor Oil Range Organics (MRO)	65	49		mg/Kg	1	2/14/2024 4:52:43 PM
Surr: DNOP	93.3	61.2-134		%Rec	1	2/14/2024 4:52:43 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/15/2024 5:18:00 AM
Surr: BFB	142	15-244		%Rec	1	2/15/2024 5:18:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/15/2024 5:18:00 AM
Toluene	ND	0.048		mg/Kg	1	2/15/2024 5:18:00 AM
Ethylbenzene	ND	0.048		mg/Kg	1	2/15/2024 5:18:00 AM
Xylenes, Total	ND	0.096		mg/Kg	1	2/15/2024 5:18:00 AM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	2/15/2024 5:18:00 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	96	60		mg/Kg	20	2/13/2024 2:35:37 PM

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

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

CLIENT: Devon Energy

Client Sample ID: BH24-03 4.0'

Project: Agate PWU 21 22 062H

Collection Date: 2/5/2024 11:40:00 AM

Lab ID: 2402409-006

Matrix: MEOH (SOIL)

Received Date: 2/8/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/14/2024 4:23:11 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/14/2024 4:23:11 AM
Surr: DNOP	114	61.2-134		%Rec	1	2/14/2024 4:23:11 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/15/2024 6:02:00 AM
Surr: BFB	104	15-244		%Rec	1	2/15/2024 6:02:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/15/2024 6:02:00 AM
Toluene	ND	0.050		mg/Kg	1	2/15/2024 6:02:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	2/15/2024 6:02:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	2/15/2024 6:02:00 AM
Surr: 4-Bromofluorobenzene	99.3	39.1-146		%Rec	1	2/15/2024 6:02:00 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	69	60		mg/Kg	20	2/13/2024 3:05:55 PM

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2402409

21-Feb-24

Client: Devon Energy

Project: Agate PWU 21 22 062H

Sample ID: MB-80404	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID: PBS	Batch ID: 80404	RunNo: 103075
Prep Date: 2/12/2024	Analysis Date: 2/13/2024	SeqNo: 3810718 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	1.5

Sample ID: LCS-80404	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID: LCSS	Batch ID: 80404	RunNo: 103075
Prep Date: 2/12/2024	Analysis Date: 2/13/2024	SeqNo: 3810719 Units: mg/Kg
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	14	1.5 15.00 0 94.6 90 110

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 7 of 10

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2402409

21-Feb-24

Client: Devon Energy
Project: Agate PWU 21 22 062H

Sample ID: 2402409-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: BH24-01 2.0'	Batch ID: 80386	RunNo: 103064								
Prep Date: 2/12/2024	Analysis Date: 2/14/2024	SeqNo: 3809976 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.6	47.80	0	103	43.7	136			
Surr: DNOP	5.0		4.780		104	61.2	134			

Sample ID: 2402409-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: BH24-01 2.0'	Batch ID: 80386	RunNo: 103064								
Prep Date: 2/12/2024	Analysis Date: 2/14/2024	SeqNo: 3809977 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	49.85	0	105	43.7	136	6.16	31.3	
Surr: DNOP	5.8		4.985		117	61.2	134	0	0	

Sample ID: LCS-80386	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 80386	RunNo: 103064								
Prep Date: 2/12/2024	Analysis Date: 2/13/2024	SeqNo: 3810048 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	90.3	59.7	135			
Surr: DNOP	4.8		5.000		96.8	61.2	134			

Sample ID: MB-80386	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 80386	RunNo: 103064								
Prep Date: 2/12/2024	Analysis Date: 2/13/2024	SeqNo: 3810052 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	61.2	134			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

Page 8 of 10

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2402409

21-Feb-24

Client: Devon Energy

Project: Agate PWU 21 22 062H

Sample ID: ics-80371	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 80371		RunNo: 103113							
Prep Date: 2/9/2024	Analysis Date: 2/14/2024		SeqNo: 3812415		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	96.8	70	130			
Surr: BFB	2200		1000		220	15	244			

Sample ID: mb-80371	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 80371		RunNo: 103113							
Prep Date: 2/9/2024	Analysis Date: 2/14/2024		SeqNo: 3812416		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	15	244			

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2402409

21-Feb-24

Client: Devon Energy

Project: Agate PWU 21 22 062H

Sample ID: Ics-80371	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 80371	RunNo: 103113								
Prep Date: 2/9/2024	Analysis Date: 2/14/2024	SeqNo: 3812443	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.2	70	130			
Toluene	0.93	0.050	1.000	0	93.5	70	130			
Ethylbenzene	0.94	0.050	1.000	0	94.3	70	130			
Xylenes, Total	2.8	0.10	3.000	0	94.9	70	130			
Surr: 4-Bromofluorobenzene	0.99		1.000		99.1	39.1	146			

Sample ID: mb-80371	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 80371	RunNo: 103113								
Prep Date: 2/9/2024	Analysis Date: 2/14/2024	SeqNo: 3812444	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	0.96		1.000		95.9	39.1	146			

Sample ID: 2402409-001ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: BH24-01 2.0'	Batch ID: 80371	RunNo: 103113								
Prep Date: 2/9/2024	Analysis Date: 2/15/2024	SeqNo: 3812446	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.024	0.9747	0	87.6	70	130			
Toluene	0.87	0.049	0.9747	0	88.8	70	130			
Ethylbenzene	0.88	0.049	0.9747	0	90.2	70	130			
Xylenes, Total	2.6	0.097	2.924	0	90.6	70	130			
Surr: 4-Bromofluorobenzene	0.97		0.9747		100	39.1	146			

Sample ID: 2402409-001amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: BH24-01 2.0'	Batch ID: 80371	RunNo: 103113								
Prep Date: 2/9/2024	Analysis Date: 2/15/2024	SeqNo: 3812447	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.024	0.9709	0	81.5	70	130	7.58	20	
Toluene	0.81	0.049	0.9709	0	83.0	70	130	7.19	20	
Ethylbenzene	0.84	0.049	0.9709	0	86.4	70	130	4.68	20	
Xylenes, Total	2.5	0.097	2.913	0	86.8	70	130	4.62	20	
Surr: 4-Bromofluorobenzene	0.96		0.9709		98.8	39.1	146	0	0	

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit



Environment Testin

Eurofins Environment Testing South

Central, LLC

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: Devon Energy

Work Order Number: 2402409

RcptNo: 1

Received By: Tracy Casarrubias

2/8/2024 7:30:00 AM

Completed By: Desiree Dominguez

2/8/2024 8:11:06 AM

Reviewed By:

m 2/8/24

ID2

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 $>0^{\circ}\text{C}$ 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: m 2/8/24Special 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: Mailing address, phone number and Email/Fax are missing on COC- DAD 2/8/24

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.4	Good	Yes	Morty		

Chain-of-Custody Record

Client: DevonMailing Address: On file

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC ☐ Other☐ EDD (Type)

Turn-Around Time:

☒ Standard ☒ Rush 5 Day

Project Name:

Agate PWU 2122 #062H

Project #:

23E-01653

Project Manager:

Kent Stallings

Sampler:

AKOn Ice: ☒ Yes ☐ No mothy# of Coolers: 1Cooler Temp (including CF): 4.3 + 0.1 = 4.4 (°C)

Container Type and #

402

Preservative Type

ICE

HEAL No.

2402409-001-002-003-004-005-006

Date Time Matrix Sample Name

2-5-24 11:00 Soil BH24-01 2.0'11:10 BH24-01 4.0'11:20 BH24-02 2.0'11:30 BH24-02 4.0'11:40 BH24-03 2.0'11:50 BH24-03 4.0'

Date:

Time:

Relinquished by:

Date:

Time:

Relinquished by:

Received by:

Via:

Date Time

Received by:

Via:

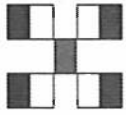
Date Time

Remarks:

CC: Kstallings@vertex.ca
aharris@vertex.ca

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

Released to Imaging: 7/3/2024 9:33:22 AM

HALL ENVIRONMENTAL
ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

TPH8015D(GRO / DRO / MRO)

8081 Pesticides/8082 PCB's

EDB (Method 504.1)

PAHs by 8310 or 8270SIMS

RCRA 8 Metals

(Cl, F, Br, NO₃, NO₂, PO₄, SO₄)

8260 (VOA)

8270 (Semi-VOA)

Total Coliform (Present/Absent)

BTEX / MTBE / TMB's (8021)



*Eurofins Environment Testing South
Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com*

February 19, 2024

Kent Stallings

Vertex Resources Services, Inc.

3101 Boyd Drive

Carlsbad, NM 88220

TEL:

FAX:

RE: Agate PWU 21 22 062H

OrderNo.: 2402411

Dear Kent Stallings:

Eurofins Environment Testing South Central, LLC received 14 sample(s) on 2/8/2024 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 do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2402411
Date Reported: 2/19/2024

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH24-01 6.0'
Project: Agate PWU 21 22 062H Collection Date: 2/6/2024 9:00:00 AM
Lab ID: 2402411-001 Matrix: SOIL Received Date: 2/8/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/8/2024 8:21:25 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/8/2024 8:21:25 PM
Surr: DNOP	82.6	61.2-134		%Rec	1	2/8/2024 8:21:25 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/10/2024 8:49:04 AM
Surr: BFB	98.1	15-244		%Rec	1	2/10/2024 8:49:04 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.024		mg/Kg	1	2/10/2024 8:49:04 AM
Toluene	ND	0.047		mg/Kg	1	2/10/2024 8:49:04 AM
Ethylbenzene	ND	0.047		mg/Kg	1	2/10/2024 8:49:04 AM
Xylenes, Total	ND	0.094		mg/Kg	1	2/10/2024 8:49:04 AM
Surr: 4-Bromofluorobenzene	84.6	39.1-146		%Rec	1	2/10/2024 8:49:04 AM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	72	60		mg/Kg	20	2/13/2024 3:21:04 PM

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

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

CLIENT: Vertex Resources Services, Inc.
Project: Agate PWU 21 22 062H
Lab ID: 2402411-002

Client Sample ID: BH24-04 2.0'
Collection Date: 2/6/2024 9:10:00 AM
Received Date: 2/8/2024 7:30:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/8/2024 8:33:07 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/8/2024 8:33:07 PM
Surr: DNOP	78.5	61.2-134		%Rec	1	2/8/2024 8:33:07 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/10/2024 9:12:28 AM
Surr: BFB	96.7	15-244		%Rec	1	2/10/2024 9:12:28 AM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Benzene	ND	0.023		mg/Kg	1	2/10/2024 9:12:28 AM
Toluene	ND	0.046		mg/Kg	1	2/10/2024 9:12:28 AM
Ethylbenzene	ND	0.046		mg/Kg	1	2/10/2024 9:12:28 AM
Xylenes, Total	ND	0.092		mg/Kg	1	2/10/2024 9:12:28 AM
Surr: 4-Bromofluorobenzene	83.6	39.1-146		%Rec	1	2/10/2024 9:12:28 AM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	4500	150		mg/Kg	50	2/14/2024 8:43:21 AM

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

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

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CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH24-04 4.0'

Project: Agate PWU 21 22 062H

Collection Date: 2/6/2024 9:20:00 AM

Lab ID: 2402411-003

Matrix: SOIL

Received Date: 2/8/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/13/2024 1:45:42 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/13/2024 1:45:42 AM
Surr: DNOP	81.6	61.2-134		%Rec	1	2/13/2024 1:45:42 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/12/2024 3:28:00 PM
Surr: BFB	105	15-244		%Rec	1	2/12/2024 3:28:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/12/2024 3:28:00 PM
Toluene	ND	0.050		mg/Kg	1	2/12/2024 3:28:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/12/2024 3:28:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/12/2024 3:28:00 PM
Surr: 4-Bromofluorobenzene	99.7	39.1-146		%Rec	1	2/12/2024 3:28:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	2/13/2024 8:28:18 PM

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

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

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CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH24-05 2.0'

Project: Agate PWU 21 22 062H

Collection Date: 2/6/2024 9:30:00 AM

Lab ID: 2402411-004

Matrix: SOIL

Received Date: 2/8/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/13/2024 2:20:41 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/13/2024 2:20:41 AM
Surr: DNOP	77.0	61.2-134		%Rec	1	2/13/2024 2:20:41 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/12/2024 4:34:00 PM
Surr: BFB	105	15-244		%Rec	1	2/12/2024 4:34:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/12/2024 4:34:00 PM
Toluene	ND	0.050		mg/Kg	1	2/12/2024 4:34:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/12/2024 4:34:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/12/2024 4:34:00 PM
Surr: 4-Bromofluorobenzene	99.2	39.1-146		%Rec	1	2/12/2024 4:34:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	440	60		mg/Kg	20	2/13/2024 8:40:38 PM

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

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

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CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH24-05 4.0'

Project: Agate PWU 21 22 062H

Collection Date: 2/6/2024 9:40:00 AM

Lab ID: 2402411-005

Matrix: SOIL

Received Date: 2/8/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/13/2024 2:32:17 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/13/2024 2:32:17 AM
Surr: DNOP	77.1	61.2-134		%Rec	1	2/13/2024 2:32:17 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/12/2024 5:40:00 PM
Surr: BFB	106	15-244		%Rec	1	2/12/2024 5:40:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/12/2024 5:40:00 PM
Toluene	ND	0.050		mg/Kg	1	2/12/2024 5:40:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/12/2024 5:40:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/12/2024 5:40:00 PM
Surr: 4-Bromofluorobenzene	99.0	39.1-146		%Rec	1	2/12/2024 5:40:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	770	60		mg/Kg	20	2/13/2024 8:52:59 PM

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2402411
Date Reported: 2/19/2024

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH24-05 6.0'
Project: Agate PWU 21 22 062H Collection Date: 2/6/2024 9:50:00 AM
Lab ID: 2402411-006 Matrix: SOIL Received Date: 2/8/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/13/2024 2:44:01 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/13/2024 2:44:01 AM
Surr: DNOP	75.6	61.2-134		%Rec	1	2/13/2024 2:44:01 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/12/2024 6:02:00 PM
Surr: BFB	102	15-244		%Rec	1	2/12/2024 6:02:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/12/2024 6:02:00 PM
Toluene	ND	0.050		mg/Kg	1	2/12/2024 6:02:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/12/2024 6:02:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/12/2024 6:02:00 PM
Surr: 4-Bromofluorobenzene	97.3	39.1-146		%Rec	1	2/12/2024 6:02:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	220	60		mg/Kg	20	2/13/2024 9:05:20 PM

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

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

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH24-06 2.0'

Project: Agate PWU 21 22 062H

Collection Date: 2/6/2024 10:00:00 AM

Lab ID: 2402411-007

Matrix: SOIL

Received Date: 2/8/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	130	9.9		mg/Kg	1	2/13/2024 2:55:33 AM
Motor Oil Range Organics (MRO)	58	49		mg/Kg	1	2/13/2024 2:55:33 AM
Surr: DNOP	72.7	61.2-134		%Rec	1	2/13/2024 2:55:33 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/12/2024 6:24:00 PM
Surr: BFB	104	15-244		%Rec	1	2/12/2024 6:24:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/12/2024 6:24:00 PM
Toluene	ND	0.049		mg/Kg	1	2/12/2024 6:24:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/12/2024 6:24:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/12/2024 6:24:00 PM
Surr: 4-Bromofluorobenzene	96.5	39.1-146		%Rec	1	2/12/2024 6:24:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	1000	60		mg/Kg	20	2/13/2024 9:17:40 PM

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

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

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CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH24-06 4.0'

Project: Agate PWU 21 22 062H

Collection Date: 2/6/2024 10:10:00 AM

Lab ID: 2402411-008

Matrix: SOIL

Received Date: 2/8/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	15	9.4		mg/Kg	1	2/13/2024 3:07:15 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/13/2024 3:07:15 AM
Surr: DNOP	74.1	61.2-134		%Rec	1	2/13/2024 3:07:15 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/12/2024 6:46:00 PM
Surr: BFB	103	15-244		%Rec	1	2/12/2024 6:46:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/12/2024 6:46:00 PM
Toluene	ND	0.050		mg/Kg	1	2/12/2024 6:46:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/12/2024 6:46:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/12/2024 6:46:00 PM
Surr: 4-Bromofluorobenzene	97.9	39.1-146		%Rec	1	2/12/2024 6:46:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	550	60		mg/Kg	20	2/13/2024 9:30:01 PM

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

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

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CLIENT: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Lab ID: 2402411-009

Client Sample ID: BH24-07 2.0'

Collection Date: 2/6/2024 10:20:00 AM

Received Date: 2/8/2024 7:30:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/13/2024 3:18:47 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/13/2024 3:18:47 AM
Surr: DNOP	72.3	61.2-134		%Rec	1	2/13/2024 3:18:47 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/12/2024 7:08:00 PM
Surr: BFB	101	15-244		%Rec	1	2/12/2024 7:08:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/12/2024 7:08:00 PM
Toluene	ND	0.049		mg/Kg	1	2/12/2024 7:08:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/12/2024 7:08:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/12/2024 7:08:00 PM
Surr: 4-Bromofluorobenzene	97.6	39.1-146		%Rec	1	2/12/2024 7:08:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	ND	60		mg/Kg	20	2/13/2024 9:42:22 PM

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

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

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH24-07 4.0'

Project: Agate PWU 21 22 062H

Collection Date: 2/6/2024 10:30:00 AM

Lab ID: 2402411-010

Matrix: SOIL

Received Date: 2/8/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/13/2024 3:30:28 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/13/2024 3:30:28 AM
Surr: DNOP	74.4	61.2-134		%Rec	1	2/13/2024 3:30:28 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/12/2024 7:30:00 PM
Surr: BFB	102	15-244		%Rec	1	2/12/2024 7:30:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/12/2024 7:30:00 PM
Toluene	ND	0.049		mg/Kg	1	2/12/2024 7:30:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/12/2024 7:30:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/12/2024 7:30:00 PM
Surr: 4-Bromofluorobenzene	96.0	39.1-146		%Rec	1	2/12/2024 7:30:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	66	60		mg/Kg	20	2/13/2024 9:54:43 PM

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

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

CLIENT: Vertex Resources Services, Inc.
Project: Agate PWU 21 22 062H
Lab ID: 2402411-011

Client Sample ID: BH24-08 2.0'
Collection Date: 2/6/2024 10:40:00 AM
Received Date: 2/8/2024 7:30:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	490	9.2		mg/Kg	1	2/13/2024 3:42:02 AM
Motor Oil Range Organics (MRO)	210	46		mg/Kg	1	2/13/2024 3:42:02 AM
Surr: DNOP	74.5	61.2-134		%Rec	1	2/13/2024 3:42:02 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	7.5	4.9		mg/Kg	1	2/12/2024 7:52:00 PM
Surr: BFB	145	15-244		%Rec	1	2/12/2024 7:52:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/12/2024 7:52:00 PM
Toluene	ND	0.049		mg/Kg	1	2/12/2024 7:52:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/12/2024 7:52:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/12/2024 7:52:00 PM
Surr: 4-Bromofluorobenzene	106	39.1-146		%Rec	1	2/12/2024 7:52:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	150	60		mg/Kg	20	2/13/2024 10:07:04 PM

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

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

CLIENT: Vertex Resources Services, Inc.
Project: Agate PWU 21 22 062H
Lab ID: 2402411-012

Client Sample ID: BH24-08 4.0'
Collection Date: 2/6/2024 10:50:00 AM
Received Date: 2/8/2024 7:30:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	49	9.7		mg/Kg	1	2/13/2024 4:05:55 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/13/2024 4:05:55 AM
Surr: DNOP	76.5	61.2-134		%Rec	1	2/13/2024 4:05:55 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/12/2024 8:14:00 PM
Surr: BFB	102	15-244		%Rec	1	2/12/2024 8:14:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/12/2024 8:14:00 PM
Toluene	ND	0.048		mg/Kg	1	2/12/2024 8:14:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/12/2024 8:14:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	2/12/2024 8:14:00 PM
Surr: 4-Bromofluorobenzene	94.1	39.1-146		%Rec	1	2/12/2024 8:14:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	160	60		mg/Kg	20	2/13/2024 10:19:25 PM

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

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

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2402411
Date Reported: 2/19/2024

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH24-09 2.0'
Project: Agate PWU 21 22 062H Collection Date: 2/6/2024 11:00:00 AM
Lab ID: 2402411-013 Matrix: SOIL Received Date: 2/8/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	44	9.4		mg/Kg	1	2/13/2024 4:18:00 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/13/2024 4:18:00 AM
Surr: DNOP	79.1	61.2-134		%Rec	1	2/13/2024 4:18:00 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/12/2024 8:58:00 PM
Surr: BFB	102	15-244		%Rec	1	2/12/2024 8:58:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/12/2024 8:58:00 PM
Toluene	ND	0.049		mg/Kg	1	2/12/2024 8:58:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/12/2024 8:58:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/12/2024 8:58:00 PM
Surr: 4-Bromofluorobenzene	96.6	39.1-146		%Rec	1	2/12/2024 8:58:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	120	60		mg/Kg	20	2/13/2024 10:56:27 PM

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

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

CLIENT: Vertex Resources Services, Inc.
Project: Agate PWU 21 22 062H
Lab ID: 2402411-014

Client Sample ID: BH24-09 4.0'
Collection Date: 2/6/2024 11:10:00 AM
Received Date: 2/8/2024 7:30:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	15	9.9		mg/Kg	1	2/13/2024 4:30:04 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/13/2024 4:30:04 AM
Surr: DNOP	78.6	61.2-134		%Rec	1	2/13/2024 4:30:04 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/12/2024 9:20:00 PM
Surr: BFB	104	15-244		%Rec	1	2/12/2024 9:20:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.023		mg/Kg	1	2/12/2024 9:20:00 PM
Toluene	ND	0.047		mg/Kg	1	2/12/2024 9:20:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	2/12/2024 9:20:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	2/12/2024 9:20:00 PM
Surr: 4-Bromofluorobenzene	96.8	39.1-146		%Rec	1	2/12/2024 9:20:00 PM
EPA METHOD 300.0: ANIONS						Analyst: KCB
Chloride	600	60		mg/Kg	20	2/13/2024 11:08:48 PM

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2402411

19-Feb-24

Client: Vertex Resources Services, Inc.**Project:** Agate PWU 21 22 062H

Sample ID: MB-80404	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBS	Batch ID: 80404		RunNo: 103075							
Prep Date: 2/12/2024	Analysis Date: 2/13/2024		SeqNo: 3810718		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-80404	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSS	Batch ID: 80404		RunNo: 103075							
Prep Date: 2/12/2024	Analysis Date: 2/13/2024		SeqNo: 3810719		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.6	90	110			

Sample ID: MB-80413	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBS	Batch ID: 80413		RunNo: 103086							
Prep Date: 2/12/2024	Analysis Date: 2/13/2024		SeqNo: 3810938		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-80413	SampType: lcs		TestCode: EPA Method 300.0: Anions							
Client ID: LCSS	Batch ID: 80413		RunNo: 103086							
Prep Date: 2/12/2024	Analysis Date: 2/13/2024		SeqNo: 3810939		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.2	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 Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

Page 15 of 20

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2402411

19-Feb-24

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Sample ID: MB-80343	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 80343	RunNo: 102974								
Prep Date: 2/8/2024	Analysis Date: 2/8/2024	SeqNo: 3805739 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	8.2		10.00		82.3	61.2	134			

Sample ID: LCS-80343	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 80343	RunNo: 102974								
Prep Date: 2/8/2024	Analysis Date: 2/8/2024	SeqNo: 3805740 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	10	50.00	0	79.5	59.7	135			
Surr: DNOP	4.1		5.000		81.8	61.2	134			

Sample ID: LCS-80387	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 80387	RunNo: 103027								
Prep Date: 2/12/2024	Analysis Date: 2/13/2024	SeqNo: 3808472 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	10	50.00	0	75.7	59.7	135			
Surr: DNOP	3.8		5.000		76.8	61.2	134			

Sample ID: 2402411-003AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: BH24-04 4.0'	Batch ID: 80387	RunNo: 103027								
Prep Date: 2/12/2024	Analysis Date: 2/13/2024	SeqNo: 3808474 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	9.4	47.04	0	82.6	43.7	136			
Surr: DNOP	3.8		4.704		80.5	61.2	134			

Sample ID: 2402411-003AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: BH24-04 4.0'	Batch ID: 80387	RunNo: 103027								
Prep Date: 2/12/2024	Analysis Date: 2/13/2024	SeqNo: 3808475 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	9.7	48.45	0	78.2	43.7	136	2.52	31.3	
Surr: DNOP	3.7		4.845		76.3	61.2	134	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2402411

19-Feb-24

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Sample ID: lcs-80341	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 80341		RunNo: 102999							
Prep Date: 2/8/2024	Analysis Date: 2/9/2024		SeqNo: 3807563		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	70	130			
Surr: BFB	2100		1000		206	15	244			

Sample ID: mb-80341	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 80341		RunNo: 102999							
Prep Date: 2/8/2024	Analysis Date: 2/9/2024		SeqNo: 3807565		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	15	244			

Sample ID: lcs-80347	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 80347		RunNo: 103071							
Prep Date: 2/8/2024	Analysis Date: 2/12/2024		SeqNo: 3810422		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	100	70	130			
Surr: BFB	2300		1000		226	15	244			

Sample ID: mb-80347	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 80347		RunNo: 103071							
Prep Date: 2/8/2024	Analysis Date: 2/12/2024		SeqNo: 3810423		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	1100		1000		105	15	244			

Sample ID: 2402411-003ams	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: BH24-04 4.0'	Batch ID: 80347		RunNo: 103071							
Prep Date: 2/8/2024	Analysis Date: 2/12/2024		SeqNo: 3810425		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	24.88	0	91.7	70	130			
Surr: BFB	2200		995.0		217	15	244			

Sample ID: 2402411-003amsd	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: BH24-04 4.0'	Batch ID: 80347		RunNo: 103071							
Prep Date: 2/8/2024	Analysis Date: 2/12/2024		SeqNo: 3810426		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2402411

19-Feb-24

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Sample ID: 2402411-003amsd		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range						
Client ID: BH24-04 4.0'		Batch ID: 80347		RunNo: 103071						
Prep Date: 2/8/2024		Analysis Date: 2/12/2024		SeqNo: 3810426		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	24.80	0	93.9	70	130	2.12	20	
Surr: BFB	2200		992.1		223	15	244	0	0	

Qualifiers:

- *

Value exceeds Maximum Contaminant Level.
- D

Sample Diluted Due to Matrix
- H

Holding times for preparation or analysis exceeded
- ND

Not Detected at the Reporting Limit
- PQL

Practical Quantitative Limit
- S

% Recovery outside of standard limits. If undiluted results may be estimated.
- B

Analyte detected in the associated Method Blank
- E

Above Quantitation Range/Estimated Value
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2402411

19-Feb-24

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Sample ID: LCS-80341	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 80341		RunNo: 102999							
Prep Date: 2/8/2024	Analysis Date: 2/9/2024		SeqNo: 3807616		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.025	1.000	0	83.7	70	130			
Toluene	0.85	0.050	1.000	0	85.4	70	130			
Ethylbenzene	0.87	0.050	1.000	0	86.9	70	130			
Xylenes, Total	2.6	0.10	3.000	0	87.4	70	130			
Surr: 4-Bromofluorobenzene	0.86		1.000		86.4	39.1	146			

Sample ID: mb-80341	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 80341		RunNo: 102999							
Prep Date: 2/8/2024	Analysis Date: 2/9/2024		SeqNo: 3807618		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	0.84		1.000		83.7	39.1	146			

Sample ID: lcs-80347	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 80347		RunNo: 103071							
Prep Date: 2/8/2024	Analysis Date: 2/12/2024		SeqNo: 3810464		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.2	70	130			
Toluene	0.94	0.050	1.000	0	94.4	70	130			
Ethylbenzene	0.97	0.050	1.000	0	96.6	70	130			
Xylenes, Total	2.9	0.10	3.000	0	96.6	70	130			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	39.1	146			

Sample ID: mb-80347	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 80347		RunNo: 103071							
Prep Date: 2/8/2024	Analysis Date: 2/12/2024		SeqNo: 3810465		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		99.9	39.1	146			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2402411

19-Feb-24

Client: Vertex Resources Services, Inc.

Project: Agate PWU 21 22 062H

Sample ID: 2402411-004ams		SampType: MS			TestCode: EPA Method 8021B: Volatiles					
Client ID: BH24-05 2.0'		Batch ID: 80347			RunNo: 103071					
Prep Date: 2/8/2024		Analysis Date: 2/12/2024			SeqNo: 3810468		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	0.9950	0	89.0	70	130			
Toluene	0.90	0.050	0.9950	0	90.4	70	130			
Ethylbenzene	0.92	0.050	0.9950	0	92.5	70	130			
Xylenes, Total	2.8	0.10	2.985	0	93.0	70	130			
Surr: 4-Bromofluorobenzene	1.0		0.9950		100	39.1	146			

Sample ID: 2402411-004amsd		SampType: MSD			TestCode: EPA Method 8021B: Volatiles					
Client ID: BH24-05 2.0'		Batch ID: 80347			RunNo: 103071					
Prep Date: 2/8/2024		Analysis Date: 2/12/2024			SeqNo: 3810469		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.025	0.9960	0	83.6	70	130	6.12	20	
Toluene	0.87	0.050	0.9960	0	87.5	70	130	3.17	20	
Ethylbenzene	0.89	0.050	0.9960	0	89.7	70	130	2.96	20	
Xylenes, Total	2.7	0.10	2.988	0	90.6	70	130	2.54	20	
Surr: 4-Bromofluorobenzene	0.99		0.9960		99.6	39.1	146	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 20 of 20



Environment Testin

Eurofins Environment Testing South
Central, LLC4901 Hawkins NE
Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Vertex Resources

Work Order Number: 2402411

RcptNo: 1

Received By: Tracy Casarrubias

2/8/2024 7:30:00 AM

Completed By: Desiree Dominguez

2/8/2024 8:22:45 AM

Reviewed By:

m 2/8/24

D2

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 $>0^{\circ}\text{C}$ 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: m 2/8/24Special 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:

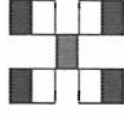
17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.8	Good	Not Present	Morty		

Chain-of-Custody Record

Client: Vertex (Deron)			
Mailing Address: on file			
Phone #:			
email or Fax#:			
QA/QC Package:			
<input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)			
Accreditation: <input type="checkbox"/> Az Compliance			
<input type="checkbox"/> NELAC <input type="checkbox"/> Other			
<input type="checkbox"/> EDD (Type)			
Date	Time	Matrix	Sample Name
2-6-24	11:00	soil	BH24-09 2'
↓	11:00	soil	BH24-09 4'
Date:	Time:	Relinquished by:	
Date:	Time:	Relinquished by:	

Turn-Around Time:					
<input checked="" type="checkbox"/> Standard	<input checked="" type="checkbox"/> Rush	<u>5 Day</u>			
Project Name:					
<u>Agate PWU 21 22 #062H</u>					
Project #:					
<u>23E-01633</u>					
Project Manager:					
<u>Kent Stallings</u>					
Sampler: <u>Zach Englehart</u>					
On Ice: <input checked="" type="checkbox"/> Yes		<input type="checkbox"/> No			
# of Coolers: <u>1</u>		<u>Marty</u>			
Cooler Temp (including CF): <u>5.7 + 0.1 = 5.8 (°C)</u>					
Container Type and #	Preservative Type	HEAL No.			
<u>lgar: 4oz.</u>	<u>ice</u>	<u>2402411</u>			
<u>↓</u>	<u>↓</u>	<u>-013</u>			
		<u>-014</u>			
Received by:		Via:	Date	Time	
<u>Cummings</u>			<u>2/7/24</u>	<u>920</u>	
Received by:		Via:	Date	Time	
<u>(signature)</u>			<u>2/6/24</u>	<u>7:30</u>	



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

Remarks:

~~Kstallings@vertex.ca~~
Kstallings@vertex.ca
Direct bill to Devon



Eurofins Environment Testing South
Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

February 19, 2024

Kent Stallings

Vertex Resources Services, Inc.

3101 Boyd Drive

Carlsbad, NM 88220

TEL: (505) 506-0040

FAX:

RE: Agate PWU 2122 062H

OrderNo.: 2402490

Dear Kent Stallings:

Eurofins Environment Testing South Central, LLC received 8 sample(s) on 2/9/2024 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 do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

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

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2402490
Date Reported: 2/19/2024

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH24-10 2'
Project: Agate PWU 2122 062H Collection Date: 2/7/2024 9:00:00 AM
Lab ID: 2402490-001 Matrix: SOIL Received Date: 2/9/2024 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/13/2024 5:40:25 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/13/2024 5:40:25 PM
Surr: DNOP	76.7	61.2-134		%Rec	1	2/13/2024 5:40:25 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/13/2024 3:35:00 PM
Surr: BFB	106	15-244		%Rec	1	2/13/2024 3:35:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/13/2024 3:35:00 PM
Toluene	ND	0.050		mg/Kg	1	2/13/2024 3:35:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/13/2024 3:35:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/13/2024 3:35:00 PM
Surr: 4-Bromofluorobenzene	100	39.1-146		%Rec	1	2/13/2024 3:35:00 PM
EPA METHOD 300.0: ANIONS						Analyst: RBC
Chloride	ND	60		mg/Kg	20	2/14/2024 3:33:51 AM

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

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

CLIENT: Vertex Resources Services, Inc.
Project: Agate PWU 2122 062H
Lab ID: 2402490-002

Client Sample ID: BH24-10 4'
Collection Date: 2/7/2024 9:10:00 AM
Received Date: 2/9/2024 8:30:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/13/2024 6:16:22 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/13/2024 6:16:22 PM
Surr: DNOP	77.4	61.2-134		%Rec	1	2/13/2024 6:16:22 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/13/2024 4:42:00 PM
Surr: BFB	108	15-244		%Rec	1	2/13/2024 4:42:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/13/2024 4:42:00 PM
Toluene	ND	0.050		mg/Kg	1	2/13/2024 4:42:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/13/2024 4:42:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/13/2024 4:42:00 PM
Surr: 4-Bromofluorobenzene	100	39.1-146		%Rec	1	2/13/2024 4:42:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	2/14/2024 7:53:50 PM

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

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

CLIENT: Vertex Resources Services, Inc.
Project: Agate PWU 2122 062H
Lab ID: 2402490-003

Client Sample ID: BH24-11 2'
Collection Date: 2/7/2024 9:20:00 AM
Received Date: 2/9/2024 8:30:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/13/2024 6:28:16 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/13/2024 6:28:16 PM
Surr: DNOP	78.8	61.2-134		%Rec	1	2/13/2024 6:28:16 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/13/2024 5:49:00 PM
Surr: BFB	167	15-244		%Rec	1	2/13/2024 5:49:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/13/2024 5:49:00 PM
Toluene	ND	0.049		mg/Kg	1	2/13/2024 5:49:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/13/2024 5:49:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/13/2024 5:49:00 PM
Surr: 4-Bromofluorobenzene	156	39.1-146	S	%Rec	1	2/13/2024 5:49:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	2/14/2024 8:06:11 PM

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

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

CLIENT: Vertex Resources Services, Inc.
Project: Agate PWU 2122 062H
Lab ID: 2402490-004

Client Sample ID: BH24-11 4'
Collection Date: 2/7/2024 9:30:00 AM
Received Date: 2/9/2024 8:30:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/13/2024 6:40:16 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/13/2024 6:40:16 PM
Surr: DNOP	78.7	61.2-134		%Rec	1	2/13/2024 6:40:16 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/13/2024 6:11:00 PM
Surr: BFB	107	15-244		%Rec	1	2/13/2024 6:11:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/13/2024 6:11:00 PM
Toluene	ND	0.049		mg/Kg	1	2/13/2024 6:11:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/13/2024 6:11:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/13/2024 6:11:00 PM
Surr: 4-Bromofluorobenzene	98.6	39.1-146		%Rec	1	2/13/2024 6:11:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	160	60		mg/Kg	20	2/14/2024 8:18:31 PM

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

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

CLIENT: Vertex Resources Services, Inc.
Project: Agate PWU 2122 062H
Lab ID: 2402490-005

Client Sample ID: BH24-12 2'
Collection Date: 2/7/2024 9:40:00 AM
Received Date: 2/9/2024 8:30:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	300	9.9		mg/Kg	1	2/13/2024 6:52:07 PM
Motor Oil Range Organics (MRO)	110	50		mg/Kg	1	2/13/2024 6:52:07 PM
Surr: DNOP	74.1	61.2-134		%Rec	1	2/13/2024 6:52:07 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/13/2024 6:33:00 PM
Surr: BFB	137	15-244		%Rec	1	2/13/2024 6:33:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/13/2024 6:33:00 PM
Toluene	ND	0.050		mg/Kg	1	2/13/2024 6:33:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/13/2024 6:33:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/13/2024 6:33:00 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	2/13/2024 6:33:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	2/14/2024 8:30:52 PM

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

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

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH24-12 4'

Project: Agate PWU 2122 062H

Collection Date: 2/7/2024 9:50:00 AM

Lab ID: 2402490-006

Matrix: SOIL

Received Date: 2/9/2024 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	38	9.4		mg/Kg	1	2/13/2024 7:35:11 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/13/2024 7:35:11 PM
Surr: DNOP	76.6	61.2-134		%Rec	1	2/13/2024 7:35:11 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/13/2024 6:55:00 PM
Surr: BFB	103	15-244		%Rec	1	2/13/2024 6:55:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/13/2024 6:55:00 PM
Toluene	ND	0.050		mg/Kg	1	2/13/2024 6:55:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/13/2024 6:55:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/13/2024 6:55:00 PM
Surr: 4-Bromofluorobenzene	98.5	39.1-146		%Rec	1	2/13/2024 6:55:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	340	60		mg/Kg	20	2/14/2024 9:07:54 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2402490
Date Reported: 2/19/2024

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH24-13 2'
Project: Agate PWU 2122 062H Collection Date: 2/7/2024 10:00:00 AM
Lab ID: 2402490-007 Matrix: SOIL Received Date: 2/9/2024 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/13/2024 7:58:54 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/13/2024 7:58:54 PM
Surr: DNOP	75.6	61.2-134		%Rec	1	2/13/2024 7:58:54 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/13/2024 7:17:00 PM
Surr: BFB	106	15-244		%Rec	1	2/13/2024 7:17:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/13/2024 7:17:00 PM
Toluene	ND	0.049		mg/Kg	1	2/13/2024 7:17:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/13/2024 7:17:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/13/2024 7:17:00 PM
Surr: 4-Bromofluorobenzene	98.3	39.1-146		%Rec	1	2/13/2024 7:17:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	2/14/2024 9:20:14 PM

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

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

Analytical Report

Lab Order 2402490

Date Reported: 2/19/2024

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.

Client Sample ID: BH24-13 4'

Project: Agate PWU 2122 062H

Collection Date: 2/7/2024 10:10:00 AM

Lab ID: 2402490-008

Matrix: SOIL

Received Date: 2/9/2024 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: JKU
Diesel Range Organics (DRO)	13	9.5		mg/Kg	1	2/13/2024 8:10:46 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/13/2024 8:10:46 PM
Surr: DNOP	76.3	61.2-134		%Rec	1	2/13/2024 8:10:46 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/13/2024 7:39:00 PM
Surr: BFB	111	15-244		%Rec	1	2/13/2024 7:39:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/13/2024 7:39:00 PM
Toluene	ND	0.049		mg/Kg	1	2/13/2024 7:39:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/13/2024 7:39:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	2/13/2024 7:39:00 PM
Surr: 4-Bromofluorobenzene	98.3	39.1-146		%Rec	1	2/13/2024 7:39:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	220	60		mg/Kg	20	2/14/2024 9:32:36 PM

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

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

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2402490

19-Feb-24

Client: Vertex Resources Services, Inc.

Project: Agate PWU 2122 062H

Sample ID: MB-80440	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBS	Batch ID: 80440		RunNo: 103069							
Prep Date: 2/13/2024	Analysis Date: 2/13/2024		SeqNo: 3810349		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-80440	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSS	Batch ID: 80440		RunNo: 103069							
Prep Date: 2/13/2024	Analysis Date: 2/13/2024		SeqNo: 3810350		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-80454	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBS	Batch ID: 80454		RunNo: 103098							
Prep Date: 2/14/2024	Analysis Date: 2/14/2024		SeqNo: 3811684		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-80454	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSS	Batch ID: 80454		RunNo: 103098							
Prep Date: 2/14/2024	Analysis Date: 2/14/2024		SeqNo: 3811685		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.3	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 Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2402490

19-Feb-24

Client: Vertex Resources Services, Inc.
Project: Agate PWU 2122 062H

Sample ID: MB-80407	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 80407	RunNo: 103068								
Prep Date: 2/13/2024	Analysis Date: 2/13/2024	SeqNo: 3810119		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	7.5		10.00		74.9	61.2	134			

Sample ID: LCS-80407	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 80407	RunNo: 103068								
Prep Date: 2/13/2024	Analysis Date: 2/13/2024	SeqNo: 3810120		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	10	50.00	0	75.5	59.7	135			
Surr: DNOP	3.7		5.000		74.8	61.2	134			

Sample ID: 2402490-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: BH24-10 2'	Batch ID: 80407	RunNo: 103068								
Prep Date: 2/13/2024	Analysis Date: 2/13/2024	SeqNo: 3810122		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	33	9.4	47.21	0	70.1	43.7	136			
Surr: DNOP	3.4		4.721		72.1	61.2	134			

Sample ID: 2402490-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: BH24-10 2'	Batch ID: 80407	RunNo: 103068								
Prep Date: 2/13/2024	Analysis Date: 2/13/2024	SeqNo: 3810123		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	34	9.5	47.44	0	70.6	43.7	136	1.15	31.3	
Surr: DNOP	3.3		4.744		69.3	61.2	134	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2402490

19-Feb-24

Client: Vertex Resources Services, Inc.

Project: Agate PWU 2122 062H

Sample ID: ics-80390	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 80390	RunNo: 103073								
Prep Date: 2/12/2024	Analysis Date: 2/13/2024	SeqNo: 3810525			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	102	70	130			
Surr: BFB	2200		1000		218	15	244			

Sample ID: mb-80390	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 80390	RunNo: 103073								
Prep Date: 2/12/2024	Analysis Date: 2/13/2024	SeqNo: 3810526			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	1100		1000		109	15	244			

Sample ID: 2402490-001ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: BH24-10 2'	Batch ID: 80390	RunNo: 103073								
Prep Date: 2/12/2024	Analysis Date: 2/13/2024	SeqNo: 3810538			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	24.78	0	108	70	130			
Surr: BFB	2400		991.1		238	15	244			

Sample ID: 2402490-001amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: BH24-10 2'	Batch ID: 80390	RunNo: 103073								
Prep Date: 2/12/2024	Analysis Date: 2/13/2024	SeqNo: 3810539			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	24.90	0	107	70	130	0.694	20	
Surr: BFB	2400		996.0		239	15	244	0	0	

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2402490

19-Feb-24

Client: Vertex Resources Services, Inc.
Project: Agate PWU 2122 062H

Sample ID: Ics-80390	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 80390	RunNo: 103073								
Prep Date: 2/12/2024	Analysis Date: 2/13/2024	SeqNo: 3810600	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.2	70	130			
Toluene	0.94	0.050	1.000	0	93.8	70	130			
Ethylbenzene	0.95	0.050	1.000	0	94.8	70	130			
Xylenes, Total	2.8	0.10	3.000	0	94.8	70	130			
Surr: 4-Bromofluorobenzene	1.0		1.000		100	39.1	146			

Sample ID: mb-80390	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 80390	RunNo: 103073								
Prep Date: 2/12/2024	Analysis Date: 2/13/2024	SeqNo: 3810603	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		99.0	39.1	146			

Sample ID: 2402490-002ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: BH24-10 4'	Batch ID: 80390	RunNo: 103073								
Prep Date: 2/12/2024	Analysis Date: 2/13/2024	SeqNo: 3810630	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	70	130			
Toluene	1.0	0.050	1.000	0	102	70	130			
Ethylbenzene	1.1	0.050	1.000	0	107	70	130			
Xylenes, Total	3.3	0.10	3.000	0.02200	108	70	130			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	39.1	146			

Sample ID: 2402490-002amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: BH24-10 4'	Batch ID: 80390	RunNo: 103073								
Prep Date: 2/12/2024	Analysis Date: 2/13/2024	SeqNo: 3810631	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	0.9990	0	98.1	70	130	4.17	20	
Toluene	0.99	0.050	0.9990	0	99.0	70	130	3.22	20	
Ethylbenzene	1.0	0.050	0.9990	0	102	70	130	5.15	20	
Xylenes, Total	3.1	0.10	2.997	0.02200	101	70	130	5.97	20	
Surr: 4-Bromofluorobenzene	1.0		0.9990		100	39.1	146	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit



Environment Testin

Eurofins Environment Testing South
Central, LLC

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: Vertex Resources

Work Order Number: 2402490

RcptNo: 1

Received By: Joseph Alderette

2/9/2024 8:30:00 AM

Completed By: Tracy Casarrubias

2/9/2024 8:44:31 AM

Reviewed By:

SCM 2/9/24

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: 7m2/9/24Special 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:

Mailing address, phone number and Email/Fax are missing on COC- TMC 2/9/24

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.7	Good	Yes	Morty		

Chain-of-Custody Record

Client: Vertex (Deron)Mailing Address: on file

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC ☐ Other☐ EDD (Type)

Turn-Around Time:

☒ Standard☒ Rush 5 Day

Project Name:

Agate PWU 2122 #062H

Project #:

23E-01653

Project Manager:

Kent Stallings

Sampler:

Zach EnglebertOn Ice: ☒ Yes ☐ No# of Coolers: 1Cooler Temp (including CF): 1.8 - 6.1 = 1.7 months (°C)

Date Time Matrix Sample Name

2-7-24 9:09 Soil BH24-10 2'

9:10 BH24-10 4'

9:20 BH24-11 2'

9:30 BH24-11 4'

9:40 BH24-12 2'

9:50 BH24-12 4'

10:00 BH24-13 2'

10:10 BH24-13 4'

Date Time

2-8-24 10:04

Relinquished by:

[Signature]

Date Time

2-8-24 1900

Relinquished by:

[Signature]

Received by:

[Signature]

Date Time

2-6-24 1004

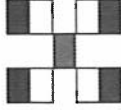
Received by:

[Signature]

Date Time

2-9-24 8:30

Remarks:

Direct bill to Deron
cc Kstallings@vertex.caHALL ENVIRONMENTAL
ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

TPH-8015D(GRO / DRO / MRO) ☒

8081 Pesticides/8082 PCB's ☒

EDB (Method 504.1) ☒

PAHs by 8310 or 8270SIMS ☒

RCRA 8 Metals ☒

Cl⁻, Br⁻, NO₃⁻, NO₂⁻, PO₄⁻, SO₄⁻ ☒

8260 (VOA) ☒

8270 (Semi-VOA) ☒

Total Coliform (Present/Absent) ☒



Eurofins Environment Testing South
Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

February 21, 2024

Kent Stallings
Devon Energy
6488 Seven Rivers Highway
Artesia, NM 88210
TEL: (575) 748-0176
FAX:

RE: Agate PWV 21 22 062H

OrderNo.: 2402525

Dear Kent Stallings:

Eurofins Environment Testing South Central, LLC received 20 sample(s) on 2/10/2024 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 do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

CLIENT: Devon Energy
Project: Agate PWV 21 22 062H
Lab ID: 2402525-001

Matrix: SOIL

Client Sample ID: BH24-12 6.0'
Collection Date: 2/8/2024 9:00:00 AM
Received Date: 2/10/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/13/2024 9:22:09 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/13/2024 9:22:09 AM
Surr: DNOP	127	61.2-134		%Rec	1	2/13/2024 9:22:09 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/16/2024 11:20:00 AM
Surr: BFB	108	15-244		%Rec	1	2/16/2024 11:20:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/16/2024 11:20:00 AM
Toluene	ND	0.050		mg/Kg	1	2/16/2024 11:20:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	2/16/2024 11:20:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	2/16/2024 11:20:00 AM
Surr: 4-Bromofluorobenzene	100	39.1-146		%Rec	1	2/16/2024 11:20:00 AM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	86	15		mg/Kg	5	2/14/2024 11:48:25 PM

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

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

CLIENT: Devon Energy

Client Sample ID: BH24-14 2.0'

Project: Agate PWV 21 22 062H

Collection Date: 2/8/2024 9:10:00 AM

Lab ID: 2402525-002

Matrix: SOIL

Received Date: 2/10/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	100	9.8		mg/Kg	1	2/13/2024 9:53:34 AM
Motor Oil Range Organics (MRO)	110	49		mg/Kg	1	2/13/2024 9:53:34 AM
Surr: DNOP	118	61.2-134		%Rec	1	2/13/2024 9:53:34 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/16/2024 12:27:00 PM
Surr: BFB	105	15-244		%Rec	1	2/16/2024 12:27:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/16/2024 12:27:00 PM
Toluene	ND	0.050		mg/Kg	1	2/16/2024 12:27:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/16/2024 12:27:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/16/2024 12:27:00 PM
Surr: 4-Bromofluorobenzene	98.5	39.1-146		%Rec	1	2/16/2024 12:27:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	260	60		mg/Kg	20	2/15/2024 11:37:02 AM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2402525
Date Reported: 2/21/2024

CLIENT: Devon Energy

Client Sample ID: BH24-14 4.0'

Project: Agate PWV 21 22 062H

Collection Date: 2/8/2024 9:20:00 AM

Lab ID: 2402525-003

Matrix: SOIL

Received Date: 2/10/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/13/2024 10:04:04 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/13/2024 10:04:04 AM
Surr: DNOP	143	61.2-134	S	%Rec	1	2/13/2024 10:04:04 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/16/2024 1:33:00 PM
Surr: BFB	114	15-244		%Rec	1	2/16/2024 1:33:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/16/2024 1:33:00 PM
Toluene	ND	0.049		mg/Kg	1	2/16/2024 1:33:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/16/2024 1:33:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/16/2024 1:33:00 PM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	2/16/2024 1:33:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	64	60		mg/Kg	20	2/15/2024 12:22:30 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2402525
Date Reported: 2/21/2024

CLIENT: Devon Energy
Project: Agate PWV 21 22 062H
Lab ID: 2402525-004

Client Sample ID: BH24-15 2.0'
Collection Date: 2/8/2024 9:30:00 AM
Received Date: 2/10/2024 7:45:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	39	9.6		mg/Kg	1	2/13/2024 10:14:34 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/13/2024 10:14:34 AM
Surr: DNOP	126	61.2-134		%Rec	1	2/13/2024 10:14:34 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/16/2024 1:55:00 PM
Surr: BFB	112	15-244		%Rec	1	2/16/2024 1:55:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/16/2024 1:55:00 PM
Toluene	ND	0.050		mg/Kg	1	2/16/2024 1:55:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/16/2024 1:55:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/16/2024 1:55:00 PM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	2/16/2024 1:55:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	4800	150		mg/Kg	50	2/16/2024 5:02:11 PM

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

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

Page 4 of 24

CLIENT: Devon Energy
Project: Agate PWV 21 22 062H
Lab ID: 2402525-005

Matrix: SOIL

Client Sample ID: BH24-15 4.0'
Collection Date: 2/8/2024 9:40:00 AM
Received Date: 2/10/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	63	9.7		mg/Kg	1	2/13/2024 10:25:04 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/13/2024 10:25:04 AM
Surr: DNOP	110	61.2-134		%Rec	1	2/13/2024 10:25:04 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/16/2024 2:17:00 PM
Surr: BFB	111	15-244		%Rec	1	2/16/2024 2:17:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/16/2024 2:17:00 PM
Toluene	ND	0.049		mg/Kg	1	2/16/2024 2:17:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/16/2024 2:17:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/16/2024 2:17:00 PM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	2/16/2024 2:17:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	2400	150		mg/Kg	50	2/16/2024 5:14:32 PM

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

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

CLIENT: Devon Energy
Project: Agate PWV 21 22 062H
Lab ID: 2402525-006

Matrix: SOIL

Client Sample ID: BH24-15 6.0'
Collection Date: 2/8/2024 9:50:00 AM
Received Date: 2/10/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/13/2024 10:35:38 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/13/2024 10:35:38 AM
Surr: DNOP	100	61.2-134		%Rec	1	2/13/2024 10:35:38 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/16/2024 2:39:00 PM
Surr: BFB	108	15-244		%Rec	1	2/16/2024 2:39:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/16/2024 2:39:00 PM
Toluene	ND	0.049		mg/Kg	1	2/16/2024 2:39:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/16/2024 2:39:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/16/2024 2:39:00 PM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	2/16/2024 2:39:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	350	60		mg/Kg	20	2/15/2024 2:08:34 PM

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

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

CLIENT: Devon Energy
Project: Agate PWV 21 22 062H
Lab ID: 2402525-007

Client Sample ID: BH24-16 2.0'
Collection Date: 2/8/2024 10:00:00 AM
Received Date: 2/10/2024 7:45:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/13/2024 10:46:12 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/13/2024 10:46:12 AM
Surr: DNOP	98.2	61.2-134		%Rec	1	2/13/2024 10:46:12 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/16/2024 3:02:00 PM
Surr: BFB	108	15-244		%Rec	1	2/16/2024 3:02:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/16/2024 3:02:00 PM
Toluene	ND	0.049		mg/Kg	1	2/16/2024 3:02:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/16/2024 3:02:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/16/2024 3:02:00 PM
Surr: 4-Bromofluorobenzene	100	39.1-146		%Rec	1	2/16/2024 3:02:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	440	60		mg/Kg	20	2/15/2024 2:23:44 PM

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

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

CLIENT: Devon Energy

Client Sample ID: BH24-16 4.0'

Project: Agate PWV 21 22 062H

Collection Date: 2/8/2024 10:10:00 AM

Lab ID: 2402525-008

Matrix: SOIL

Received Date: 2/10/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	12	9.5		mg/Kg	1	2/13/2024 11:07:17 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/13/2024 11:07:17 AM
Surr: DNOP	124	61.2-134		%Rec	1	2/13/2024 11:07:17 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/16/2024 3:24:00 PM
Surr: BFB	108	15-244		%Rec	1	2/16/2024 3:24:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/16/2024 3:24:00 PM
Toluene	ND	0.049		mg/Kg	1	2/16/2024 3:24:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/16/2024 3:24:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/16/2024 3:24:00 PM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	2/16/2024 3:24:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	230	60		mg/Kg	20	2/15/2024 2:38:53 PM

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

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

CLIENT: Devon Energy
Project: Agate PWV 21 22 062H
Lab ID: 2402525-009

Matrix: SOIL

Client Sample ID: BH24-17 2.0'
Collection Date: 2/8/2024 10:20:00 AM
Received Date: 2/10/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	57	9.7		mg/Kg	1	2/13/2024 11:17:52 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/13/2024 11:17:52 AM
Surr: DNOP	119	61.2-134		%Rec	1	2/13/2024 11:17:52 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/16/2024 3:46:00 PM
Surr: BFB	103	15-244		%Rec	1	2/16/2024 3:46:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/16/2024 3:46:00 PM
Toluene	ND	0.049		mg/Kg	1	2/16/2024 3:46:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/16/2024 3:46:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/16/2024 3:46:00 PM
Surr: 4-Bromofluorobenzene	96.3	39.1-146		%Rec	1	2/16/2024 3:46:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	760	60		mg/Kg	20	2/15/2024 2:54:02 PM

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

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

CLIENT: Devon Energy
Project: Agate PWV 21 22 062H
Lab ID: 2402525-010

Matrix: SOIL

Client Sample ID: BH24-17 4.0'
Collection Date: 2/8/2024 10:30:00 AM
Received Date: 2/10/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/13/2024 11:28:28 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/13/2024 11:28:28 AM
Surr: DNOP	111	61.2-134		%Rec	1	2/13/2024 11:28:28 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/16/2024 4:08:00 PM
Surr: BFB	98.0	15-244		%Rec	1	2/16/2024 4:08:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/16/2024 4:08:00 PM
Toluene	ND	0.049		mg/Kg	1	2/16/2024 4:08:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/16/2024 4:08:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/16/2024 4:08:00 PM
Surr: 4-Bromofluorobenzene	92.6	39.1-146		%Rec	1	2/16/2024 4:08:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	420	60		mg/Kg	20	2/15/2024 3:09:12 PM

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

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

CLIENT: Devon Energy
Project: Agate PWV 21 22 062H
Lab ID: 2402525-011

Matrix: SOIL

Client Sample ID: BH24-18 2.0'
Collection Date: 2/8/2024 10:40:00 AM
Received Date: 2/10/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/13/2024 11:39:04 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/13/2024 11:39:04 AM
Surr: DNOP	132	61.2-134		%Rec	1	2/13/2024 11:39:04 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/16/2024 4:52:00 PM
Surr: BFB	105	15-244		%Rec	1	2/16/2024 4:52:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/16/2024 4:52:00 PM
Toluene	ND	0.049		mg/Kg	1	2/16/2024 4:52:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/16/2024 4:52:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/16/2024 4:52:00 PM
Surr: 4-Bromofluorobenzene	98.4	39.1-146		%Rec	1	2/16/2024 4:52:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	2/15/2024 3:24:22 PM

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

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

CLIENT: Devon Energy

Project: Agate PWV 21 22 062H

Lab ID: 2402525-012

Client Sample ID: BH24-18 4.0'

Collection Date: 2/8/2024 10:50:00 AM

Received Date: 2/10/2024 7:45:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/13/2024 11:49:40 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/13/2024 11:49:40 AM
Surr: DNOP	109	61.2-134		%Rec	1	2/13/2024 11:49:40 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/16/2024 5:14:00 PM
Surr: BFB	105	15-244		%Rec	1	2/16/2024 5:14:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/16/2024 5:14:00 PM
Toluene	ND	0.049		mg/Kg	1	2/16/2024 5:14:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/16/2024 5:14:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/16/2024 5:14:00 PM
Surr: 4-Bromofluorobenzene	98.8	39.1-146		%Rec	1	2/16/2024 5:14:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	2/15/2024 3:39:31 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2402525
Date Reported: 2/21/2024

CLIENT: Devon Energy
Project: Agate PWV 21 22 062H
Lab ID: 2402525-014
Matrix: SOIL
Client Sample ID: BH24-19 4.0'
Collection Date: 2/8/2024 11:10:00 AM
Received Date: 2/10/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/13/2024 12:10:56 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/13/2024 12:10:56 PM
Surr: DNOP	112	61.2-134		%Rec	1	2/13/2024 12:10:56 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/16/2024 5:57:00 PM
Surr: BFB	102	15-244		%Rec	1	2/16/2024 5:57:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/16/2024 5:57:00 PM
Toluene	ND	0.050		mg/Kg	1	2/16/2024 5:57:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/16/2024 5:57:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/16/2024 5:57:00 PM
Surr: 4-Bromofluorobenzene	97.3	39.1-146		%Rec	1	2/16/2024 5:57:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	ND	60		mg/Kg	20	2/15/2024 4:09:49 PM

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

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

CLIENT: Devon Energy
Project: Agate PWV 21 22 062H
Lab ID: 2402525-015

Matrix: SOIL

Client Sample ID: BH24-20 2.0'
Collection Date: 2/8/2024 11:20:00 AM
Received Date: 2/10/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/13/2024 12:21:36 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/13/2024 12:21:36 PM
Surr: DNOP	106	61.2-134		%Rec	1	2/13/2024 12:21:36 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/16/2024 6:19:00 PM
Surr: BFB	101	15-244		%Rec	1	2/16/2024 6:19:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/16/2024 6:19:00 PM
Toluene	ND	0.047		mg/Kg	1	2/16/2024 6:19:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	2/16/2024 6:19:00 PM
Xylenes, Total	ND	0.095		mg/Kg	1	2/16/2024 6:19:00 PM
Surr: 4-Bromofluorobenzene	96.9	39.1-146		%Rec	1	2/16/2024 6:19:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	110	60		mg/Kg	20	2/15/2024 4:24:59 PM

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

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

CLIENT: Devon Energy

Client Sample ID: BH24-20 4.0'

Project: Agate PWV 21 22 062H

Collection Date: 2/8/2024 11:30:00 AM

Lab ID: 2402525-016

Matrix: SOIL

Received Date: 2/10/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	2/13/2024 12:32:17 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/13/2024 12:32:17 PM
Surr: DNOP	111	61.2-134		%Rec	1	2/13/2024 12:32:17 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/16/2024 6:41:00 PM
Surr: BFB	102	15-244		%Rec	1	2/16/2024 6:41:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/16/2024 6:41:00 PM
Toluene	ND	0.049		mg/Kg	1	2/16/2024 6:41:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/16/2024 6:41:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	2/16/2024 6:41:00 PM
Surr: 4-Bromofluorobenzene	96.8	39.1-146		%Rec	1	2/16/2024 6:41:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	200	60		mg/Kg	20	2/15/2024 5:10:27 PM

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

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

CLIENT: Devon Energy
Project: Agate PWV 21 22 062H
Lab ID: 2402525-017

Client Sample ID: BH24-21 2.0'
Collection Date: 2/8/2024 11:40:00 AM
Received Date: 2/10/2024 7:45:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/13/2024 12:43:16 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/13/2024 12:43:16 PM
Surr: DNOP	120	61.2-134		%Rec	1	2/13/2024 12:43:16 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/16/2024 7:03:00 PM
Surr: BFB	106	15-244		%Rec	1	2/16/2024 7:03:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/16/2024 7:03:00 PM
Toluene	ND	0.049		mg/Kg	1	2/16/2024 7:03:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	2/16/2024 7:03:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	2/16/2024 7:03:00 PM
Surr: 4-Bromofluorobenzene	99.3	39.1-146		%Rec	1	2/16/2024 7:03:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	400	60		mg/Kg	20	2/15/2024 5:25:35 PM

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

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

CLIENT: Devon Energy

Client Sample ID: BH24-21 4.0'

Project: Agate PWV 21 22 062H

Collection Date: 2/8/2024 11:50:00 AM

Lab ID: 2402525-018

Matrix: SOIL

Received Date: 2/10/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	2/13/2024 12:54:05 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/13/2024 12:54:05 PM
Surr: DNOP	110	61.2-134		%Rec	1	2/13/2024 12:54:05 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/16/2024 7:25:00 PM
Surr: BFB	105	15-244		%Rec	1	2/16/2024 7:25:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.024		mg/Kg	1	2/16/2024 7:25:00 PM
Toluene	ND	0.048		mg/Kg	1	2/16/2024 7:25:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	2/16/2024 7:25:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	2/16/2024 7:25:00 PM
Surr: 4-Bromofluorobenzene	98.2	39.1-146		%Rec	1	2/16/2024 7:25:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	190	60		mg/Kg	20	2/15/2024 5:40:45 PM

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

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

CLIENT: Devon Energy
Project: Agate PWV 21 22 062H
Lab ID: 2402525-019

Matrix: SOIL

Client Sample ID: BH24-22 2.0'
Collection Date: 2/8/2024 12:00:00 PM
Received Date: 2/10/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/13/2024 1:04:53 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/13/2024 1:04:53 PM
Surr: DNOP	119	61.2-134		%Rec	1	2/13/2024 1:04:53 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/16/2024 7:47:00 PM
Surr: BFB	104	15-244		%Rec	1	2/16/2024 7:47:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/16/2024 7:47:00 PM
Toluene	ND	0.050		mg/Kg	1	2/16/2024 7:47:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/16/2024 7:47:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/16/2024 7:47:00 PM
Surr: 4-Bromofluorobenzene	96.1	39.1-146		%Rec	1	2/16/2024 7:47:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	270	60		mg/Kg	20	2/15/2024 5:55:53 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2402525
Date Reported: 2/21/2024

CLIENT: Devon Energy
Project: Agate PWV 21 22 062H
Lab ID: 2402525-020
Matrix: SOIL
Client Sample ID: BH24-22 4.0'
Collection Date: 2/8/2024 12:10:00 PM
Received Date: 2/10/2024 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: PRD
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/13/2024 1:15:41 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/13/2024 1:15:41 PM
Surr: DNOP	108	61.2-134		%Rec	1	2/13/2024 1:15:41 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/16/2024 8:09:00 PM
Surr: BFB	105	15-244		%Rec	1	2/16/2024 8:09:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.025		mg/Kg	1	2/16/2024 8:09:00 PM
Toluene	ND	0.050		mg/Kg	1	2/16/2024 8:09:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/16/2024 8:09:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	2/16/2024 8:09:00 PM
Surr: 4-Bromofluorobenzene	98.9	39.1-146		%Rec	1	2/16/2024 8:09:00 PM
EPA METHOD 300.0: ANIONS						Analyst: SNS
Chloride	170	60		mg/Kg	20	2/15/2024 6:11:02 PM

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2402525

21-Feb-24

Client: Devon Energy

Project: Agate PWV 21 22 062H

Sample ID: MB-80454	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 80454	RunNo: 103098								
Prep Date: 2/14/2024	Analysis Date: 2/14/2024	SeqNo: 3811684	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-80454	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 80454	RunNo: 103098								
Prep Date: 2/14/2024	Analysis Date: 2/14/2024	SeqNo: 3811685	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.3	90	110			

Sample ID: MB-80467	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 80467	RunNo: 103135								
Prep Date: 2/15/2024	Analysis Date: 2/15/2024	SeqNo: 3813454	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-80467	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 80467	RunNo: 103135								
Prep Date: 2/15/2024	Analysis Date: 2/15/2024	SeqNo: 3813455	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.3	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 Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2402525
21-Feb-24

Client: Devon Energy
Project: Agate PWV 21 22 062H

Sample ID: 2402525-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: BH24-12 6.0'	Batch ID: 80406	RunNo: 103064								
Prep Date: 2/12/2024	Analysis Date: 2/13/2024	SeqNo: 3810012 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	9.9	49.46	0	103	43.7	136			
Surr: DNOP	5.5		4.946		111	61.2	134			

Sample ID: 2402525-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: BH24-12 6.0'	Batch ID: 80406	RunNo: 103064								
Prep Date: 2/12/2024	Analysis Date: 2/13/2024	SeqNo: 3810013 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	61	9.8	48.97	0	124	43.7	136	17.8	31.3	
Surr: DNOP	6.4		4.897		132	61.2	134	0	0	

Sample ID: LCS-80406	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 80406	RunNo: 103064								
Prep Date: 2/12/2024	Analysis Date: 2/13/2024	SeqNo: 3810051 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	101	59.7	135			
Surr: DNOP	5.6		5.000		113	61.2	134			

Sample ID: MB-80406	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 80406	RunNo: 103064								
Prep Date: 2/12/2024	Analysis Date: 2/13/2024	SeqNo: 3810054 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	11		10.00		108	61.2	134			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 22 of 24

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2402525

21-Feb-24

Client: Devon Energy

Project: Agate PWV 21 22 062H

Sample ID: ics-80398	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 80398	RunNo: 103194								
Prep Date: 2/12/2024	Analysis Date: 2/16/2024	SeqNo: 3816276			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	102	70	130			
Surr: BFB	2300		1000		234	15	244			

Sample ID: mb-80398	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 80398	RunNo: 103194								
Prep Date: 2/12/2024	Analysis Date: 2/16/2024	SeqNo: 3816277			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	1100		1000		111	15	244			

Sample ID: 2402525-001ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: BH24-12 6.0'	Batch ID: 80398	RunNo: 103194								
Prep Date: 2/12/2024	Analysis Date: 2/16/2024	SeqNo: 3816279			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.9	24.44	0	106	70	130			
Surr: BFB	2300		977.5		231	15	244			

Sample ID: 2402525-001amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: BH24-12 6.0'	Batch ID: 80398	RunNo: 103194								
Prep Date: 2/12/2024	Analysis Date: 2/16/2024	SeqNo: 3816280			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	24.78	0	91.8	70	130	12.8	20	
Surr: BFB	2100		991.1		215	15	244	0	0	

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2402525

21-Feb-24

Client: Devon Energy

Project: Agate PWV 21 22 062H

Sample ID: Ics-80398	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 80398		RunNo: 103194							
Prep Date: 2/12/2024	Analysis Date: 2/16/2024		SeqNo: 3816328		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.5	70	130			
Toluene	0.99	0.050	1.000	0	98.6	70	130			
Ethylbenzene	0.99	0.050	1.000	0	99.3	70	130			
Xylenes, Total	3.0	0.10	3.000	0	99.5	70	130			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	39.1	146			

Sample ID: mb-80398	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 80398		RunNo: 103194							
Prep Date: 2/12/2024	Analysis Date: 2/16/2024		SeqNo: 3816329		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	39.1	146			

Sample ID: 2402525-002ams	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: BH24-14 2.0'	Batch ID: 80398		RunNo: 103194							
Prep Date: 2/12/2024	Analysis Date: 2/16/2024		SeqNo: 3816375		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	0.9921	0	107	70	130			
Toluene	1.1	0.050	0.9921	0	106	70	130			
Ethylbenzene	1.1	0.050	0.9921	0	108	70	130			
Xylenes, Total	3.2	0.099	2.976	0	108	70	130			
Surr: 4-Bromofluorobenzene	1.0		0.9921		103	39.1	146			

Sample ID: 2402525-002amsd	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: BH24-14 2.0'	Batch ID: 80398		RunNo: 103194							
Prep Date: 2/12/2024	Analysis Date: 2/16/2024		SeqNo: 3816376		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9901	0	104	70	130	2.59	20	
Toluene	1.0	0.050	0.9901	0	104	70	130	1.99	20	
Ethylbenzene	1.1	0.050	0.9901	0	106	70	130	1.54	20	
Xylenes, Total	3.2	0.099	2.970	0	107	70	130	1.08	20	
Surr: 4-Bromofluorobenzene	1.0		0.9901		102	39.1	146	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit



Environment Testin

Eurofins Environment Testing South
Central, LLC

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: **Devon Energy**

Work Order Number: **2402525**

RcptNo: 1

Received By: **Cheyenne Cason**

2/10/2024 7:45:00 AM

Chad

Completed By: **Cheyenne Cason**

2/10/2024 8:14:02 AM

Chad

Reviewed By: *m 2/12/24*

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: *m 2/10/24*

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: *Client did not relinquish samples/COC on COC. m 2/12/24*

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.0	Good	Not Present	Yogi		

Chain-of-Custody Record

Client: Devon

On File

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

□ EDD (Type)

Turn-Around Time:

☒ Standard

☒ Rush 5 Day

Project Name:

Project Name: Agate PLV 21 22 #0624

Project #:

#. 23E-01653

Project Manager:

Project Manager: Kent Stallings

Sampler: ZE

On Ice: ☒ Yes

of Coolers: 1

Cooler Temp./Including CE: $2.7 - 0.2 = 2.0$ ($^{\circ}\text{C}$)

Container

Preservative

HEAL No.

8-24	0900	So.1	BH24-12	6.0
	0910		BH24-14	2.0
	0920		BH24-14	4.0
	0930		BH24-15	2.0
	0940		BH24-15	4.0
	0950		BH24-15	6.0
	1000		BH24-16	2.0
	1010		BH24-16	4.0
	1020		BH24-17	2.0
	1030		BH24-17	4.0
	1040		BH24-18	2.0
	1050		BH24-18	4.0

Date:	Time:	Relinquished by:
-------	-------	------------------

Date:	Time:	Relinquished by:
-------	-------	------------------

Received by:	Via:
--------------	------

Date	Time
------	------

Received by: Via:

Date Time

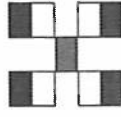
Remarks:

CC: Kstellings@vertex.ca

Shirley Carter 2/16/24 0745

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

Released to Imaging: 7/3/2024 9:33:22 AM



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

BTX / MTBE / TMB's (8021)	✓
TPH/8015D(GRO / DRO / MRO)	✓
8081 Pesticides/8082 PCB's	
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	
Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	→
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	

Remarks:

Chain-of-Custody Record

Client: DevonOn File

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC ☐ Other☐ EDD (Type)

Turn-Around Time:

☒ Standard ☒ Rush5 PM

Project Name:

Gate PHU 21 22 #062A

Project #:

23E-01653

Project Manager:

Kent StallingsSampler: 2EOn Ice: ☒ Yes ☐ No16g# of Coolers: 1Cooler Temp (including CF): 2.2-0.2-2.0 (°C)

Date	Time	Matrix	Sample Name
20-24	11:00	Soil	BH24-19 2.0'
	11:10		BH24-19 4.0'
	11:20		BH24-20 2.0'
	11:30		BH24-20 4.0'
	11:40		BH24-21 2.0'
	11:50		BH24-21 4.0'
	12:00		BH24-22 2.0'
	12:10		BH24-22 4.0'

Container Type and #	Preservative Type	HEAL No.
402	ICE	2402525
		014
		015
		016
		017
		018
		019
		020

Date: Time:

Relinquished by:

Received by: Via:

Date: Time:

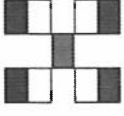
Date: Time:

Relinquished by:

Received by: Via:

Date: Time:

Remarks:

CC: kstallings@vertex.ca

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

TPH8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl ⁻ , Br ⁻ , NO ₃ ⁻ , NO ₂ ⁻ , PO ₄ ³⁻ , SO ₄ ²⁻	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
BTEX+ MTBE / TMB's (8021)								



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Dale Woodall
Devon Energy Corporation
6488 Seven Rivers Hwy
Artesia, New Mexico 88210

Generated 4/3/2024 7:28:07 PM

JOB DESCRIPTION

Agate PLU 21 22 #062H

JOB NUMBER

885-2010-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
4/3/2024 7:28:07 PM

Authorized for release by
Andy Freeman, Business Unit Manager
andy.freeman@et.eurofinsus.com
(505)345-3975

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Laboratory Job ID: 885-2010-1

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Definitions/Glossary

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Devon Energy Corporation
Project: Agate PLU 21 22 #062H

Job ID: 885-2010-1

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Job Narrative 885-2010-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 3/29/2024 7:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.4°C.

Gasoline Range Organics

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

Method 300_OF_28D_PREC: Due to the high concentration of Chloride, the matrix spike duplicate (MSD) for preparation batch 885-2540 and analytical batch 885-2590 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-27 0.5'

Lab Sample ID: 885-2010-1

Date Collected: 03/27/24 09:00

Matrix: Solid

Date Received: 03/29/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C6-C10	ND		4.7	mg/Kg		03/29/24 14:08	04/02/24 15:29	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	103		15 - 244			03/29/24 14:08	04/02/24 15:29	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.023	mg/Kg		03/29/24 14:08	04/02/24 15:29	1	
Ethylbenzene	ND		0.047	mg/Kg		03/29/24 14:08	04/02/24 15:29	1	
Toluene	ND		0.047	mg/Kg		03/29/24 14:08	04/02/24 15:29	1	
Xylenes, Total	ND		0.093	mg/Kg		03/29/24 14:08	04/02/24 15:29	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	94		39 - 146			03/29/24 14:08	04/02/24 15:29	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C10-C28	ND		8.9	mg/Kg		03/29/24 15:42	04/01/24 11:34	1	
Motor Oil Range Organics [C28-C40]	ND		44	mg/Kg		03/29/24 15:42	04/01/24 11:34	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	100		62 - 134			03/29/24 15:42	04/01/24 11:34	1	
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	320		60	mg/Kg		04/01/24 08:56	04/01/24 14:56	20	

Client Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-28 0.5' Lab Sample ID: 885-2010-2
Date Collected: 03/27/24 09:10 Matrix: Solid
Date Received: 03/29/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C6-C10	ND		4.8	mg/Kg		03/29/24 14:08	04/02/24 15:51	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	108		15 - 244			03/29/24 14:08	04/02/24 15:51	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		03/29/24 14:08	04/02/24 15:51	1	
Ethylbenzene	ND		0.048	mg/Kg		03/29/24 14:08	04/02/24 15:51	1	
Toluene	ND		0.048	mg/Kg		03/29/24 14:08	04/02/24 15:51	1	
Xylenes, Total	ND		0.095	mg/Kg		03/29/24 14:08	04/02/24 15:51	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	96		39 - 146			03/29/24 14:08	04/02/24 15:51	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C10-C28	ND		8.9	mg/Kg		03/29/24 15:42	04/01/24 11:46	1	
Motor Oil Range Organics [C28-C40]	ND		45	mg/Kg		03/29/24 15:42	04/01/24 11:46	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	89		62 - 134			03/29/24 15:42	04/01/24 11:46	1	
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	110		60	mg/Kg		04/01/24 08:56	04/01/24 15:58	20	

Client Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-29 0.5'

Lab Sample ID: 885-2010-3

Date Collected: 03/27/24 09:20

Matrix: Solid

Date Received: 03/29/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	ND		4.9	mg/Kg		03/29/24 14:08	04/02/24 16:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		15 - 244			03/29/24 14:08	04/02/24 16:13	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		03/29/24 14:08	04/02/24 16:13	1
Ethylbenzene	ND		0.049	mg/Kg		03/29/24 14:08	04/02/24 16:13	1
Toluene	ND		0.049	mg/Kg		03/29/24 14:08	04/02/24 16:13	1
Xylenes, Total	ND		0.099	mg/Kg		03/29/24 14:08	04/02/24 16:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		39 - 146			03/29/24 14:08	04/02/24 16:13	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		8.5	mg/Kg		03/29/24 15:42	04/01/24 11:58	1
Motor Oil Range Organics [C28-C40]	ND		43	mg/Kg		03/29/24 15:42	04/01/24 11:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	83		62 - 134			03/29/24 15:42	04/01/24 11:58	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		59	mg/Kg		04/01/24 08:56	04/01/24 16:35	20

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Client Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-30 0.5'
Date Collected: 03/27/24 09:30
Date Received: 03/29/24 07:55

Lab Sample ID: 885-2010-4
Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C6-C10	ND		5.0	mg/Kg		03/29/24 14:08	04/02/24 16:35	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	106		15 - 244			03/29/24 14:08	04/02/24 16:35	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.025	mg/Kg		03/29/24 14:08	04/02/24 16:35	1	
Ethylbenzene	ND		0.050	mg/Kg		03/29/24 14:08	04/02/24 16:35	1	
Toluene	ND		0.050	mg/Kg		03/29/24 14:08	04/02/24 16:35	1	
Xylenes, Total	ND		0.10	mg/Kg		03/29/24 14:08	04/02/24 16:35	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	95		39 - 146			03/29/24 14:08	04/02/24 16:35	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C10-C28	ND		9.1	mg/Kg		03/29/24 15:42	04/01/24 12:09	1	
Motor Oil Range Organics [C28-C40]	ND		45	mg/Kg		03/29/24 15:42	04/01/24 12:09	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	93		62 - 134			03/29/24 15:42	04/01/24 12:09	1	
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	ND		59	mg/Kg		04/01/24 08:56	04/01/24 16:47	20	

Client Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-31 0.5' Lab Sample ID: 885-2010-5
Date Collected: 03/27/24 09:40 Matrix: Solid
Date Received: 03/29/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C6-C10	ND		4.9	mg/Kg		03/29/24 14:08	04/02/24 16:56	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	109		15 - 244			03/29/24 14:08	04/02/24 16:56	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.025	mg/Kg		03/29/24 14:08	04/02/24 16:56	1	
Ethylbenzene	ND		0.049	mg/Kg		03/29/24 14:08	04/02/24 16:56	1	
Toluene	ND		0.049	mg/Kg		03/29/24 14:08	04/02/24 16:56	1	
Xylenes, Total	ND		0.098	mg/Kg		03/29/24 14:08	04/02/24 16:56	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	97		39 - 146			03/29/24 14:08	04/02/24 16:56	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C10-C28	ND		9.4	mg/Kg		03/29/24 15:42	04/01/24 12:21	1	
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		03/29/24 15:42	04/01/24 12:21	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	94		62 - 134			03/29/24 15:42	04/01/24 12:21	1	
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	88		60	mg/Kg		04/01/24 08:56	04/01/24 16:59	20	

Client Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-32 0.5' Lab Sample ID: 885-2010-6
Date Collected: 03/27/24 09:50 Matrix: Solid
Date Received: 03/29/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C6-C10	ND		4.8	mg/Kg		03/29/24 14:08	04/02/24 17:18	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	113		15 - 244			03/29/24 14:08	04/02/24 17:18	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		03/29/24 14:08	04/02/24 17:18	1	
Ethylbenzene	ND		0.048	mg/Kg		03/29/24 14:08	04/02/24 17:18	1	
Toluene	ND		0.048	mg/Kg		03/29/24 14:08	04/02/24 17:18	1	
Xylenes, Total	ND		0.095	mg/Kg		03/29/24 14:08	04/02/24 17:18	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	96		39 - 146			03/29/24 14:08	04/02/24 17:18	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C10-C28	ND		9.1	mg/Kg		03/29/24 15:42	04/01/24 12:33	1	
Motor Oil Range Organics [C28-C40]	ND		45	mg/Kg		03/29/24 15:42	04/01/24 12:33	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	95		62 - 134			03/29/24 15:42	04/01/24 12:33	1	
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	ND		60	mg/Kg		04/01/24 08:56	04/01/24 17:12	20	

Client Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-33 0.5' Lab Sample ID: 885-2010-7
Date Collected: 03/27/24 10:00 Matrix: Solid
Date Received: 03/29/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C6-C10	ND		4.8	mg/Kg		03/29/24 14:08	04/02/24 17:40	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	111		15 - 244			03/29/24 14:08	04/02/24 17:40	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		03/29/24 14:08	04/02/24 17:40	1	
Ethylbenzene	ND		0.048	mg/Kg		03/29/24 14:08	04/02/24 17:40	1	
Toluene	ND		0.048	mg/Kg		03/29/24 14:08	04/02/24 17:40	1	
Xylenes, Total	ND		0.097	mg/Kg		03/29/24 14:08	04/02/24 17:40	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	98		39 - 146			03/29/24 14:08	04/02/24 17:40	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C10-C28	ND		9.7	mg/Kg		03/29/24 15:42	04/01/24 12:45	1	
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		03/29/24 15:42	04/01/24 12:45	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	99		62 - 134			03/29/24 15:42	04/01/24 12:45	1	
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	ND		60	mg/Kg		04/01/24 08:56	04/01/24 17:24	20	

Client Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-34 0.5'

Lab Sample ID: 885-2010-8

Date Collected: 03/27/24 10:10

Matrix: Solid

Date Received: 03/29/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	ND		4.8	mg/Kg		03/29/24 14:08	04/02/24 18:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		15 - 244			03/29/24 14:08	04/02/24 18:02	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		03/29/24 14:08	04/02/24 18:02	1
Ethylbenzene	ND		0.048	mg/Kg		03/29/24 14:08	04/02/24 18:02	1
Toluene	ND		0.048	mg/Kg		03/29/24 14:08	04/02/24 18:02	1
Xylenes, Total	ND		0.096	mg/Kg		03/29/24 14:08	04/02/24 18:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		39 - 146			03/29/24 14:08	04/02/24 18:02	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		9.4	mg/Kg		03/29/24 15:42	04/01/24 12:57	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		03/29/24 15:42	04/01/24 12:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	85		62 - 134			03/29/24 15:42	04/01/24 12:57	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/01/24 08:56	04/01/24 18:01	20

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Client Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-35 0.5' Lab Sample ID: 885-2010-9
Date Collected: 03/27/24 10:20 Matrix: Solid
Date Received: 03/29/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C6-C10	ND		4.6	mg/Kg		03/29/24 14:08	04/02/24 18:46		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	112		15 - 244			03/29/24 14:08	04/02/24 18:46		1
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.023	mg/Kg		03/29/24 14:08	04/02/24 18:46		1
Ethylbenzene	ND		0.046	mg/Kg		03/29/24 14:08	04/02/24 18:46		1
Toluene	ND		0.046	mg/Kg		03/29/24 14:08	04/02/24 18:46		1
Xylenes, Total	ND		0.093	mg/Kg		03/29/24 14:08	04/02/24 18:46		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	98		39 - 146			03/29/24 14:08	04/02/24 18:46		1
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C10-C28	ND		8.9	mg/Kg		03/29/24 15:42	04/01/24 13:21		1
Motor Oil Range Organics [C28-C40]	ND		44	mg/Kg		03/29/24 15:42	04/01/24 13:21		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	78		62 - 134			03/29/24 15:42	04/01/24 13:21		1
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	150		60	mg/Kg		04/01/24 08:56	04/01/24 18:13		20

Client Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-36 0.5'

Lab Sample ID: 885-2010-10

Date Collected: 03/27/24 10:30

Matrix: Solid

Date Received: 03/29/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C6-C10	ND		4.9	mg/Kg		03/29/24 14:08	04/02/24 19:07	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	105		15 - 244			03/29/24 14:08	04/02/24 19:07	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		03/29/24 14:08	04/02/24 19:07	1	
Ethylbenzene	ND		0.049	mg/Kg		03/29/24 14:08	04/02/24 19:07	1	
Toluene	ND		0.049	mg/Kg		03/29/24 14:08	04/02/24 19:07	1	
Xylenes, Total	ND		0.098	mg/Kg		03/29/24 14:08	04/02/24 19:07	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	94		39 - 146			03/29/24 14:08	04/02/24 19:07	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C10-C28	ND		9.9	mg/Kg		03/29/24 15:42	04/01/24 13:33	1	
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		03/29/24 15:42	04/01/24 13:33	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	101		62 - 134			03/29/24 15:42	04/01/24 13:33	1	
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	ND		60	mg/Kg		04/01/24 08:56	04/01/24 18:26	20	

Client Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-37 0.5' Lab Sample ID: 885-2010-11
Date Collected: 03/27/24 10:40 Matrix: Solid
Date Received: 03/29/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C6-C10	ND		5.0	mg/Kg		03/29/24 14:08	04/02/24 19:29	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	110		15 - 244			03/29/24 14:08	04/02/24 19:29	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.025	mg/Kg		03/29/24 14:08	04/02/24 19:29	1	
Ethylbenzene	ND		0.050	mg/Kg		03/29/24 14:08	04/02/24 19:29	1	
Toluene	ND		0.050	mg/Kg		03/29/24 14:08	04/02/24 19:29	1	
Xylenes, Total	ND		0.099	mg/Kg		03/29/24 14:08	04/02/24 19:29	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	97		39 - 146			03/29/24 14:08	04/02/24 19:29	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C10-C28	ND		8.7	mg/Kg		03/29/24 15:42	04/01/24 13:45	1	
Motor Oil Range Organics [C28-C40]	ND		44	mg/Kg		03/29/24 15:42	04/01/24 13:45	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	100		62 - 134			03/29/24 15:42	04/01/24 13:45	1	
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	110		60	mg/Kg		04/01/24 08:56	04/01/24 18:38	20	

Client Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-38 0.5'

Lab Sample ID: 885-2010-12

Date Collected: 03/27/24 10:50

Matrix: Solid

Date Received: 03/29/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	ND		4.8	mg/Kg		03/29/24 14:08	04/02/24 19:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		15 - 244			03/29/24 14:08	04/02/24 19:51	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		03/29/24 14:08	04/02/24 19:51	1
Ethylbenzene	ND		0.048	mg/Kg		03/29/24 14:08	04/02/24 19:51	1
Toluene	ND		0.048	mg/Kg		03/29/24 14:08	04/02/24 19:51	1
Xylenes, Total	ND		0.096	mg/Kg		03/29/24 14:08	04/02/24 19:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		39 - 146			03/29/24 14:08	04/02/24 19:51	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	10		9.4	mg/Kg		03/29/24 15:42	04/01/24 13:57	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		03/29/24 15:42	04/01/24 13:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	76		62 - 134			03/29/24 15:42	04/01/24 13:57	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/01/24 08:56	04/01/24 18:50	20

Eurofins Albuquerque

Client Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-39 0.5'

Lab Sample ID: 885-2010-13

Date Collected: 03/27/24 11:00

Matrix: Solid

Date Received: 03/29/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	ND		5.0	mg/Kg		03/29/24 14:08	04/02/24 20:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		15 - 244	03/29/24 14:08	04/02/24 20:13	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		03/29/24 14:08	04/02/24 20:13	1
Ethylbenzene	ND		0.050	mg/Kg		03/29/24 14:08	04/02/24 20:13	1
Toluene	ND		0.050	mg/Kg		03/29/24 14:08	04/02/24 20:13	1
Xylenes, Total	ND		0.10	mg/Kg		03/29/24 14:08	04/02/24 20:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		39 - 146	03/29/24 14:08	04/02/24 20:13	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		9.5	mg/Kg		03/29/24 15:42	04/01/24 14:09	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		03/29/24 15:42	04/01/24 14:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	99		62 - 134	03/29/24 15:42	04/01/24 14:09	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		61	mg/Kg		04/01/24 08:56	04/01/24 19:03	20

Eurofins Albuquerque

Client Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-40 0.5'

Lab Sample ID: 885-2010-14

Date Collected: 03/27/24 11:10

Matrix: Solid

Date Received: 03/29/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	ND		4.9	mg/Kg		03/29/24 14:08	04/02/24 20:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		15 - 244	03/29/24 14:08	04/02/24 20:35	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		03/29/24 14:08	04/02/24 20:35	1
Ethylbenzene	ND		0.049	mg/Kg		03/29/24 14:08	04/02/24 20:35	1
Toluene	ND		0.049	mg/Kg		03/29/24 14:08	04/02/24 20:35	1
Xylenes, Total	ND		0.098	mg/Kg		03/29/24 14:08	04/02/24 20:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		39 - 146	03/29/24 14:08	04/02/24 20:35	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		9.5	mg/Kg		03/29/24 15:42	04/01/24 14:21	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		03/29/24 15:42	04/01/24 14:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	101		62 - 134	03/29/24 15:42	04/01/24 14:21	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/01/24 08:56	04/01/24 19:15	20

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Client Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-41 0.5' Lab Sample ID: 885-2010-15
Date Collected: 03/27/24 11:20 Matrix: Solid
Date Received: 03/29/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C6-C10	ND		4.7	mg/Kg		03/29/24 14:08	04/02/24 20:56	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	112		15 - 244			03/29/24 14:08	04/02/24 20:56	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.023	mg/Kg		03/29/24 14:08	04/02/24 20:56	1	
Ethylbenzene	ND		0.047	mg/Kg		03/29/24 14:08	04/02/24 20:56	1	
Toluene	ND		0.047	mg/Kg		03/29/24 14:08	04/02/24 20:56	1	
Xylenes, Total	ND		0.094	mg/Kg		03/29/24 14:08	04/02/24 20:56	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	97		39 - 146			03/29/24 14:08	04/02/24 20:56	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C10-C28	ND		9.8	mg/Kg		03/29/24 15:42	04/01/24 14:33	1	
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		03/29/24 15:42	04/01/24 14:33	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	85		62 - 134			03/29/24 15:42	04/01/24 14:33	1	
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	ND		60	mg/Kg		04/01/24 08:56	04/01/24 19:28	20	

Client Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-42 0.5' Lab Sample ID: 885-2010-16
Date Collected: 03/27/24 11:30 Matrix: Solid
Date Received: 03/29/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C6-C10	ND		5.0	mg/Kg		03/29/24 14:08	04/02/24 21:18	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	110		15 - 244			03/29/24 14:08	04/02/24 21:18	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.025	mg/Kg		03/29/24 14:08	04/02/24 21:18	1	
Ethylbenzene	ND		0.050	mg/Kg		03/29/24 14:08	04/02/24 21:18	1	
Toluene	ND		0.050	mg/Kg		03/29/24 14:08	04/02/24 21:18	1	
Xylenes, Total	ND		0.10	mg/Kg		03/29/24 14:08	04/02/24 21:18	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	98		39 - 146			03/29/24 14:08	04/02/24 21:18	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C10-C28	ND		9.2	mg/Kg		03/29/24 15:42	04/01/24 14:45	1	
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		03/29/24 15:42	04/01/24 14:45	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	91		62 - 134			03/29/24 15:42	04/01/24 14:45	1	
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	120		59	mg/Kg		04/01/24 08:56	04/01/24 19:40	20	

Client Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH24-25 2.0' Lab Sample ID: 885-2010-17
Date Collected: 03/27/24 11:40 Matrix: Solid
Date Received: 03/29/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C6-C10	ND		4.9	mg/Kg		03/29/24 14:08	04/02/24 21:40	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	106		15 - 244			03/29/24 14:08	04/02/24 21:40	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.025	mg/Kg		03/29/24 14:08	04/02/24 21:40	1	
Ethylbenzene	ND		0.049	mg/Kg		03/29/24 14:08	04/02/24 21:40	1	
Toluene	ND		0.049	mg/Kg		03/29/24 14:08	04/02/24 21:40	1	
Xylenes, Total	ND		0.098	mg/Kg		03/29/24 14:08	04/02/24 21:40	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	95		39 - 146			03/29/24 14:08	04/02/24 21:40	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C10-C28	ND		10	mg/Kg		03/29/24 15:42	04/01/24 14:57	1	
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		03/29/24 15:42	04/01/24 14:57	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	86		62 - 134			03/29/24 15:42	04/01/24 14:57	1	
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	210		60	mg/Kg		04/01/24 08:56	04/01/24 19:52	20	

Client Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH24-25 4.0'

Lab Sample ID: 885-2010-18

Date Collected: 03/27/24 11:50

Matrix: Solid

Date Received: 03/29/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C6-C10	ND		5.0	mg/Kg		03/29/24 14:08	04/02/24 22:02	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	107		15 - 244			03/29/24 14:08	04/02/24 22:02	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.025	mg/Kg		03/29/24 14:08	04/02/24 22:02	1	
Ethylbenzene	ND		0.050	mg/Kg		03/29/24 14:08	04/02/24 22:02	1	
Toluene	ND		0.050	mg/Kg		03/29/24 14:08	04/02/24 22:02	1	
Xylenes, Total	ND		0.099	mg/Kg		03/29/24 14:08	04/02/24 22:02	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	95		39 - 146			03/29/24 14:08	04/02/24 22:02	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
C10-C28	ND		9.0	mg/Kg		03/29/24 15:42	04/01/24 15:09	1	
Motor Oil Range Organics [C28-C40]	ND		45	mg/Kg		03/29/24 15:42	04/01/24 15:09	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	85		62 - 134			03/29/24 15:42	04/01/24 15:09	1	
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	1400		59	mg/Kg		04/01/24 08:56	04/01/24 20:29	20	

QC Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-2518/1-A

Matrix: Solid

Analysis Batch: 2726

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2518

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	ND		5.0	mg/Kg		03/29/24 14:08	04/02/24 12:57	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		15 - 244			03/29/24 14:08	04/02/24 12:57	1

Lab Sample ID: LCS 885-2518/2-A

Matrix: Solid

Analysis Batch: 2726

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2518

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C6-C10	25.0	26.8		mg/Kg		107	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	222		15 - 244				

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-2518/1-A

Matrix: Solid

Analysis Batch: 2731

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2518

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		03/29/24 14:08	04/02/24 12:57	1
Ethylbenzene	ND		0.050	mg/Kg		03/29/24 14:08	04/02/24 12:57	1
Toluene	ND		0.050	mg/Kg		03/29/24 14:08	04/02/24 12:57	1
Xylenes, Total	ND		0.10	mg/Kg		03/29/24 14:08	04/02/24 12:57	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		39 - 146			03/29/24 14:08	04/02/24 12:57	1

Lab Sample ID: LCS 885-2518/3-A

Matrix: Solid

Analysis Batch: 2731

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2518

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.914		mg/Kg		91	70 - 130
Ethylbenzene	1.00	0.916		mg/Kg		92	70 - 130
Toluene	1.00	0.913		mg/Kg		91	70 - 130
m,p-Xylene	2.00	1.84		mg/Kg		92	70 - 130
o-Xylene	1.00	0.918		mg/Kg		92	70 - 130
Xylenes, Total	3.00	2.75		mg/Kg		92	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	94		39 - 146				

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QC Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-2522/1-A

Matrix: Solid

Analysis Batch: 2597

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2522

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	ND		10	mg/Kg		03/29/24 15:42	04/01/24 10:46	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		03/29/24 15:42	04/01/24 10:46	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	75		62 - 134			03/29/24 15:42	04/01/24 10:46	1

Lab Sample ID: LCS 885-2522/2-A

Matrix: Solid

Analysis Batch: 2597

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2522

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	50.0	46.7		mg/Kg		93	60 - 135
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Di-n-octyl phthalate (Surr)	81		62 - 134				

Lab Sample ID: 885-2010-18 MS

Matrix: Solid

Analysis Batch: 2597

Client Sample ID: BH24-25 4.0'

Prep Type: Total/NA

Prep Batch: 2522

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28	ND		49.2	43.2		mg/Kg		88	44 - 136
Surrogate	MS %Recovery	MS Qualifier	Limits						
Di-n-octyl phthalate (Surr)	76		62 - 134						

Lab Sample ID: 885-2010-18 MSD

Matrix: Solid

Analysis Batch: 2597

Client Sample ID: BH24-25 4.0'

Prep Type: Total/NA

Prep Batch: 2522

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	ND		47.2	41.9		mg/Kg		89	44 - 136	3	32
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Di-n-octyl phthalate (Surr)	95		62 - 134								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-2540/1-A

Matrix: Solid

Analysis Batch: 2590

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2540

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	mg/Kg		04/01/24 08:56	04/01/24 13:05	1

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QC Sample Results

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 885-2540/2-A
Matrix: Solid
Analysis Batch: 2590

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2540

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	30.0	27.9		mg/Kg		93	90 - 110

Lab Sample ID: 885-2010-1 MS
Matrix: Solid
Analysis Batch: 2590

Client Sample ID: BH23-27 0.5'
Prep Type: Total/NA
Prep Batch: 2540

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	320		29.8	343	4	mg/Kg		65	50 - 150

Lab Sample ID: 885-2010-1 MSD
Matrix: Solid
Analysis Batch: 2590

Client Sample ID: BH23-27 0.5'
Prep Type: Total/NA
Prep Batch: 2540

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	320		30.3	382	4	mg/Kg		190	50 - 150	11	20

Lab Sample ID: 885-2010-2 MS
Matrix: Solid
Analysis Batch: 2590

Client Sample ID: BH23-28 0.5'
Prep Type: Total/NA
Prep Batch: 2540

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	110		29.8	134		mg/Kg		82	50 - 150

Lab Sample ID: 885-2010-2 MSD
Matrix: Solid
Analysis Batch: 2590

Client Sample ID: BH23-28 0.5'
Prep Type: Total/NA
Prep Batch: 2540

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	110		30.3	131		mg/Kg		72	50 - 150	2	20

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QC Association Summary

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

GC VOA

Prep Batch: 2518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2010-1	BH23-27 0.5'	Total/NA	Solid	5030C	
885-2010-2	BH23-28 0.5'	Total/NA	Solid	5030C	
885-2010-3	BH23-29 0.5'	Total/NA	Solid	5030C	
885-2010-4	BH23-30 0.5'	Total/NA	Solid	5030C	
885-2010-5	BH23-31 0.5'	Total/NA	Solid	5030C	
885-2010-6	BH23-32 0.5'	Total/NA	Solid	5030C	
885-2010-7	BH23-33 0.5'	Total/NA	Solid	5030C	
885-2010-8	BH23-34 0.5'	Total/NA	Solid	5030C	
885-2010-9	BH23-35 0.5'	Total/NA	Solid	5030C	
885-2010-10	BH23-36 0.5'	Total/NA	Solid	5030C	
885-2010-11	BH23-37 0.5'	Total/NA	Solid	5030C	
885-2010-12	BH23-38 0.5'	Total/NA	Solid	5030C	
885-2010-13	BH23-39 0.5'	Total/NA	Solid	5030C	
885-2010-14	BH23-40 0.5'	Total/NA	Solid	5030C	
885-2010-15	BH23-41 0.5'	Total/NA	Solid	5030C	
885-2010-16	BH23-42 0.5'	Total/NA	Solid	5030C	
885-2010-17	BH24-25 2.0'	Total/NA	Solid	5030C	
885-2010-18	BH24-25 4.0'	Total/NA	Solid	5030C	
MB 885-2518/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-2518/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-2518/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 2726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2010-1	BH23-27 0.5'	Total/NA	Solid	8015D	2518
885-2010-2	BH23-28 0.5'	Total/NA	Solid	8015D	2518
885-2010-3	BH23-29 0.5'	Total/NA	Solid	8015D	2518
885-2010-4	BH23-30 0.5'	Total/NA	Solid	8015D	2518
885-2010-5	BH23-31 0.5'	Total/NA	Solid	8015D	2518
885-2010-6	BH23-32 0.5'	Total/NA	Solid	8015D	2518
885-2010-7	BH23-33 0.5'	Total/NA	Solid	8015D	2518
885-2010-8	BH23-34 0.5'	Total/NA	Solid	8015D	2518
885-2010-9	BH23-35 0.5'	Total/NA	Solid	8015D	2518
885-2010-10	BH23-36 0.5'	Total/NA	Solid	8015D	2518
885-2010-11	BH23-37 0.5'	Total/NA	Solid	8015D	2518
885-2010-12	BH23-38 0.5'	Total/NA	Solid	8015D	2518
885-2010-13	BH23-39 0.5'	Total/NA	Solid	8015D	2518
885-2010-14	BH23-40 0.5'	Total/NA	Solid	8015D	2518
885-2010-15	BH23-41 0.5'	Total/NA	Solid	8015D	2518
885-2010-16	BH23-42 0.5'	Total/NA	Solid	8015D	2518
885-2010-17	BH24-25 2.0'	Total/NA	Solid	8015D	2518
885-2010-18	BH24-25 4.0'	Total/NA	Solid	8015D	2518
MB 885-2518/1-A	Method Blank	Total/NA	Solid	8015D	2518
LCS 885-2518/2-A	Lab Control Sample	Total/NA	Solid	8015D	2518

Analysis Batch: 2731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2010-1	BH23-27 0.5'	Total/NA	Solid	8021B	2518
885-2010-2	BH23-28 0.5'	Total/NA	Solid	8021B	2518
885-2010-3	BH23-29 0.5'	Total/NA	Solid	8021B	2518
885-2010-4	BH23-30 0.5'	Total/NA	Solid	8021B	2518

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QC Association Summary

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

GC VOA (Continued)

Analysis Batch: 2731 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2010-5	BH23-31 0.5'	Total/NA	Solid	8021B	2518
885-2010-6	BH23-32 0.5'	Total/NA	Solid	8021B	2518
885-2010-7	BH23-33 0.5'	Total/NA	Solid	8021B	2518
885-2010-8	BH23-34 0.5'	Total/NA	Solid	8021B	2518
885-2010-9	BH23-35 0.5'	Total/NA	Solid	8021B	2518
885-2010-10	BH23-36 0.5'	Total/NA	Solid	8021B	2518
885-2010-11	BH23-37 0.5'	Total/NA	Solid	8021B	2518
885-2010-12	BH23-38 0.5'	Total/NA	Solid	8021B	2518
885-2010-13	BH23-39 0.5'	Total/NA	Solid	8021B	2518
885-2010-14	BH23-40 0.5'	Total/NA	Solid	8021B	2518
885-2010-15	BH23-41 0.5'	Total/NA	Solid	8021B	2518
885-2010-16	BH23-42 0.5'	Total/NA	Solid	8021B	2518
885-2010-17	BH24-25 2.0'	Total/NA	Solid	8021B	2518
885-2010-18	BH24-25 4.0'	Total/NA	Solid	8021B	2518
MB 885-2518/1-A	Method Blank	Total/NA	Solid	8021B	2518
LCS 885-2518/3-A	Lab Control Sample	Total/NA	Solid	8021B	2518

GC Semi VOA

Prep Batch: 2522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2010-1	BH23-27 0.5'	Total/NA	Solid	SHAKE	
885-2010-2	BH23-28 0.5'	Total/NA	Solid	SHAKE	
885-2010-3	BH23-29 0.5'	Total/NA	Solid	SHAKE	
885-2010-4	BH23-30 0.5'	Total/NA	Solid	SHAKE	
885-2010-5	BH23-31 0.5'	Total/NA	Solid	SHAKE	
885-2010-6	BH23-32 0.5'	Total/NA	Solid	SHAKE	
885-2010-7	BH23-33 0.5'	Total/NA	Solid	SHAKE	
885-2010-8	BH23-34 0.5'	Total/NA	Solid	SHAKE	
885-2010-9	BH23-35 0.5'	Total/NA	Solid	SHAKE	
885-2010-10	BH23-36 0.5'	Total/NA	Solid	SHAKE	
885-2010-11	BH23-37 0.5'	Total/NA	Solid	SHAKE	
885-2010-12	BH23-38 0.5'	Total/NA	Solid	SHAKE	
885-2010-13	BH23-39 0.5'	Total/NA	Solid	SHAKE	
885-2010-14	BH23-40 0.5'	Total/NA	Solid	SHAKE	
885-2010-15	BH23-41 0.5'	Total/NA	Solid	SHAKE	
885-2010-16	BH23-42 0.5'	Total/NA	Solid	SHAKE	
885-2010-17	BH24-25 2.0'	Total/NA	Solid	SHAKE	
885-2010-18	BH24-25 4.0'	Total/NA	Solid	SHAKE	
MB 885-2522/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-2522/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-2010-18 MS	BH24-25 4.0'	Total/NA	Solid	SHAKE	
885-2010-18 MSD	BH24-25 4.0'	Total/NA	Solid	SHAKE	

Analysis Batch: 2597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2010-1	BH23-27 0.5'	Total/NA	Solid	8015D	2522
885-2010-2	BH23-28 0.5'	Total/NA	Solid	8015D	2522
885-2010-3	BH23-29 0.5'	Total/NA	Solid	8015D	2522
885-2010-4	BH23-30 0.5'	Total/NA	Solid	8015D	2522
885-2010-5	BH23-31 0.5'	Total/NA	Solid	8015D	2522

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QC Association Summary

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

GC Semi VOA (Continued)

Analysis Batch: 2597 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2010-6	BH23-32 0.5'	Total/NA	Solid	8015D	2522
885-2010-7	BH23-33 0.5'	Total/NA	Solid	8015D	2522
885-2010-8	BH23-34 0.5'	Total/NA	Solid	8015D	2522
885-2010-9	BH23-35 0.5'	Total/NA	Solid	8015D	2522
885-2010-10	BH23-36 0.5'	Total/NA	Solid	8015D	2522
885-2010-11	BH23-37 0.5'	Total/NA	Solid	8015D	2522
885-2010-12	BH23-38 0.5'	Total/NA	Solid	8015D	2522
885-2010-13	BH23-39 0.5'	Total/NA	Solid	8015D	2522
885-2010-14	BH23-40 0.5'	Total/NA	Solid	8015D	2522
885-2010-15	BH23-41 0.5'	Total/NA	Solid	8015D	2522
885-2010-16	BH23-42 0.5'	Total/NA	Solid	8015D	2522
885-2010-17	BH24-25 2.0'	Total/NA	Solid	8015D	2522
885-2010-18	BH24-25 4.0'	Total/NA	Solid	8015D	2522
MB 885-2522/1-A	Method Blank	Total/NA	Solid	8015D	2522
LCS 885-2522/2-A	Lab Control Sample	Total/NA	Solid	8015D	2522
885-2010-18 MS	BH24-25 4.0'	Total/NA	Solid	8015D	2522
885-2010-18 MSD	BH24-25 4.0'	Total/NA	Solid	8015D	2522

HPLC/IC

Prep Batch: 2540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2010-1	BH23-27 0.5'	Total/NA	Solid	300_Prep	
885-2010-2	BH23-28 0.5'	Total/NA	Solid	300_Prep	
885-2010-3	BH23-29 0.5'	Total/NA	Solid	300_Prep	
885-2010-4	BH23-30 0.5'	Total/NA	Solid	300_Prep	
885-2010-5	BH23-31 0.5'	Total/NA	Solid	300_Prep	
885-2010-6	BH23-32 0.5'	Total/NA	Solid	300_Prep	
885-2010-7	BH23-33 0.5'	Total/NA	Solid	300_Prep	
885-2010-8	BH23-34 0.5'	Total/NA	Solid	300_Prep	
885-2010-9	BH23-35 0.5'	Total/NA	Solid	300_Prep	
885-2010-10	BH23-36 0.5'	Total/NA	Solid	300_Prep	
885-2010-11	BH23-37 0.5'	Total/NA	Solid	300_Prep	
885-2010-12	BH23-38 0.5'	Total/NA	Solid	300_Prep	
885-2010-13	BH23-39 0.5'	Total/NA	Solid	300_Prep	
885-2010-14	BH23-40 0.5'	Total/NA	Solid	300_Prep	
885-2010-15	BH23-41 0.5'	Total/NA	Solid	300_Prep	
885-2010-16	BH23-42 0.5'	Total/NA	Solid	300_Prep	
885-2010-17	BH24-25 2.0'	Total/NA	Solid	300_Prep	
885-2010-18	BH24-25 4.0'	Total/NA	Solid	300_Prep	
MB 885-2540/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-2540/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-2010-1 MS	BH23-27 0.5'	Total/NA	Solid	300_Prep	
885-2010-1 MSD	BH23-27 0.5'	Total/NA	Solid	300_Prep	
885-2010-2 MS	BH23-28 0.5'	Total/NA	Solid	300_Prep	
885-2010-2 MSD	BH23-28 0.5'	Total/NA	Solid	300_Prep	

Analysis Batch: 2590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2010-1	BH23-27 0.5'	Total/NA	Solid	300.0	2540
885-2010-2	BH23-28 0.5'	Total/NA	Solid	300.0	2540

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QC Association Summary

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

HPLC/IC (Continued)

Analysis Batch: 2590 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2010-3	BH23-29 0.5'	Total/NA	Solid	300.0	2540
885-2010-4	BH23-30 0.5'	Total/NA	Solid	300.0	2540
885-2010-5	BH23-31 0.5'	Total/NA	Solid	300.0	2540
885-2010-6	BH23-32 0.5'	Total/NA	Solid	300.0	2540
885-2010-7	BH23-33 0.5'	Total/NA	Solid	300.0	2540
885-2010-8	BH23-34 0.5'	Total/NA	Solid	300.0	2540
885-2010-9	BH23-35 0.5'	Total/NA	Solid	300.0	2540
885-2010-10	BH23-36 0.5'	Total/NA	Solid	300.0	2540
885-2010-11	BH23-37 0.5'	Total/NA	Solid	300.0	2540
885-2010-12	BH23-38 0.5'	Total/NA	Solid	300.0	2540
885-2010-13	BH23-39 0.5'	Total/NA	Solid	300.0	2540
885-2010-14	BH23-40 0.5'	Total/NA	Solid	300.0	2540
885-2010-15	BH23-41 0.5'	Total/NA	Solid	300.0	2540
885-2010-16	BH23-42 0.5'	Total/NA	Solid	300.0	2540
885-2010-17	BH24-25 2.0'	Total/NA	Solid	300.0	2540
885-2010-18	BH24-25 4.0'	Total/NA	Solid	300.0	2540
MB 885-2540/1-A	Method Blank	Total/NA	Solid	300.0	2540
LCS 885-2540/2-A	Lab Control Sample	Total/NA	Solid	300.0	2540
885-2010-1 MS	BH23-27 0.5'	Total/NA	Solid	300.0	2540
885-2010-1 MSD	BH23-27 0.5'	Total/NA	Solid	300.0	2540
885-2010-2 MS	BH23-28 0.5'	Total/NA	Solid	300.0	2540
885-2010-2 MSD	BH23-28 0.5'	Total/NA	Solid	300.0	2540

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Lab Chronicle

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-27 0.5'

Lab Sample ID: 885-2010-1

Date Collected: 03/27/24 09:00

Matrix: Solid

Date Received: 03/29/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8015D		1	2726	RA	EET ALB	04/02/24 15:29
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8021B		1	2731	RA	EET ALB	04/02/24 15:29
Total/NA	Prep	SHAKE			2522	DH	EET ALB	03/29/24 15:42
Total/NA	Analysis	8015D		1	2597	JU	EET ALB	04/01/24 11:34
Total/NA	Prep	300_Prep			2540	JT	EET ALB	04/01/24 08:56
Total/NA	Analysis	300.0		20	2590	KB	EET ALB	04/01/24 14:56

Client Sample ID: BH23-28 0.5'

Lab Sample ID: 885-2010-2

Date Collected: 03/27/24 09:10

Matrix: Solid

Date Received: 03/29/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8015D		1	2726	RA	EET ALB	04/02/24 15:51
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8021B		1	2731	RA	EET ALB	04/02/24 15:51
Total/NA	Prep	SHAKE			2522	DH	EET ALB	03/29/24 15:42
Total/NA	Analysis	8015D		1	2597	JU	EET ALB	04/01/24 11:46
Total/NA	Prep	300_Prep			2540	JT	EET ALB	04/01/24 08:56
Total/NA	Analysis	300.0		20	2590	KB	EET ALB	04/01/24 15:58

Client Sample ID: BH23-29 0.5'

Lab Sample ID: 885-2010-3

Date Collected: 03/27/24 09:20

Matrix: Solid

Date Received: 03/29/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8015D		1	2726	RA	EET ALB	04/02/24 16:13
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8021B		1	2731	RA	EET ALB	04/02/24 16:13
Total/NA	Prep	SHAKE			2522	DH	EET ALB	03/29/24 15:42
Total/NA	Analysis	8015D		1	2597	JU	EET ALB	04/01/24 11:58
Total/NA	Prep	300_Prep			2540	JT	EET ALB	04/01/24 08:56
Total/NA	Analysis	300.0		20	2590	KB	EET ALB	04/01/24 16:35

Client Sample ID: BH23-30 0.5'

Lab Sample ID: 885-2010-4

Date Collected: 03/27/24 09:30

Matrix: Solid

Date Received: 03/29/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8015D		1	2726	RA	EET ALB	04/02/24 16:35

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Lab Chronicle

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-30 0.5'

Lab Sample ID: 885-2010-4

Date Collected: 03/27/24 09:30

Matrix: Solid

Date Received: 03/29/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8021B		1	2731	RA	EET ALB	04/02/24 16:35
Total/NA	Prep	SHAKE			2522	DH	EET ALB	03/29/24 15:42
Total/NA	Analysis	8015D		1	2597	JU	EET ALB	04/01/24 12:09
Total/NA	Prep	300_Prep			2540	JT	EET ALB	04/01/24 08:56
Total/NA	Analysis	300.0		20	2590	KB	EET ALB	04/01/24 16:47

Client Sample ID: BH23-31 0.5'

Lab Sample ID: 885-2010-5

Date Collected: 03/27/24 09:40

Matrix: Solid

Date Received: 03/29/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8015D		1	2726	RA	EET ALB	04/02/24 16:56
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8021B		1	2731	RA	EET ALB	04/02/24 16:56
Total/NA	Prep	SHAKE			2522	DH	EET ALB	03/29/24 15:42
Total/NA	Analysis	8015D		1	2597	JU	EET ALB	04/01/24 12:21
Total/NA	Prep	300_Prep			2540	JT	EET ALB	04/01/24 08:56
Total/NA	Analysis	300.0		20	2590	KB	EET ALB	04/01/24 16:59

Client Sample ID: BH23-32 0.5'

Lab Sample ID: 885-2010-6

Date Collected: 03/27/24 09:50

Matrix: Solid

Date Received: 03/29/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8015D		1	2726	RA	EET ALB	04/02/24 17:18
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8021B		1	2731	RA	EET ALB	04/02/24 17:18
Total/NA	Prep	SHAKE			2522	DH	EET ALB	03/29/24 15:42
Total/NA	Analysis	8015D		1	2597	JU	EET ALB	04/01/24 12:33
Total/NA	Prep	300_Prep			2540	JT	EET ALB	04/01/24 08:56
Total/NA	Analysis	300.0		20	2590	KB	EET ALB	04/01/24 17:12

Client Sample ID: BH23-33 0.5'

Lab Sample ID: 885-2010-7

Date Collected: 03/27/24 10:00

Matrix: Solid

Date Received: 03/29/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8015D		1	2726	RA	EET ALB	04/02/24 17:40
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8021B		1	2731	RA	EET ALB	04/02/24 17:40

Eurofins Albuquerque

Lab Chronicle

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-33 0.5'

Lab Sample ID: 885-2010-7

Date Collected: 03/27/24 10:00

Matrix: Solid

Date Received: 03/29/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			2522	DH	EET ALB	03/29/24 15:42
Total/NA	Analysis	8015D		1	2597	JU	EET ALB	04/01/24 12:45
Total/NA	Prep	300_Prep			2540	JT	EET ALB	04/01/24 08:56
Total/NA	Analysis	300.0		20	2590	KB	EET ALB	04/01/24 17:24

Client Sample ID: BH23-34 0.5'

Lab Sample ID: 885-2010-8

Date Collected: 03/27/24 10:10

Matrix: Solid

Date Received: 03/29/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8015D		1	2726	RA	EET ALB	04/02/24 18:02
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8021B		1	2731	RA	EET ALB	04/02/24 18:02
Total/NA	Prep	SHAKE			2522	DH	EET ALB	03/29/24 15:42
Total/NA	Analysis	8015D		1	2597	JU	EET ALB	04/01/24 12:57
Total/NA	Prep	300_Prep			2540	JT	EET ALB	04/01/24 08:56
Total/NA	Analysis	300.0		20	2590	KB	EET ALB	04/01/24 18:01

Client Sample ID: BH23-35 0.5'

Lab Sample ID: 885-2010-9

Date Collected: 03/27/24 10:20

Matrix: Solid

Date Received: 03/29/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8015D		1	2726	RA	EET ALB	04/02/24 18:46
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8021B		1	2731	RA	EET ALB	04/02/24 18:46
Total/NA	Prep	SHAKE			2522	DH	EET ALB	03/29/24 15:42
Total/NA	Analysis	8015D		1	2597	JU	EET ALB	04/01/24 13:21
Total/NA	Prep	300_Prep			2540	JT	EET ALB	04/01/24 08:56
Total/NA	Analysis	300.0		20	2590	KB	EET ALB	04/01/24 18:13

Client Sample ID: BH23-36 0.5'

Lab Sample ID: 885-2010-10

Date Collected: 03/27/24 10:30

Matrix: Solid

Date Received: 03/29/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8015D		1	2726	RA	EET ALB	04/02/24 19:07
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8021B		1	2731	RA	EET ALB	04/02/24 19:07
Total/NA	Prep	SHAKE			2522	DH	EET ALB	03/29/24 15:42
Total/NA	Analysis	8015D		1	2597	JU	EET ALB	04/01/24 13:33

Eurofins Albuquerque

Lab Chronicle

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-36 0.5'
Date Collected: 03/27/24 10:30
Date Received: 03/29/24 07:55

Lab Sample ID: 885-2010-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			2540	JT	EET ALB	04/01/24 08:56
Total/NA	Analysis	300.0		20	2590	KB	EET ALB	04/01/24 18:26

Client Sample ID: BH23-37 0.5'
Date Collected: 03/27/24 10:40
Date Received: 03/29/24 07:55

Lab Sample ID: 885-2010-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8015D		1	2726	RA	EET ALB	04/02/24 19:29
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8021B		1	2731	RA	EET ALB	04/02/24 19:29
Total/NA	Prep	SHAKE			2522	DH	EET ALB	03/29/24 15:42
Total/NA	Analysis	8015D		1	2597	JU	EET ALB	04/01/24 13:45
Total/NA	Prep	300_Prep			2540	JT	EET ALB	04/01/24 08:56
Total/NA	Analysis	300.0		20	2590	KB	EET ALB	04/01/24 18:38

Client Sample ID: BH23-38 0.5'
Date Collected: 03/27/24 10:50
Date Received: 03/29/24 07:55

Lab Sample ID: 885-2010-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8015D		1	2726	RA	EET ALB	04/02/24 19:51
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8021B		1	2731	RA	EET ALB	04/02/24 19:51
Total/NA	Prep	SHAKE			2522	DH	EET ALB	03/29/24 15:42
Total/NA	Analysis	8015D		1	2597	JU	EET ALB	04/01/24 13:57
Total/NA	Prep	300_Prep			2540	JT	EET ALB	04/01/24 08:56
Total/NA	Analysis	300.0		20	2590	KB	EET ALB	04/01/24 18:50

Client Sample ID: BH23-39 0.5'
Date Collected: 03/27/24 11:00
Date Received: 03/29/24 07:55

Lab Sample ID: 885-2010-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8015D		1	2726	RA	EET ALB	04/02/24 20:13
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8021B		1	2731	RA	EET ALB	04/02/24 20:13
Total/NA	Prep	SHAKE			2522	DH	EET ALB	03/29/24 15:42
Total/NA	Analysis	8015D		1	2597	JU	EET ALB	04/01/24 14:09
Total/NA	Prep	300_Prep			2540	JT	EET ALB	04/01/24 08:56
Total/NA	Analysis	300.0		20	2590	KB	EET ALB	04/01/24 19:03

Lab Chronicle

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH23-40 0.5'

Lab Sample ID: 885-2010-14

Date Collected: 03/27/24 11:10

Matrix: Solid

Date Received: 03/29/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8015D		1	2726	RA	EET ALB	04/02/24 20:35
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8021B		1	2731	RA	EET ALB	04/02/24 20:35
Total/NA	Prep	SHAKE			2522	DH	EET ALB	03/29/24 15:42
Total/NA	Analysis	8015D		1	2597	JU	EET ALB	04/01/24 14:21
Total/NA	Prep	300_Prep			2540	JT	EET ALB	04/01/24 08:56
Total/NA	Analysis	300.0		20	2590	KB	EET ALB	04/01/24 19:15

Client Sample ID: BH23-41 0.5'

Lab Sample ID: 885-2010-15

Date Collected: 03/27/24 11:20

Matrix: Solid

Date Received: 03/29/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8015D		1	2726	RA	EET ALB	04/02/24 20:56
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8021B		1	2731	RA	EET ALB	04/02/24 20:56
Total/NA	Prep	SHAKE			2522	DH	EET ALB	03/29/24 15:42
Total/NA	Analysis	8015D		1	2597	JU	EET ALB	04/01/24 14:33
Total/NA	Prep	300_Prep			2540	JT	EET ALB	04/01/24 08:56
Total/NA	Analysis	300.0		20	2590	KB	EET ALB	04/01/24 19:28

Client Sample ID: BH23-42 0.5'

Lab Sample ID: 885-2010-16

Date Collected: 03/27/24 11:30

Matrix: Solid

Date Received: 03/29/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8015D		1	2726	RA	EET ALB	04/02/24 21:18
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8021B		1	2731	RA	EET ALB	04/02/24 21:18
Total/NA	Prep	SHAKE			2522	DH	EET ALB	03/29/24 15:42
Total/NA	Analysis	8015D		1	2597	JU	EET ALB	04/01/24 14:45
Total/NA	Prep	300_Prep			2540	JT	EET ALB	04/01/24 08:56
Total/NA	Analysis	300.0		20	2590	KB	EET ALB	04/01/24 19:40

Client Sample ID: BH24-25 2.0'

Lab Sample ID: 885-2010-17

Date Collected: 03/27/24 11:40

Matrix: Solid

Date Received: 03/29/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8015D		1	2726	RA	EET ALB	04/02/24 21:40

Eurofins Albuquerque

Lab Chronicle

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Client Sample ID: BH24-25 2.0'

Lab Sample ID: 885-2010-17

Date Collected: 03/27/24 11:40

Matrix: Solid

Date Received: 03/29/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8021B		1	2731	RA	EET ALB	04/02/24 21:40
Total/NA	Prep	SHAKE			2522	DH	EET ALB	03/29/24 15:42
Total/NA	Analysis	8015D		1	2597	JU	EET ALB	04/01/24 14:57
Total/NA	Prep	300_Prep			2540	JT	EET ALB	04/01/24 08:56
Total/NA	Analysis	300.0		20	2590	KB	EET ALB	04/01/24 19:52

Client Sample ID: BH24-25 4.0'

Lab Sample ID: 885-2010-18

Date Collected: 03/27/24 11:50

Matrix: Solid

Date Received: 03/29/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8015D		1	2726	RA	EET ALB	04/02/24 22:02
Total/NA	Prep	5030C			2518	IMR	EET ALB	03/29/24 14:08
Total/NA	Analysis	8021B		1	2731	RA	EET ALB	04/02/24 22:02
Total/NA	Prep	SHAKE			2522	DH	EET ALB	03/29/24 15:42
Total/NA	Analysis	8015D		1	2597	JU	EET ALB	04/01/24 15:09
Total/NA	Prep	300_Prep			2540	JT	EET ALB	04/01/24 08:56
Total/NA	Analysis	300.0		20	2590	KB	EET ALB	04/01/24 20:29

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Devon Energy Corporation
Project/Site: Agate PLU 21 22 #062H

Job ID: 885-2010-1

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015D	5030C	Solid	C6-C10
8015D	SHAKE	Solid	C10-C28
8015D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Login Sample Receipt Checklist

Client: Devon Energy Corporation

Job Number: 885-2010-1

Login Number: 2010

List Number: 1

Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Kent Stallings
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 4/9/2024 1:09:42 PM

JOB DESCRIPTION

Agate PWU 21 22 #062H

JOB NUMBER

885-2144-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



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Authorized for release by
Andy Freeman, Business Unit Manager
andy.freeman@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Laboratory Job ID: 885-2144-1



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Definitions/Glossary

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex
Project: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Job ID: 885-2144-1

Eurofins Albuquerque

Job Narrative 885-2144-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 4/2/2024 7:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.5°C.

Gasoline Range Organics

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics

Method 8015D_DRO: The continuing calibration verification (CCV) associated with batch 885-2812 recovered above the upper control limit for Di-n-octyl phthalate (Surr). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-23 2.0'

Lab Sample ID: 885-2144-1

Date Collected: 03/28/24 09:00

Matrix: Solid

Date Received: 04/02/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/02/24 13:30	04/04/24 19:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		15 - 244	04/02/24 13:30	04/04/24 19:21	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/02/24 13:30	04/04/24 19:21	1
Ethylbenzene	ND		0.048	mg/Kg		04/02/24 13:30	04/04/24 19:21	1
Toluene	ND		0.048	mg/Kg		04/02/24 13:30	04/04/24 19:21	1
Xylenes, Total	ND		0.095	mg/Kg		04/02/24 13:30	04/04/24 19:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		39 - 146	04/02/24 13:30	04/04/24 19:21	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3	mg/Kg		04/03/24 13:15	04/04/24 13:06	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		04/03/24 13:15	04/04/24 13:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	111		62 - 134	04/03/24 13:15	04/04/24 13:06	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15		5.0	mg/Kg			04/05/24 18:08	1

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Client Sample Results

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-23 4.0'

Lab Sample ID: 885-2144-2

Date Collected: 03/28/24 09:10

Matrix: Solid

Date Received: 04/02/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/02/24 13:30	04/04/24 19:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		15 - 244			04/02/24 13:30	04/04/24 19:45	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/02/24 13:30	04/04/24 19:45	1
Ethylbenzene	ND		0.047	mg/Kg		04/02/24 13:30	04/04/24 19:45	1
Toluene	ND		0.047	mg/Kg		04/02/24 13:30	04/04/24 19:45	1
Xylenes, Total	ND		0.093	mg/Kg		04/02/24 13:30	04/04/24 19:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		39 - 146			04/02/24 13:30	04/04/24 19:45	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1	mg/Kg		04/03/24 13:15	04/04/24 13:18	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		04/03/24 13:15	04/04/24 13:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	104		62 - 134			04/03/24 13:15	04/04/24 13:18	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25		5.0	mg/Kg			04/05/24 18:22	1

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Client Sample Results

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-24 2.0'
Date Collected: 03/28/24 09:20
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2144-3
Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/02/24 13:30	04/04/24 20:08	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	101		15 - 244			04/02/24 13:30	04/04/24 20:08	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		04/02/24 13:30	04/04/24 20:08	1	
Ethylbenzene	ND		0.048	mg/Kg		04/02/24 13:30	04/04/24 20:08	1	
Toluene	ND		0.048	mg/Kg		04/02/24 13:30	04/04/24 20:08	1	
Xylenes, Total	ND		0.097	mg/Kg		04/02/24 13:30	04/04/24 20:08	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	86		39 - 146			04/02/24 13:30	04/04/24 20:08	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.3	mg/Kg		04/03/24 13:15	04/04/24 13:30	1	
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		04/03/24 13:15	04/04/24 13:30	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	118		62 - 134			04/03/24 13:15	04/04/24 13:30	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	23		5.0	mg/Kg			04/05/24 18:27	1	

Client Sample Results

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-24 4.0'

Lab Sample ID: 885-2144-4

Date Collected: 03/28/24 09:30

Matrix: Solid

Date Received: 04/02/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/02/24 13:30	04/04/24 20:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		15 - 244			04/02/24 13:30	04/04/24 20:32	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/02/24 13:30	04/04/24 20:32	1
Ethylbenzene	ND		0.048	mg/Kg		04/02/24 13:30	04/04/24 20:32	1
Toluene	ND		0.048	mg/Kg		04/02/24 13:30	04/04/24 20:32	1
Xylenes, Total	ND		0.095	mg/Kg		04/02/24 13:30	04/04/24 20:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		39 - 146			04/02/24 13:30	04/04/24 20:32	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8	mg/Kg		04/03/24 13:15	04/04/24 13:43	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		04/03/24 13:15	04/04/24 13:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	102		62 - 134			04/03/24 13:15	04/04/24 13:43	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	67		5.0	mg/Kg			04/05/24 18:32	1

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Client Sample Results

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-25 6.0'
Date Collected: 03/28/24 09:40
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2144-5
Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/02/24 13:30	04/04/24 20:55	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	101		15 - 244			04/02/24 13:30	04/04/24 20:55	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		04/02/24 13:30	04/04/24 20:55	1	
Ethylbenzene	ND		0.047	mg/Kg		04/02/24 13:30	04/04/24 20:55	1	
Toluene	ND		0.047	mg/Kg		04/02/24 13:30	04/04/24 20:55	1	
Xylenes, Total	ND		0.095	mg/Kg		04/02/24 13:30	04/04/24 20:55	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	86		39 - 146			04/02/24 13:30	04/04/24 20:55	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		04/03/24 13:15	04/04/24 13:55	1	
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		04/03/24 13:15	04/04/24 13:55	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	109		62 - 134			04/03/24 13:15	04/04/24 13:55	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	360		5.0	mg/Kg			04/05/24 18:37	1	

Client Sample Results

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-25 8.0' Lab Sample ID: 885-2144-6
Date Collected: 03/28/24 09:50 Matrix: Solid
Date Received: 04/02/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/02/24 13:30	04/04/24 21:19		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	103		15 - 244			04/02/24 13:30	04/04/24 21:19		1
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		04/02/24 13:30	04/04/24 21:19		1
Ethylbenzene	ND		0.049	mg/Kg		04/02/24 13:30	04/04/24 21:19		1
Toluene	ND		0.049	mg/Kg		04/02/24 13:30	04/04/24 21:19		1
Xylenes, Total	ND		0.098	mg/Kg		04/02/24 13:30	04/04/24 21:19		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	88		39 - 146			04/02/24 13:30	04/04/24 21:19		1
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		8.8	mg/Kg		04/03/24 13:15	04/04/24 14:07		1
Motor Oil Range Organics [C28-C40]	ND		44	mg/Kg		04/03/24 13:15	04/04/24 14:07		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	116		62 - 134			04/03/24 13:15	04/04/24 14:07		1
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	37		5.0	mg/Kg			04/05/24 18:51		1

Client Sample Results

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-26 2.0'

Lab Sample ID: 885-2144-7

Date Collected: 03/28/24 10:00

Matrix: Solid

Date Received: 04/02/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/02/24 13:30	04/04/24 22:06	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	100		15 - 244			04/02/24 13:30	04/04/24 22:06	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		04/02/24 13:30	04/04/24 22:06	1	
Ethylbenzene	ND		0.048	mg/Kg		04/02/24 13:30	04/04/24 22:06	1	
Toluene	ND		0.048	mg/Kg		04/02/24 13:30	04/04/24 22:06	1	
Xylenes, Total	ND		0.097	mg/Kg		04/02/24 13:30	04/04/24 22:06	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	85		39 - 146			04/02/24 13:30	04/04/24 22:06	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		04/03/24 13:15	04/04/24 14:20	1	
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/03/24 13:15	04/04/24 14:20	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	108		62 - 134			04/03/24 13:15	04/04/24 14:20	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	59		5.0	mg/Kg			04/05/24 18:56	1	

Client Sample Results

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-26 4.0' Lab Sample ID: 885-2144-8
Date Collected: 03/28/24 10:10 Matrix: Solid
Date Received: 04/02/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.6	mg/Kg		04/02/24 13:30	04/04/24 22:29	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	101		15 - 244			04/02/24 13:30	04/04/24 22:29	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.023	mg/Kg		04/02/24 13:30	04/04/24 22:29	1	
Ethylbenzene	ND		0.046	mg/Kg		04/02/24 13:30	04/04/24 22:29	1	
Toluene	ND		0.046	mg/Kg		04/02/24 13:30	04/04/24 22:29	1	
Xylenes, Total	ND		0.092	mg/Kg		04/02/24 13:30	04/04/24 22:29	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	86		39 - 146			04/02/24 13:30	04/04/24 22:29	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		04/03/24 13:15	04/04/24 14:32	1	
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		04/03/24 13:15	04/04/24 14:32	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	100		62 - 134			04/03/24 13:15	04/04/24 14:32	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	100		5.0	mg/Kg			04/05/24 19:01	1	

Client Sample Results

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-27 2.0'

Lab Sample ID: 885-2144-9

Date Collected: 03/28/24 10:20

Matrix: Solid

Date Received: 04/02/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/02/24 13:30	04/04/24 22:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		15 - 244	04/02/24 13:30	04/04/24 22:53	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/02/24 13:30	04/04/24 22:53	1
Ethylbenzene	ND		0.048	mg/Kg		04/02/24 13:30	04/04/24 22:53	1
Toluene	ND		0.048	mg/Kg		04/02/24 13:30	04/04/24 22:53	1
Xylenes, Total	ND		0.096	mg/Kg		04/02/24 13:30	04/04/24 22:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		39 - 146	04/02/24 13:30	04/04/24 22:53	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8	mg/Kg		04/03/24 13:15	04/04/24 14:45	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		04/03/24 13:15	04/04/24 14:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	106		62 - 134	04/03/24 13:15	04/04/24 14:45	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17		5.0	mg/Kg			04/05/24 19:06	1

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Client Sample Results

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-27 4.0'
Date Collected: 03/28/24 10:30
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2144-10
Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/02/24 13:30	04/04/24 23:17		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	100		15 - 244			04/02/24 13:30	04/04/24 23:17		1
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		04/02/24 13:30	04/04/24 23:17		1
Ethylbenzene	ND		0.049	mg/Kg		04/02/24 13:30	04/04/24 23:17		1
Toluene	ND		0.049	mg/Kg		04/02/24 13:30	04/04/24 23:17		1
Xylenes, Total	ND		0.097	mg/Kg		04/02/24 13:30	04/04/24 23:17		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	85		39 - 146			04/02/24 13:30	04/04/24 23:17		1
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.8	mg/Kg		04/03/24 13:15	04/04/24 14:57		1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		04/03/24 13:15	04/04/24 14:57		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	105		62 - 134			04/03/24 13:15	04/04/24 14:57		1
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	220		5.0	mg/Kg			04/05/24 19:11		1

Client Sample Results

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-28 2.0'

Lab Sample ID: 885-2144-11

Date Collected: 03/28/24 10:40

Matrix: Solid

Date Received: 04/02/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/02/24 13:30	04/04/24 23:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		15 - 244			04/02/24 13:30	04/04/24 23:40	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/02/24 13:30	04/04/24 23:40	1
Ethylbenzene	ND		0.048	mg/Kg		04/02/24 13:30	04/04/24 23:40	1
Toluene	ND		0.048	mg/Kg		04/02/24 13:30	04/04/24 23:40	1
Xylenes, Total	ND		0.097	mg/Kg		04/02/24 13:30	04/04/24 23:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		39 - 146			04/02/24 13:30	04/04/24 23:40	1

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	23		9.4	mg/Kg		04/03/24 13:15	04/04/24 15:10	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		04/03/24 13:15	04/04/24 15:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	105		62 - 134			04/03/24 13:15	04/04/24 15:10	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	400		5.0	mg/Kg			04/05/24 19:16	1

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Client Sample Results

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-28 4.0' Lab Sample ID: 885-2144-12
Date Collected: 03/28/24 10:50 Matrix: Solid
Date Received: 04/02/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.6	mg/Kg		04/02/24 13:30	04/05/24 00:04	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	101		15 - 244			04/02/24 13:30	04/05/24 00:04	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.023	mg/Kg		04/02/24 13:30	04/05/24 00:04	1	
Ethylbenzene	ND		0.046	mg/Kg		04/02/24 13:30	04/05/24 00:04	1	
Toluene	ND		0.046	mg/Kg		04/02/24 13:30	04/05/24 00:04	1	
Xylenes, Total	ND		0.093	mg/Kg		04/02/24 13:30	04/05/24 00:04	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	86		39 - 146			04/02/24 13:30	04/05/24 00:04	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		04/03/24 13:15	04/04/24 15:22	1	
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		04/03/24 13:15	04/04/24 15:22	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	105		62 - 134			04/03/24 13:15	04/04/24 15:22	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	260		5.0	mg/Kg			04/05/24 19:30	1	

Client Sample Results

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-29 2.0' Lab Sample ID: 885-2144-13
Date Collected: 03/28/24 11:00 Matrix: Solid
Date Received: 04/02/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/02/24 13:30	04/05/24 00:27	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	101		15 - 244			04/02/24 13:30	04/05/24 00:27	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		04/02/24 13:30	04/05/24 00:27	1	
Ethylbenzene	ND		0.048	mg/Kg		04/02/24 13:30	04/05/24 00:27	1	
Toluene	ND		0.048	mg/Kg		04/02/24 13:30	04/05/24 00:27	1	
Xylenes, Total	ND		0.096	mg/Kg		04/02/24 13:30	04/05/24 00:27	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	86		39 - 146			04/02/24 13:30	04/05/24 00:27	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		04/03/24 13:15	04/04/24 15:34	1	
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		04/03/24 13:15	04/04/24 15:34	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	97		62 - 134			04/03/24 13:15	04/04/24 15:34	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	750		25	mg/Kg			04/05/24 19:35	5	

Client Sample Results

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-29 4.0' Lab Sample ID: 885-2144-14
Date Collected: 03/28/24 11:10 Matrix: Solid
Date Received: 04/02/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/02/24 13:30	04/05/24 00:51	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	97		15 - 244			04/02/24 13:30	04/05/24 00:51	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		04/02/24 13:30	04/05/24 00:51	1	
Ethylbenzene	ND		0.048	mg/Kg		04/02/24 13:30	04/05/24 00:51	1	
Toluene	ND		0.048	mg/Kg		04/02/24 13:30	04/05/24 00:51	1	
Xylenes, Total	ND		0.097	mg/Kg		04/02/24 13:30	04/05/24 00:51	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	82		39 - 146			04/02/24 13:30	04/05/24 00:51	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	10		9.4	mg/Kg		04/03/24 13:15	04/04/24 15:47	1	
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		04/03/24 13:15	04/04/24 15:47	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	101		62 - 134			04/03/24 13:15	04/04/24 15:47	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	710		5.0	mg/Kg			04/05/24 19:49	1	

Client Sample Results

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-29 6.0' Lab Sample ID: 885-2144-15
Date Collected: 03/28/24 11:20 Matrix: Solid
Date Received: 04/02/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.6	mg/Kg		04/02/24 13:30	04/05/24 01:14	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	100		15 - 244			04/02/24 13:30	04/05/24 01:14	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.023	mg/Kg		04/02/24 13:30	04/05/24 01:14	1	
Ethylbenzene	ND		0.046	mg/Kg		04/02/24 13:30	04/05/24 01:14	1	
Toluene	ND		0.046	mg/Kg		04/02/24 13:30	04/05/24 01:14	1	
Xylenes, Total	ND		0.092	mg/Kg		04/02/24 13:30	04/05/24 01:14	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	86		39 - 146			04/02/24 13:30	04/05/24 01:14	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.4	mg/Kg		04/03/24 13:15	04/04/24 15:59	1	
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		04/03/24 13:15	04/04/24 15:59	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	99		62 - 134			04/03/24 13:15	04/04/24 15:59	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	700		25	mg/Kg			04/05/24 19:54	5	

Client Sample Results

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-29 8.0'

Lab Sample ID: 885-2144-16

Date Collected: 03/28/24 11:30

Matrix: Solid

Date Received: 04/02/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/02/24 13:30	04/05/24 01:38		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	101		15 - 244			04/02/24 13:30	04/05/24 01:38		1
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		04/02/24 13:30	04/05/24 01:38		1
Ethylbenzene	ND		0.048	mg/Kg		04/02/24 13:30	04/05/24 01:38		1
Toluene	ND		0.048	mg/Kg		04/02/24 13:30	04/05/24 01:38		1
Xylenes, Total	ND		0.096	mg/Kg		04/02/24 13:30	04/05/24 01:38		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	86		39 - 146			04/02/24 13:30	04/05/24 01:38		1
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	9.4		9.4	mg/Kg		04/03/24 13:15	04/04/24 16:12		1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		04/03/24 13:15	04/04/24 16:12		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	98		62 - 134			04/03/24 13:15	04/04/24 16:12		1
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	180		5.0	mg/Kg			04/05/24 19:59		1

QC Sample Results

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-2659/1-A

Matrix: Solid

Analysis Batch: 2819

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2659

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/02/24 13:30	04/04/24 15:50	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		15 - 244			04/02/24 13:30	04/04/24 15:50	1

Lab Sample ID: LCS 885-2659/2-A

Matrix: Solid

Analysis Batch: 2819

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2659

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	28.5		mg/Kg		114	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	219		15 - 244				

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-2659/1-A

Matrix: Solid

Analysis Batch: 2821

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2659

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/02/24 13:30	04/04/24 15:50	1
Ethylbenzene	ND		0.050	mg/Kg		04/02/24 13:30	04/04/24 15:50	1
Toluene	ND		0.050	mg/Kg		04/02/24 13:30	04/04/24 15:50	1
Xylenes, Total	ND		0.10	mg/Kg		04/02/24 13:30	04/04/24 15:50	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		39 - 146			04/02/24 13:30	04/04/24 15:50	1

Lab Sample ID: LCS 885-2659/3-A

Matrix: Solid

Analysis Batch: 2821

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2659

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.834		mg/Kg		83	70 - 130
Ethylbenzene	1.00	0.861		mg/Kg		86	70 - 130
m,p-Xylene	2.00	1.76		mg/Kg		88	70 - 130
o-Xylene	1.00	0.861		mg/Kg		86	70 - 130
Toluene	1.00	0.850		mg/Kg		85	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	88		39 - 146				

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QC Sample Results

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-2723/1-A

Matrix: Solid

Analysis Batch: 2812

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2723

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		04/03/24 13:15	04/04/24 12:41	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		04/03/24 13:15	04/04/24 12:41	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	124		62 - 134			04/03/24 13:15	04/04/24 12:41	1

Lab Sample ID: LCS 885-2723/2-A

Matrix: Solid

Analysis Batch: 2812

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2723

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	50.7		mg/Kg		101	60 - 135
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Di-n-octyl phthalate (Surr)	110		62 - 134				

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-77425/1-A

Matrix: Solid

Analysis Batch: 77496

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		5.0	mg/Kg			04/05/24 17:53	1

Lab Sample ID: LCS 880-77425/2-A

Matrix: Solid

Analysis Batch: 77496

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	251		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-77425/3-A

Matrix: Solid

Analysis Batch: 77496

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	251		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 885-2144-1 MS

Matrix: Solid

Analysis Batch: 77496

Client Sample ID: BH24-23 2.0'

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	15		249	268		mg/Kg		101	90 - 110

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QC Sample Results

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 885-2144-1 MSD							Client Sample ID: BH24-23 2.0'				
Matrix: Solid							Prep Type: Soluble				
Analysis Batch: 77496											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	15		249	269		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 885-2144-11 MS							Client Sample ID: BH24-28 2.0'				
Matrix: Solid							Prep Type: Soluble				
Analysis Batch: 77496											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	400		249	653		mg/Kg		103	90 - 110		

Lab Sample ID: 885-2144-11 MSD							Client Sample ID: BH24-28 2.0'				
Matrix: Solid							Prep Type: Soluble				
Analysis Batch: 77496											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	400		249	653		mg/Kg		103	90 - 110	0	20

QC Association Summary

Client: Vertex

Job ID: 885-2144-1

Project/Site: Agate PWU 21 22 #062H

GC VOA

Prep Batch: 2659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2144-1	BH24-23 2.0'	Total/NA	Solid	5030C	
885-2144-2	BH24-23 4.0'	Total/NA	Solid	5030C	
885-2144-3	BH24-24 2.0'	Total/NA	Solid	5030C	
885-2144-4	BH24-24 4.0'	Total/NA	Solid	5030C	
885-2144-5	BH24-25 6.0'	Total/NA	Solid	5030C	
885-2144-6	BH24-25 8.0'	Total/NA	Solid	5030C	
885-2144-7	BH24-26 2.0'	Total/NA	Solid	5030C	
885-2144-8	BH24-26 4.0'	Total/NA	Solid	5030C	
885-2144-9	BH24-27 2.0'	Total/NA	Solid	5030C	
885-2144-10	BH24-27 4.0'	Total/NA	Solid	5030C	
885-2144-11	BH24-28 2.0'	Total/NA	Solid	5030C	
885-2144-12	BH24-28 4.0'	Total/NA	Solid	5030C	
885-2144-13	BH24-29 2.0'	Total/NA	Solid	5030C	
885-2144-14	BH24-29 4.0'	Total/NA	Solid	5030C	
885-2144-15	BH24-29 6.0'	Total/NA	Solid	5030C	
885-2144-16	BH24-29 8.0'	Total/NA	Solid	5030C	
MB 885-2659/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-2659/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-2659/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 2819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2144-1	BH24-23 2.0'	Total/NA	Solid	8015D	2659
885-2144-2	BH24-23 4.0'	Total/NA	Solid	8015D	2659
885-2144-3	BH24-24 2.0'	Total/NA	Solid	8015D	2659
885-2144-4	BH24-24 4.0'	Total/NA	Solid	8015D	2659
885-2144-5	BH24-25 6.0'	Total/NA	Solid	8015D	2659
885-2144-6	BH24-25 8.0'	Total/NA	Solid	8015D	2659
885-2144-7	BH24-26 2.0'	Total/NA	Solid	8015D	2659
885-2144-8	BH24-26 4.0'	Total/NA	Solid	8015D	2659
885-2144-9	BH24-27 2.0'	Total/NA	Solid	8015D	2659
885-2144-10	BH24-27 4.0'	Total/NA	Solid	8015D	2659
885-2144-11	BH24-28 2.0'	Total/NA	Solid	8015D	2659
885-2144-12	BH24-28 4.0'	Total/NA	Solid	8015D	2659
885-2144-13	BH24-29 2.0'	Total/NA	Solid	8015D	2659
885-2144-14	BH24-29 4.0'	Total/NA	Solid	8015D	2659
885-2144-15	BH24-29 6.0'	Total/NA	Solid	8015D	2659
885-2144-16	BH24-29 8.0'	Total/NA	Solid	8015D	2659
MB 885-2659/1-A	Method Blank	Total/NA	Solid	8015D	2659
LCS 885-2659/2-A	Lab Control Sample	Total/NA	Solid	8015D	2659

Analysis Batch: 2821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2144-1	BH24-23 2.0'	Total/NA	Solid	8021B	2659
885-2144-2	BH24-23 4.0'	Total/NA	Solid	8021B	2659
885-2144-3	BH24-24 2.0'	Total/NA	Solid	8021B	2659
885-2144-4	BH24-24 4.0'	Total/NA	Solid	8021B	2659
885-2144-5	BH24-25 6.0'	Total/NA	Solid	8021B	2659
885-2144-6	BH24-25 8.0'	Total/NA	Solid	8021B	2659
885-2144-7	BH24-26 2.0'	Total/NA	Solid	8021B	2659
885-2144-8	BH24-26 4.0'	Total/NA	Solid	8021B	2659

Eurofins Albuquerque

QC Association Summary

Client: Vertex

Job ID: 885-2144-1

Project/Site: Agate PWU 21 22 #062H

GC VOA (Continued)

Analysis Batch: 2821 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2144-9	BH24-27 2.0'	Total/NA	Solid	8021B	2659
885-2144-10	BH24-27 4.0'	Total/NA	Solid	8021B	2659
885-2144-11	BH24-28 2.0'	Total/NA	Solid	8021B	2659
885-2144-12	BH24-28 4.0'	Total/NA	Solid	8021B	2659
885-2144-13	BH24-29 2.0'	Total/NA	Solid	8021B	2659
885-2144-14	BH24-29 4.0'	Total/NA	Solid	8021B	2659
885-2144-15	BH24-29 6.0'	Total/NA	Solid	8021B	2659
885-2144-16	BH24-29 8.0'	Total/NA	Solid	8021B	2659
MB 885-2659/1-A	Method Blank	Total/NA	Solid	8021B	2659
LCS 885-2659/3-A	Lab Control Sample	Total/NA	Solid	8021B	2659

GC Semi VOA

Prep Batch: 2723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2144-1	BH24-23 2.0'	Total/NA	Solid	SHAKE	
885-2144-2	BH24-23 4.0'	Total/NA	Solid	SHAKE	
885-2144-3	BH24-24 2.0'	Total/NA	Solid	SHAKE	
885-2144-4	BH24-24 4.0'	Total/NA	Solid	SHAKE	
885-2144-5	BH24-25 6.0'	Total/NA	Solid	SHAKE	
885-2144-6	BH24-25 8.0'	Total/NA	Solid	SHAKE	
885-2144-7	BH24-26 2.0'	Total/NA	Solid	SHAKE	
885-2144-8	BH24-26 4.0'	Total/NA	Solid	SHAKE	
885-2144-9	BH24-27 2.0'	Total/NA	Solid	SHAKE	
885-2144-10	BH24-27 4.0'	Total/NA	Solid	SHAKE	
885-2144-11	BH24-28 2.0'	Total/NA	Solid	SHAKE	
885-2144-12	BH24-28 4.0'	Total/NA	Solid	SHAKE	
885-2144-13	BH24-29 2.0'	Total/NA	Solid	SHAKE	
885-2144-14	BH24-29 4.0'	Total/NA	Solid	SHAKE	
885-2144-15	BH24-29 6.0'	Total/NA	Solid	SHAKE	
885-2144-16	BH24-29 8.0'	Total/NA	Solid	SHAKE	
MB 885-2723/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-2723/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 2812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2144-1	BH24-23 2.0'	Total/NA	Solid	8015D	2723
885-2144-2	BH24-23 4.0'	Total/NA	Solid	8015D	2723
885-2144-3	BH24-24 2.0'	Total/NA	Solid	8015D	2723
885-2144-4	BH24-24 4.0'	Total/NA	Solid	8015D	2723
885-2144-5	BH24-25 6.0'	Total/NA	Solid	8015D	2723
885-2144-6	BH24-25 8.0'	Total/NA	Solid	8015D	2723
885-2144-7	BH24-26 2.0'	Total/NA	Solid	8015D	2723
885-2144-8	BH24-26 4.0'	Total/NA	Solid	8015D	2723
885-2144-9	BH24-27 2.0'	Total/NA	Solid	8015D	2723
885-2144-10	BH24-27 4.0'	Total/NA	Solid	8015D	2723
885-2144-11	BH24-28 2.0'	Total/NA	Solid	8015D	2723
885-2144-12	BH24-28 4.0'	Total/NA	Solid	8015D	2723
885-2144-13	BH24-29 2.0'	Total/NA	Solid	8015D	2723
885-2144-14	BH24-29 4.0'	Total/NA	Solid	8015D	2723
885-2144-15	BH24-29 6.0'	Total/NA	Solid	8015D	2723

Eurofins Albuquerque

QC Association Summary

Client: Vertex

Job ID: 885-2144-1

Project/Site: Agate PWU 21 22 #062H

GC Semi VOA (Continued)

Analysis Batch: 2812 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2144-16	BH24-29 8.0'	Total/NA	Solid	8015D	2723
MB 885-2723/1-A	Method Blank	Total/NA	Solid	8015D	2723
LCS 885-2723/2-A	Lab Control Sample	Total/NA	Solid	8015D	2723

HPLC/IC

Leach Batch: 77425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2144-1	BH24-23 2.0'	Soluble	Solid	DI Leach	
885-2144-2	BH24-23 4.0'	Soluble	Solid	DI Leach	
885-2144-3	BH24-24 2.0'	Soluble	Solid	DI Leach	
885-2144-4	BH24-24 4.0'	Soluble	Solid	DI Leach	
885-2144-5	BH24-25 6.0'	Soluble	Solid	DI Leach	
885-2144-6	BH24-25 8.0'	Soluble	Solid	DI Leach	
885-2144-7	BH24-26 2.0'	Soluble	Solid	DI Leach	
885-2144-8	BH24-26 4.0'	Soluble	Solid	DI Leach	
885-2144-9	BH24-27 2.0'	Soluble	Solid	DI Leach	
885-2144-10	BH24-27 4.0'	Soluble	Solid	DI Leach	
885-2144-11	BH24-28 2.0'	Soluble	Solid	DI Leach	
885-2144-12	BH24-28 4.0'	Soluble	Solid	DI Leach	
885-2144-13	BH24-29 2.0'	Soluble	Solid	DI Leach	
885-2144-14	BH24-29 4.0'	Soluble	Solid	DI Leach	
885-2144-15	BH24-29 6.0'	Soluble	Solid	DI Leach	
885-2144-16	BH24-29 8.0'	Soluble	Solid	DI Leach	
MB 880-77425/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-77425/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCS 880-77425/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
885-2144-1 MS	BH24-23 2.0'	Soluble	Solid	DI Leach	
885-2144-1 MSD	BH24-23 2.0'	Soluble	Solid	DI Leach	
885-2144-11 MS	BH24-28 2.0'	Soluble	Solid	DI Leach	
885-2144-11 MSD	BH24-28 2.0'	Soluble	Solid	DI Leach	

Analysis Batch: 77496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2144-1	BH24-23 2.0'	Soluble	Solid	300.0	77425
885-2144-2	BH24-23 4.0'	Soluble	Solid	300.0	77425
885-2144-3	BH24-24 2.0'	Soluble	Solid	300.0	77425
885-2144-4	BH24-24 4.0'	Soluble	Solid	300.0	77425
885-2144-5	BH24-25 6.0'	Soluble	Solid	300.0	77425
885-2144-6	BH24-25 8.0'	Soluble	Solid	300.0	77425
885-2144-7	BH24-26 2.0'	Soluble	Solid	300.0	77425
885-2144-8	BH24-26 4.0'	Soluble	Solid	300.0	77425
885-2144-9	BH24-27 2.0'	Soluble	Solid	300.0	77425
885-2144-10	BH24-27 4.0'	Soluble	Solid	300.0	77425
885-2144-11	BH24-28 2.0'	Soluble	Solid	300.0	77425
885-2144-12	BH24-28 4.0'	Soluble	Solid	300.0	77425
885-2144-13	BH24-29 2.0'	Soluble	Solid	300.0	77425
885-2144-14	BH24-29 4.0'	Soluble	Solid	300.0	77425
885-2144-15	BH24-29 6.0'	Soluble	Solid	300.0	77425
885-2144-16	BH24-29 8.0'	Soluble	Solid	300.0	77425
MB 880-77425/1-A	Method Blank	Soluble	Solid	300.0	77425

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

HPLC/IC (Continued)

Analysis Batch: 77496 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-77425/2-A	Lab Control Sample	Soluble	Solid	300.0	77425
LCSD 880-77425/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	77425
885-2144-1 MS	BH24-23 2.0'	Soluble	Solid	300.0	77425
885-2144-1 MSD	BH24-23 2.0'	Soluble	Solid	300.0	77425
885-2144-11 MS	BH24-28 2.0'	Soluble	Solid	300.0	77425
885-2144-11 MSD	BH24-28 2.0'	Soluble	Solid	300.0	77425

Lab Chronicle

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-23 2.0'

Lab Sample ID: 885-2144-1

Date Collected: 03/28/24 09:00

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8015D		1	2819	JP	EET ALB	04/04/24 19:21
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8021B		1	2821	JP	EET ALB	04/04/24 19:21
Total/NA	Prep	SHAKE			2723	SB	EET ALB	04/03/24 13:15
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 13:06
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:45
Soluble	Analysis	300.0		1	77496	SMC	EET MID	04/05/24 18:08

Client Sample ID: BH24-23 4.0'

Lab Sample ID: 885-2144-2

Date Collected: 03/28/24 09:10

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8015D		1	2819	JP	EET ALB	04/04/24 19:45
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8021B		1	2821	JP	EET ALB	04/04/24 19:45
Total/NA	Prep	SHAKE			2723	SB	EET ALB	04/03/24 13:15
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 13:18
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:45
Soluble	Analysis	300.0		1	77496	SMC	EET MID	04/05/24 18:22

Client Sample ID: BH24-24 2.0'

Lab Sample ID: 885-2144-3

Date Collected: 03/28/24 09:20

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8015D		1	2819	JP	EET ALB	04/04/24 20:08
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8021B		1	2821	JP	EET ALB	04/04/24 20:08
Total/NA	Prep	SHAKE			2723	SB	EET ALB	04/03/24 13:15
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 13:30
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:45
Soluble	Analysis	300.0		1	77496	SMC	EET MID	04/05/24 18:27

Client Sample ID: BH24-24 4.0'

Lab Sample ID: 885-2144-4

Date Collected: 03/28/24 09:30

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8015D		1	2819	JP	EET ALB	04/04/24 20:32

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-24 4.0'

Lab Sample ID: 885-2144-4

Date Collected: 03/28/24 09:30

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8021B		1	2821	JP	EET ALB	04/04/24 20:32
Total/NA	Prep	SHAKE			2723	SB	EET ALB	04/03/24 13:15
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 13:43
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:45
Soluble	Analysis	300.0		1	77496	SMC	EET MID	04/05/24 18:32

Client Sample ID: BH24-25 6.0'

Lab Sample ID: 885-2144-5

Date Collected: 03/28/24 09:40

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8015D		1	2819	JP	EET ALB	04/04/24 20:55
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8021B		1	2821	JP	EET ALB	04/04/24 20:55
Total/NA	Prep	SHAKE			2723	SB	EET ALB	04/03/24 13:15
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 13:55
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:45
Soluble	Analysis	300.0		1	77496	SMC	EET MID	04/05/24 18:37

Client Sample ID: BH24-25 8.0'

Lab Sample ID: 885-2144-6

Date Collected: 03/28/24 09:50

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8015D		1	2819	JP	EET ALB	04/04/24 21:19
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8021B		1	2821	JP	EET ALB	04/04/24 21:19
Total/NA	Prep	SHAKE			2723	SB	EET ALB	04/03/24 13:15
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 14:07
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:45
Soluble	Analysis	300.0		1	77496	SMC	EET MID	04/05/24 18:51

Client Sample ID: BH24-26 2.0'

Lab Sample ID: 885-2144-7

Date Collected: 03/28/24 10:00

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8015D		1	2819	JP	EET ALB	04/04/24 22:06
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8021B		1	2821	JP	EET ALB	04/04/24 22:06

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Lab Chronicle

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-26 2.0'

Lab Sample ID: 885-2144-7

Date Collected: 03/28/24 10:00

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			2723	SB	EET ALB	04/03/24 13:15
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 14:20
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:45
Soluble	Analysis	300.0		1	77496	SMC	EET MID	04/05/24 18:56

Client Sample ID: BH24-26 4.0'

Lab Sample ID: 885-2144-8

Date Collected: 03/28/24 10:10

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8015D		1	2819	JP	EET ALB	04/04/24 22:29
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8021B		1	2821	JP	EET ALB	04/04/24 22:29
Total/NA	Prep	SHAKE			2723	SB	EET ALB	04/03/24 13:15
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 14:32
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:45
Soluble	Analysis	300.0		1	77496	SMC	EET MID	04/05/24 19:01

Client Sample ID: BH24-27 2.0'

Lab Sample ID: 885-2144-9

Date Collected: 03/28/24 10:20

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8015D		1	2819	JP	EET ALB	04/04/24 22:53
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8021B		1	2821	JP	EET ALB	04/04/24 22:53
Total/NA	Prep	SHAKE			2723	SB	EET ALB	04/03/24 13:15
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 14:45
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:45
Soluble	Analysis	300.0		1	77496	SMC	EET MID	04/05/24 19:06

Client Sample ID: BH24-27 4.0'

Lab Sample ID: 885-2144-10

Date Collected: 03/28/24 10:30

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8015D		1	2819	JP	EET ALB	04/04/24 23:17
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8021B		1	2821	JP	EET ALB	04/04/24 23:17
Total/NA	Prep	SHAKE			2723	SB	EET ALB	04/03/24 13:15
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 14:57

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-27 4.0'
Date Collected: 03/28/24 10:30
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2144-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:45
Soluble	Analysis	300.0		1	77496	SMC	EET MID	04/05/24 19:11

Client Sample ID: BH24-28 2.0'
Date Collected: 03/28/24 10:40
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2144-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8015D		1	2819	JP	EET ALB	04/04/24 23:40
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8021B		1	2821	JP	EET ALB	04/04/24 23:40
Total/NA	Prep	SHAKE			2723	SB	EET ALB	04/03/24 13:15
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 15:10
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:45
Soluble	Analysis	300.0		1	77496	SMC	EET MID	04/05/24 19:16

Client Sample ID: BH24-28 4.0'
Date Collected: 03/28/24 10:50
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2144-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8015D		1	2819	JP	EET ALB	04/05/24 00:04
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8021B		1	2821	JP	EET ALB	04/05/24 00:04
Total/NA	Prep	SHAKE			2723	SB	EET ALB	04/03/24 13:15
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 15:22
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:45
Soluble	Analysis	300.0		1	77496	SMC	EET MID	04/05/24 19:30

Client Sample ID: BH24-29 2.0'
Date Collected: 03/28/24 11:00
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2144-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8015D		1	2819	JP	EET ALB	04/05/24 00:27
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8021B		1	2821	JP	EET ALB	04/05/24 00:27
Total/NA	Prep	SHAKE			2723	SB	EET ALB	04/03/24 13:15
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 15:34
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:45
Soluble	Analysis	300.0		5	77496	SMC	EET MID	04/05/24 19:35

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Client Sample ID: BH24-29 4.0'
Date Collected: 03/28/24 11:10
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2144-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8015D		1	2819	JP	EET ALB	04/05/24 00:51
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8021B		1	2821	JP	EET ALB	04/05/24 00:51
Total/NA	Prep	SHAKE			2723	SB	EET ALB	04/03/24 13:15
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 15:47
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:45
Soluble	Analysis	300.0		1	77496	SMC	EET MID	04/05/24 19:49

Client Sample ID: BH24-29 6.0'
Date Collected: 03/28/24 11:20
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2144-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8015D		1	2819	JP	EET ALB	04/05/24 01:14
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8021B		1	2821	JP	EET ALB	04/05/24 01:14
Total/NA	Prep	SHAKE			2723	SB	EET ALB	04/03/24 13:15
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 15:59
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:46
Soluble	Analysis	300.0		5	77496	SMC	EET MID	04/05/24 19:54

Client Sample ID: BH24-29 8.0'
Date Collected: 03/28/24 11:30
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2144-16
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8015D		1	2819	JP	EET ALB	04/05/24 01:38
Total/NA	Prep	5030C			2659	JR	EET ALB	04/02/24 13:30
Total/NA	Analysis	8021B		1	2821	JP	EET ALB	04/05/24 01:38
Total/NA	Prep	SHAKE			2723	SB	EET ALB	04/03/24 13:15
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 16:12
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:46
Soluble	Analysis	300.0		1	77496	SMC	EET MID	04/05/24 19:59

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Vertex
Project/Site: Agate PWU 21 22 #062H

Job ID: 885-2144-1

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total
Oregon	NELAP	NM100001	02-26-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Laboratory: Eurofins Midland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-2144-1

Login Number: 2144

List Number: 1

Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	False	Sample splitting required for subcontract purposes.
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-2144-1

Login Number: 2144
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 04/05/24 11:25 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

APPENDIX F – Deferral Request Denial

OCD Permitting

Home Operator Data Action Status Action Search Results Action Status Item Details

[C-141] Remediation Closure Request C-141 (C-141-V-CLOSURE) Application

Submission Information

Submission ID:	302237	Districts:	Artesia
Operator:	[6137] DEVON ENERGY PRODUCTION COMPANY, LP	Counties:	Eddy
Description:	DEVON ENERGY PRODUCTION COMPANY, LP [6137] , AGATE PWU 21 22 #062H , nAB1810145936		
Status:	REJECTED		
Status Date:	01/22/2024		
References (2):	30-015-44201, nAB1810145936		

Forms

Attachments: [Volume Calculation](#)

[Water Sources](#), [Scaled Site Map](#), [Field Data](#), [Soil Contaminant](#), [Water Depth](#), [Boring Logs](#), [Photographs](#), [Topo Aerial Maps](#), [Lab Data](#), [Proposed Technique](#), [Estimated Volume](#), [Closure Criteria](#), [Proposed Schedule](#), [Lab Samples OR Liner Integrity](#), [Remediation Activities](#)

Questions

Prerequisites

Incident Operator	[6137] DEVON ENERGY PRODUCTION COMPANY, LP
Incident Type	Oil Release
Incident Status	Remediation Closure Report Received
Incident Well	[30-015-44201] AGATE PWU 21 22 #062H
Incident Facility	Unavailable.

Location of Release Source

Please answer all the questions in this group.

Site Name	AGATE PWU 21 22 #062H
Date Release Discovered	03/23/2018
Surface Owner	State

Incident Details

Please answer all the questions in this group.

Incident Type	Oil Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No

TO TEST WATER

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

Crude Oil Released (bbls) Details	Cause: Equipment Failure Separator Crude Oil Released: 8 BBL Recovered: 0 BBL Lost: 8 BBL.
Produced Water Released (bbls) Details	Cause: Equipment Failure Separator Produced Water Released: 4 BBL Recovered: 0 BBL Lost: 4 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

Nature and Volume of Release (continued)

Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a “gas only” report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	No
Reasons why this would be considered a submission for a notification of a major release	Unavailable.

With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.

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	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follo
If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed the follow-up C-141 submission.

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 f
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 shc
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 do
operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dvn.com Date: 01/18/2024
--	--

Site Characterization

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	U.S. Geological Survey
Did this release impact groundwater or surface water	No

What is the minimum distance, between the closest lateral extents of the release and the following surface areas:

A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
---	-----------------------

Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Between 1 and 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission Yes

Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.

Have the lateral and vertical extents of contamination been fully delineated Yes

Was this release entirely contained within a lined containment area No

Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride	(EPA 300.0 or SM4500 Cl B)	10000
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	58560
GRO+DRO	(EPA SW-846 Method 8015M)	41560
BTEX	(EPA SW-846 Method 8021B or 8260B)	62.9
Benzene	(EPA SW-846 Method 8021B or 8260B)	0.9

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated beginning and completing the remediation.

On what estimated date will the remediation commence 11/08/2023

On what date will (or did) the final sampling or liner inspection occur 11/28/2023

On what date will (or was) the remediation complete(d) 11/28/2023

What is the estimated surface area (in square feet) that will be reclaimed 0

What is the estimated volume (in cubic yards) that will be reclaimed 0

What is the estimated surface area (in square feet) that will be remediated 10619

What is the estimated volume (in cubic yards) that will be remediated 1288

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remedy then it should consult with the division to determine if another remediation plan submission is required.

Remediation Plan (continued)

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:

(Select all answers below that apply.)

(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.) Yes

Which OCD approved facility will be used for off-site disposal R360 Artesia LLC LANDFARM [FEEM0112340644]

OR which OCD approved well (API) will be used for off-site disposal Not answered.

OR is the off-site disposal site, to be used, out-of-state Not answered.

OR is the off-site disposal site, to be used, an NMED facility Not answered.

(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms) Not answered.

(In Situ) Soil Vapor Extraction Not answered.

(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.) Not answered.

(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.) Not answered.

(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.) Not answered.

Ground Water Abatement pursuant to 19.15.30 NMAC Not answered.

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 do operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement

Name: Dale Woodall

Title: EHS Professional

Email: Dale.Woodall@dvn.com

Date: 01/18/2024

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the ren then it should consult with the division to determine if another remediation plan submission is required.

Deferral Requests Only

Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.

Requesting a deferral of the remediation closure due date with the approval of this submission

Yes

Have the lateral and vertical extents of contamination been fully delineated

Yes

Is the remaining contamination in areas immediately under or around production equipment where remediation could cause a major facility deconstruction

Yes

Please list or describe the production equipment and how (re)moving the equipment would cause major facility deconstruction

Pumpjacks, separators and supporting infrastructure.

What is the remaining surface area (in square feet) that will still need to be remediated if a deferral is granted

6386

What is the remaining volume (in cubic yards) that will still need to be remediated if a deferral is granted

127

Per Paragraph (2) of Subsection C of 19.15.29.12 NMAC if contamination is located in areas immediately under or around production equipment such as production tanks, wellheads and pipelines where remediation could cause a major facili remediation, restoration and reclamation may be deferred with division written approval until the equipment is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first.

Enter the facility ID (##) on which this deferral should be granted

Not answered.

Enter the well API (30-) on which this deferral should be granted

30-015-44201 AGATE PWU 21 22 #062H

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

True

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipa beginning and completing the remediation.

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 f 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 shc 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 do operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement

Name: Dale Woodall

Title: EHS Professional

Email: Dale.Woodall@dvn.com

Date: 01/18/2024

Sampling Event Information

Last sampling notification (C-141N) recorded

304772

Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC

10/03/2023

What was the (estimated) number of samples that were to be gathered

25

What was the sampling surface area in square feet

5000

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.

Requesting a remediation closure approval with this submission

Yes

Have the lateral and vertical extents of contamination been fully delineated

Yes

Was this release entirely contained within a lined containment area

No

Searches Operator Data Hearing Fee Application

All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	0
What was the total volume (in cubic yards) reclaimed	0
Summarize any additional remediation activities not included by answers (above)	see report
<i>The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including, but not limited to, a detailed description of the remedial activities, a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 of the NMAC for more information.</i>	
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 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 the operator have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.	
I hereby agree and sign off to the above statement	<div>Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dnv.com Date: 01/18/2024</div>

Reclamation Report

Only answer the questions in this group if all reclamation steps have been completed.

Requesting a reclamation approval with this submission	No
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Acknowledgments

This submission type does not have acknowledgments, at this time.

Comments

No comments found for this submission.

Conditions

No conditions found for this submission.

Reasons

Summary:	<div>amaxwell (1/22/2024), Deferral denied.</div> <div>amaxwell (1/22/2024), High levels of impacted soil, including BS23-97 at 54,066 ppm total TPH, exist with in the area requested for deferral.</div> <div>amaxwell (1/22/2024), The area requested for deferral is located in an area of depth to groundwater less than 50 feet and within a high karst boundary. Areas of impact pose a threat to the environment and groundwater.</div> <div>amaxwell (1/22/2024), High areas of impact are not vertically and/or horizontally delineated. Examples, WS23-39, WS23-46, BS23-51, BS23-41, BS23-97, ect.</div> <div>amaxwell (1/22/2024), Sample results for BH23-27 through BH23-42 are missing from the table. Sample areas are listed on Figure 1 and the table.</div> <div>amaxwell (1/22/2024), Submit a report by April 26, 2024.</div>
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Searches Operator Data Hearing Fee Application

1220 South St, Francis Drive | Santa Fe, NM 87505 | P: (505) 476-3200 | F: (505) 476-3220

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

QUESTIONS

Action 357365

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 357365
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAB1810145936
Incident Name	NAB1810145936 AGATE PWU 21 22 #062H @ 30-015-44201
Incident Type	Oil Release
Incident Status	Deferral Request Received
Incident Well	[30-015-44201] AGATE PWU 21 22 #062H

Location of Release Source	
<i>Please answer all the questions in this group.</i>	
Site Name	AGATE PWU 21 22 #062H
Date Release Discovered	03/23/2018
Surface Owner	State

Incident Details	
<i>Please answer all the questions in this group.</i>	
Incident Type	Oil Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
<i>Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.</i>	
Crude Oil Released (bbls) Details	Cause: Equipment Failure Separator Crude Oil Released: 8 BBL Recovered: 0 BBL Lost: 8 BBL.
Produced Water Released (bbls) Details	Cause: Equipment Failure Separator Produced Water Released: 4 BBL Recovered: 0 BBL Lost: 4 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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

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

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Santa Fe, NM 87505

QUESTIONS, Page 2

Action 357365

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:
	6137
	Action Number: 357365
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	No
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

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	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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.

I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dmv.com Date: 06/25/2024
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QUESTIONS, Page 3

Action 357365

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:
	6137
	Action Number: 357365
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS**Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 500 and 1000 (ft.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Zero feet, overlying, or within area
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Between 500 and 1000 (ft.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride	(EPA 300.0 or SM4500 Cl B)	10000
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	54066
GRO+DRO	(EPA SW-846 Method 8015M)	40066
BTEX	(EPA SW-846 Method 8021B or 8260B)	62.9
Benzene	(EPA SW-846 Method 8021B or 8260B)	1

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	04/04/2023
On what date will (or did) the final sampling or liner inspection occur	10/06/2023
On what date will (or was) the remediation complete(d)	03/28/2024
What is the estimated surface area (in square feet) that will be reclaimed	0
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	17036
What is the estimated volume (in cubic yards) that will be remediated	3220

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 4

Action 357365

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:	6137
	Action Number:	357365
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS**Remediation Plan (continued)**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:

(Select all answers below that apply.)

(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	R360 Artesia LLC LANDFARM [FEEM0112340644]
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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.

I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dmn.com Date: 06/25/2024
--	--

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 5

Action 357365

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:	6137
	Action Number:	357365
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS**Deferral Requests Only**

Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.

Requesting a deferral of the remediation closure due date with the approval of this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Is the remaining contamination in areas immediately under or around production equipment where remediation could cause a major facility deconstruction	Yes
Please list or describe the production equipment and how (re)moving the equipment would cause major facility deconstruction	Tanks, containment, liner, pumps
What is the remaining surface area (in square feet) that will still need to be remediated if a deferral is granted	6417
What is the remaining volume (in cubic yards) that will still need to be remediated if a deferral is granted	1188
<i>Per Paragraph (2) of Subsection C of 19.15.29.12 NMAC if contamination is located in areas immediately under or around production equipment such as production tanks, wellheads and pipelines where remediation could cause a major facility deconstruction, the remediation, restoration and reclamation may be deferred with division written approval until the equipment is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first.</i>	
Enter the facility ID (f#) on which this deferral should be granted	Not answered.
Enter the well API (30-) on which this deferral should be granted	30-015-44201 AGATE PWU 21 22 #062H
Contamination does not cause an imminent risk to human health, the environment, or groundwater	True
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
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.	
I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dmn.com Date: 06/25/2024

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QUESTIONS, Page 6

Action 357365

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:	6137
	Action Number:	357365
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	304772
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/03/2023
What was the (estimated) number of samples that were to be gathered	25
What was the sampling surface area in square feet	5000

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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CONDITIONS

Action 357365

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:
	6137
	Action Number: 357365
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Deferral approved until plugging and abandonment or a major facility deconstruction, whichever comes first. A complete and accurate remediation report and/or reclamation report will need to be submitted at that time.	7/3/2024