Volume calculator

There was no volume calculator prepared when the spill occurred.



June 8, 2023

Vertex Project #: 21E-02816-36

Spill Closure Report:	SDE 31 Federal #009 Unit J, Section 31, Township 23 South, Range 32 East
	API: 30-025-32868
	County: Lea
	Incident Reports: nPAC0534054352, nPAC0534054473 and nPRS0531129171
Prepared For:	Devon Energy Production Company, LP
	6488 Seven Rivers Highway
	Artesia, New Mexico 88210

New Mexico Oil Conservation Division - District 1 - Hobbs 1625 North French Drive Hobbs, New Mexico 88240

Devon Energy Production Company, LP retained Vertex Resource Services Inc. (Vertex) to conduct a Spill Assessment for releases of produced water caused by injection line leaks at SDE 31 Federal #009, API 30-025-32868, Incidents nPAC0534054352, nPAC0534054473, and nPRS0531129171 (hereafter referred to as "SDE"). This letter provides a description of the Spill Assessment and includes a request for Spill Closure. The spill area is located at N 32.2591248, W -103.7115784.

Background

The site is a saltwater disposal well located approximately 21 miles east of Malaga New Mexico (Google Inc., 2022). The legal location for the site is Unit J, Section 31, Township 23 South and Range 32 East in Lea County, New Mexico. The spill area is located on Bureau of Land Management property. An aerial photograph and site schematic are included in Attachment 1.

The Geological Map of New Mexico (New Mexico Bureau of Geology and Mineral Resources, 2022) indicates the site's surface geology is comprised primarily of Qep - eolian and piedmont deposits. The Natural Resources Conservation Service *Web Soil Survey* characterizes the predominant soil texture on the site Pyote loamy fine sand. It tends to be well drained with negligible runoff and low available moisture levels in the soil profile (United States Department of Agriculture, Natural Resources Conservation Service, 2022).

The surrounding landscape is associated with plains at elevations of 3,000 to 3,900 feet above sea level. The climate is semi-arid, with annual precipitation ranging between 10 to 12 inches. Historically, the plant community was dominated by grasses with scattered shrubs. Black grama is dominant with a mixture of mesquite and shinnery oak shrubs. Overgrazing and extended drought can reduce grass cover (United States Department of Agriculture, Natural Resources Conservation Service, 2022).

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There is no surface water located at SDE. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 Mexico Administrative Code (NMAC; New Mexico Oil Conservation Division, 2018), is an intermittent stream located approximately 5.5 miles northwest of the site (United States Fish and Wildlife Service, 2022). There are no continuous flowing 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.

Incident Description

The releases occurred on October 18 and 31, 2005, due to corrosion-induced leaks in the saltwater injection line. The spills were reported on October 18 and 31, 2005, and involved the releases of approximately 20 barrels (bbl) and an unknown volume of produced water on the pad site. Free fluid was not removed during initial spill clean-up. The New Mexico Oil Conservation Division (NMOCD) C-141 Reports: nPAC0534054352, nPAC0534054473, nPRS0531129171 are included in Attachment 2. New initial C-141 notifications for nPAC0534054352, nPAC0534054473, and nPRS0531129171 were created because the originals were lost prior to upload. The daily field reports (DFR) and site photographs are included in Attachment 3.

Closure Criteria Determination

The depth to groundwater was determined using information from Oil and Gas Drilling records and the New Mexico Office of the State Engineer Water Column/Average Depth to Water report. The closest recorded depth to groundwater was determined to be 380 feet below ground surface (bgs) and 5,040 feet from the site (New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System, 2022).

The available depth to groundwater reference exceeded the 0.5 mile radius limit, and a closer confirmation reference was required. Vision Resources, Inc. obtained a permit from New Mexico Office of the State Engineer approving collection of lithological data for a test borehole for depth to groundwater approximately 0.3 miles northwest of the site. On March 7, 2023, the borehole was drilled to a depth of 55 feet, was left open as per requirements on the WR - 07 Application for Permit to Drill a Well With No Water Right, and an interface probe lowered into the bottom of the borehole on March 13, 2023 to investigate if groundwater may have accumulated during the 72 hour waiting period; no water was present at that time. The borehole was plugged on March 14, 2023, as per requirements on the WR - 08, Well Plugging Plan of Operations. The well information and location are included with documentation used in Closure Criteria Determination research in Attachment 4.

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	Criteria Worksheet		
	ne: SDE 31 Federal #009 rdinates:	X: 32.2591248	Y: -103.7115784
	ific Conditions	Value	Unit
1	Depth to Groundwater	>55	feet
1	Within 300 feet of any continuously flowing	~55	leet
2		29,176	feet
	watercourse or any other significant watercourse Within 200 feet of any lakebed, sinkhole or playa lake		
3	(measured from the ordinary high-water mark)	32,778	feet
	Within 300 feet from an occupied residence, school,		
4	hospital, institution or church	19,359	feet
	i) Within 500 feet of a spring or a private, domestic	F 02C	foot
5	fresh water well used by less than five households for	5,036	feet
5	domestic or stock watering purposes, or		
	ii) Within 1000 feet of any fresh water well or spring		feet
	Within incorporated municipal boundaries or within a		
	defined municipal fresh water field covered under a		
6	municipal ordinance adopted pursuant to Section 3-	No	(Y/N)
	27-3 NMSA 1978 as amended, unless the municipality		
	specifically approves		
7	Within 300 feet of a wetland	4,877	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
		Low	Critical
9	Within an unstable area (Karst Map)		High
9			Medium
			Low
10	Within a 100-year Floodplain	No	year
11	Soil Type	Pyote loamy fine sand	
12	Ecological Classification	Loamy Sand	
13	Geology	Eolian and piedmont	
		deposits	
			<50'
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	51-100'	51-100'
			>100'

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

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	Constituent	Limit
0-4 feet bgs (19.15.29.13)	Chloride	600 mg/kg
	TPH (GRO+DRO+MRO)	100 mg/kg
	Chloride	10,000 mg/kg
	TPH (GRO+DRO+MRO)	2,500 mg/kg
DTGW 51-100 feet (19.15.29.12)	GRO+DRO	1,000 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

bgs – Below ground surface

DTGW – Depth to groundwater

TPH – Total petroleum hydrocarbons = gasoline range organics (GRO) + diesel range organics (DRO) + motor oil range organics (MRO), BTEX - Benzene, toluene, ethylbenzene, and xylenes

Remedial Actions Taken

Initial site inspection and site characterization activities at SDE were completed by Vertex between February 24 and November 7, 2022, including horizontal and vertical delineation. The impacted area was initially determined to be approximately 192 feet long and 152 feet wide; the total affected area was determined to be 19,473 square feet. A DFR associated with the delineation is included in Attachment 3.

Remediation efforts began on November 10, 2022, and were completed on November 22, 2022. Vertex personnel supervised the excavation of impacted soils. Field screening was completed on soil from surfaces samples as excavation progressed and consisted of analysis using a photo ionization detector (volatile hydrocarbons), Dexsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons) and an Electroconductivity meter (chloride). Field screening results were used to identify areas requiring further remediation from those areas showing concentrations below determined closure criteria levels. Soils were removed to a depth of 4 feet bgs. Impacted soil was transported by a licensed waste hauler and disposed of at an approved waste management facility. Field screening results and DFRs are included in Attachments 5 and 3, respectively.

Notification that confirmatory samples were being collected was provided to the NMOCD on November 29, 2022 and is included in Attachment 6. Confirmatory 5-point composite samples were collected from the base and walls of the excavation in 200 square foot increments. A total of 143 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 3 (Attachment 5) and the laboratory data reports are included in Attachment 7. All confirmatory samples collected and analyzed were below closure criteria for the site.

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Closure Request

Vertex recommends no additional remediation action to address the releases at SDE 31 Federal #009. Laboratory analyses of the final confirmatory samples showed constituent of concern concentration levels below NMOCD closure criteria for areas where depth to groundwater is 51-100 feet bgs as shown in Table 1. There are no anticipated risks to human, ecological or hydrological receptors associated with the release sites.

The excavation was backfilled with non-waste-containing, uncontaminated, earthen material, sourced locally, and placed to meet the site's existing grade to prevent ponding of water and erosion.

Vertex requests that these incidents (nPAC0534054352, nPAC0534054473 and nPRS0531129171) be closed as all closure requirements set forth in Subsection E of 19.15.29.12 NMAC have been met. Devon certifies that all information in this report and the attachments is correct, and that they have complied with all applicable closure requirements and conditions specified in Division rules and directives to meet NMOCD requirements to obtain closure on the October 18 and 31, 2005 releases at SDE 31 Federal #009.

The release area was fully delineated, remediated, and backfilled with local soils by March 7, 2023. Confirmatory samples were analyzed by the laboratory and found to be below allowable concentrations as per the NMAC Closure Criteria for Soils Impacted by a Release locations between 51 and 100 feet to groundwater. Based on these findings, Devon requests that this release be closed.

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

Lakin Pullman

Lakin Pullman, B.Sc. SENIOR TECHNICAL EXPERT, REPORTING

June 8, 2023

Date

Date

Kent Stallings P.G.

June 12, 2023

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

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Attachments

- Attachment 1. Site Schematic
- Attachment 2. NMOCD C-141 Report(s)
- Attachment 3. Daily Field Reports with Pictures
- Attachment 4. Closure Criteria for Soils Impacted by a Release Research Determination Documentation
- Attachment 5. Tables
- Attachment 6. Confirmatory Sampling Notification to the NMOCD
- Attachment 7. Laboratory Data Reports and COCs

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References

- Google Inc. (2022). *Google Earth Pro* (Version 7.3.4) [Software]. Retrieved from http://www.google.com/earth on November 4, 2022.
- New Mexico Bureau of Geology and Mineral Resources. (2022). *Interactive Geologic Map.* Retrieved from http://geoinfo.nmt.edu.
- New Mexico Oil Conservation Division. (2018). New Mexico Administrative Code Natural Resources and Wildlife Oil and Gas Releases. Santa Fe, New Mexico.
- New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System. (2022). Water Column/Average Depth to Water Report. Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/waterColumn.html
- United States Department of Agriculture, Natural Resources Conservation Service. (2022). *Web Soil Survey*. Retrieved from https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

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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 and the Bureau of Land Management, 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.

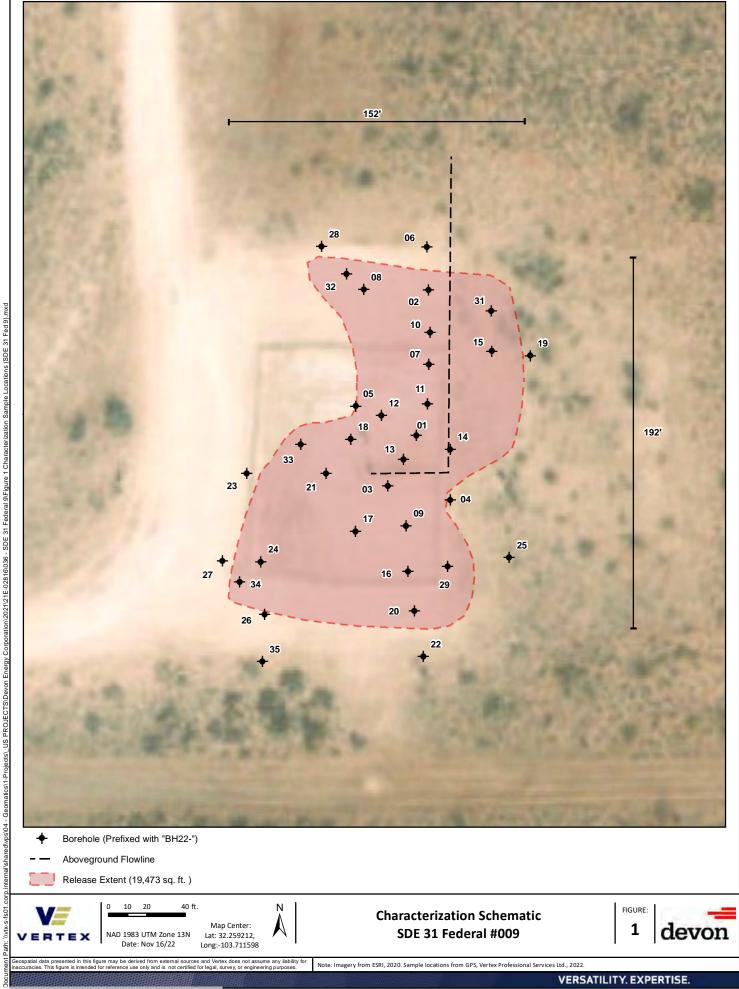
The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted scientific practices current at the time the work was performed. The conclusions and recommendations presented represent the best judgement 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.

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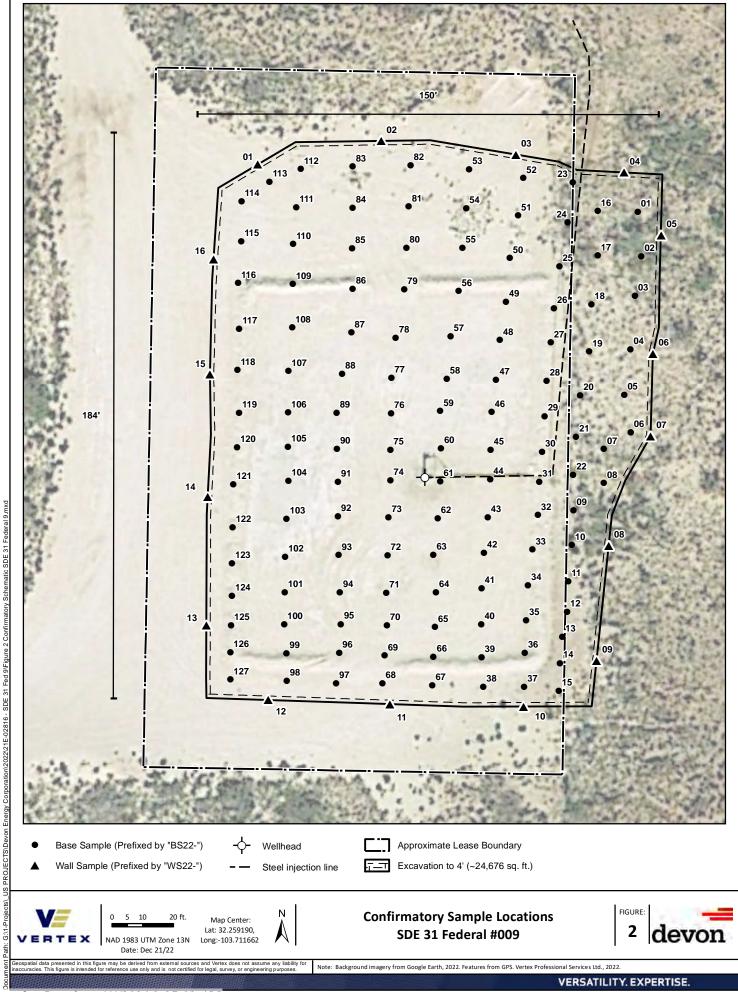
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ATTACHMENT 1





Received by OCD: 3/21/2024 2:58:02 PM



Released to Imaging: 4/4/2024 9:37:02 AM

ATTACHMENT 2

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID	nPAC0534054352,
	nPAC0534054473
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Harvard Petroleum Company, LLC	OGRID 10155
Contact Name Jeff Harvard	Contact Telephone 575-208-7135
Contact email jharvard@hpcnm.com	Incident # (assigned by OCD) nPAC0534054352, nPAC0534054473
Contact mailing address P.O. Box 936 Roswell, NM 88202	·

Location of Release Source

Latitude 32.2591248

Longitude <u>-103.7115784</u> (NAD 83 in decimal degrees to 5 decimal places)

Site Name SDE 31 Federal #009	Site Type Oil Well
Date Release Discovered October 18, 2005	API# (if applicable) 30-025-32868

Unit Letter	Section	Township	Range	County
J	31	23S	32E	Lea

Surface Owner: State Federal Tribal Private (Name:

Nature and Volume of Release

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

Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
Produced Water	Volume Released (bbls) 20	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release		
	d on file with NMOCD but original C-141 is not on file d a leak due to corrosion. Notation on NMOCD inciden	

Injection line developed a leak due to corrosion. Notation on NMOCD incident web page is as follows:

"C-141: "Injection line leak (corrosion) Shut in well. Lease road to well."

<i>ceived by OCD: 3/21/202</i> orm C-141	4 2:58:02 PM State of New Mexico	Incident ID	<u>Page 15 o</u> nPAC0534054352,
age 2	Oil Conservation Division	mendent ID	nPAC0534054473
		District RP	
		Facility ID	30-025-32868
		Application ID	
release as defined by 19.15.29.7(A) NMAC?			
If YES, was immediate n	otice given to the OCD? By whom? To whom? Wh	en and by what means (phone, o	email, etc)?

Initial Response

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

 \square The source of the release has been stopped.

The impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have <u>not</u> been undertaken, explain why:

Historic release outside of containment.

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

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

Printed Name:Jeff Harvard	Title:President and Manager
Signature:	_ Date:
email:jharvard@hpcnm.com	Telephone: <u>575-208-7135</u>
OCD Only	
Received by:	Date:

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

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Incident ID	nPRS0531129171
District RP	
Facility ID	30-025-32868
Application ID	

Release Notification

Responsible Party

Responsible Party Harvard Petroleum Company, LLC	OGRID 10155	
Contact Name Jeff Harvard	Contact Telephone 575-208-7135	
Contact email jharvard@hpcnm.com	Incident # (assigned by OCD) nPRS0531129171	
Contact mailing address P.O. Box 936 Roswell, NM 88202		

Location of Release Source

Latitude 32.2591248

(NAD 83 in decimal degrees to 5 decimal places)

Site Name SDE 31 Federal #009	Site Type Oil Well
Date Release Discovered October 31, 2005	API# (if applicable) 30-025-32868

Unit Letter	Section	Township	Range	County
J	31	23S	32E	Lea

Surface Owner: State Federal Tribal Private (Name: _

Nature and Volume of Release

Mater	ial(s) Released (Select all that apply and attach calculations or specific	justification for the volumes provided below)
Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
Produced Water	Volume Released (bbls) Unknown	Volume Recovered (bbls) Unknown
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Palaase		

Cause of Release

Release is historical and on file with NMOCD but original C-141 is not on file (possibly never uploaded).

Injection line developed a leak due to corrosion. Notation on NMOCD incident web page is as follows:

"C-141: "Injection line leak (corrosion) Shut well in."

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Oil	Conserv	ation	D	iv	is	ion
~	0011001		~	••	10	1011

Incident ID	nPRS0531129171
District RP	
Facility ID	30-025-32868
Application ID	

Was this a major release as defined by	If YES, for what reason(s) does the responsible party consider this a major release?
19.15.29.7(A) NMAC?	Volume not recorded. Assume more than 25 bbl and therefore a Major release.
🛛 Yes 🗌 No	
If YES, was immediate no	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Unknown.	

Initial Response

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

 \square The source of the release has been stopped.

The impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

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

Historic release outside of containment.

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

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

Printed Name: Jeff Harvard	Title: President and Manager
Signature:	_ Date:
email:jharvard@hpcnm.com	Telephone: <u>575-208-7135</u>
OCD Only	
Received by:	Date:

Received by OCD: 3/21/2024 2:58:02 PM Form C-141 State of New Mexico

Page 3

Oil Conservation Division

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Incident ID	nPAC0534054352,
	nPAC0534054473,
	nPRS0531129171
District RP	
Facility ID	30-025-32868
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>>55</u> (ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🛛 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🔀 No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🛛 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🛛 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🛛 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🛛 No
Did the release impact areas not on an exploration, development, production, or storage site?	🗌 Yes 🖂 No

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

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

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- \square Depth to water determination
- Determination of water sources and significant watercourses within ¹/₂-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

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

Received by OCD: 3/21/202	24 2:58:02 PM State of New Mexico				Page 19 of 420
		n		Incident ID	nPAC0534054352,
Page 4	Oil Conservation Division				nPAC0534054473,
					nPRS0531129171
				District RP	
				Facility ID	30-025-32868
				Application ID	
regulations all operators are r public health or the environm failed to adequately investiga addition, OCD acceptance of and/or regulations. Printed Name:Jeff J Signature: email:jharvard@hp	mation given above is true and complete to t required to report and/or file certain release n hent. The acceptance of a C-141 report by th ate and remediate contamination that pose a t c C-141 report does not relieve the operator <u>Harvard</u>	notifications a ne OCD does hreat to groun of responsibi Title: Date:	nd perform co not relieve the dwater, surfac lity for compli	rrective actions for rele operator of liability shi e water, human health iance with any other fee nd Manager	eases which may endanger ould their operations have or the environment. In deral, state, or local laws
OCD Only Received by:		_ I	Date:		

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Oil Conservation Division

Incident ID	nPAC0534054352,
	nPAC0534054473,
	nPRS0531129171
District RP	
Facility ID	30-025-32868
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 co	onfirmed as part of any request for deferral of remediation.
Contamination must be in areas immediately under or around p deconstruction.	production equipment where remediation could cause a major facility
Extents of contamination must be fully delineated.	
Contamination does not cause an imminent risk to human heal	th, the environment, or groundwater.
rules and regulations all operators are required to report and/or file	acceptance of a C-141 report does not relieve the operator of
Printed Name:Jeff Harvard	Title: <u>President and Manager</u>
Signature:	Date:
email:jharvard@hpcnm.com	Telephone: <u>575-208-7135</u>
OCD Only	
Received by:	_ Date:
Approved Approved with Attached Conditions of	f Approval Denied Deferral Approved
Signature:	Date:

Oil Conservation Division

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Incident ID	nPAC0534054352,
	nPAC0534054473,
	nPRS0531129171
District RP	
Facility ID	30-025-32868
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 Donort Attachmont Cheaklist, Each of the fallowing	itams must be included in the closure report			
Closure Report Attachment Checklist: Each of the following items must be included in the closure report.				
\square 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 OI	DC District office must be notified 2 days prior to final sampling)			
Description of remediation activities				
and regulations all operators are required to report and/or file certa may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and re- human health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regu- restore, reclaim, and re-vegetate the impacted surface area to the of accordance with 19.15.29.13 NMAC including notification to the Printed Name: <u>Jeff Harvard</u>	lations. The responsible party acknowledges they must substantially conditions that existed prior to the release or their final land use in OCD when reclamation and re-vegetation are complete. Title: <u>President and Manager</u>			
Signature:	_ Date:			
email: jharvard@hpcnm.com	Telephone: <u>575-208-7135</u>			
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:	ted Name: Title:			

ATTACHMENT 3



Client:	Devon Energy Corporation	Inspection Date:	9/4/2022
Site Location Name:	SDE 31 Federal #009	Report Run Date:	9/4/2022 11:49 PM
Client Contact Name:	Wes Matthews	API #:	
Client Contact Phone #:	(575) 748-0176	_	
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
Summary of Times			
Arrived at Site	9/4/2022 2:19 PM		
Departed Site	9/4/2022 4:41 PM		

Field Notes

- 16:08 Completed safety paperwork at previous site. On site to complete horizontal delineation.
- **16:22** Mapped sample locations to complete horizontal delineation and acquire more information about area inside former containment berm.
- **16:26** Swept sample point locations with magnetic locator prior to ground disturbance. Boreholes advanced with hand tools.
- **16:29** Advanced BH22-22 off south edge of pad and south of BH22-20. Field screening results for TPH and chloride below NMOCD strictest criteria.
- **16:30** Advanced BH22-23 immediately west of former containment berm on west edge of pad. Field screening results for TPH and chloride below NMOCD strictest criteria.
- **16:31** Advanced BH22-24 in southwest corner of former containment area. Field screening results for chloride exceeded NMOCD strictest criteria.
- **16:32** Horizontal delineation tentatively complete pending laboratory results.
- **16:33** May need additional sample points between BH22-23 and BH22-21 to refine edge of contamination.
- **16:34** Will require machinery to complete vertical delineation.



Next Steps & Recommendations

1 Completed vertical delineation with mechanical advantage.

Released to Imaging: 4/4/2024 9:37:02 AM

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Site Photos



Run on 9/4/2022 11:49 PM UTC

former containment area.



Daily Site Visit Signature

Inspector: Lakin Pullman Signature:

Run on 9/4/2022 11:49 PM UTC

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Client:	Devon Energy Corporation	Inspection Date:	12/2/2022
Site Location Name:	SDE 31 Federal CTB	Report Run Date:	12/3/2022 12:09 AM
Client Contact Name:	Wes Matthews	API #:	
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
Summary of Times			
Arrived at Site	12/2/2022 6:22 AM		
Departed Site	12/2/2022 3:22 PM		

Field Notes

6:51 Completed JSA and safety meeting. On site to collect confirmation samples from excavation surfaces.

15:21 Excavation and corresponding side walls are 4 feet in depth. Excavation base area is approximately 25000 square feet.

6:55 Swept excavation surfaces with magnetic locator prior to ground disturbance.

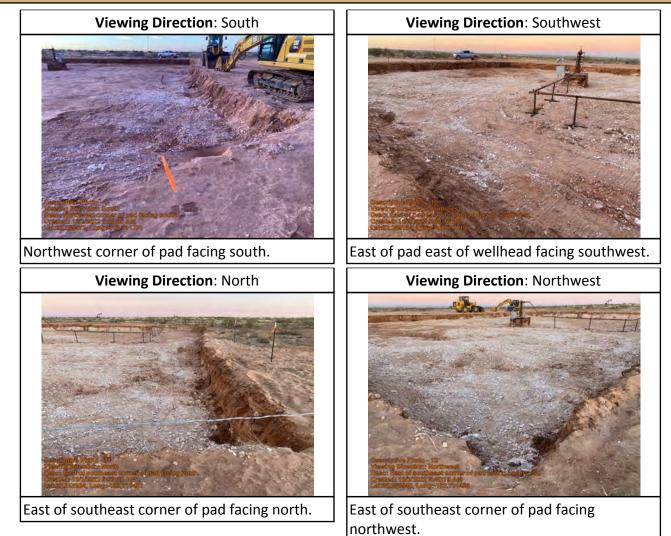
15:13 Collected 16 wall excavation samples and 127 base excavation samples.

Next Steps & Recommendations

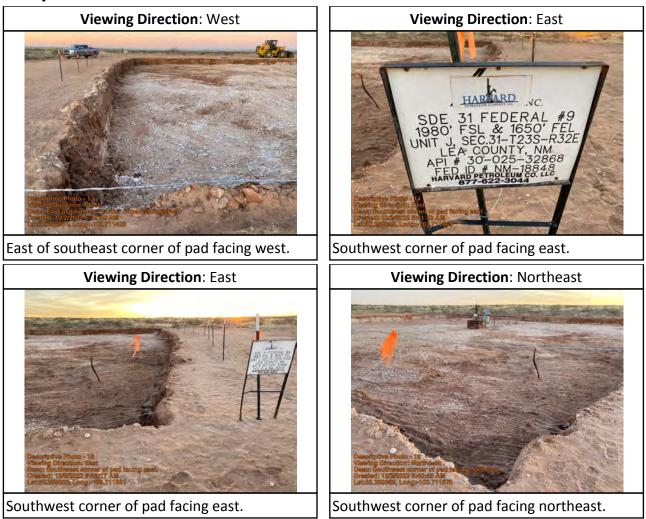
1 Submit samples to laboratory for analyses.



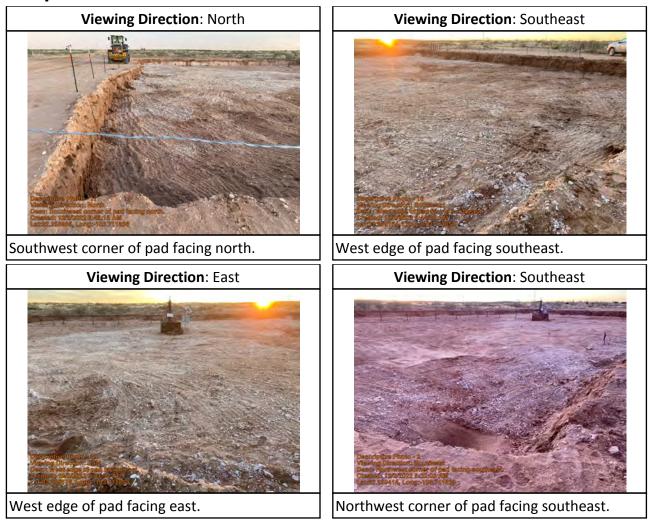
Site Photos





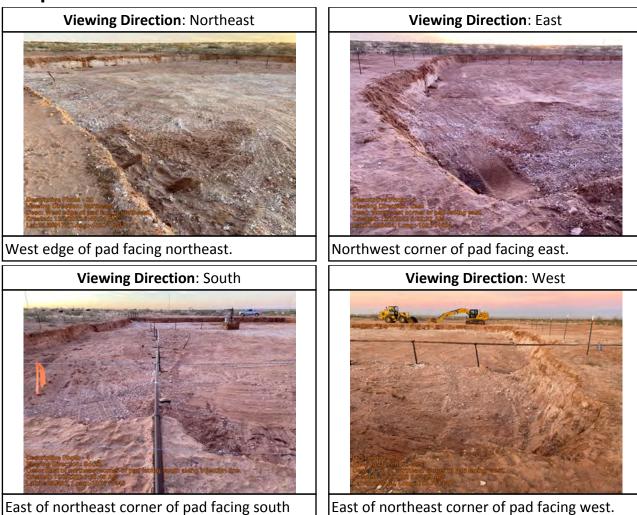








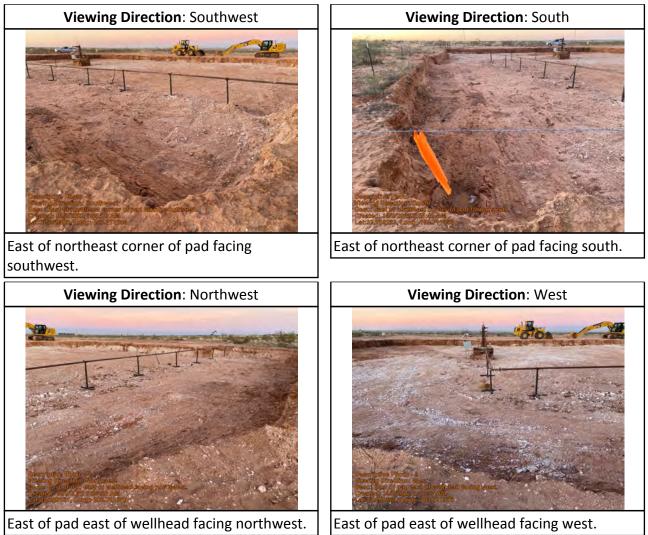
Page 31 of 420



Run on 12/3/2022 12:09 AM UTC

along injection line.







Daily Site Visit Signature

Inspector: Lakin Pullman Signature:

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VERTEX

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	3/7/2023
Site Location Name:	SDE 31 Federal 4	Report Run Date:	3/8/2023 1:49 AM
Client Contact Name:	Wes Matthews		30-025-32716
Client Contact Phone #:	(575) 748-0176	_	
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
Summary of Times			
Arrived at Site	3/7/2023 4:30 PM		
Departed Site	3/7/2023 5:35 PM		

Field Notes

16:40 Arrived on site and discussed site plan. Began drilling borehole for well at 16:35.

17:11 Drilling borehole and well installation completed 17:10.

- **17:22** Well reading at 17:15 with Solinst model 122. Pipe height above ground is 2 ft 7 inches. Dry well reading at 60 ft and 7 inches. (58 ft depth of well).
- **17:30** Collected coordinates of actual well location (32.2628063, -103.7162248). Well is 85ft directly east of pump jack, northeast outside of pad.

Next Steps & Recommendations

1



Site Photos Viewing Direction: East Viewing Direction: North Drilling rig and well site Actual well location Viewing Direction: West Well location in relation to site references

V

VERTEX

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Stephanie McCartyM

Signature:

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Client:	Devon Energy Corporation	Inspection Date:	3/13/2023
Site Location Name:	SDE 31 Federal 4	Report Run Date:	4/17/2023 3:44 PM
Client Contact Name:	Wes Matthews		30-025-32716
Client Contact Phone #:	(575) 748-0176	_	
Unique Project ID		– Project Owner:	
Project Reference #		Project Manager:	
		Summary of T	Times
Arrived at Site	3/13/2023 3:00 PM		
Departed Site	3/13/2023 4:06 PM		

Field Notes

15:21 Completed JSA on arrival. On site to test depth of water in exploratory well.

15:29 Top of well casing was 2 feet 7.5 inches above ground surface.

15:38 Extended Solinst Model 122 Interface Meter to base of exploratory well at 15:35 on March 13, 2023.

15:44 Once the interface probe was at the bottom of the well, the tape read 61 feet at the top of the well casing. The well was approximately 58 feet 4.5 inches deep.

15:46 There was no indication of water throughout the depth of the well. Confirmed dry well.

15:59 Approximate coordinates of well: 32.2627890, -103.7162235. Exploratory well is approximately 111 feet east of oil wellhead.

Next Steps & Recommendations

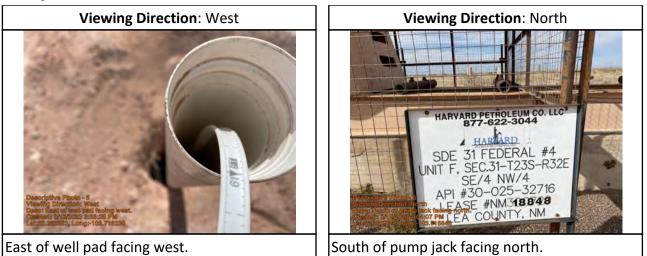
1



Site Photos Viewing Direction: East Viewing Direction: West East edge of well pad facing east. Exploratory East of well pad facing west. Exploratory well well marked with orange cone. marked with orange cone. Viewing Direction: West Viewing Direction: West East of well pad facing west. Exploratory well. East of well pad facing west.

Run on 4/17/2023 3:44 PM UTC







Daily Site Visit Signature

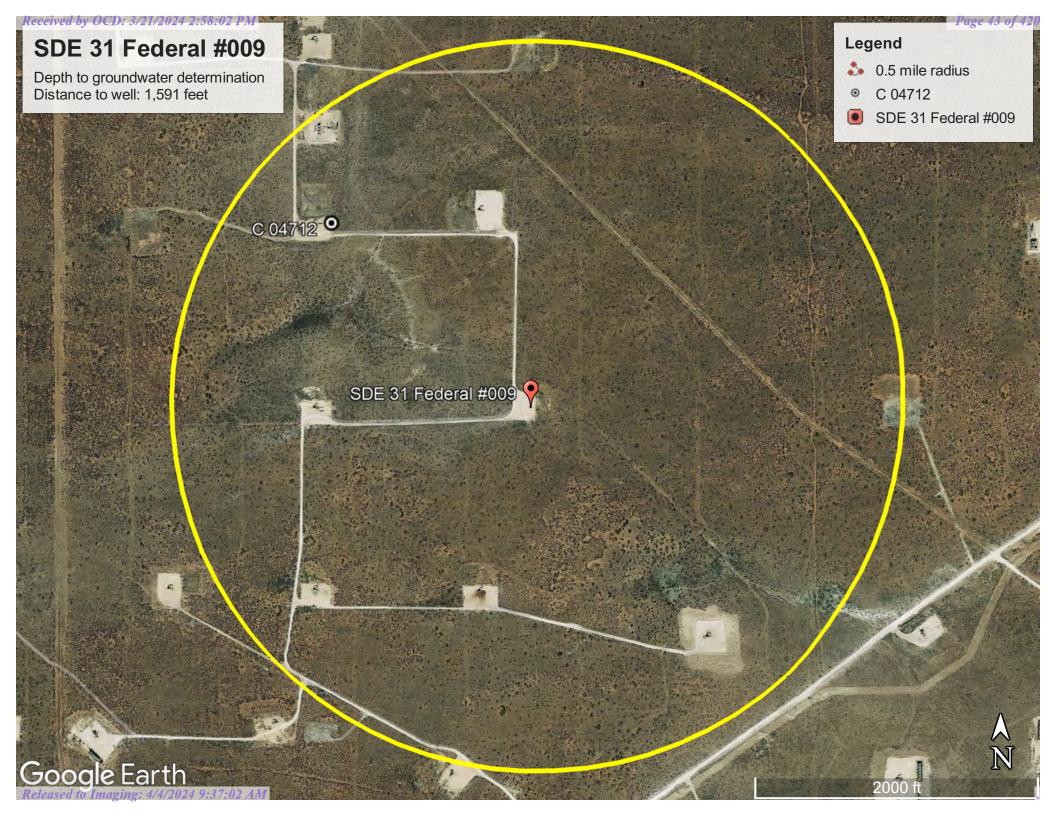
Inspector: Lakin Pullman JA Signature: 📐

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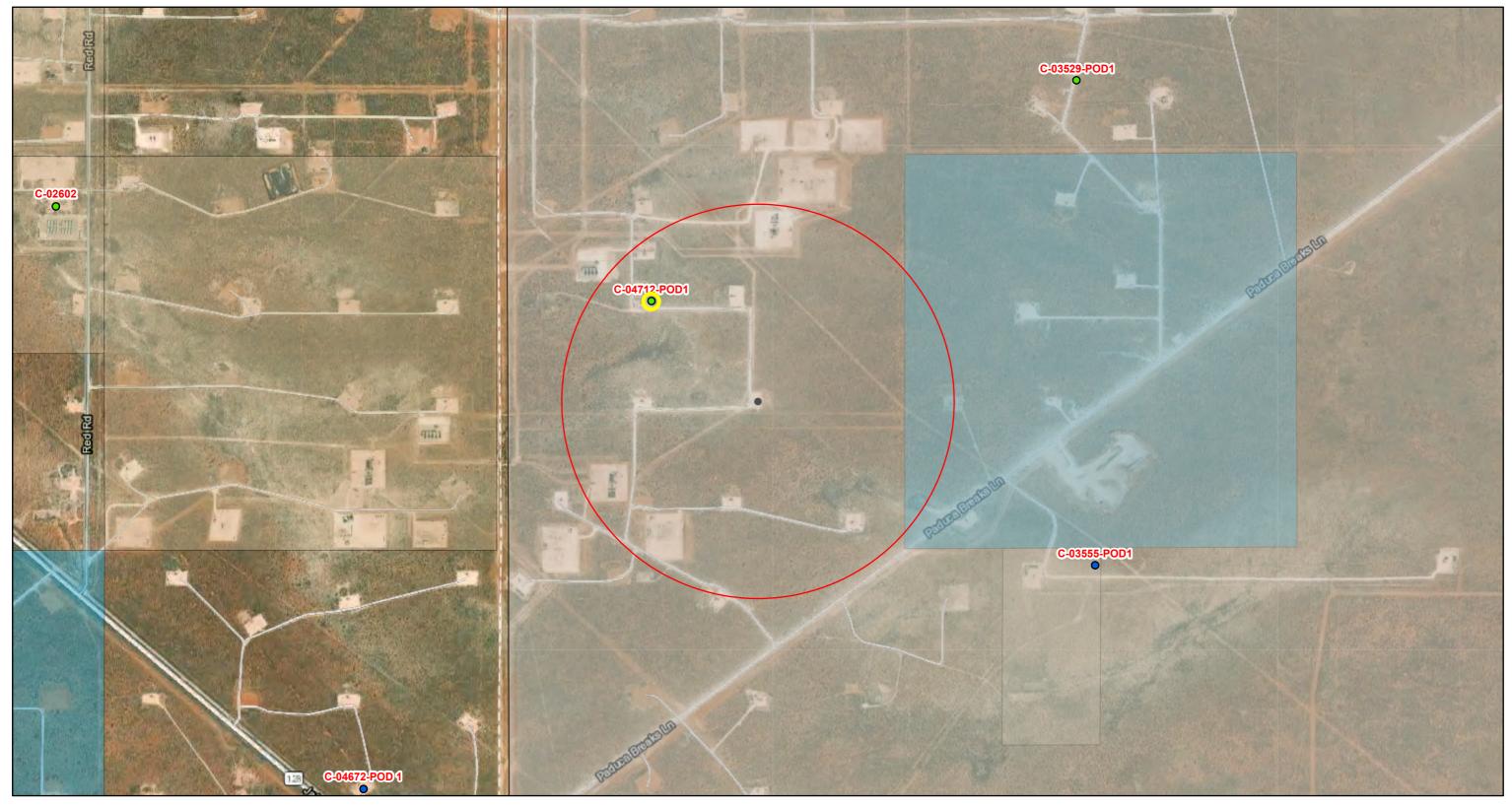
ATTACHMENT 4

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Spill Coo	rdinates:	X: 32.2591248	Y: -103.7115784		
Site Spec	cific Conditions	Value	Unit	Reference	
1	Depth to Groundwater	>55	feet	1	
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	29,176	feet	2	
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	32,778	feet	3	
4	Within 300 feet from an occupied residence, school, hospital, institution or church	19,359	feet	4	
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 	5,036	feet	5	
	ii) Within 1000 feet of any fresh water well or spring		feet	5	
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)	6	
7	Within 300 feet of a wetland	4,877	feet	7	
8	Within the area overlying a subsurface mine	No	(Y/N)	8	
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low	9	
10	Within a 100-year Floodplain	No	year	10	
11	Soil Type	Pyote loamy fine sand		11	
12	Ecological Classification	Loamy Sand		12	
13	Geology	Eolian and piedmont deposits		13	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	51-100'	<50' 51-100' >100'		



OSE POD 0.5 mile



4/18/2023, 5:45:12 PM **GIS WATERS PODs**



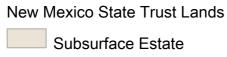
Water Right Regulations Closure Area



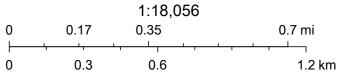
Both Estates SiteBoundaries



OSE District Boundary



Released to Imaging: 4/4/2024 9:37:02 AM



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



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	(R=POD has been replaced, O=orphaned,												
& no longer serves a water right file.)	C=the file is closed)		· 1				/ 2=NE est to lai	3=SW 4=SI rgest) (N	E) IAD83 UTM in m	neters)	(In f	eet)	
	POD												
POD Number	Sub- Code basin	C	QQ		S	True	Dura	X	Y	DistanceDe	th Wall Dama		Vater
<u>C 04712 POD1</u>	Code Dashi CUB	County LE	1 4		31	23S	32E	620917	3570289	485	55		Jullin
C 04672 POD 1	CUB	ED	2 1	4	01	24S	31E	619762	3568286	1827	110		
C 03555 POD1	С	LE	2 2	2 1	05	24S	32E	622748	3569233	2185	600	380	220
C 03529 POD1	С	LE	2 4	43	29	23S	32E	622651	3571212 🌍	2397	550		
<u>C 02405</u>	CUB	ED	4	↓ 1	02	24S	31E	617690	3568631* 🌍	3221	275	160	115
<u>C 02348</u>	С	ED	1 4	43	26	23S	31E	617648	3571068 🌍	3239	700	430	270
<u>C 02258</u>	С	ED	3	3 2	26	23S	31E	618055	3571853* 🌍	3269	662		
<u>C 02464</u>	С	ED	2 3	3 1	02	24S	31E	617645	3568581 🌍	3282	320	205	115
C 03851 POD1	CUB	LE	3 3	3 4	20	23S	32E	622880	3572660 🌍	3559	1392	713	679
C 04687 POD1	CUB	ED	4 2	2 3	12	24S	31E	619481	3566450 🌍	3624	110		
<u>C 02460</u>	С	ED		3	02	24S	31E	617496	3568022* 🌍	3668	320		
<u>02460 POD2</u>	С	ED		3	02	24S	31E	617496	3568022* 🌍	3668	320		
C 03530 POD1	С	LE	34	4 3	07	24S	32E	620886	3566156 🌍	3728	550		
<u>C 04712 POD3</u>	CUB	ED	4 1	2	24	23S	31E	619651	3573877 🌍	4125	55		
									Avera	ge Depth to Wat	er:	377 fee	et
										Minimum De	pth:	160 fee	et
										Maximum De	pth:	713 fee	et
Record Count: 14													
UTMNAD83 Radius	<u>Search (in meters):</u>												
Easting (X): 620	660.13	North	hing (N	Y):	3569	877.79)		Radius: 5000				
*UTM location was derived f	from PLSS - see Help												
The data is furnished by the N accuracy, completeness, reliabi	MOSE/ISC and is acce	pted by the	e recipi	ient v	vith th	e expre	essed und	lerstanding th	at the OSE/ISC ma	ke no warranties,	expressed or in	nplied, concern	ning the

4/16/23 8:32 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



New Mexico Office of the State Engineer Point of Diversion Summary

Casing Size	2:	Depth Well:	55 feet	Depth Water:	
Pump Type	2.	Pipe Discharge Siz	ze:	Estimated Yiel	d:
Log File Da	ate: 04/04/2023	PCW Rcv Date:		Source:	
Drill Start	Date: 03/09/2023	Drill Finish Date:	03/09/202	23 Plug Date:	03/14/2023
Driller Nar	ne: JASON MALEY				
Driller Lice	ense: 1833	Driller Company:	VISION R	ESOURCES, INC	
NA	C 04712 POD1	1 4 1 3	1 23S 32E	620917 3570289)
Well Tag	POD Number	Q64 Q16 Q4 Se	ec Tws Rng	X Y	
		(quarters are smalles	t to largest)	(NAD83 UTM in meters)	

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.

4/16/23 8:52 AM

POINT OF DIVERSION SUMMARY

New Mexico Office of the State Engineer Water Right Summary

			_		-
	WR File Number:	C 04712	Subbasin: CUB	Cross Reference:	-
	Primary Purpose:	MON MONITORIN	IG WELL		
<u>image list</u>	Primary Status:	PMT PERMIT			
	Total Acres:		Subfile: -		Header: -
	Total Diversion:	0	Cause/Case: -		
	Owner:	VERTEX RESOURCE	ËS		
	User:	HARVARD PETROLE	EUM COMPANY LLC		
	Contact:	JUSTIN WARREN			

Documents on File

<u>get i</u>

				Sta	atus		From/			
	Trn #	Doc	File/Act	1	2	Transaction Desc.	То	Acres	Diversion	Consumptive
images	743189	EXPL	2023-02-21	PMT	APR	C 04712 POD1-6	Т	0	0	

Current Points of Diversion

		Q				(N	AD83 UTM	in meters)	
POD Number <u>C 04712 POD1</u>	Well Tag Source NA	64 Q	-		Tws 23S	0	X 620917	Y 3570289	Other Location Desc SDE
<u>C 04712 POD2</u>	NA	4 4	4 4	17	23S	32E	623332	3574331 🥑	TOMCAT17
<u>C 04712 POD3</u>	NA	4	1 2	24	23S	31E	619651	3573877 🧲	TODD24
<u>C 04712 POD4</u>	NA	1 4	4 3	14	23S	31E	617535	3574316 🥑	TODD14
<u>C 04712 POD5</u>	NA	4	4 3	09	23S	31E	614393	3575754 🥑	NPG9
<u>C 04712 POD6</u>	NA	3	3 4	08	23S	31E	613147	3575740 🌍	NPG8

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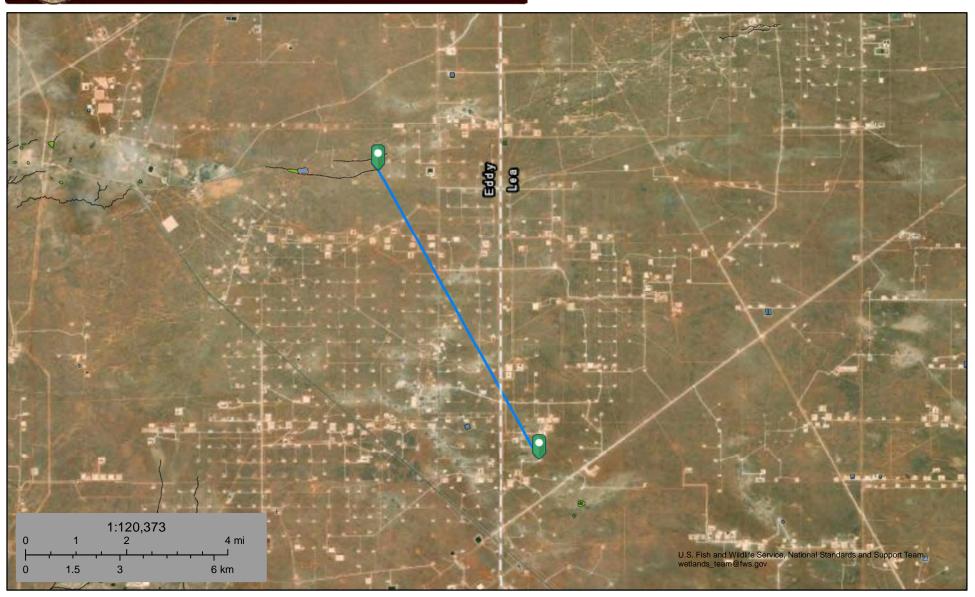
4/18/23 5:57 PM

WATER RIGHT SUMMARY

U.S. Fish and Wildlife Service

National Wetlands Inventory

Intermittent, 29,176 feet



November 5, 2022

Wetlands

Released to Imaging: 4/4/2024 9:37:02 AM

Estuarine and Marine Wetland

Estuarine and Marine Deepwater

- 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.

U.S. Fish and Wildlife Service

National Wetlands Inventory

SDE 31 Fed 9 Lake 32,778 ft



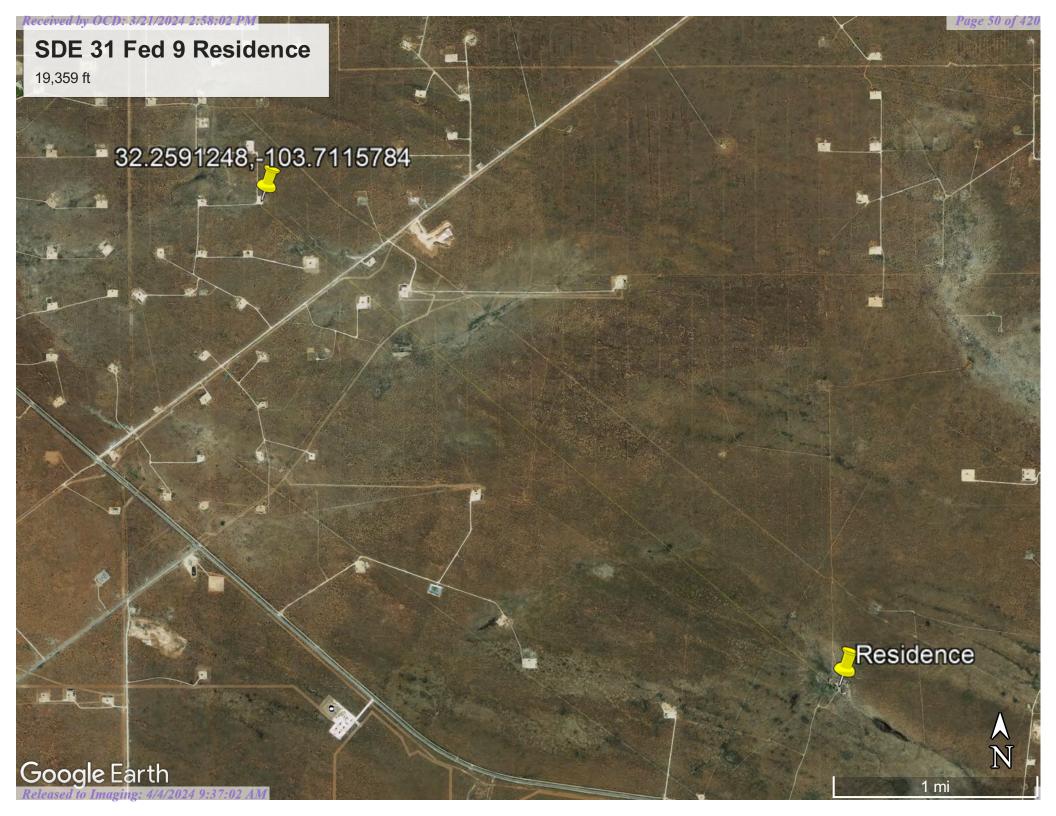
Wetlands

Estuarine and Marine Deepwater

Released to Imaging: 4/4/2024 9:37:02 AM

- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- **Freshwater Pond**

Lake Other Riverine 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.



Received by SGPA: 3/21/2024 2:58:02 PMmurs/ReportDispatcher?type=WRHTML&name=WaterRightSummaryHTML.jrxml&basin=

	WR F	ile Nur	mber: C 0355	5		Subbasin: C	Cross Re	ference:	-	
	Prima	ry Pur	pose: STK	72-12	-1 LIN	ESTOCK WATERING				
mage list	Prima	ry Sta	tus: PMT	PERN	/IT					
	Total 4	Acres:				Subfile: -			Header: -	-
	Total]	Diversi	ion: 3			Cause/Case: -				
		Ow	ner: NGL W	VATER	SOLU	TIONS PERMIAN				
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umente	x s on File	<u> </u>								
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-	534311	72121	2013-09-19	PMT	LOG	C 03555	Т		3	
	50(470	72121	2012-06-29	EXP	EXP	C 03555	Т		3	

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10/12/22 4:30 PM

WATER RIGHT SUMMARY

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Received by 92 Ph: 3/21/2024 2:58:02 Ph. m.us/nmwrrs/ReportProxy?queryData=%7B"report"%3A"podByLocOwner"%2C%0A"PodNbrDiv" Received 420

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	(acre ft per a	annum)		Well	(R=POD has been replaced and no longer serves this file, C=the file is closed)	(quarters	are smallest t	NE 3=SW 4=SE) o largest)		83 UTM in met
WR File Nbr <u>C 03555</u> Record Count:		rsion Owner 3 NGL WATER SOLUTIONS PERMIAN	County POD Number LE <u>C 03555 POD1</u>	wen Tag NA	Code Grant	Source 6	4 4 4 5ec 2 2 1 05	Tws Rng 248 32E	X 622748	¥ 3569233
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U.S. Fish and Wildlife Service

National Wetlands Inventory

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SDE 31 Fed 9 Wetland 4877ft



October 12, 2022

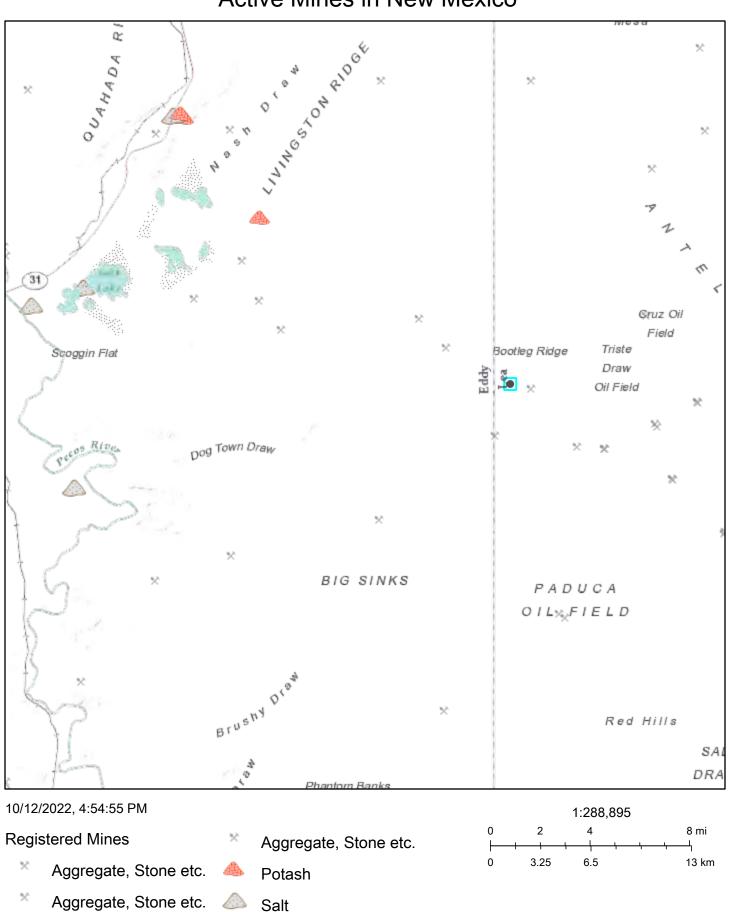
Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland Freshwater Forested/Shrub Wetland
- **Freshwater Pond**

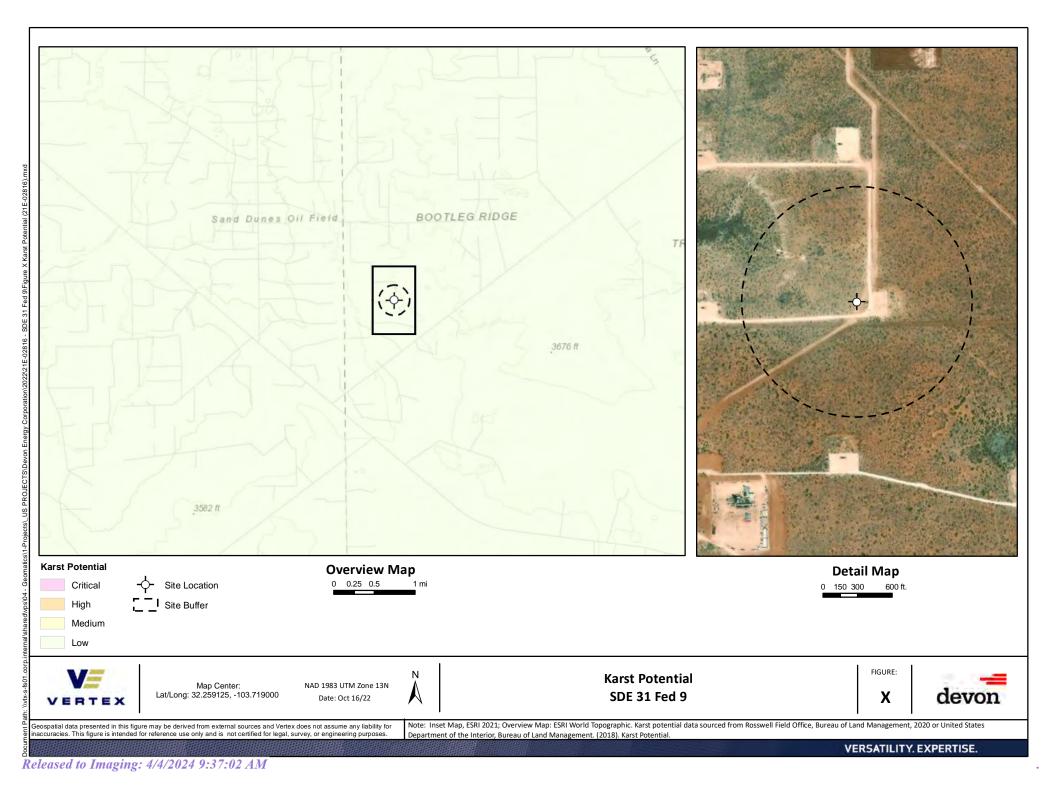
Lake Other Riverine

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.

Active Mines in New Mexico



Sources: Esri, USGS, NOAA, Sources: Esri, Garmin, USGS, NPS



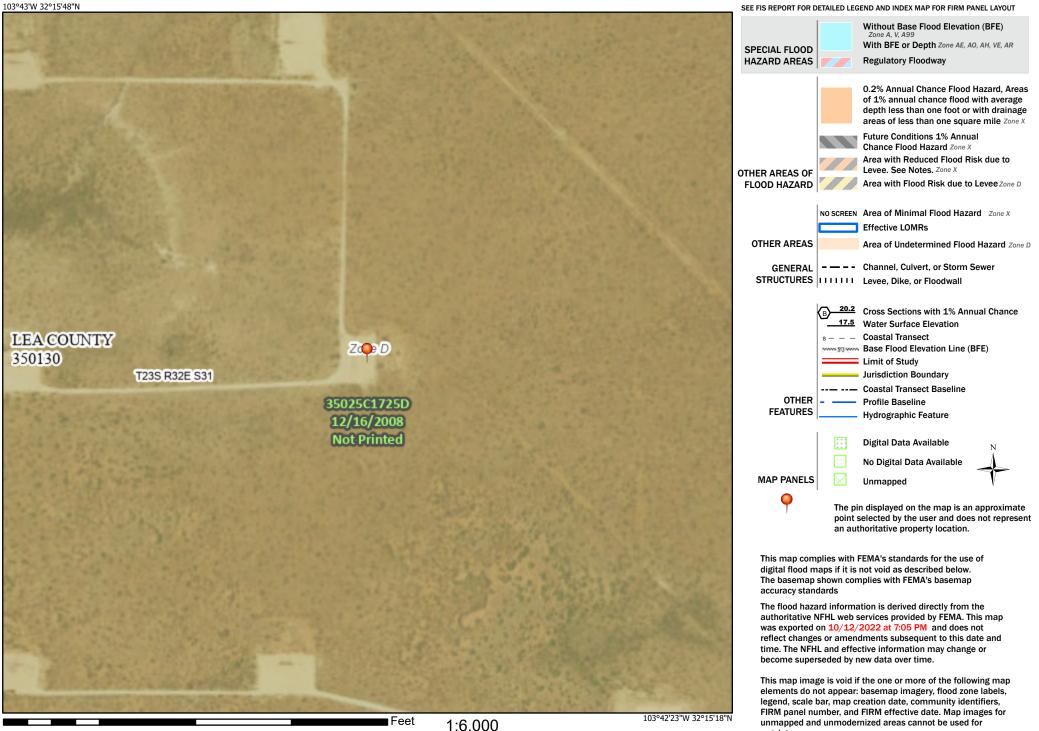
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Legend

regulatory purposes.

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Releasea to Imaging: 4/4/2024 9.999.02 AM 1,500 2.000

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



United States Department of Agriculture

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 Lea County, New Mexico



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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MF—Maljamar and Palomas fine sands, 0 to 3 percent slopes	17
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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

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.



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	MAP L	EGEND		MAP INFORMATION
Area of Int	terest (AOI) Area of Interest (AOI)	8	Spoil Area Stony Spot	The soil surveys that comprise your AOI were mapped at 1:20,000.
Soils		~		
	Soil Map Unit Polygons	0	Very Stony Spot	Warning: Soil Map may not be valid at this scale.
~	Soil Map Unit Lines	Ŷ	Wet Spot	Enlargement of maps beyond the scale of mapping can cause
	Soil Map Unit Points	\triangle	Other	misunderstanding of the detail of mapping and accuracy of soil
Special	Point Features		Special Line Features	line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed
ဖ	Blowout	Water Fea		scale.
\boxtimes	Borrow Pit	\sim	Streams and Canals	
*	Clay Spot	Transport	ation Rails	Please rely on the bar scale on each map sheet for map measurements.
0	Closed Depression		Interstate Highways	
×	Gravel Pit	~	US Routes	Source of Map: Natural Resources Conservation Service Web Soil Survey URL:
	Gravelly Spot	~		Coordinate System: Web Mercator (EPSG:3857)
0	Landfill	~	Major Roads	
Ă.	Lava Flow	~	Local Roads	Maps from the Web Soil Survey are based on the Web Mercato projection, which preserves direction and shape but distorts
ala	Marsh or swamp	Backgrou	nd Aerial Photography	distance and area. A projection that preserves area, such as the
·	Mine or Quarry		Aeriai Photography	Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.
*	Miscellaneous Water			· · · · · · · · · · · · · · · · · · ·
0				This product is generated from the USDA-NRCS certified data a of the version date(s) listed below.
0	Perennial Water			
×	Rock Outcrop			Soil Survey Area: Lea County, New Mexico Survey Area Data: Version 19, Sep 8, 2022
+	Saline Spot			Survey Area Data. Version 19, Sep 0, 2022
000	Sandy Spot			Soil map units are labeled (as space allows) for map scales
-	Severely Eroded Spot			1:50,000 or larger.
\diamond	Sinkhole			Date(s) aerial images were photographed: Feb 7, 2020—May
≫	Slide or Slip			12, 2020
ø	Sodic Spot			The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend (SDE 31 Fed 9 Soil Map)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BE	Berino-Cacique loamy fine sands association	9.7	1.6%
KD	Kermit-Palomas fine sands, 0 to 12 percent slopes	26.9	4.5%
MF	Maljamar and Palomas fine sands, 0 to 3 percent slopes	46.6	7.8%
PT	Pyote loamy fine sand	188.5	31.6%
PU	Pyote and Maljamar fine sands	318.0	53.3%
SE	Simona fine sandy loam, 0 to 3 percent slopes	6.5	1.1%
Totals for Area of Interest		596.1	100.0%

Map Unit Descriptions (SDE 31 Fed 9 Soil Map)

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 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.

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.

Lea County, New Mexico

BE—Berino-Cacique loamy fine sands association

Map Unit Setting

National map unit symbol: dmpd Elevation: 3,000 to 3,900 feet Mean annual precipitation: 10 to 13 inches Mean annual air temperature: 60 to 62 degrees F Frost-free period: 190 to 205 days Farmland classification: Not prime farmland

Map Unit Composition

Berino and similar soils: 50 percent Cacique and similar soils: 40 percent Minor components: 10 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Berino

Setting

Landform: Plains Landform position (three-dimensional): Rise Down-slope shape: Linear Across-slope shape: Linear Parent material: Sandy eolian deposits derived from sedimentary rock over calcareous sandy alluvium derived from sedimentary rock

Typical profile

A - 0 to 6 inches: loamy fine sand Btk - 6 to 60 inches: sandy clay loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7c Hydrologic Soil Group: B Ecological site: R070BD003NM - Loamy Sand Hydric soil rating: No

Description of Cacique

Setting

Landform: Plains Landform position (three-dimensional): Rise Down-slope shape: Linear Across-slope shape: Linear Parent material: Calcareous eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 12 inches: loamy fine sand Bt - 12 to 28 inches: sandy clay loam Bkm - 28 to 38 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 20 to 40 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7c Hydrologic Soil Group: C Ecological site: R070BD004NM - Sandy Hydric soil rating: No

Minor Components

Maljamar

Percent of map unit: 6 percent *Ecological site:* R077CY028TX - Limy Upland 16-21" PZ *Hydric soil rating:* No

Palomas

Percent of map unit: 4 percent Ecological site: R070BD003NM - Loamy Sand Hydric soil rating: No

KD—Kermit-Palomas fine sands, 0 to 12 percent slopes

Map Unit Setting

National map unit symbol: dmpv Elevation: 3,000 to 4,400 feet Mean annual precipitation: 10 to 12 inches Mean annual air temperature: 60 to 62 degrees F Frost-free period: 190 to 205 days Farmland classification: Not prime farmland

Map Unit Composition

Kermit and similar soils: 70 percent *Palomas and similar soils:* 20 percent *Minor components:* 10 percent *Estimates are based on observations, descriptions, and transects of the mapunit.*

Description of Kermit

Setting

Landform: Dunes Landform position (two-dimensional): Shoulder, backslope, footslope Landform position (three-dimensional): Side slope Down-slope shape: Concave, linear, convex Across-slope shape: Convex Parent material: Calcareous sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 8 inches: fine sand C - 8 to 60 inches: fine sand

Properties and qualities

Slope: 3 to 12 percent Depth to restrictive feature: More than 80 inches Drainage class: Excessively drained Runoff class: Very low Capacity of the most limiting layer to transmit water (Ksat): Very high (20.00 in/hr) Depth to water table: More than 80 inches Frequency of flooding: None Frequency of ponding: None Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm) Sodium adsorption ratio, maximum: 2.0 Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7e Hydrologic Soil Group: A Ecological site: R070BD005NM - Deep Sand Hydric soil rating: No

Description of Palomas

Setting

Landform: Dunes Landform position (two-dimensional): Shoulder, backslope, footslope Landform position (three-dimensional): Side slope Down-slope shape: Convex, linear, concave Across-slope shape: Convex Parent material: Alluvium derived from sandstone

Typical profile

A - 0 to 16 inches: fine sand Bt - 16 to 60 inches: sandy clay loam Bk - 60 to 66 inches: sandy loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 50 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7e Hydrologic Soil Group: B Ecological site: R070BD003NM - Loamy Sand Hydric soil rating: No

Minor Components

Pyote

Percent of map unit: 4 percent Ecological site: R070BD003NM - Loamy Sand Hydric soil rating: No

Maljamar

Percent of map unit: 4 percent Ecological site: R070BD003NM - Loamy Sand Hydric soil rating: No

Palomas

Percent of map unit: 1 percent Ecological site: R070BD003NM - Loamy Sand Hydric soil rating: No

Dune land

Percent of map unit: 1 percent

Hydric soil rating: No

MF—Maljamar and Palomas fine sands, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: dmqb Elevation: 3,000 to 3,900 feet Mean annual precipitation: 10 to 15 inches Mean annual air temperature: 60 to 62 degrees F Frost-free period: 190 to 205 days Farmland classification: Farmland of statewide importance

Map Unit Composition

Maljamar and similar soils: 46 percent Palomas and similar soils: 44 percent Minor components: 10 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Maljamar

Setting

Landform: Plains Landform position (three-dimensional): Rise Down-slope shape: Linear Across-slope shape: Linear Parent material: Sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 24 inches: fine sand Bt - 24 to 50 inches: sandy clay loam Bkm - 50 to 60 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 40 to 60 inches to petrocalcic
Drainage class: Well drained
Runoff class: Very low
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: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): 7e Land capability classification (nonirrigated): 7e

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Hydrologic Soil Group: B *Ecological site:* R070BD003NM - Loamy Sand *Hydric soil rating:* No

Description of Palomas

Setting

Landform: Plains Landform position (three-dimensional): Rise Down-slope shape: Linear Across-slope shape: Linear Parent material: Alluvium derived from sandstone

Typical profile

A - 0 to 16 inches: fine sand *Bt* - 16 to 60 inches: sandy clay loam *Bk* - 60 to 66 inches: sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 45 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7e Hydrologic Soil Group: B Ecological site: R070BD003NM - Loamy Sand Hydric soil rating: No

Minor Components

Kermit

Percent of map unit: 5 percent Ecological site: R070BC022NM - Sandhills Hydric soil rating: No

Wink

Percent of map unit: 5 percent Ecological site: R070BD003NM - Loamy Sand Hydric soil rating: No

PT—Pyote loamy fine sand

Map Unit Setting

National map unit symbol: dmqp Elevation: 3,000 to 3,900 feet Mean annual precipitation: 10 to 12 inches Mean annual air temperature: 60 to 62 degrees F Frost-free period: 190 to 200 days Farmland classification: Farmland of statewide importance

Map Unit Composition

Pyote and similar soils: 85 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pyote

Setting

Landform: Plains Landform position (three-dimensional): Rise Down-slope shape: Linear Across-slope shape: Linear Parent material: Sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 25 inches: loamy fine sand *Bt - 25 to 60 inches:* fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 7s Hydrologic Soil Group: A Ecological site: R070BD003NM - Loamy Sand Hydric soil rating: No

Minor Components

Maljamar

Percent of map unit: 8 percent Ecological site: R070BD003NM - Loamy Sand Hydric soil rating: No

Palomas

Percent of map unit: 7 percent Ecological site: R070BD003NM - Loamy Sand Hydric soil rating: No

PU—Pyote and Maljamar fine sands

Map Unit Setting

National map unit symbol: dmqq Elevation: 3,000 to 3,900 feet Mean annual precipitation: 10 to 12 inches Mean annual air temperature: 60 to 62 degrees F Frost-free period: 190 to 205 days Farmland classification: Not prime farmland

Map Unit Composition

Pyote and similar soils: 46 percent *Maljamar and similar soils:* 44 percent *Minor components:* 10 percent *Estimates are based on observations, descriptions, and transects of the mapunit.*

Description of Pyote

Setting

Landform: Plains Landform position (three-dimensional): Rise Down-slope shape: Linear Across-slope shape: Linear Parent material: Sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 30 inches: fine sand Bt - 30 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent Depth to restrictive feature: More than 80 inches Drainage class: Well drained Runoff class: Negligible Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr) Depth to water table: More than 80 inches Custom Soil Resource Report

Frequency of flooding: None Frequency of ponding: None Calcium carbonate, maximum content: 5 percent Gypsum, maximum content: 1 percent Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm) Sodium adsorption ratio, maximum: 2.0 Available water supply, 0 to 60 inches: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 7s Hydrologic Soil Group: A Ecological site: R070BD003NM - Loamy Sand Hydric soil rating: No

Description of Maljamar

Setting

Landform: Plains Landform position (three-dimensional): Rise Down-slope shape: Linear Across-slope shape: Linear Parent material: Sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 24 inches: fine sand Bt - 24 to 50 inches: sandy clay loam Bkm - 50 to 60 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 40 to 60 inches to petrocalcic
Drainage class: Well drained
Runoff class: Very low
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: 5 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 7e Hydrologic Soil Group: B Ecological site: R070BD003NM - Loamy Sand Hydric soil rating: No

Minor Components

Kermit

Percent of map unit: 10 percent *Ecological site:* R070BC022NM - Sandhills Hydric soil rating: No

SE—Simona fine sandy loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: dmr2 Elevation: 3,000 to 4,200 feet Mean annual precipitation: 10 to 15 inches Mean annual air temperature: 58 to 62 degrees F Frost-free period: 190 to 205 days Farmland classification: Not prime farmland

Map Unit Composition

Simona and similar soils: 85 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Simona

Setting

Landform: Plains Landform position (three-dimensional): Rise Down-slope shape: Linear Across-slope shape: Linear Parent material: Calcareous eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 8 inches: fine sandy loam Bk - 8 to 16 inches: gravelly fine sandy loam Bkm - 16 to 26 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 7 to 20 inches to petrocalcic
Drainage class: Well drained
Runoff class: Very 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: 35 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Very low (about 2.0 inches)

Interpretive groups

Land capability classification (irrigated): 6s Land capability classification (nonirrigated): 7s

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Hydrologic Soil Group: D *Ecological site:* R070BD002NM - Shallow Sandy *Hydric soil rating:* No

Minor Components

Kimbrough

Percent of map unit: 8 percent Ecological site: R077CY037TX - Very Shallow 16-21" PZ Hydric soil rating: No

Lea

Percent of map unit: 7 percent *Ecological site:* R077CY028TX - Limy Upland 16-21" PZ *Hydric soil rating:* No

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Conservation Service

USDA Natural Resources

Ecological site R070BD003NM Loamy Sand

Accessed: 11/05/2022

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.

Associated sites

R070BD004NM	Sandy Sandy
R070BD005NM	Deep Sand Deep Sand

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

This site is on uplands, plains, dunes, fan piedmonts and in inter dunal areas. The parent material consists of mixed alluvium and or eolian sands derived from sedimentary rock. Slope range on this site range from 0 to 9 percent with the average of 5 percent.

Low stabilized dunes may occur occasionally on this site. Elevations range from 2,800 to 5,000 feet.

Table 2. Representative physiographic features

Landforms	(1) Fan piedmont(2) Alluvial fan(3) Dune
Elevation	2,800–5,000 ft
Slope	0–9%
Aspect	Aspect is not a significant factor

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 being late March or early April and the first killing frost being in later 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 from January through June, which accelerates soil drying during a critical period 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 from water from wetlands or streams.

Soil features

Soils are moderately deep or very deep. Surface textures are loamy fine sand, fine sandy loam, loamy very fine sand or gravelly sandy loam.

Subsurface is a loamy fine sand, coarse sandy loam, fine sandy loam or loam that averages less than 18 percent clay and less than 15 percent carbonates.

Substratum is a fine sandy loam or gravelly fine sandy loam with less than 15 percent gravel and with less than 40 percent calcium carbonate. Some layers high in lime or with caliche fragments may occur at depths of 20 to 30 inches.

These soils, if unprotected by plant cover and organic residue, become wind blown and low hummocks are formed.

Minimum and maximum values listed below represent the characteristic soils for this site.

Characteristic soils are: Maljamar Berino Parjarito Palomas Wink Pyote

Table 4. Representative soil features

Surface texture	(1) Fine sand(2) Fine sandy loam(3) Loamy fine sand			
Family particle size	(1) Sandy			
Drainage class	Well drained to somewhat excessively drained			
Permeability class	Moderate to moderately rapid			

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Soil depth	40–72 in				
Surface fragment cover <=3"	0–10%				
Surface fragment cover >3"	0%				
Available water capacity (0-40in)	5–7 in				
Calcium carbonate equivalent (0-40in)	3-40%				
Electrical conductivity (0-40in)	2–4 mmhos/cm				
Sodium adsorption ratio (0-40in)	0–2				
Soil reaction (1:1 water) (0-40in)	6.6–8.4				
Subsurface fragment volume <=3" (Depth not specified)	4–12%				
Subsurface fragment volume >3"	0%				

Ecological dynamics

(Depth not specified)

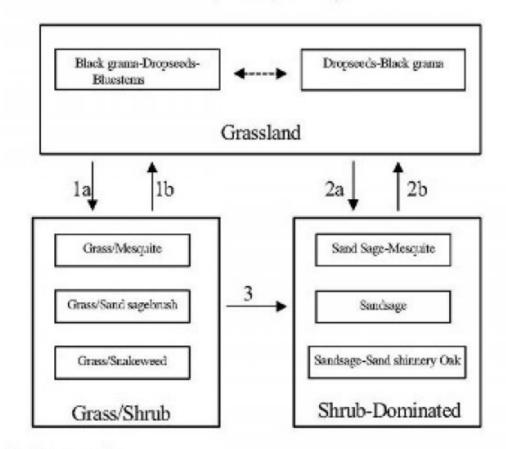
Overview

The Loamy Sand site intergrades with the Deep Sand and Sandy sites (SD-3). These sites can be differentiated by surface soil texture and depth to a textural change. Loamy Sand and Deep Sand sites have coarse textured (sands and loamy sand) surface soils while Sandy sites have moderately coarse textured (sandy loam and fine sandy loam) surfaces. Although Loamy Sand and Deep Sand sites have similar surface textures, the depth to a textural change is different—Loamy Sand sub-surface textures typically increase in clay at approximately 20 to 30 inches, and Deep Sand sites not until around 40 inches.

The historic plant community of Loamy Sand sites is dominated by black grama (Bouteloua eriopoda), dropseeds (Sporobolus flexuosus, S. contractus, S. cryptandrus), and bluestems (Schizachyrium scoparium and Andropogon hallii), with scattered shinnery oak (Quercus havardii) and sand sage (Artemisia filifolia). Perennial and annual forb abundance and distribution are dependent on precipitation. Litter and to a lesser extent, bare ground, are a significant proportion of ground cover while grasses compose the remainder. Decreases in black grama indicate a transition to either a grass/shrub or shrub-dominated state. The grass/shrub state is composed of grasses/honey mesquite (Prosopis glandulosa), grasses/broom snakeweed (Gutierrezia sarothrae), or grasses/sand sage. The shrub-dominated state occurs after a severe loss of grass cover and a prevalence of sand sage with secondary shinnery oak and mesquite. Heavy grazing intensity and/or drought are influential drivers in decreasing black grama and bluestems and subsequently increasing shrub cover, erosion, and bare patches. Historical fire suppression also encourages shrub pervasiveness and a competitive advantage over grass species (McPherson 1995). Brush and grazing management, however, may reverse grass/shrub and shrub-dominated states toward the grasslanddominated historic plant community.

State and transition model

MLRA-42, SD-3, Loamy Sand



1a. Drought, over grazing, fire suppression.

1b. Brush control, prescribed grazing

Severe loss of grass cover, fire suppression, erosion.
 Brush control, seeding, prescribed grazing.

3. Continued loss of grass cover, erosion.

Figure 4.

State 1 Historic Climax Plant Community

Community 1.1 Historic Climax Plant Community

Grassland: The historic plant community is a uniformly distributed grassland dominated by black grama, dropseeds,

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and bluestems. Sand sage and shinnery oak are evenly dispersed throughout the grassland due to the coarse soil surface texture. Perennial and annual forbs are common but their abundance and distribution are reflective of precipitation. Bluestems initially, followed by black grama, decrease with drought and heavy grazing intensity. Historical fire frequency is unknown but likely occurred enough to remove small shrubs to the competitive advantage of grass species. Fire suppression, drought conditions, and excessive grazing drive most grass species out of competition with shrub species. Diagnosis: Grassland dominated by black grama, dropseeds, and bluestems. Shrubs, such as sand sage, shinnery oak, and mesquite are dispersed throughout the grassland. Forbs are present and populations fluctuate with precipitation variability.

Table 5. Annual production by plant type

Plant Type	Low (Lb/Acre)	Representative Value (Lb/Acre)	
Grass/Grasslike	442	833	1224
Forb	110	208	306
Shrub/Vine	98	184	270
Total	650	1225	1800

Table 6. Ground cover

Tree foliar cover	0%				
Shrub/vine/liana foliar cover	0%				
Grass/grasslike foliar cover					
Forb foliar cover	0%				
Non-vascular plants	0%				
Biological crusts	0%				
Litter	50%				
Surface fragments >0.25" and <=3"	0%				
Surface fragments >3"	0%				
Bedrock	0%				
Water	0%				
Bare ground	22%				

Figure 6. Plant community growth curve (percent production by month). NM2803, R042XC003NM-Loamy Sand-HCPC. SD-3 Loamy Sand - Warm season plant community .

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	3	5	10	10	25	30	12	5	0	0

State 2 Grass/Shrub

Community 2.1 Grass/Shrub Grass/Shrub



 Black grunn/Mesquite community, with some dropseds, threeways, and scattered sand shinnery oik
 Orass cover low to moderate

Grass/Shrub State: The grass/shrub state is dominated by communities of grasses/mesquite, grasses/snakeweed, or grasses/sand sage. Decreases in black grama and bluestem species lead to an increase in bare patches and mesquite which further competes with grass species. An increase of dropseeds and threeawns occurs. Grass distribution becomes more patchy with an absence or severe decrease in black grama and bluestems. Mesquite provides nitrogen and soil organic matter to co-dominant grasses (Ansley and Jacoby 1998, Ansley et al. 1998). Mesquite mortality when exposed to fire is low due to aggressive resprouting abilities. Herbicide application combined with subsequent prescribed fire may be more effective in mesquite reduction (Britton and Wright 1971). Diagnosis: This state is dominated by an increased abundance of communities including grass/mesquite, grass/snakeweed, or grass/sand sage. Dropseeds and threeawns have a patchy distribution. Transition to Grass/Shrub State (1a): The historic plant community begins to shift toward the grass/shrub state as drivers such as drought, fire suppression, interspecific competition, and excessive grazing contribute to alterations in soil properties and herbaceous cover. Cover loss and surface soil erosion are initial indicators of transition followed by a decrease in black grama with a subsequent increase of dropseeds, threeawns, mesquite, and snakeweed. Snakeweed has been documented to outcompete black grama especially under conditions of fire suppression and drought (McDaniel et al. 1984). Key indicators of approach to transition: • Loss of black grama cover • Surface soil erosion • Bare patch expansion • Increased dropseed/threeawn and mesquite, snakeweed, or sand sage abundances Transition to Historic Plant Community (1b): Brush and grazing management may restore the grassland component and reverse shrub or grass/shrub dominated states back toward the historic plant community.

State 3 Shrub Dominated

Community 3.1 Shrub Dominated

Shrub-Dominated State: The shrub-dominated state results from a severe loss of grass cover. This state's primary species is sand sage. Shinnery oak and mesquite also occur; however, grass cover is limited to intershrub distribution. Sand sage stabilizes light sandy soils from wind erosion, which enhances protected grass/forb cover (Davis and Bonham 1979). However, shinnery oak also responds to the sandy soils with dense stands due to an

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aggressive rhizome system. Shinnery oak's extensive root system promotes competitive exclusion of grasses and forbs. Sand sage, shinnery oak, and mesquite can be controlled with herbicide (Herbel et al. 1979, Pettit 1986). Transition to Shrub-Dominated (2a): Severe loss of grass species with increased erosion and fire suppression will result in a transition to a shrub-dominated state with sand sage, Shin oak, and honey mesquite directly from the grassland-dominated state. Key indicators of approach to transition: • Severe loss of grass species cover • Surface soil erosion • Bare patch expansion • Increased sand sage, shinnery oak, and mesquite abundance Transition to Historic Plant Community (2b): Brush and grazing management may restore the grassland component and reverse shrub or grass/shrub dominated states back toward the historic plant community. In addition, seeding with native grass species will augment the transition to a grassland-dominated state. Transition to Shrub-Dominated (3): If the grass/shrub site continues to lose grass cover with soil erosion, the site will transition to a shrub-dominated state with sand sage, shinnery oak, and honey mesquite. Key indicators of approach to transition: • Continual loss of dropseeds/threeawns cover • Surface soil erosion • Bare patch expansion • Increased sand sage, shinnery oak, and mesquite/snakeweed abundance

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			61–123	
	little bluestem	SCSC	Schizachyrium scoparium	61–123	_
2	Warm Season		•	37–61	
	sand bluestem	ANHA	Andropogon hallii	37–61	_
3	Warm Season		•	37–61	
	cane bluestem	BOBA3	Bothriochloa barbinodis	37–61	-
	silver bluestem	BOSA	Bothriochloa saccharoides	37–61	_
4	Warm Season	ŧ	•	123–184	
	black grama	BOER4	Bouteloua eriopoda	123–184	_
	bush muhly	MUPO2	Muhlenbergia porteri	123–184	-
5	Warm Season	•	•	123–184	
	thin paspalum	PASE5	Paspalum setaceum	123–184	-
	plains bristlegrass	SEVU2	Setaria vulpiseta	123–184	_
	fringed signalgrass	URCI	Urochloa ciliatissima	123–184	-
6	Warm Season			123–184	
	spike dropseed	SPCO4	Sporobolus contractus	123–184	-
	sand dropseed	SPCR	Sporobolus cryptandrus	123–184	-
	mesa dropseed	SPFL2	Sporobolus flexuosus	123–184	-
7	Warm Season	•		61–123	
	hooded windmill grass	CHCU2	Chloris cucullata	61–123	-
	Arizona cottontop	DICA8	Digitaria californica	61–123	-
9	Other Perennial Grasses			37–61	
	Grass, perennial	2GP	Grass, perennial	37–61	-
Shrub	/Vine	•	•	•	•
8	Warm Season			37–61	
	New Mexico feathergrass	HENE5	Hesperostipa neomexicana	37–61	-
	giant dropseed	SPGI	Sporobolus giganteus	37–61	-
10	Shrub	·	•	61–123	
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	sand sagebrush	ARFI2	Artemisia filifolia	61–123	_
	Havard oak	QUHA3	Quercus havardii	61–123	-
11	Shrub		·	34–61	
	fourwing saltbush	ATCA2	Atriplex canescens	37–61	_
	featherplume	DAFO	Dalea formosa	37–61	_
12	Shrub			37–61	
	jointfir	EPHED	Ephedra	37–61	_
	littleleaf ratany	KRER	Krameria erecta	37–61	_
13	Other Shrubs			37–61	
	Shrub (>.5m)	2SHRUB	Shrub (>.5m)	37–61	_
Forb					
14	Forb			61–123	
	leatherweed	CRPOP	Croton pottsii var. pottsii	61–123	_
	Indian blanket	GAPU	Gaillardia pulchella	61–123	_
	globemallow	SPHAE	Sphaeralcea	61–123	_
15	Forb			12–37	
	woolly groundsel	PACA15	Packera cana	12–37	_
16	Forb			61–123	
	touristplant	DIWI2	Dimorphocarpa wislizeni	61–123	_
	woolly plantain	PLPA2	Plantago patagonica	61–123	_
17	Other Forbs			37–61	
	Forb (herbaceous, not grass nor grass-like)	2FORB	Forb (herbaceous, not grass nor grass-like)	37–61	-

Animal community

This Ecological Site provides habitat which supports a resident animal community that is characterized by pronghorn antelope, desert cottontail, spotted ground squirrel, black-tailed prairie dog, yellow faced pocket gopher, Ord's kangaroo rat, northern grasshopper mouse, southern plains woodrat, badger, roadrunner, meadowlark, burrowing owl, white necked raven, lesser prairie chicken, morning dove, scaled quail, Harris hawk, side blotched lizard, marbled whiptail, Texas horned lizard, western diamondback rattlesnake, dusty hognose snake and ornate box turtle.

Where mesquite has invaded, most resident birds and scissor-tailed flycatcher, morning dove and Swainson's hawk, nest. Vesper and grasshopper sparrows utilize the site during migration.

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 Berino B Kinco A Maljamar B Pajarito B Palomas B Wink B Pyote A

Recreational uses

This site offers recreation potential for hiking, borseback riding, nature observation, photography and hunting. During years of abundant spring moisture, this site displays a colorful array of wildflowers during May and June.

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 at any time of year. In cases where this site has been invaded by brush species it is especially suited for goats. Mismanagement of this site will cause a decrease in species such as the bluestems, blsck grama, bush muhly, plains bristlegrass, New Mexico feathergrass, Arizona cottontop and fourwing saltbush. A corresponding increase in the dropseeds, windmill grass, fall witchgrass, silver bluestem, sand sagebrush, shinery oak and ephedra will occur. This will also cause an increase in bare ground which will increase soil erodibility. This site will respond well 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 2.3 - 3.575 - 51 3.0 - 4.550 - 26 4.6 - 9.025 - 0 9.1 +

Inventory data 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 Chaves County.

Other references

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Contributors

Don Sylvester Quinn Hodgson

Rangeland health reference sheet

Interpreting Indicators of Rangeland Health is a qualitative assessment protocol used to determine ecosystem condition based on benchmark characteristics described in the Reference Sheet. A suite of 17 (or more) indicators are typically considered in an assessment. The ecological site(s) representative of an assessment location must be known prior to applying the protocol and must be verified based on soils and climate. Current plant community cannot be used to identify the ecological site.

Author(s)/participant(s)	
Contact for lead author	
Date	
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

- 1. Number and extent of rills:
- 2. Presence of water flow patterns:
- 3. Number and height of erosional pedestals or terracettes:
- 4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):
- 5. Number of gullies and erosion associated with gullies:
- 6. Extent of wind scoured, blowouts and/or depositional areas:

- 7. Amount of litter movement (describe size and distance expected to travel):
- 8. Soil surface (top few mm) resistance to erosion (stability values are averages most sites will show a range of values):
- 9. Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):
- 10. Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:
- 11. Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):
- 12. Functional/Structural Groups (list in order of descending dominance by above-ground annual-production or live foliar cover using symbols: >>, >, = to indicate much greater than, greater than, and equal to):

Dominant:

Sub-dominant:

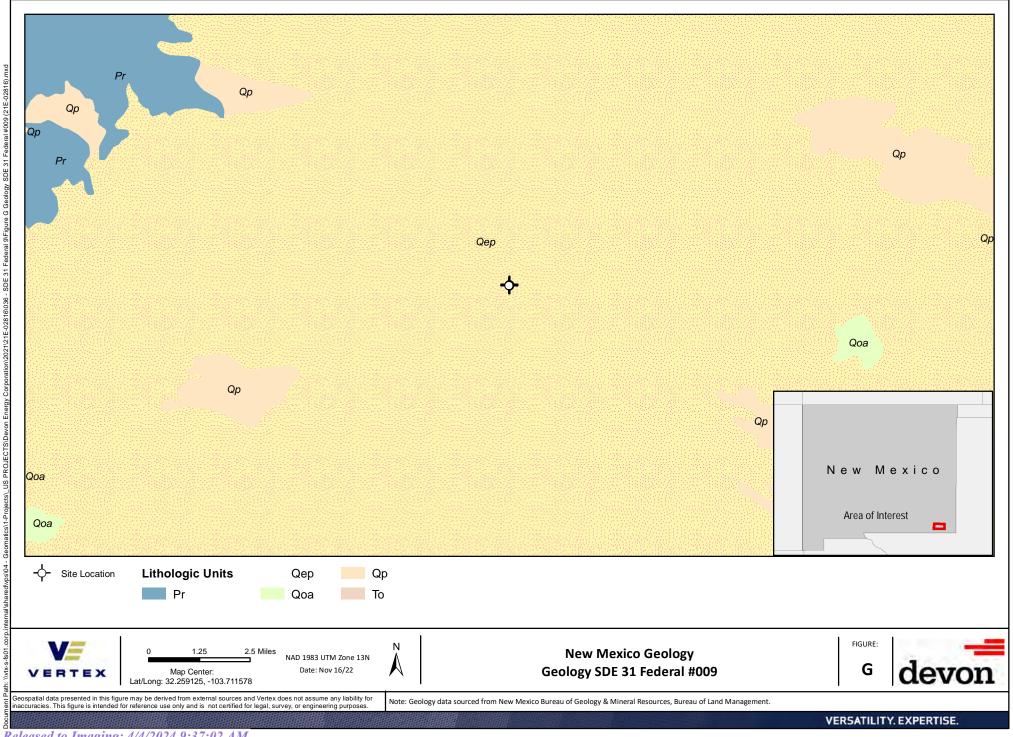
Other:

Additional:

- 13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):
- 14. Average percent litter cover (%) and depth (in):
- 15. Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annualproduction):
- 16. Potential invasive (including noxious) species (native and non-native). List species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, we are describing what is NOT expected in the reference state for the ecological site:

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ATTACHMENT 5

Client Name: Devon Energy Production Company, LP Site Name: SDE 31 Federal #009 NM OCD Tracking #: nPAC0534054352, nPAC0534054473, nPRS0531129171 Project #: 21E-02816-036 Lab Reports: 2203002, 2209219, 2211577

	Table	2. Initial Characterization Fiel	d Screen a	nd Labora	tory Resu	lts - Depth	n to Groun	dwater 51	'-100' feet	bgs, bore	hole need	ed.	
	Sample I	Description	Fie	eld Screeni	ng			Petrole	eum Hydro				
			ds			Vol	atile			Extractable	2		Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds 3 (PID)	Extractable Organic Compounds (PetroFlag)	() () () () () () () () () () () () () (Benzene (mg/kg)	(a) BTEX (Total) (영지(2)	영경 (Gasoline Range Organics (영지)	a) Diesel Range Organics (B (DRO)	없) Motor Oil Range Organics (6 (MRO)	(OxO + OXS) (mg/kg)	ଇସୁ ସୁ Total Petroleum ଇ Hydrocarbons (TPH)	3) Sy ^{dy} Chloride Concentration
	0-0.5	February 24, 2022	0	73	10,000	ND	ND	ND	ND	ND	ND	ND	17,000
	2	February 24, 2022	0	43	3,000	ND	ND	ND	ND	ND	ND	ND	3,600
BH22-01	3	September 3, 2022	0	-	8,681	ND	ND	ND	ND	ND	ND	ND	5,300
	4	February 24, 2022	0	24	1,725	ND	ND	ND	ND	ND	ND	ND	1,700
	0-0.5	February 24, 2022	0	55	1,330	ND	ND	ND	ND	ND	ND	ND	800
BH22-02	2	February 24, 2022	0	19	200	ND	ND	ND	ND	ND	ND	ND	160
	4	February 24, 2022	0	31	230	ND	ND	ND	ND	ND	ND	ND	87
	0-0.5	February 24, 2022	0	62	420	ND	ND	ND	ND	ND	ND	ND	670
BH22-03	2	February 24, 2022	0	43	190	ND	ND	ND	ND	ND	ND	ND	87
	4	February 24, 2022	0	7	215	ND	ND	ND	ND	ND	ND	ND	91
BH22-04	0-0.5 2	February 24, 2022 February 24, 2022	0	-	260 190	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	83 ND
01122-04	4	February 24, 2022 February 24, 2022	0	-	190	ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND 180
	0-0.5	February 24, 2022	0	-	300	ND	ND	ND	ND	ND	ND	ND	170
BH22-05 BH22-06	2	February 24, 2022	0	-	235	ND	ND	ND	ND	ND	ND	ND	210
	4	February 24, 2022	0	-	185	ND	ND	ND	ND	ND	ND	ND	75
	0-0.5	February 24, 2022	0	-	275	ND	ND	ND	ND	ND	ND	ND	70
	2	February 24, 2022	-	-	210	ND	ND	ND	ND	ND	ND	ND	ND
	4	February 24, 2022	0	-	130	ND	ND	ND	ND	ND	ND	ND	86
	0-0.5	February 24, 2022	0	49	395	ND	ND	ND	ND	ND	ND	ND	820
BH22-07	2	February 24, 2022	0	60	315	ND	ND	ND	ND	ND	ND	ND	230
	4	February 24, 2022	0	14	260	ND	ND	ND	ND	ND	ND	ND	82
	0-0.5	February 24, 2022	0	-	160	ND	ND	ND	ND	ND	ND	ND	220
BH22-08	2	September 3, 2022	1	-	111	ND	ND	ND	ND	ND	ND	ND	350
	2.5	September 3, 2022	0	-	622	ND	ND	ND	ND	ND	ND	ND	750
BH22-09	0	September 3, 2022 September 3, 2022	0	-	ND 5,237	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	78 4500
01122-05	3.5	September 3, 2022	2	-	936	ND	ND	ND	ND	ND	ND	ND	1100
	0	September 3, 2022	0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
BH22-10	2	September 3, 2022	0	-	1,812	ND	ND	ND	ND	ND	ND	ND	2300
	2.5	September 3, 2022	0	-	2,304	ND	ND	ND	ND	ND	ND	ND	1900
	0	September 3, 2022	1	-	2,375	ND	ND	ND	ND	ND	ND	ND	2500
BH22-11	2	September 3, 2022	0	-	15,101	ND	ND	ND	ND	ND	ND	ND	11000
	2.5	September 3, 2022	0	-	8,444	ND	ND	ND	ND	ND	ND	ND	7200
BU22 12	0	September 3, 2022	0	-	9,748	ND	ND	ND	ND	ND	ND	ND	8600
BH22-12	2	September 3, 2022	0	-	7,897	ND	ND	ND	ND	ND	ND	ND	7100
	2.5 0	September 3, 2022	0	-	7,300	ND	ND	ND 25	ND	ND 2000	ND	ND 9335	6100
	2	September 3, 2022 September 3, 2022	58 0	-	12,224 6,220	ND ND	ND ND	35 ND	5400 ND	2900 ND	5435 ND	8335 ND	10000 5100
	2.5	September 3, 2022	2	-	8,192	ND	ND	ND	180	130	180	310	7200
BH22-13	4	November 7, 2022	-	-	4,806	ND	ND	ND	ND	ND	ND	ND	3500
	6	November 7, 2022	-	21	645	ND	ND	ND	ND	ND	ND	ND	160
	8	November 7, 2022	-	22	598	ND	ND	ND	ND	ND	ND	ND	190
BH22-14	0	September 3, 2022	0	-	4	ND	ND	ND	ND	ND	ND	ND	77
01122-14	2	September 3, 2022	0	-	868	ND	ND	ND	ND	ND	ND	ND	880
	0	September 3, 2022	0	-	473	ND	ND	ND	ND	ND	ND	ND	ND
BH22-15	2	September 3, 2022	0	-	2,892	ND	ND	ND	ND	ND	ND	ND	1700
	3	September 3, 2022	0	-	913	ND	ND	ND	ND	ND	ND	ND	460
BH22.4C	0	September 3, 2022	0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
BH22-16	2	September 3, 2022	0	-	5,393	ND ND	ND ND	ND	ND	ND ND	ND	ND	4800 1900
	3 0	September 3, 2022 September 3, 2022	3	-	913 ND	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND	1900 ND
BH22-17	2	September 3, 2022 September 3, 2022	0	-	3,749	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND	2500
5	4	September 3, 2022	0	-	2,649	ND	ND	ND	ND	ND	ND	ND	2300
	-7	September 3, 2022	<u> </u>		-,545								



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Client Name: Devon Energy Production Company, LP Site Name: SDE 31 Federal #009 NM OCD Tracking #: nPAC0534054352, nPAC0534054473, nPRS0531129171 Project #: 21E-02816-036 Lab Reports: 2203002, 2209219, 2211577

Table 2. Initial Characterization Field Screen and Laboratory Results - Depth to Groundwater 51'-100' feet bgs, borehole needed.													
	Sample I	Description	Fi	eld Screeni	ng			Petrole	um Hydro	arbons			
			s			Vol	atile			Extractable	2		Inorganic
Sample ID	Depth (ft)	Sample Date	Tolatile Organic Compounds (PID)	Extractable Organic 3 Compounds (PetroFlag)	() () () () () () () () () () () () () (Benzene (mg/kg)	(bay) (bay) (bay)	ଞ୍ଚ ଷ୍ଟ୍ର Gasoline Range Organics ଅନ୍ଧି (GRO)	월 Diesel Range Organics (이 DRO)	ଞ୍ଚୁ Motor Oil Range Organics ଅନ୍ଧି (MRO)	(OXO + DKO) (mg/kg)	ଇଥି Total Petroleum କ୍ଟି Hydrocarbons (TPH)	(mg/kg)
	0	September 3, 2022	0	-	3,030	ND	ND	ND	ND	ND	ND	ND	2400
BH22-18	2	September 3, 2022	0	-	11,224	ND	ND	ND	ND	ND	ND	ND	8800
_	3	September 3, 2022	0	-	8,127	ND	ND	ND	ND	ND	ND	ND	7400
	0	September 3, 2022	0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
BH22-19	2	September 3, 2022	0	-	132	ND	ND	ND	ND	ND	ND	ND	180
	4	September 3, 2022	0	-	880	ND	ND	ND	ND	ND	ND	ND	330
	0	September 3, 2022	0	-	155	ND	ND	ND	ND	ND	ND	ND	96
BH22-20	2	September 3, 2022	0	-	396	ND	ND	ND	ND	ND	ND	ND	300
-	3.5	September 3, 2022	0	-	1,633	ND	ND	ND	ND	ND	ND	ND	1500
	0	September 3, 2022	0	-	8,501	ND	ND	ND	ND	ND	ND	ND	8900
BH22-21	2	September 3, 2022	0	-	7,265	ND	ND	ND	ND	ND	ND	ND	5300
	3	September 3, 2022	0	-	8,430	ND	ND	ND	ND	ND	ND	ND	6700
	0	September 4, 2022	1	57	ND	ND	ND	ND	ND	ND	ND	ND	ND
BH22-22	2	September 4, 2022	1	64	ND	ND	ND	ND	ND	ND	ND	ND	66
	4	September 4, 2022	1	70	554	ND	ND	ND	ND	ND	ND	ND	500
BH22-23	0	September 4, 2022	1	29	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2	September 4, 2022	2	20	ND	ND	ND	ND	ND	ND	ND	ND	ND
	3.5	September 4, 2022	1	30	ND	ND	ND	ND	ND	ND	ND	ND	170
	0	September 4, 2022	1	-	18,419	ND	ND	ND	ND	ND	ND	ND	16000
BH22-24	2	September 4, 2022	1	-	5,734	ND	ND	ND	ND	ND	ND	ND	4900
	4	September 4, 2022	1	-	648	ND	ND	ND	ND	ND	ND	ND	510
BU122 25	0	November 7, 2022	-	33	ND	ND	ND	ND	ND	ND	ND	ND	ND
BH22-25	2	November 7, 2022	-	45	99	ND	ND	ND	ND	ND	ND	ND	120
BU122 2C	0	November 7, 2022	-	23	357	ND	ND	ND	ND	ND	ND	ND	190
BH22-26	2	November 7, 2022	-	21	503	ND	ND	ND	ND	ND	ND	ND	210
BU 22 27	0	November 7, 2022	-	23	28	ND	ND	ND	ND	ND	ND	ND	ND
BH22-27	2	November 7, 2022	-	18	505	ND	ND	ND	ND	ND	ND	ND	210
01122.20	0	November 7, 2022	-	20	ND	ND	ND	ND	ND	ND	ND	ND	ND
BH22-28	2	November 7, 2022	-	37	598	ND	ND	ND	ND	ND	ND	ND	440
BH22-29	0	November 4, 2022	-	-	1,824	-	-	-	-	-	-	-	-
01122-23	2	November 4, 2022	-	-	5,770	-	-	÷	-	-	-	-	-
BH22-30	0	November 4, 2022	-	-	174	-	-	-	-	-	-	-	-
D1122-30	2	November 4, 2022	-	-	1,792	-	-	-	-	-	-	-	-
BH22-31	0	November 4, 2022	-	-	178	-	-	-	-	-	-	-	-
01122-01	2	November 4, 2022	-	-	828	-	-	-	-	-	-	-	-
BH22-32	0	November 4, 2022	-	-	180	-	-	-	-	-	-	-	-
522 52	1.5	November 4, 2022	-	-	1,213	-	-	-	-	-	-	-	-
BH22-33	0	November 4, 2022	-	-	217	-	-	-	-	-	-	-	-
51122 55	2	November 4, 2022	-	-	3,471	-	-	-	-	-	-	-	-
BH22-34	0	November 4, 2022	-	-	2,963	-	-	-	-	-	-	-	-
51122-34	2	November 4, 2022	-	-	545	-	-	-	-	-	-	-	-
BH22-35	0	November 7, 2022	-	40	7	ND	ND	ND	ND	ND	ND	ND	ND
5	2	November 7, 2022	-	14	ND	ND	ND	ND	ND	ND	ND	ND	ND

"ND" Not Detected at the Reporting Limit "-" indicates not analyzed/assessed

Bold and grey shaded indicates exceedance outside of NM OCD Closure Criteria



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Client Name: Devon Energy Production Company, LP Site Name: SDE 31 Federal #009 NM OCD Tracking #: nPAC0534054352, nPAC0534054473, nPRS0531129171 Project #: 21E-02816-036 Lab Reports: 2212211

		able 3. Confirmato				boratory I	Results - D	-			eet bgs		
	Sample Descri	ption	Fi	eld Screeni	ing			Petrole	eum Hydro				
			ds			Vol	atile			Extractable	•		Inorganic
Sample ID	Depth (ft)	Sample Date	B Volatile Organic Compounds I (PID)	Extractable Organic Compounds (PetroFlag)	E Chloride Concentration	eus Beuzeue (mg/kg)	(mg/kg) (ga/kg	8월 Gasoline Range Organics (영) (GRO)	a) Diesel Range Organics (d) (DRO)	a) Motor Oil Range Organics ((MRO)	(GRO + DRO) (mg/kg)	편 전 전 Hydrocarbons (TPH)) (m/m (m/moride Concentration
BS22-01	4	December 2, 2022	0	(PP)	63	ND	ND	ND	ND	ND	ND	ND	ND
BS22-02	4	December 2, 2022	0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS22-03	4	December 2, 2022	0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS22-04	4	December 2, 2022	0	-	243	ND	ND	ND	ND	ND	ND	ND	ND
BS22-05	4	December 2, 2022	0	-	222	ND	ND	ND	ND	ND	ND	ND	ND
BS22-06	4	December 2, 2022	0	-	300	ND	ND	ND	ND	ND	ND	ND	ND
BS22-07	4	December 2, 2022	0	-	1,007	ND	ND	ND	ND	ND	ND	ND	67
BS22-08	4	December 2, 2022	0	-	251	ND	ND	ND	ND	ND	ND	ND	ND
BS22-09	4	December 2, 2022	0	-	135	ND	ND	ND	ND	ND	ND	ND	ND
BS22-10	4	December 2, 2022	0	-	222	ND	ND	ND	ND	ND	ND	ND	ND
BS22-11	4	December 2, 2022	0	-	139	ND	ND	ND	ND	ND	ND	ND	ND
BS22-12 BS22-13	4	December 2, 2022 December 2, 2022	0	-	177	ND ND	ND	ND ND	ND ND	ND	ND ND	ND ND	ND ND
BS22-13 BS22-14	4	December 2, 2022 December 2, 2022	0	-	180 155	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND
BS22-15	4	December 2, 2022	0	_	93	ND	ND	ND	ND	ND	ND	ND	ND
BS22-16	4	December 2, 2022	0	-	287	ND	ND	ND	ND	ND	ND	ND	ND
BS22-17	4	December 2, 2022	0	-	190	ND	ND	ND	ND	ND	ND	ND	ND
BS22-18	4	December 2, 2022	0	-	613	ND	ND	ND	ND	ND	ND	ND	ND
BS22-19	4	December 2, 2022	0	-	126	ND	ND	ND	ND	ND	ND	ND	ND
BS22-20	4	December 2, 2022	0	-	310	ND	ND	ND	ND	ND	ND	ND	ND
BS22-21	4	December 2, 2022	0	-	118	ND	ND	ND	ND	ND	ND	ND	ND
BS22-22	4	December 2, 2022	0	-	44	ND	ND	ND	ND	ND	ND	ND	ND
BS22-23	4	December 2, 2022	0	-	112	ND	ND	ND	ND	ND	ND	ND	ND
BS22-24	4	December 2, 2022	0	-	106	ND	ND	ND	ND	ND	ND	ND	ND
BS22-25 BS22-26	4	December 2, 2022 December 2, 2022	0	-	160 33	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
BS22-20 BS22-27	4	December 2, 2022	0	-	ND ND	ND	ND	ND	ND	ND	ND	ND	ND
BS22-28	4	December 2, 2022	0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS22-29	4	December 2, 2022	0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS22-30	4	December 2, 2022	0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS22-31	4	December 2, 2022	0	-	795	ND	ND	ND	ND	ND	ND	ND	ND
BS22-32	4	December 2, 2022	0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS22-33	4	December 2, 2022	0	-	21	ND	ND	ND	ND	ND	ND	ND	ND
BS22-34	4	December 2, 2022	0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS22-35	4	December 2, 2022	0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
BS22-36 BS22-37	4	December 2, 2022	0	-	75	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND 100
BS22-37 BS22-38	4	December 2, 2022 December 2, 2022	0	-	112 ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	100 ND
B322-38 BS22-39	4	December 2, 2022	0	-	98	ND	ND	ND	ND	ND	ND	ND	89
BS22-40	4	December 2, 2022	0	-	307	ND	ND	ND	ND	ND	ND	ND	180
BS22-41	4	December 2, 2022	0	-	363	ND	ND	ND	ND	ND	ND	ND	280
BS22-42	4	December 2, 2022	0	-	565	ND	ND	ND	ND	ND	ND	ND	280
BS22-43	4	December 2, 2022	0	-	756	ND	ND	ND	ND	ND	ND	ND	430
BS22-44	4	December 2, 2022	0	-	541	ND	ND	ND	ND	ND	ND	ND	330
BS22-45	4	December 2, 2022	0	-	336	ND	ND	ND	51	ND	51	51	ND
BS22-46	4	December 2, 2022	0	-	232	ND	ND	ND	ND	ND	ND	ND	ND
BS22-47	4	December 2, 2022 December 2, 2022	0	-	411	ND	ND	ND	ND	ND	ND	ND	ND
BS22-48 BS22-49	4	December 2, 2022 December 2, 2022	0	-	401	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
BS22-49 BS22-50	4	December 2, 2022 December 2, 2022	0	-	324 331	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
BS22-50 BS22-51	4	December 2, 2022	0	-	269	ND	ND	ND	ND	ND	ND	ND	ND
BS22-51 BS22-52	4	December 2, 2022	0	-	370	ND	ND	ND	ND	ND	ND	ND	ND
BS22-52	4	December 2, 2022	0	-	297	ND	ND	ND	ND	ND	ND	ND	ND
BS22-54	4	December 2, 2022	0	-	342	ND	ND	ND	ND	ND	ND	ND	ND
BS22-55	4	December 2, 2022	0	-	262	ND	ND	ND	ND	ND	ND	ND	ND
BS22-56	4	December 2, 2022	0	-	308	ND	ND	ND	ND	ND	ND	ND	ND

Client Name: Devon Energy Production Company, LP Site Name: SDE 31 Federal #009 NM OCD Tracking #: nPAC0534054352, nPAC0534054473, nPRS0531129171 Project #: 21E-02816-036 Lab Reports: 2212211

Table 3. Confirmatory Sample Field Screen and Laboratory Results - Depth to Groundwater 51-100 feet bgs													
	Sample Descri	ption	Fi	eld Screeni	ng			Petrole	eum Hydro				
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	alite BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			> 또 (ppm)	шо (ppm)	(ppm)	œ (mg/kg)	<u>نه</u> (mg/kg)	(mg/kg)	습요 (mg/kg)	≥ ≤ (mg/kg)	(mg/kg)	⊢ੁੱ± (mg/kg)	し (mg/kg)
BS22-57	4	December 2, 2022	0		370	ND	ND	ND	ND	ND	ND	ND	ND
BS22-58	4	December 2, 2022	0	-	271	ND	ND	ND	ND	ND	ND	ND	ND
BS22-59	4	December 2, 2022	0	-	271	ND	ND	ND	ND	ND	ND	ND	ND
BS22-60	4	December 2, 2022	0	-	622	ND	ND	ND	ND	ND	ND	ND	120
BS22-61	4	December 2, 2022	0	-	538	ND	ND	ND	47	76	47	123	ND
BS22-62	4	December 2, 2022	0	-	490	ND	ND	ND	ND	ND	ND	ND	ND
BS22-63	4	December 2, 2022	0	-	610	ND	ND	ND	ND	ND	ND	ND	230
BS22-64	4	December 2, 2022	0	-	555	ND	ND	ND	ND	ND	ND	ND	ND
BS22-65	4	December 2, 2022	0	-	445	ND	ND	ND	ND	ND	ND	ND	ND
BS22-66	4	December 2, 2022	0	-	590	ND	ND	ND	ND	ND	ND	ND	180
BS22-67	4	December 2, 2022	0	-	344	ND	ND	ND	ND	ND	ND	ND	ND
BS22-68	4	December 2, 2022	0	-	417	ND	ND	ND	ND	ND	ND	ND	ND
BS22-69	4	December 2, 2022	0	-	669	ND	ND	ND	ND	ND	ND	ND	170
BS22-70 BS22-71	4	December 2, 2022 December 2, 2022	0	-	437	ND	ND	ND	ND	ND	ND	ND	ND
BS22-71 BS22-72	4	December 2, 2022	0	-	552 629	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	66 ND
BS22-72 BS22-73	4	December 2, 2022	0	_	1,140	ND	ND	ND	ND	ND	ND	ND	490
BS22-74	4	December 2, 2022	0	_	438	ND	ND	ND	ND	ND	ND	ND	ND
BS22-75	4	December 2, 2022	0	-	424	ND	ND	ND	ND	ND	ND	ND	ND
BS22-76	4	December 2, 2022	0	-	673	ND	ND	ND	ND	ND	ND	ND	200
BS22-77	4	December 2, 2022	0	-	1,174	ND	ND	ND	ND	ND	ND	ND	540
BS22-78	4	December 2, 2022	0	-	330	ND	ND	ND	ND	ND	ND	ND	ND
BS22-79	4	December 2, 2022	0	-	340	ND	ND	ND	ND	ND	ND	ND	ND
BS22-80	4	December 2, 2022	0	-	253	ND	ND	ND	ND	ND	ND	ND	ND
BS22-81	4	December 2, 2022	0	-	379	ND	ND	ND	ND	ND	ND	ND	ND
BS22-82	4	December 2, 2022	0	-	278	ND	ND	ND	ND	ND	ND	ND	ND
BS22-83	4	December 2, 2022	0	-	269	ND	ND	ND	ND	ND	ND	ND	ND
BS22-84	4	December 2, 2022	0	-	418	ND	ND	ND	17	ND	17	17	ND
BS22-85	4	December 2, 2022	0	-	311	ND	ND	ND	ND	ND	ND	ND	ND
BS22-86 BS22-87	4	December 2, 2022	0	-	865	ND	ND	ND	ND	ND	ND	ND	360
BS22-87 BS22-88	4	December 2, 2022 December 2, 2022	0	-	275 906	ND ND	ND	ND ND	ND	ND	ND ND	ND ND	ND 320
BS22-88 BS22-89	4	December 2, 2022	0	-	2,076	ND	ND ND	ND	ND ND	ND ND	ND	ND	1100
BS22-85	4	December 2, 2022	0	-	398	ND	ND	ND	ND	ND	ND	ND	ND
BS22-91	4	December 2, 2022	0	-	1,307	ND	ND	ND	ND	ND	ND	ND	700
BS22-92	4	December 2, 2022	0	-	2,524	ND	ND	ND	ND	ND	ND	ND	1600
BS22-93	4	December 2, 2022	0	-	1,830	ND	ND	ND	ND	ND	ND	ND	850
BS22-94	4	December 2, 2022	0	-	5,013	ND	ND	ND	ND	ND	ND	ND	3900
BS22-95	4	December 2, 2022	0	-	978	ND	ND	ND	ND	ND	ND	ND	310
BS22-96	4	December 2, 2022	0	-	790	ND	ND	ND	ND	ND	ND	ND	230
BS22-97	4	December 2, 2022	0	-	477	ND	ND	ND	ND	ND	ND	ND	88
BS22-98	4	December 2, 2022	0	-	444	ND	ND	ND	ND	ND	ND	ND	ND
BS22-99	4	December 2, 2022	0	-	3,082	ND	ND	ND	ND	ND	ND	ND	1900
BS22-100 BS22-101	4	December 2, 2022	0	-	6,652	ND	ND	ND	ND	ND	ND	ND	5000
BS22-101 BS22-102	4	December 2, 2022 December 2, 2022	0	-	8,384 1,265	ND	ND	ND ND	ND	ND	ND ND	ND	6300 700
BS22-102 BS22-103	4	December 2, 2022	0	-	1,265	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	1300
BS22-103 BS22-104	4	December 2, 2022	0	-	1,895	ND	ND	ND	ND	ND	ND	ND	930
BS22-104 BS22-105	4	December 2, 2022	0	-	935	ND	ND	ND	ND	ND	ND	ND	600
BS22-106	4	December 2, 2022	0	-	7,109	ND	ND	ND	ND	ND	ND	ND	4200
BS22-107	4	December 2, 2022	0	-	1,415	ND	ND	ND	ND	ND	ND	ND	930
BS22-108	4	December 2, 2022	0	-	419	ND	ND	ND	ND	ND	ND	ND	120
BS22-109	4	December 2, 2022	0	-	404	ND	ND	ND	ND	ND	ND	ND	ND
BS22-110	4	December 2, 2022	0	-	184	ND	ND	ND	ND	ND	ND	ND	160
BS22-111	4	December 2, 2022	0	-	223	ND	ND	ND	ND	ND	ND	ND	ND
BS22-112	4	December 2, 2022	0	-	228	ND	ND	ND	ND	ND	ND	ND	ND

Client Name: Devon Energy Production Company, LP Site Name: SDE 31 Federal #009 NM OCD Tracking #: nPAC0534054352, nPAC0534054473, nPRS0531129171 Project #: 21E-02816-036 Lab Reports: 2212211

	Table 3. Confirmatory Sample Field Screen and Laboratory Results - Depth to Groundwater 51-100 feet bgs												
	Sample Descri	ption	Fi	eld Screeni	ng			Petrole	um Hydro				
			st			Vol	atile			Extractable			Inorganic
Sample ID	Depth (ft)	Sample Date	 Volatile Organic Compounds (PID) 	Extractable Organic Compounds (PetroFlag)	() () () () () () () () () () () () () (auzene Benzene (mg/kg)	열) 81EX (Total) (영취	월 Gasoline Range Organics (GRO)	월 Diesel Range Organics (DRO)	영철 (Motor Oil Range Organics 영취 (MRO)	(02KO + DKO) (mg/kg)	응 전 Total Petroleum 영국 Hydrocarbons (TPH)	ସ୍ଥି) ସୁସ୍ଥି Chloride Concentration (ସନ୍ଧୁ
BS22-113	4	December 2, 2022	0		176	ND	ND	ND	ND	ND	ND	ND	ND
BS22-114	4	December 2, 2022	0	-	200	ND	ND	ND	19	ND	19	19	ND
BS22-115	4	December 2, 2022	0	-	346	ND	ND	ND	30	ND	30	30	150
BS22-116	4	December 2, 2022	0	-	249	ND	ND	ND	ND	ND	ND	ND	ND
BS22-117	4	December 2, 2022	0	-	220	ND	ND	ND	ND	ND	ND	ND	77
BS22-118	4	December 2, 2022	0	-	154	ND	ND	ND	ND	ND	ND	ND	ND
BS22-119	4	December 2, 2022	0	-	139	ND	ND	ND	ND	ND	ND	ND	ND
BS22-120	4	December 2, 2022	0	-	304	ND	ND	ND	ND	ND	ND	ND	ND
BS22-121	4	December 2, 2022	0	-	189	ND	ND	ND	ND	ND	ND	ND	ND
BS22-122	4	December 2, 2022	0	-	675	ND	ND	ND	ND	ND	ND	ND	340
BS22-123	4	December 2, 2022	0	-	444	ND	ND	ND	ND	ND	ND	ND	110
BS22-124	4	December 2, 2022	0	-	292	ND	ND	ND	ND	ND	ND	ND	94
BS22-125	4	December 2, 2022	0	-	562	ND	ND	ND	ND	ND	ND	ND	140
BS22-126	4	December 2, 2022	0	-	627	ND	ND	ND	ND	ND	ND	ND	160
BS22-127	4	December 2, 2022	0	-	733	ND	ND	ND	ND	ND	ND	ND	210
WS22-01	0-4	December 2, 2022	0	13	412	ND	ND	ND	ND	ND	ND	ND	ND
WS22-02	0-4	December 2, 2022	0	20	406	ND	ND	ND	ND	ND	ND	ND	ND
WS22-03	0-4	December 2, 2022	0	18	415	ND	ND	ND	ND	ND	ND	ND	ND
WS22-04	0-4	December 2, 2022	0	22	152	ND	ND	ND	ND	ND	ND	ND	ND
WS22-05	0-4	December 2, 2022	0	23	125	ND	ND	ND	ND	ND	ND	ND	ND
WS22-06	0-4	December 2, 2022	0	22	113	ND	ND	ND	ND	ND	ND	ND	ND
WS22-07	0-4	December 2, 2022	0	15	99	ND	ND	ND	ND	ND	ND	ND	ND
WS22-08	0-4	December 2, 2022	0	17	298	ND	ND	ND	ND	ND	ND	ND	83
WS22-09	0-4	December 2, 2022	0	16	422	ND	ND	ND	ND	ND	ND	ND	110
WS22-10	0-4	December 2, 2022	0	19	106	ND	ND	ND	ND	ND	ND	ND	ND
WS22-11	0-4	December 2, 2022	0	20	121	ND	ND	ND	ND	ND	ND	ND	ND
WS22-12	0-4	December 2, 2022	0	15	150	ND	ND	ND	ND	ND	ND	ND	ND
WS22-13	0-4	December 2, 2022	0	17	102	ND	ND	ND	ND	ND	ND	ND	ND
WS22-14	0-4	December 2, 2022	0	22	93	ND	ND	ND	ND	ND	ND	ND	ND
WS22-15	0-4	December 2, 2022	0	13	147	ND	ND	ND	ND	ND	ND	ND	ND
WS22-16	0-4	December 2, 2022	0	16	147	ND	ND	ND	ND	ND	ND	ND	ND

"ND" Not Detected at the Reporting Limit "-" indicates not analyzed/assessed

Bold and grey shaded indicates exceedance outside of NM OCD Closure Criteria



ATTACHMENT 6



Dhugal Hanton <vertexresourcegroupusa@gmail.com>

Confirmation sampling notice

Dhugal Hanton <vertexresourcegroupusa@gmail.com> Tue, Nov 29, 2022 at 9:48 AM To: "Enviro, OCD, EMNRD" <OCD.Enviro@state.nm.us>, "CFO_Spill, BLM_NM" <blm_nm_cfo_spill@blm.gov>

All,

Please accept this email as 48-hr notification that Vertex Resource Services has scheduled confirmatory sampling to be conducted for the following releases:

nPAC0534054352,

nPAC0534054473,

nPRS0531129171 -all releases from 2005

Site Name: SDE 31 Federal 9

This work will be completed on behalf of Devon Energy.

Starting on Thursday, December 1st through Wednesday December 7, 2022, at approximately 8:00 a.m., Lakin Pullman will be onsite to conduct continuous confirmatory sampling. He can be reached at 701-495-1722. If you need directions to the site, please do not hesitate to contact him. If you have any questions or concerns regarding this notification, please give me a call at 575-361-9880.

Thank you,

Kent Stallings P.G.

Project Manager

Vertex Resource Services Inc. 3101 Boyd Drive, Carlsbad, NM 88220

P 575.725.5001 C 346.814.1413

www.vertex.ca

Confidentiality Notice: This message and any attachments are solely for the intended recipient and may contain confidential or privileged information. If you are not the intended recipient, any disclosure, copying, use, or distribution of the information included in this message and any attachment is prohibited. If you have received this communication in error, please notify us by reply email and immediately and permanently delete this message and any attachments. Thank you

ATTACHMENT 7



March 09, 2022

Brandon Schafer Vertex Resources Services, Inc. 3101 Boyd Drive Carlsbad, NM 88220 TEL: (505) 506-0040 FAX

OrderNo.: 2203002

Hall Environmental Analysis Laboratory

TEL: 505-345-3975 FAX: 505-345-4107

Website: clients.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

RE: SDE 31 Fed 9

Dear Brandon Schafer:

Hall Environmental Analysis Laboratory received 22 sample(s) on 3/1/2022 for the analyses presented in the following report.

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

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Project: SDE 31 Fed 9

CLIENT: Vertex Resources Services, Inc.

Analytical Report Lab Order 2203002

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/9/2022 Client Sample ID: BH22-01 0-6" Collection Date: 2/24/2022 10:00:00 AM oived De to. 2/1/2022 7.50.00 AM -

Lab ID: 2203002-001	Matrix: SOIL	Rece	eived Date:	3/1/202	22 7:50:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/3/2022 4:09:06 PM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	3/3/2022 4:09:06 PM
Surr: DNOP	70.1	51.1-141	%Rec	1	3/3/2022 4:09:06 PM
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	3/2/2022 2:58:00 PM
Surr: BFB	104	70-130	%Rec	1	3/2/2022 2:58:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.024	mg/Kg	1	3/2/2022 2:58:00 PM
Toluene	ND	0.047	mg/Kg	1	3/2/2022 2:58:00 PM
Ethylbenzene	ND	0.047	mg/Kg	1	3/2/2022 2:58:00 PM
Xylenes, Total	ND	0.094	mg/Kg	1	3/2/2022 2:58:00 PM
Surr: 4-Bromofluorobenzene	88.4	70-130	%Rec	1	3/2/2022 2:58:00 PM
EPA METHOD 300.0: ANIONS					Analyst: JMT
Chloride	17000	1500	mg/Kg	500	3/7/2022 3:58:41 PM

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference S
- в Analyte detected in the associated Method Blank
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 1 of 29

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Project:

Chloride

CLIENT: Vertex Resources Services, Inc.

SDE 31 Fed 9

Analytical Report Lab Order 2203002

3/7/2022 4:11:03 PM

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/9/2022 Client Sample ID: BH22-01 2' Collection Date: 2/24/2022 10:15:00 AM

Lab ID: 2203002-002 Matrix: SOIL Received Date: 3/1/2022 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: SB Diesel Range Organics (DRO) ND 9.7 mg/Kg 1 3/3/2022 4:20:15 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 3/3/2022 4:20:15 PM 51.1-141 Surr: DNOP 97.2 %Rec 1 3/3/2022 4:20:15 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 3/2/2022 3:18:00 PM 4.9 mg/Kg 1 Surr: BFB 100 70-130 %Rec 1 3/2/2022 3:18:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 0.025 mg/Kg 3/2/2022 3:18:00 PM 1 Toluene ND 0.049 mg/Kg 1 3/2/2022 3:18:00 PM Ethylbenzene ND 0.049 mg/Kg 1 3/2/2022 3:18:00 PM Xylenes, Total ND 0.099 mg/Kg 1 3/2/2022 3:18:00 PM 3/2/2022 3:18:00 PM Surr: 4-Bromofluorobenzene 86.5 70-130 %Rec 1 **EPA METHOD 300.0: ANIONS** Analyst: JMT

3600

150

ma/Ka

50

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

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

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Project:

Lab ID:

CLIENT: Vertex Resources Services, Inc.

SDE 31 Fed 9

2203002-003

Analytical Report Lab Order 2203002

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/9/2022 Client Sample ID: BH22-01 4' Collection Date: 2/24/2022 10:30:00 AM

Received Date: 3/1/2022 7:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/3/2022 4:31:24 PM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	3/3/2022 4:31:24 PM
Surr: DNOP	63.1	51.1-141	%Rec	1	3/3/2022 4:31:24 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	3/2/2022 3:37:00 PM
Surr: BFB	102	70-130	%Rec	1	3/2/2022 3:37:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.024	mg/Kg	1	3/2/2022 3:37:00 PM
Toluene	ND	0.048	mg/Kg	1	3/2/2022 3:37:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	3/2/2022 3:37:00 PM
Xylenes, Total	ND	0.097	mg/Kg	1	3/2/2022 3:37:00 PM
Surr: 4-Bromofluorobenzene	90.4	70-130	%Rec	1	3/2/2022 3:37:00 PM
EPA METHOD 300.0: ANIONS					Analyst: JMT
Chloride	1700	60	mg/Kg	20	3/7/2022 1:05:52 PM

Matrix: SOIL

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Project:

CLIENT: Vertex Resources Services, Inc.

SDE 31 Fed 9

Analytical Report Lab Order 2203002

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/9/2022 Client Sample ID: BH22-02 0-6" Collection Date: 2/24/2022 10:45:00 AM Received Date: 3/1/2022 7:50:00 AM

Lab ID: 2203002-004	Matrix: SOIL	Received Date: 3/1/2022 7:50:00 AM							
Analyses	Result	RL Qu	al Units	DF	Date Analyzed				
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst: SB				
Diesel Range Organics (DRO)	ND	9.0	mg/Kg	1	3/4/2022 11:06:07 AM				
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	3/4/2022 11:06:07 AM				
Surr: DNOP	60.4	51.1-141	%Rec	1	3/4/2022 11:06:07 AM				
EPA METHOD 8015D: GASOLINE RANG	GE				Analyst: RAA				
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	3/2/2022 3:57:00 PM				
Surr: BFB	99.8	70-130	%Rec	1	3/2/2022 3:57:00 PM				
EPA METHOD 8021B: VOLATILES					Analyst: RAA				
Benzene	ND	0.024	mg/Kg	1	3/2/2022 3:57:00 PM				
Toluene	ND	0.048	mg/Kg	1	3/2/2022 3:57:00 PM				
Ethylbenzene	ND	0.048	mg/Kg	1	3/2/2022 3:57:00 PM				
Xylenes, Total	ND	0.096	mg/Kg	1	3/2/2022 3:57:00 PM				
Surr: 4-Bromofluorobenzene	87.5	70-130	%Rec	1	3/2/2022 3:57:00 PM				
EPA METHOD 300.0: ANIONS					Analyst: JMT				
Chloride	800	60	mg/Kg	20	3/7/2022 1:42:55 PM				

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

SDE 31 Fed 9

Analytical Report Lab Order 2203002

Date Reported: 3/9/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-02 2' Collection Date: 2/24/2022 11:00:00 AM Received Date: 3/1/2022 7:50:00 AM

Lab ID: 2203002-005	Matrix: SOIL	Received Date: 3/1/2022 7:50:00 AM				
Analyses	Result	RL Qua	l Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB	
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	3/3/2022 4:53:39 PM	
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	3/3/2022 4:53:39 PM	
Surr: DNOP	81.3	51.1-141	%Rec	1	3/3/2022 4:53:39 PM	
EPA METHOD 8015D: GASOLINE RANGE					Analyst: RAA	
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	3/2/2022 4:17:00 PM	
Surr: BFB	107	70-130	%Rec	1	3/2/2022 4:17:00 PM	
EPA METHOD 8021B: VOLATILES					Analyst: RAA	
Benzene	ND	0.024	mg/Kg	1	3/2/2022 4:17:00 PM	
Toluene	ND	0.049	mg/Kg	1	3/2/2022 4:17:00 PM	
Ethylbenzene	ND	0.049	mg/Kg	1	3/2/2022 4:17:00 PM	
Xylenes, Total	ND	0.098	mg/Kg	1	3/2/2022 4:17:00 PM	
Surr: 4-Bromofluorobenzene	88.7	70-130	%Rec	1	3/2/2022 4:17:00 PM	
EPA METHOD 300.0: ANIONS					Analyst: JMT	
Chloride	160	60	mg/Kg	20	3/7/2022 2:44:38 PM	

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab ID:

CLIENT: Vertex Resources Services, Inc.

SDE 31 Fed 9

2203002-006

Analytical Report Lab Order 2203002

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/9/2022 Client Sample ID: BH22-02 4' Collection Date: 2/24/2022 11:15:00 AM

Received Date: 3/1/2022 7:50:00 AM

Analyses	Result	RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	Analyst: SB				
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	3/4/2022 11:30:28 AM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	3/4/2022 11:30:28 AM
Surr: DNOP	67.4	51.1-141	%Rec	1	3/4/2022 11:30:28 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	3/2/2022 4:36:00 PM
Surr: BFB	102	70-130	%Rec	1	3/2/2022 4:36:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.023	mg/Kg	1	3/2/2022 4:36:00 PM
Toluene	ND	0.046	mg/Kg	1	3/2/2022 4:36:00 PM
Ethylbenzene	ND	0.046	mg/Kg	1	3/2/2022 4:36:00 PM
Xylenes, Total	ND	0.092	mg/Kg	1	3/2/2022 4:36:00 PM
Surr: 4-Bromofluorobenzene	90.8	70-130	%Rec	1	3/2/2022 4:36:00 PM
EPA METHOD 300.0: ANIONS					Analyst: JMT
Chloride	87	60	mg/Kg	20	3/7/2022 2:56:58 PM

Matrix: SOIL

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

SDE 31 Fed 9

Analytical Report Lab Order 2203002

Date Reported: 3/9/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-03 0-6" Collection Date: 2/24/2022 11:30:00 AM Received Date: 3/1/2022 7:50:00 AM

Lab ID: 2203002-007	Matrix: SOIL	Recei	ived Date:	3/1/20	22 7:50:00 AM
Analyses	Result	RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	3/3/2022 5:15:51 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	3/3/2022 5:15:51 PM
Surr: DNOP	97.4	51.1-141	%Rec	1	3/3/2022 5:15:51 PM
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	3/2/2022 4:56:00 PM
Surr: BFB	103	70-130	%Rec	1	3/2/2022 4:56:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.024	mg/Kg	1	3/2/2022 4:56:00 PM
Toluene	ND	0.048	mg/Kg	1	3/2/2022 4:56:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	3/2/2022 4:56:00 PM
Xylenes, Total	ND	0.096	mg/Kg	1	3/2/2022 4:56:00 PM
Surr: 4-Bromofluorobenzene	89.5	70-130	%Rec	1	3/2/2022 4:56:00 PM
EPA METHOD 300.0: ANIONS					Analyst: JMT
Chloride	670	60	mg/Kg	20	3/7/2022 3:09:19 PM

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab ID:

CLIENT: Vertex Resources Services, Inc.

SDE 31 Fed 9

2203002-008

Analytical Report Lab Order 2203002

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/9/2022 Client Sample ID: BH22-03 2' Collection Date: 2/24/2022 11:45:00 AM

Received Date: 3/1/2022 7:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	Analyst: SB				
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	3/3/2022 5:26:55 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	3/3/2022 5:26:55 PM
Surr: DNOP	65.9	51.1-141	%Rec	1	3/3/2022 5:26:55 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	3/2/2022 5:16:00 PM
Surr: BFB	107	70-130	%Rec	1	3/2/2022 5:16:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.024	mg/Kg	1	3/2/2022 5:16:00 PM
Toluene	ND	0.048	mg/Kg	1	3/2/2022 5:16:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	3/2/2022 5:16:00 PM
Xylenes, Total	ND	0.096	mg/Kg	1	3/2/2022 5:16:00 PM
Surr: 4-Bromofluorobenzene	92.7	70-130	%Rec	1	3/2/2022 5:16:00 PM
EPA METHOD 300.0: ANIONS					Analyst: JMT
Chloride	87	60	mg/Kg	20	3/7/2022 3:21:40 PM

Matrix: SOIL

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab ID:

CLIENT: Vertex Resources Services, Inc.

SDE 31 Fed 9

2203002-009

Analytical Report Lab Order 2203002

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/9/2022 Client Sample ID: BH22-03 4' Collection Date: 2/24/2022 12:00:00 PM

Received Date: 3/1/2022 7:50:00 AM

Analyses	Result	RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	3/3/2022 5:37:59 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	3/3/2022 5:37:59 PM
Surr: DNOP	73.2	51.1-141	%Rec	1	3/3/2022 5:37:59 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	3/2/2022 5:35:00 PM
Surr: BFB	103	70-130	%Rec	1	3/2/2022 5:35:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.023	mg/Kg	1	3/2/2022 5:35:00 PM
Toluene	ND	0.046	mg/Kg	1	3/2/2022 5:35:00 PM
Ethylbenzene	ND	0.046	mg/Kg	1	3/2/2022 5:35:00 PM
Xylenes, Total	ND	0.093	mg/Kg	1	3/2/2022 5:35:00 PM
Surr: 4-Bromofluorobenzene	87.5	70-130	%Rec	1	3/2/2022 5:35:00 PM
EPA METHOD 300.0: ANIONS					Analyst: JMT
Chloride	91	60	mg/Kg	20	3/7/2022 3:33:59 PM

Matrix: SOIL

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab ID:

CLIENT: Vertex Resources Services, Inc.

SDE 31 Fed 9

2203002-010

Analytical Report Lab Order 2203002

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/9/2022 Client Sample ID: BH22-04 0-6" Collection Date: 2/24/2022 12:15:00 PM

Received Date: 3/1/2022 7:50:00 AM

Analyses	Result	RL Qu	ial Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	Analyst: SB				
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/3/2022 5:49:02 PM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	3/3/2022 5:49:02 PM
Surr: DNOP	79.3	51.1-141	%Rec	1	3/3/2022 5:49:02 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	3/2/2022 5:55:00 PM
Surr: BFB	101	70-130	%Rec	1	3/2/2022 5:55:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.025	mg/Kg	1	3/2/2022 5:55:00 PM
Toluene	ND	0.049	mg/Kg	1	3/2/2022 5:55:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	3/2/2022 5:55:00 PM
Xylenes, Total	ND	0.098	mg/Kg	1	3/2/2022 5:55:00 PM
Surr: 4-Bromofluorobenzene	89.0	70-130	%Rec	1	3/2/2022 5:55:00 PM
EPA METHOD 300.0: ANIONS					Analyst: JMT
Chloride	83	60	mg/Kg	20	3/7/2022 3:46:20 PM

Matrix: SOIL

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

SDE 31 Fed 9

Analytical Report Lab Order 2203002

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/9/2022

Client Sample ID: BH22-04 2' Collection Date: 2/24/2022 12:30:00 PM Received Date: 3/1/2022 7:50:00 AM

Lab ID: 2203002-011	Matrix: SOIL	Rece	22 7:50:00 AM		
Analyses	Result	RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	3/3/2022 6:00:03 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	3/3/2022 6:00:03 PM
Surr: DNOP	105	51.1-141	%Rec	1	3/3/2022 6:00:03 PM
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	3/2/2022 7:53:00 PM
Surr: BFB	104	70-130	%Rec	1	3/2/2022 7:53:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.023	mg/Kg	1	3/2/2022 7:53:00 PM
Toluene	ND	0.047	mg/Kg	1	3/2/2022 7:53:00 PM
Ethylbenzene	ND	0.047	mg/Kg	1	3/2/2022 7:53:00 PM
Xylenes, Total	ND	0.093	mg/Kg	1	3/2/2022 7:53:00 PM
Surr: 4-Bromofluorobenzene	90.0	70-130	%Rec	1	3/2/2022 7:53:00 PM
EPA METHOD 300.0: ANIONS					Analyst: LRN
Chloride	ND	59	mg/Kg	20	3/7/2022 3:02:13 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab ID:

CLIENT: Vertex Resources Services, Inc.

SDE 31 Fed 9

2203002-012

Analytical Report Lab Order 2203002

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/9/2022 Client Sample ID: BH22-04 4' Collection Date: 2/24/2022 12:45:00 PM

Received Date: 3/1/2022 7:50:00 AM

Analyses	Result	RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	3/3/2022 6:11:03 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	3/3/2022 6:11:03 PM
Surr: DNOP	82.3	51.1-141	%Rec	1	3/3/2022 6:11:03 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	3/2/2022 8:52:00 PM
Surr: BFB	103	70-130	%Rec	1	3/2/2022 8:52:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.023	mg/Kg	1	3/2/2022 8:52:00 PM
Toluene	ND	0.047	mg/Kg	1	3/2/2022 8:52:00 PM
Ethylbenzene	ND	0.047	mg/Kg	1	3/2/2022 8:52:00 PM
Xylenes, Total	ND	0.094	mg/Kg	1	3/2/2022 8:52:00 PM
Surr: 4-Bromofluorobenzene	90.4	70-130	%Rec	1	3/2/2022 8:52:00 PM
EPA METHOD 300.0: ANIONS					Analyst: LRN
Chloride	180	60	mg/Kg	20	3/7/2022 3:39:26 PM

Matrix: SOIL

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

SDE 31 Fed 9

Analytical Report Lab Order 2203002

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/9/2022

Client Sample ID: BH22-05 0-6" Collection Date: 2/24/2022 1:00:00 PM Received Date: 3/1/2022 7:50:00 AM

Lab ID: 2203002-013	Matrix: SOIL	Received Date: 3/1/2022 7:50:00 AM				
Analyses	Result	RL Qua	l Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB	
Diesel Range Organics (DRO)	ND	8.2	mg/Kg	1	3/3/2022 6:22:01 PM	
Motor Oil Range Organics (MRO)	ND	41	mg/Kg	1	3/3/2022 6:22:01 PM	
Surr: DNOP	71.8	51.1-141	%Rec	1	3/3/2022 6:22:01 PM	
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: RAA	
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	3/2/2022 9:51:00 PM	
Surr: BFB	101	70-130	%Rec	1	3/2/2022 9:51:00 PM	
EPA METHOD 8021B: VOLATILES					Analyst: RAA	
Benzene	ND	0.024	mg/Kg	1	3/2/2022 9:51:00 PM	
Toluene	ND	0.048	mg/Kg	1	3/2/2022 9:51:00 PM	
Ethylbenzene	ND	0.048	mg/Kg	1	3/2/2022 9:51:00 PM	
Xylenes, Total	ND	0.097	mg/Kg	1	3/2/2022 9:51:00 PM	
Surr: 4-Bromofluorobenzene	87.6	70-130	%Rec	1	3/2/2022 9:51:00 PM	
EPA METHOD 300.0: ANIONS					Analyst: LRN	
Chloride	170	60	mg/Kg	20	3/7/2022 3:51:51 PM	

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

SDE 31 Fed 9

Analytical Report Lab Order 2203002

Date Reported: 3/9/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-05 2' Collection Date: 2/24/2022 1:15:00 PM Received Date: 3/1/2022 7:50:00 AM

Lab ID: 2203002-014	Matrix: SOIL	Rece	ived Date:	3/1/20	22 7:50:00 AM
Analyses	Result	RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	3/3/2022 6:32:57 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	3/3/2022 6:32:57 PM
Surr: DNOP	59.2	51.1-141	%Rec	1	3/3/2022 6:32:57 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	3/2/2022 10:10:00 PM
Surr: BFB	102	70-130	%Rec	1	3/2/2022 10:10:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.025	mg/Kg	1	3/2/2022 10:10:00 PM
Toluene	ND	0.050	mg/Kg	1	3/2/2022 10:10:00 PM
Ethylbenzene	ND	0.050	mg/Kg	1	3/2/2022 10:10:00 PM
Xylenes, Total	ND	0.099	mg/Kg	1	3/2/2022 10:10:00 PM
Surr: 4-Bromofluorobenzene	88.8	70-130	%Rec	1	3/2/2022 10:10:00 PM
EPA METHOD 300.0: ANIONS					Analyst: LRN
Chloride	210	60	mg/Kg	20	3/7/2022 4:04:16 PM

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

SDE 31 Fed 9

Analytical Report Lab Order 2203002

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/9/2022 Client Sample ID: BH22-05 4' Collection Date: 2/24/2022 1:30:00 PM

Lab ID: 2203002-015 Matrix: SOIL Received Date: 3/1/2022 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: SB Diesel Range Organics (DRO) ND 9.4 mg/Kg 1 3/4/2022 12:19:05 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 3/4/2022 12:19:05 PM Surr: DNOP 75.8 51.1-141 %Rec 1 3/4/2022 12:19:05 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 3/2/2022 10:30:00 PM 4.7 mg/Kg 1 Surr: BFB 105 70-130 %Rec 1 3/2/2022 10:30:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 3/2/2022 10:30:00 PM 0.024 mg/Kg 1 Toluene ND 0.047 mg/Kg 1 3/2/2022 10:30:00 PM Ethylbenzene ND 0.047 mg/Kg 1 3/2/2022 10:30:00 PM Xylenes, Total ND 0.095 mg/Kg 1 3/2/2022 10:30:00 PM 3/2/2022 10:30:00 PM Surr: 4-Bromofluorobenzene 89.6 70-130 %Rec 1 **EPA METHOD 300.0: ANIONS** Analyst: LRN Chloride 75 61 3/7/2022 4:16:40 PM ma/Ka 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

SDE 31 Fed 9

Analytical Report Lab Order 2203002

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/9/2022 Client Sample ID: BH22-06 0-6" Collection Date: 2/24/2022 1:45:00 PM Paceived Date: 3/1/2022 7:50:00 AM

Lab ID: 2203002-016	Matrix: SOIL	Received Date: 3/1/2022 7:50:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst: SB	
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	3/4/2022 12:29:52 PM	
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	3/4/2022 12:29:52 PM	
Surr: DNOP	62.0	51.1-141	%Rec	1	3/4/2022 12:29:52 PM	
EPA METHOD 8015D: GASOLINE RANG	GE				Analyst: RAA	
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	3/2/2022 10:50:00 PM	
Surr: BFB	103	70-130	%Rec	1	3/2/2022 10:50:00 PM	
EPA METHOD 8021B: VOLATILES					Analyst: RAA	
Benzene	ND	0.023	mg/Kg	1	3/2/2022 10:50:00 PM	
Toluene	ND	0.046	mg/Kg	1	3/2/2022 10:50:00 PM	
Ethylbenzene	ND	0.046	mg/Kg	1	3/2/2022 10:50:00 PM	
Xylenes, Total	ND	0.093	mg/Kg	1	3/2/2022 10:50:00 PM	
Surr: 4-Bromofluorobenzene	89.6	70-130	%Rec	1	3/2/2022 10:50:00 PM	
EPA METHOD 300.0: ANIONS					Analyst: LRN	
Chloride	70	60	mg/Kg	20	3/7/2022 4:29:05 PM	

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab ID:

CLIENT: Vertex Resources Services, Inc.

SDE 31 Fed 9

2203002-017

Analytical Report Lab Order 2203002

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/9/2022 Client Sample ID: BH22-06 2' Collection Date: 2/24/2022 2:00:00 PM

Received Date: 3/1/2022 7:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	Analyst: SB				
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	3/4/2022 12:40:41 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	3/4/2022 12:40:41 PM
Surr: DNOP	81.2	51.1-141	%Rec	1	3/4/2022 12:40:41 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	3/2/2022 11:09:00 PM
Surr: BFB	99.8	70-130	%Rec	1	3/2/2022 11:09:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.023	mg/Kg	1	3/2/2022 11:09:00 PM
Toluene	ND	0.047	mg/Kg	1	3/2/2022 11:09:00 PM
Ethylbenzene	ND	0.047	mg/Kg	1	3/2/2022 11:09:00 PM
Xylenes, Total	ND	0.093	mg/Kg	1	3/2/2022 11:09:00 PM
Surr: 4-Bromofluorobenzene	87.8	70-130	%Rec	1	3/2/2022 11:09:00 PM
EPA METHOD 300.0: ANIONS					Analyst: LRN
Chloride	ND	60	mg/Kg	20	3/7/2022 5:06:19 PM

Matrix: SOIL

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab ID:

CLIENT: Vertex Resources Services, Inc.

SDE 31 Fed 9

2203002-018

Analytical Report Lab Order 2203002

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/9/2022 Client Sample ID: BH22-06 4' Collection Date: 2/24/2022 2:15:00 PM

Received Date: 3/1/2022 7:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	3/4/2022 12:51:32 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	3/4/2022 12:51:32 PM
Surr: DNOP	74.7	51.1-141	%Rec	1	3/4/2022 12:51:32 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	3/2/2022 11:29:00 PM
Surr: BFB	107	70-130	%Rec	1	3/2/2022 11:29:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.025	mg/Kg	1	3/2/2022 11:29:00 PM
Toluene	ND	0.049	mg/Kg	1	3/2/2022 11:29:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	3/2/2022 11:29:00 PM
Xylenes, Total	ND	0.099	mg/Kg	1	3/2/2022 11:29:00 PM
Surr: 4-Bromofluorobenzene	92.0	70-130	%Rec	1	3/2/2022 11:29:00 PM
EPA METHOD 300.0: ANIONS					Analyst: LRN
Chloride	86	60	mg/Kg	20	3/7/2022 5:18:44 PM

Matrix: SOIL

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Project: SDE 31 Fed 9

CLIENT: Vertex Resources Services, Inc.

Analytical Report Lab Order 2203002

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/9/2022

Client Sample ID: BH22-07 0-6" Collection Date: 2/24/2022 2:30:00 PM Received Date: 3/1/2022 7:50:00 AM

Lab ID: 2203002-019	Matrix: SOIL	Rece	Received Date: 3/1/2022 7:50:00 AM						
Analyses	Result	RL Qua	al Units	DF	Date Analyzed				
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB				
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	3/4/2022 1:02:24 PM				
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	3/4/2022 1:02:24 PM				
Surr: DNOP	78.6	51.1-141	%Rec	1	3/4/2022 1:02:24 PM				
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: RAA				
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	3/2/2022 11:49:00 PM				
Surr: BFB	105	70-130	%Rec	1	3/2/2022 11:49:00 PM				
EPA METHOD 8021B: VOLATILES					Analyst: RAA				
Benzene	ND	0.023	mg/Kg	1	3/2/2022 11:49:00 PM				
Toluene	ND	0.046	mg/Kg	1	3/2/2022 11:49:00 PM				
Ethylbenzene	ND	0.046	mg/Kg	1	3/2/2022 11:49:00 PM				
Xylenes, Total	ND	0.093	mg/Kg	1	3/2/2022 11:49:00 PM				
Surr: 4-Bromofluorobenzene	89.9	70-130	%Rec	1	3/2/2022 11:49:00 PM				
EPA METHOD 300.0: ANIONS					Analyst: LRN				
Chloride	820	60	mg/Kg	20	3/7/2022 5:31:09 PM				

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

Qualifiers:

* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND
 Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Project: SDE 31 Fed 9

CLIENT: Vertex Resources Services, Inc.

Analytical Report Lab Order 2203002

Date Reported: 3/9/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-07 2' Collection Date: 2/24/2022 2:45:00 PM Received Date: 3/1/2022 7:50:00 AM

Lab ID: 2203002-020	Matrix: SOIL	Rece	ived Date:	3/1/20	22 7:50:00 AM
Analyses	Result	RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	3/4/2022 1:13:16 PM
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	3/4/2022 1:13:16 PM
Surr: DNOP	73.1	51.1-141	%Rec	1	3/4/2022 1:13:16 PM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	3/3/2022 12:08:00 AM
Surr: BFB	102	70-130	%Rec	1	3/3/2022 12:08:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.023	mg/Kg	1	3/3/2022 12:08:00 AM
Toluene	ND	0.046	mg/Kg	1	3/3/2022 12:08:00 AM
Ethylbenzene	ND	0.046	mg/Kg	1	3/3/2022 12:08:00 AM
Xylenes, Total	ND	0.092	mg/Kg	1	3/3/2022 12:08:00 AM
Surr: 4-Bromofluorobenzene	90.0	70-130	%Rec	1	3/3/2022 12:08:00 AM
EPA METHOD 300.0: ANIONS					Analyst: LRN
Chloride	230	60	mg/Kg	20	3/7/2022 5:43:34 PM

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

Qualifiers:

* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

SDE 31 Fed 9

Analytical Report Lab Order 2203002

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/9/2022 Client Sample ID: BH22-07 4' Collection Date: 2/24/2022 3:00:00 PM Received Date: 3/1/2022 7:50:00 AM

Lab ID: 2203002-021	Matrix: SOIL	Rece	vived Date:	3/1/20	22 7:50:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	3/4/2022 1:24:12 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	3/4/2022 1:24:12 PM
Surr: DNOP	79.4	51.1-141	%Rec	1	3/4/2022 1:24:12 PM
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	3/3/2022 1:07:00 AM
Surr: BFB	104	70-130	%Rec	1	3/3/2022 1:07:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.023	mg/Kg	1	3/3/2022 1:07:00 AM
Toluene	ND	0.046	mg/Kg	1	3/3/2022 1:07:00 AM
Ethylbenzene	ND	0.046	mg/Kg	1	3/3/2022 1:07:00 AM
Xylenes, Total	ND	0.093	mg/Kg	1	3/3/2022 1:07:00 AM
Surr: 4-Bromofluorobenzene	90.2	70-130	%Rec	1	3/3/2022 1:07:00 AM
EPA METHOD 300.0: ANIONS					Analyst: LRN
Chloride	82	60	mg/Kg	20	3/7/2022 5:55:59 PM

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Project: SDE 31 Fed 9

CLIENT: Vertex Resources Services, Inc.

Analytical Report Lab Order 2203002

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/9/2022

Client Sample ID: BH22-08 0-6" Collection Date: 2/24/2022 3:15:00 PM Received Date: 3/1/2022 7:50:00 AM

Lab ID: 2203002-022	Matrix: SOIL	Rece	eived Date:	3/1/20	22 7:50:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RAM	IGE ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	3/4/2022 1:35:09 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	3/4/2022 1:35:09 PM
Surr: DNOP	77.8	51.1-141	%Rec	1	3/4/2022 1:35:09 PM
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	3/3/2022 1:27:00 AM
Surr: BFB	98.9	70-130	%Rec	1	3/3/2022 1:27:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.024	mg/Kg	1	3/3/2022 1:27:00 AM
Toluene	ND	0.047	mg/Kg	1	3/3/2022 1:27:00 AM
Ethylbenzene	ND	0.047	mg/Kg	1	3/3/2022 1:27:00 AM
Xylenes, Total	ND	0.094	mg/Kg	1	3/3/2022 1:27:00 AM
Surr: 4-Bromofluorobenzene	86.6	70-130	%Rec	1	3/3/2022 1:27:00 AM
EPA METHOD 300.0: ANIONS					Analyst: LRN
Chloride	220	59	mg/Kg	20	3/7/2022 6:08:24 PM

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

Qualifiers:

* Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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	x Resources Services, Inc. 11 Fed 9					
Sample ID: MB-65960	SampType: mblk	TestCode: EPA Method	300.0: Anions			
Client ID: PBS	Batch ID: 65960	RunNo: 86255				
Prep Date: 3/4/2022	Analysis Date: 3/4/2022	SeqNo: 3041604	Units: mg/Kg			
Analyte Chloride	Result PQL SPK value ND 1.5	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual		
Sample ID: LCS-65960	SampType: Ics	TestCode: EPA Method	300.0: Anions			
Client ID: LCSS	Batch ID: 65960	RunNo: 86255				
Prep Date: 3/4/2022	Analysis Date: 3/4/2022	SeqNo: 3041605	Units: mg/Kg			
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual		
Chloride	14 1.5 15.00	0 92.9 90	110			
Sample ID: MB-65979	SampType: mblk	TestCode: EPA Method	300.0: Anions			
Client ID: PBS	Batch ID: 65979	RunNo: 86285				
Prep Date: 3/7/2022	Analysis Date: 3/7/2022	SeqNo: 3043080	Units: mg/Kg			
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual		
Chloride	ND 1.5					
Sample ID: LCS-65979	SampType: Ics	TestCode: EPA Method	300.0: Anions			
Client ID: LCSS	Batch ID: 65979	RunNo: 86285				
Prep Date: 3/7/2022	Analysis Date: 3/7/2022	SeqNo: 3043081	Units: mg/Kg			
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual		
Chloride	14 1.5 15.00	0 92.9 90	110			
Sample ID: MB-65998	SampType: mblk	TestCode: EPA Method	300.0: Anions			
Client ID: PBS	Batch ID: 65998	RunNo: 86300				
Prep Date: 3/7/2022	Analysis Date: 3/7/2022	SeqNo: 3043174	Units: mg/Kg			
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual		
Chloride	ND 1.5					
Sample ID: LCS-65998	SampType: Ics	TestCode: EPA Method	300.0: Anions			
Client ID: LCSS	Batch ID: 65998	RunNo: 86300				
Prep Date: 3/7/2022	Analysis Date: 3/7/2022	SeqNo: 3043175	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			

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference S
- Analyte detected in the associated Method Blank в
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Limit RL

2203002

09-Mar-22

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:Vertex RoProject:SDE 31 F	esources Services, Inc. Fed 9		
Sample ID: LCS-65910	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 65910	RunNo: 86217	
Prep Date: 3/2/2022	Analysis Date: 3/3/2022	SeqNo: 3039861	Units: mg/Kg
Analyte	Result PQL SPK valu	e SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	49 10 50.0		135
Surr: DNOP	4.2 5.00	0 83.1 51.1	141
Sample ID: MB-65910	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 65910	RunNo: 86217	
Prep Date: 3/2/2022	Analysis Date: 3/3/2022	SeqNo: 3039864	Units: mg/Kg
Analyte	Result PQL SPK valu	e 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 10.0	90.2 51.1	141
Sample ID: LCS-65926	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 65926	RunNo: 86243	
Prep Date: 3/3/2022	Analysis Date: 3/4/2022	SeqNo: 3040887	Units: mg/Kg
Analyte	Result PQL SPK valu	e SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	47 10 50.0	0 0 94.0 68.9	135
Surr: DNOP	4.1 5.00	0 82.7 51.1	141
Sample ID: MB-65926	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 65926	RunNo: 86243	
Prep Date: 3/3/2022	Analysis Date: 3/4/2022	SeqNo: 3040889	Units: mg/Kg
Analyte	Result PQL SPK valu	e SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	ND 10		
Motor Oil Range Organics (MRO)	ND 50		
Surr: DNOP	8.8 10.0	0 88.4 51.1	141
Sample ID: 2203002-015AMS	SampType: MS	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: BH22-05 4'	Batch ID: 65926	RunNo: 86243	
Prep Date: 3/3/2022	Analysis Date: 3/4/2022	SeqNo: 3041572	Units: mg/Kg
Analyte	Result PQL SPK valu	e SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
			-
Diesel Range Organics (DRO)	45 9.5 47.3	0 0 95.0 39.3	155

Qualifiers:

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

WO#: 2203002 09-Mar-22

Client: Project:	Vertex Re SDE 31 F	esources S ed 9	ervices	, Inc.							
Sample ID: 2	2203002-015AMSD	SampT	ype: M \$	SD	Tes	tCode: EF	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID:	BH22-05 4'	Batch	ID: 65	926	F	unNo: 8	6243				
Prep Date:	3/3/2022	Analysis D	ate: 3/	4/2022	S	eqNo: 3	041573	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Or	rganics (DRO)	44	9.5	47.26	0	93.0	39.3	155	2.21	23.4	
Surr: DNOP		3.4		4.726		72.2	51.1	141	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference S
- Analyte detected in the associated Method Blank в
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Limit RL

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2203002

09-Mar-22

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Vertex Re Project: SDE 31 F	esources Services. Fed 9	, Inc.							
Sample ID: Ics-65871	SampType: LC	S	Tes	tCode: EF	PA Method	8015D: Gaso	line Rang	e	
Client ID: LCSS	Batch ID: 65	871	F	RunNo: 86209					
Prep Date: 3/1/2022	Analysis Date: 3/	2/2022	S	SeqNo: 3	038584	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO) Surr: BFB	28 5.0 1200	25.00 1000	0	112 116	78.6 70	131 130			
Sample ID: mb-65871	SampType: M	BLK	Tes	tCode: EF	PA Method	8015D: Gaso	line Rang	e	
Client ID: PBS	Batch ID: 65	871	F	RunNo: 8	6209				
Prep Date: 3/1/2022	Analysis Date: 3/	2/2022	S	SeqNo: 30	038585	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO) Surr: BFB	ND 5.0 1000	1000		103	70	130			
Sample ID: Ics-65876	SampType: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID: LCSS	Batch ID: 65	876	F	RunNo: 8	6209				
Prep Date: 3/1/2022	Analysis Date: 3/	2/2022	S	SeqNo: 3	038608	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27 5.0	25.00	0	108	78.6	131			
Surr: BFB	1100	1000		114	70	130			
Sample ID: mb-65876	SampType: M	BLK	Tes	tCode: EF	PA Method	8015D: Gaso	line Rang	e	
Client ID: PBS	Batch ID: 65	876	F	RunNo: 8	6209				
Prep Date: 3/1/2022	Analysis Date: 3/	2/2022	S	SeqNo: 3	038609	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND 5.0								
Surr: BFB	1000	1000		102	70	130			
Sample ID: 2203002-011ams	SampType: MS	6	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID: BH22-04 2'	Batch ID: 65	876	F	RunNo: 8	6209				
Prep Date: 3/1/2022	Analysis Date: 3/	2/2022	S	SeqNo: 30	038611	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27 4.7	23.26	0	118	70	130			
Surr: BFB	1100	930.2		120	70	130			
Sample ID: 2203002-011amsd	SampType: MS	SD	Tes	tCode: EF	PA Method	8015D: Gaso	line Rang	e	
Client ID: BH22-04 2'	Batch ID: 65	876	F	RunNo: 8	6209				
Prep Date: 3/1/2022	Analysis Date: 3/	2/2022	S	SeqNo: 30	038612	Units: mg/K	g		
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
- Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference S
- Analyte detected in the associated Method Blank в
- Е Estimated value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

Reporting Limit RL

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2203002

09-Mar-22

Client: Project:	Vertex Re SDE 31 F		ervices	, Inc.							
Sample ID: 220300)2-011amsd	Samp	Гуре: М	SD	Tes	tCode: EF	PA Method	8015D: Gasc	line Rang	e	
Client ID: BH22-	04 2'	Batc	h ID: 65	876	F	unNo: 8	6209				
Prep Date: 3/1/20	022	Analysis [Date: 3/	2/2022	S	eqNo: 3	038612	Units: mg/K	ſg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organio	cs (GRO)	27	4.6	23.19	0	117	70	130	0.856	20	
Surr: BFB		1100		927.6		120	70	130	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 Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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2203002

09-Mar-22

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Vertex R Project: SDE 31 1	Resources S Fed 9	Services,	Inc.							
Sample ID: Ics-65871	Samp	Гуре: LC	S	Tes	tCode: EF					
Client ID: LCSS	Batc	h ID: 65	871	F	RunNo: 86209					
Prep Date: 3/1/2022	Analysis [Date: 3/	2/2022	S	SeqNo: 3038637 Units: mg/Kg			g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.3	80	120			
Toluene	0.92	0.050	1.000	0	91.9	80	120			
Ethylbenzene	0.94	0.050	1.000	0	94.1	80	120			
Xylenes, Total	2.8	0.10	3.000	0	93.8	80	120			
Surr: 4-Bromofluorobenzene	0.92		1.000		91.6	70	130			
Sample ID: mb-65871	Samp	Гуре: МЕ	BLK	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: PBS	Batc	h ID: 65	871	F	RunNo: 86	6209				
Prep Date: 3/1/2022	Analysis [Date: 3/	2/2022	5	SeqNo: 30)38638	Units: mg/K	g		
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	0.92		1.000		91.5	70	130			
Sample ID: Ics-65876	Samp	Гуре: LC	S	TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Bate	h ID: 65	376	RunNo: 86209						
	Batch ID: 65876 Analysis Date: 3/2/2022			SeqNo: 3038661 Units: mg/Kg						
Prep Date: 3/1/2022			2/2022	S	SeqNo: 30)38661	Units: mg/K	g		
				SPK Ref Val	eqNo: 30 %	038661 LowLimit	Units: mg/K HighLimit	g %RPD	RPDLimit	Qual
Prep Date: 3/1/2022	Analysis [Date: 3/					_	-	RPDLimit	Qual
Prep Date: 3/1/2022 Analyte	Analysis [Result	Date: 3/ PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	-	RPDLimit	Qual
Prep Date: 3/1/2022 Analyte Benzene	Analysis I Result 0.93	Date: 3/ PQL 0.025	SPK value 1.000	SPK Ref Val 0	%REC 93.5	LowLimit 80	HighLimit 120	-	RPDLimit	Qual
Prep Date: 3/1/2022 Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Analysis I Result 0.93 0.96	Date: 3/ PQL 0.025 0.050	SPK value 1.000 1.000	SPK Ref Val 0 0	%REC 93.5 96.3	LowLimit 80 80	HighLimit 120 120	-	RPDLimit	Qual
Prep Date: 3/1/2022 Analyte Benzene Toluene Ethylbenzene	Analysis I Result 0.93 0.96 0.97	Date: 3/ PQL 0.025 0.050 0.050	SPK value 1.000 1.000 1.000	SPK Ref Val 0 0 0	%REC 93.5 96.3 96.8	LowLimit 80 80 80	HighLimit 120 120 120	-	RPDLimit	Qual
Prep Date: 3/1/2022 Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Analysis I Result 0.93 0.96 0.97 2.9 0.88	Date: 3/ PQL 0.025 0.050 0.050	SPK value 1.000 1.000 3.000 1.000	SPK Ref Val 0 0 0 0	%REC 93.5 96.3 96.8 96.5 88.5	LowLimit 80 80 80 80 70	HighLimit 120 120 120 120	%RPD	RPDLimit	Qual
Prep Date: 3/1/2022 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene	Analysis I Result 0.93 0.96 0.97 2.9 0.88 Samp ¹	Date: 3/ PQL 0.025 0.050 0.050 0.10	SPK value 1.000 1.000 3.000 1.000 BLK	SPK Ref Val 0 0 0 0 0 Tes	%REC 93.5 96.3 96.8 96.5 88.5	LowLimit 80 80 80 80 70 PA Method	HighLimit 120 120 120 120 120 130	%RPD	RPDLimit	Qual
Prep Date: 3/1/2022 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID: mb-65876	Analysis I Result 0.93 0.96 0.97 2.9 0.88 Samp ¹	Date: 3/ PQL 0.025 0.050 0.050 0.10 Type: ME h ID: 656	SPK value 1.000 1.000 3.000 1.000 BLK 876	SPK Ref Val 0 0 0 0 Tes F	%REC 93.5 96.3 96.8 96.5 88.5 tCode: EF	LowLimit 80 80 80 80 70 PA Method 5209	HighLimit 120 120 120 120 120 130	%RPD	RPDLimit	Qual
Prep Date: 3/1/2022 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID: mb-65876 Client ID: PBS	Analysis I Result 0.93 0.96 0.97 2.9 0.88 Samp Batc	Date: 3/ PQL 0.025 0.050 0.050 0.10 Type: ME h ID: 656	SPK value 1.000 1.000 3.000 1.000 3LK 376 2/2022	SPK Ref Val 0 0 0 0 Tes F	%REC 93.5 96.3 96.8 96.5 88.5 tCode: EF	LowLimit 80 80 80 80 70 PA Method 5209	HighLimit 120 120 120 120 120 130 8021B: Volat	%RPD	RPDLimit	Qual
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Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

	ex Resources S 31 Fed 9	Services	, Inc.								
Sample ID: 2203002-012a	ms Samp	Туре: М	6	Tes	tCode: El	ode: EPA Method 8021B: Volatiles					
Client ID: BH22-04 4'	Batc	h ID: 65	876	F	unNo: 8	6209					
Prep Date: 3/1/2022	Analysis I	Analysis Date: 3/2/2022 SeqNo: 3038665						g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.95	0.023	0.9381	0	102	80	120				
Toluene	0.99	0.047	0.9381	0	106	80	120				
Ethylbenzene	1.0	0.047	0.9381	0	108	80	120				
Xylenes, Total	3.0	0.094	2.814	0	108	80	120				
Surr: 4-Bromofluorobenzene	0.85		0.9381		90.4	70	130				
Sample ID: 2203002-012a	msd Samp	Туре: М	SD	Tes	tCode: El	PA Method	8021B: Volat	iles			
Client ID: BH22-04 4'	Batc	h ID: 65	876	F	lunNo: 8	6209					
Prep Date: 3/1/2022	Analysis [Date: 3/	2/2022	S	eqNo: 3	038666	Units: mg/k	g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.95	0.024	0.9461	0	100	80	120	0.578	20		
Toluene	0.98	0.047	0.9461	0	103	80	120	1.61	20		
Ethylbenzene	0.99	0.047	0.9461	0	105	80	120	1.96	20		
Xylenes, Total	3.0	0.095	2.838	0	105	80	120	2.03	20		
Surr: 4-Bromofluorobenzene	0.84		0.9461		89.3	70	130	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 Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 29 of 29

WO#: **2203002**

09-Mar-22

	YSIS Ratory) 05-345-39 te: clients	llbuquer 075 FAX	505-34	87109 5-4107	Sa	mple Log-In Chec	k List
Client Name:	Vertex Res Services, I		Work Orc	ler Numb	oer: 220	3002			RcptNo: 1	
Received By:	Tracy Cas	arrubias	3/1/2022 7:	50:00 Al	N					
Completed By:	Tracy Cas	arrubias	3/1/2022 8:	16:18 A	N					
Reviewed By:	JR3/1	122								
Chain of Cus	stody									
1. Is Chain of C	ustody comp	lete?			Yes		N	•	Not Present	
2. How was the	sample deliv	ered?			Cou	rier				
Log In 3 Was an attem	ant made to c	ool the samples?								
o. Was an allen	ipt made to t	ooi the samples?			Yes	\checkmark	N			
4. Were all sam	ples received	at a temperature	of >0° C to 6.	0°C	Yes		N	•		
5. Sample(s) in	proper contai	ner(s)?			Yes		N	b		
6. Sufficient sam	ple volume f	or indicated test(s))?		Yes		No			
7. Are samples (except VOA	and ONG) properly	y preserved?		Yes		No			
8. Was preserva	tive added to	bottles?			Yes		No		NA 🗌	
9. Received at le	ast 1 vial with	n headspace <1/4	" for AQ VOA	2	Yes		No			
		rs received broke			Yes					
									# of preserved bottles checked	/
11. Does paperwo (Note discrepa					Yes	\checkmark	No		for pH:	lana mata di
		ified on Chain of (Custody?		Yes	V	No		(<2 or >12 un Adjusted	less noted)
3. Is it clear what					Yes					-11
4. Were all holdir (If no, notify cu					Yes				Checked by: KPG	3/1/2
Special Handli										
		screpancies with t	his order?		Yes		No			
Person	Notified:			Date:	-			-		
By Who				Via:	□ eM:	ail 🗌	Phone	Fav	In Person	
Regardi Client In	ng: istructions:									
16. Additional rer	marks:									
17. Cooler Inform	mation									
Cooler No 1	Temp ºC 5.4	Condition Se Good Yes		al No	Seal D	ate	Signed	Ву		

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September 19, 2022

Kent Stallings Vertex Resources Services, Inc. 3101 Boyd Drive Carlsbad, NM 88220 TEL: (505) 506-0040 FAX:

OrderNo.: 2209219

Hall Environmental Analysis Laboratory

TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

RE: SDE 31 Federal 009

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 50 sample(s) on 9/7/2022 for the analyses presented in the following report.

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

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-12 0' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 9:20:00 AM Lab ID: 2209219-001 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/9/2022 10:04:00 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 9/9/2022 10:04:00 AM Surr: DNOP 90.6 21-129 %Rec 1 9/9/2022 10:04:00 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 8600 300 9/14/2022 7:36:13 AM mg/Kg 100 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 9/10/2022 12:44:03 AM Benzene 0.12 mg/Kg 5 Toluene ND 9/10/2022 12:44:03 AM 0.24 mg/Kg 5 Ethylbenzene ND 0.24 mg/Kg 5 9/10/2022 12:44:03 AM Xylenes, Total ND 0.48 mg/Kg 5 9/10/2022 12:44:03 AM Surr: 1,2-Dichloroethane-d4 99.8 70-130 %Rec 5 9/10/2022 12:44:03 AM Surr: 4-Bromofluorobenzene 102 70-130 %Rec 5 9/10/2022 12:44:03 AM Surr: Dibromofluoromethane 5 102 70-130 %Rec 9/10/2022 12:44:03 AM Surr: Toluene-d8 97.8 70-130 %Rec 5 9/10/2022 12:44:03 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND mg/Kg 5 9/10/2022 12:44:03 AM 24 Surr: BFB 97.3 70-130 %Rec 5 9/10/2022 12:44:03 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 1 of 65

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-12 2' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 9:55:00 AM Lab ID: 2209219-002 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 9/9/2022 10:14:38 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 9/9/2022 10:14:38 AM Surr: DNOP 92.0 21-129 %Rec 1 9/9/2022 10:14:38 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 7100 300 9/14/2022 7:48:38 AM mg/Kg 100 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 0.024 9/10/2022 1:10:57 AM Benzene mg/Kg 1 Toluene ND 9/10/2022 1:10:57 AM 0.048 mg/Kg 1 Ethylbenzene ND 0.048 mg/Kg 1 9/10/2022 1:10:57 AM Xylenes, Total ND 0.096 mg/Kg 1 9/10/2022 1:10:57 AM Surr: 1,2-Dichloroethane-d4 105 70-130 %Rec 9/10/2022 1:10:57 AM 1 Surr: 4-Bromofluorobenzene 96.9 70-130 %Rec 1 9/10/2022 1:10:57 AM Surr: Dibromofluoromethane 101 70-130 %Rec 1 9/10/2022 1:10:57 AM Surr: Toluene-d8 101 70-130 %Rec 1 9/10/2022 1:10:57 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 1:10:57 AM 48 1 Surr: BFB 98.1 70-130 %Rec 1 9/10/2022 1:10:57 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 2 of 65

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-12 2.5' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 10:00:00 AM Lab ID: 2209219-003 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 9/9/2022 10:25:13 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 9/9/2022 10:25:13 AM Surr: DNOP 92.5 21-129 %Rec 1 9/9/2022 10:25:13 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 6100 300 9/14/2022 8:01:03 AM mg/Kg 100 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 9/10/2022 1:37:52 AM Benzene 0.12 mg/Kg 5 Toluene ND 0.23 9/10/2022 1:37:52 AM mg/Kg 5 Ethylbenzene ND 0.23 mg/Kg 5 9/10/2022 1:37:52 AM Xylenes, Total ND 0.47 mg/Kg 5 9/10/2022 1:37:52 AM Surr: 1,2-Dichloroethane-d4 104 70-130 %Rec 5 9/10/2022 1:37:52 AM Surr: 4-Bromofluorobenzene 97.7 70-130 %Rec 5 9/10/2022 1:37:52 AM Surr: Dibromofluoromethane 5 70-130 %Rec 9/10/2022 1:37:52 AM 99.3 Surr: Toluene-d8 94.1 70-130 %Rec 5 9/10/2022 1:37:52 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND 23 mg/Kg 5 9/10/2022 1:37:52 AM Surr: BFB 90.0 70-130 %Rec 5 9/10/2022 1:37:52 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 3 of 65

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-13 0' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 10:35:00 AM Lab ID: 2209219-004 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) 5400 290 mg/Kg 20 9/8/2022 9:02:01 PM Motor Oil Range Organics (MRO) 2900 980 mg/Kg 20 9/8/2022 9:02:01 PM Surr: DNOP 21-129 S %Rec 20 9/8/2022 9:02:01 PM 0 **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 10000 600 9/14/2022 8:13:27 AM mg/Kg 200 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 9/10/2022 2:04:47 AM Benzene 0.12 mg/Kg 5 Toluene ND 9/10/2022 2:04:47 AM 0.24 mg/Kg 5 Ethylbenzene ND 0.24 mg/Kg 5 9/10/2022 2:04:47 AM Xylenes, Total ND 0.48 mg/Kg 5 9/10/2022 2:04:47 AM Surr: 1,2-Dichloroethane-d4 103 70-130 %Rec 5 9/10/2022 2:04:47 AM Surr: 4-Bromofluorobenzene 105 70-130 %Rec 5 9/10/2022 2:04:47 AM Surr: Dibromofluoromethane 5 70-130 %Rec 9/10/2022 2:04:47 AM 98.4 Surr: Toluene-d8 97.5 70-130 %Rec 5 9/10/2022 2:04:47 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) mg/Kg 5 9/10/2022 2:04:47 AM 35 24 Surr: BFB 99.7 70-130 %Rec 5 9/10/2022 2:04:47 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level Sample Diluted Due to Matrix

- D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-13 2' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 10:45:00 AM Lab ID: 2209219-005 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/8/2022 9:23:28 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 9/8/2022 9:23:28 PM Surr: DNOP 93.6 21-129 %Rec 1 9/8/2022 9:23:28 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 5100 150 9/14/2022 8:25:52 AM mg/Kg 50 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 0.025 9/10/2022 3:25:41 AM Benzene mg/Kg 1 Toluene ND 9/10/2022 3:25:41 AM 0.050 mg/Kg 1 Ethylbenzene ND 0.050 mg/Kg 1 9/10/2022 3:25:41 AM Xylenes, Total ND 0.099 mg/Kg 1 9/10/2022 3:25:41 AM Surr: 1,2-Dichloroethane-d4 98.3 70-130 %Rec 9/10/2022 3:25:41 AM 1 Surr: 4-Bromofluorobenzene 95.6 70-130 %Rec 1 9/10/2022 3:25:41 AM Surr: Dibromofluoromethane 70-130 %Rec 1 9/10/2022 3:25:41 AM 95.2 Surr: Toluene-d8 105 70-130 %Rec 1 9/10/2022 3:25:41 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 3:25:41 AM 5.0 1 Surr: BFB 101 70-130 %Rec 1 9/10/2022 3:25:41 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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SDE 31 Federal 009

2209219-006

Project:

Lab ID:

Analyses

Analytical Report Lab Order 2209219

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/19/2022 **CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH22-13 2.5' Collection Date: 9/3/2022 11:00:00 AM Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyst: DCH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS

EPA METHOD 8015M/D: DIESEL RANGE ORGAN	IICS				Analyst: DGH
Diesel Range Organics (DRO)	180	14	mg/Kg	1	9/10/2022 2:46:20 AM
Motor Oil Range Organics (MRO)	130	47	mg/Kg	1	9/10/2022 2:46:20 AM
Surr: DNOP	81.8	21-129	%Rec	1	9/10/2022 2:46:20 AM
EPA METHOD 300.0: ANIONS					Analyst: JTT
Chloride	7200	300	mg/Kg	100	9/14/2022 8:38:17 AM
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst: BRM
Benzene	ND	0.024	mg/Kg	1	9/10/2022 4:46:42 AM
Toluene	ND	0.049	mg/Kg	1	9/10/2022 4:46:42 AM
Ethylbenzene	ND	0.049	mg/Kg	1	9/10/2022 4:46:42 AM
Xylenes, Total	ND	0.098	mg/Kg	1	9/10/2022 4:46:42 AM
Surr: 1,2-Dichloroethane-d4	99.2	70-130	%Rec	1	9/10/2022 4:46:42 AM
Surr: 4-Bromofluorobenzene	93.5	70-130	%Rec	1	9/10/2022 4:46:42 AM
Surr: Dibromofluoromethane	97.2	70-130	%Rec	1	9/10/2022 4:46:42 AM
Surr: Toluene-d8	103	70-130	%Rec	1	9/10/2022 4:46:42 AM
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: BRM
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	9/10/2022 4:46:42 AM
Surr: BFB	101	70-130	%Rec	1	9/10/2022 4:46:42 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix interference S

Analyte detected in the associated Method Blank в

Е Estimated value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 6 of 65

*

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-14 0' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 11:00:00 AM Lab ID: 2209219-007 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/8/2022 9:44:56 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 9/8/2022 9:44:56 PM Surr: DNOP 96.6 21-129 %Rec 1 9/8/2022 9:44:56 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 77 60 9/13/2022 1:51:56 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 0.025 9/10/2022 5:13:36 AM Benzene mg/Kg 1 Toluene ND 9/10/2022 5:13:36 AM 0.050 mg/Kg 1 Ethylbenzene ND 0.050 mg/Kg 1 9/10/2022 5:13:36 AM Xylenes, Total ND 0.10 mg/Kg 1 9/10/2022 5:13:36 AM Surr: 1,2-Dichloroethane-d4 103 70-130 %Rec 9/10/2022 5:13:36 AM 1 Surr: 4-Bromofluorobenzene 92.7 70-130 %Rec 1 9/10/2022 5:13:36 AM Surr: Dibromofluoromethane 101 70-130 %Rec 1 9/10/2022 5:13:36 AM Surr: Toluene-d8 101 70-130 %Rec 1 9/10/2022 5:13:36 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 5:13:36 AM 5.0 1 Surr: BFB 95.0 70-130 %Rec 1 9/10/2022 5:13:36 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-14 2' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 11:25:00 AM Lab ID: 2209219-008 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/8/2022 9:55:41 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 9/8/2022 9:55:41 PM Surr: DNOP 94.4 21-129 %Rec 1 9/8/2022 9:55:41 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 880 61 9/13/2022 2:04:21 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 0.024 9/10/2022 5:40:32 AM Benzene mg/Kg 1 Toluene ND 9/10/2022 5:40:32 AM 0.048 mg/Kg 1 Ethylbenzene ND 0.048 mg/Kg 1 9/10/2022 5:40:32 AM Xylenes, Total ND 0.096 mg/Kg 1 9/10/2022 5:40:32 AM Surr: 1,2-Dichloroethane-d4 101 70-130 %Rec 9/10/2022 5:40:32 AM 1 Surr: 4-Bromofluorobenzene 97.2 70-130 %Rec 1 9/10/2022 5:40:32 AM Surr: Dibromofluoromethane 9/10/2022 5:40:32 AM 98.9 70-130 %Rec 1 Surr: Toluene-d8 100 70-130 %Rec 1 9/10/2022 5:40:32 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 5:40:32 AM 48 1 Surr: BFB 94.9 70-130 %Rec 1 9/10/2022 5:40:32 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-15 0' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 1:40:00 PM Lab ID: 2209219-009 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO)** ND 15 mg/Kg 1 9/8/2022 10:06:24 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 9/8/2022 10:06:24 PM Surr: DNOP 95.4 21-129 %Rec 1 9/8/2022 10:06:24 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride ND 60 9/13/2022 2:16:46 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 0.024 9/10/2022 6:07:34 AM Benzene mg/Kg 1 Toluene ND 9/10/2022 6:07:34 AM 0.048 mg/Kg 1 Ethylbenzene ND 0.048 mg/Kg 1 9/10/2022 6:07:34 AM Xylenes, Total ND 0.095 mg/Kg 1 9/10/2022 6:07:34 AM Surr: 1,2-Dichloroethane-d4 99.2 70-130 %Rec 9/10/2022 6:07:34 AM 1 Surr: 4-Bromofluorobenzene 93.1 70-130 %Rec 1 9/10/2022 6:07:34 AM Surr: Dibromofluoromethane 102 70-130 %Rec 1 9/10/2022 6:07:34 AM Surr: Toluene-d8 101 70-130 %Rec 1 9/10/2022 6:07:34 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 6:07:34 AM

93.8

48

70-130

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

Qualifiers:

Surr: BFB

Value exceeds Maximum Contaminant Level Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

POL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference в Analyte detected in the associated Method Blank

1

1

9/10/2022 6:07:34 AM

%Rec

E Estimated value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 9 of 65

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-15 2' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 1:45:00 PM Lab ID: 2209219-010 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/13/2022 7:14:19 PM Motor Oil Range Organics (MRO) ND 45 mg/Kg 1 9/13/2022 7:14:19 PM Surr: DNOP 78.7 21-129 %Rec 1 9/13/2022 7:14:19 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 1700 60 9/13/2022 2:29:10 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 0.025 9/10/2022 6:34:28 AM Benzene mg/Kg 1 Toluene ND 9/10/2022 6:34:28 AM 0.050 mg/Kg 1 Ethylbenzene ND 0.050 mg/Kg 1 9/10/2022 6:34:28 AM Xylenes, Total ND 0.099 mg/Kg 1 9/10/2022 6:34:28 AM Surr: 1,2-Dichloroethane-d4 70-130 %Rec 9/10/2022 6:34:28 AM 111 1 Surr: 4-Bromofluorobenzene 93.2 70-130 %Rec 1 9/10/2022 6:34:28 AM Surr: Dibromofluoromethane 106 70-130 %Rec 1 9/10/2022 6:34:28 AM Surr: Toluene-d8 101 70-130 %Rec 1 9/10/2022 6:34:28 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 6:34:28 AM 5.0 1 Surr: BFB 94.6 70-130 %Rec 1 9/10/2022 6:34:28 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-15 3' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 1:50:00 PM Lab ID: 2209219-011 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/8/2022 10:27:54 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 9/8/2022 10:27:54 PM Surr: DNOP 99.1 21-129 %Rec 1 9/8/2022 10:27:54 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 460 61 9/13/2022 2:41:35 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 0.024 9/10/2022 7:01:32 AM Benzene mg/Kg 1 Toluene ND 9/10/2022 7:01:32 AM 0.047 mg/Kg 1 Ethylbenzene ND 0.047 mg/Kg 1 9/10/2022 7:01:32 AM Xylenes, Total ND 0.095 mg/Kg 1 9/10/2022 7:01:32 AM Surr: 1,2-Dichloroethane-d4 101 70-130 %Rec 9/10/2022 7:01:32 AM 1 Surr: 4-Bromofluorobenzene 91.3 70-130 %Rec 1 9/10/2022 7:01:32 AM Surr: Dibromofluoromethane 100 70-130 %Rec 1 9/10/2022 7:01:32 AM Surr: Toluene-d8 101 70-130 %Rec 1 9/10/2022 7:01:32 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 7:01:32 AM 47 1 Surr: BFB 99.6 70-130 %Rec 1 9/10/2022 7:01:32 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Project:

Lab ID:

Analyses

Surr: DNOP

Analytical Report Lab Order 2209219

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/19/2022 **CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH22-16 0' SDE 31 Federal 009 Collection Date: 9/3/2022 1:55:00 PM 2209219-012 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) mg/Kg 9/8/2022 10:49:28 PM ND 15 1 Motor Oil Range Organics (MRO) ND 1 9/8/2022 10:49:28 PM 50 mg/Kg 102 21-129 %Rec 1 9/8/2022 10:49:28 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT

Chloride	ND	60	mg/Kg	20	9/13/2022 2:54:00 PM
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst: BRM
Benzene	ND	0.024	mg/Kg	1	9/10/2022 7:28:29 AM
Toluene	ND	0.049	mg/Kg	1	9/10/2022 7:28:29 AM
Ethylbenzene	ND	0.049	mg/Kg	1	9/10/2022 7:28:29 AM
Xylenes, Total	ND	0.098	mg/Kg	1	9/10/2022 7:28:29 AM
Surr: 1,2-Dichloroethane-d4	97.9	70-130	%Rec	1	9/10/2022 7:28:29 AM
Surr: 4-Bromofluorobenzene	97.5	70-130	%Rec	1	9/10/2022 7:28:29 AM
Surr: Dibromofluoromethane	96.7	70-130	%Rec	1	9/10/2022 7:28:29 AM
Surr: Toluene-d8	101	70-130	%Rec	1	9/10/2022 7:28:29 AM
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: BRM
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	9/10/2022 7:28:29 AM
Surr: BFB	101	70-130	%Rec	1	9/10/2022 7:28:29 AM

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

Qualifiers:

* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix interference S

Analyte detected in the associated Method Blank в

E Estimated value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 12 of 65

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-16 2' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 2:00:00 PM Lab ID: 2209219-013 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 9/8/2022 11:00:22 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 9/8/2022 11:00:22 PM Surr: DNOP 93.2 21-129 %Rec 1 9/8/2022 11:00:22 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 4800 300 9/14/2022 8:50:42 AM mg/Kg 100 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 9/10/2022 7:55:24 AM Benzene 0.12 mg/Kg 5 Toluene ND 9/10/2022 7:55:24 AM 0.24 mg/Kg 5 Ethylbenzene ND 0.24 mg/Kg 5 9/10/2022 7:55:24 AM Xylenes, Total ND 0.49 mg/Kg 5 9/10/2022 7:55:24 AM Surr: 1,2-Dichloroethane-d4 104 70-130 %Rec 5 9/10/2022 7:55:24 AM Surr: 4-Bromofluorobenzene 101 70-130 %Rec 5 9/10/2022 7:55:24 AM Surr: Dibromofluoromethane 5 102 70-130 %Rec 9/10/2022 7:55:24 AM Surr: Toluene-d8 101 70-130 %Rec 5 9/10/2022 7:55:24 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND mg/Kg 5 9/10/2022 7:55:24 AM 24 Surr: BFB 94.6 70-130 %Rec 5 9/10/2022 7:55:24 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-16 3' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 2:10:00 PM Lab ID: 2209219-014 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 9/8/2022 11:11:20 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 9/8/2022 11:11:20 PM Surr: DNOP 95.7 21-129 %Rec 1 9/8/2022 11:11:20 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 1900 60 9/13/2022 10:16:52 AM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM 0.024 9/10/2022 8:22:26 AM Benzene ND mg/Kg 1 Toluene ND 9/10/2022 8:22:26 AM 0.048 mg/Kg 1 Ethylbenzene ND 0.048 mg/Kg 1 9/10/2022 8:22:26 AM Xylenes, Total ND 0.097 mg/Kg 1 9/10/2022 8:22:26 AM Surr: 1,2-Dichloroethane-d4 106 70-130 %Rec 9/10/2022 8:22:26 AM 1 Surr: 4-Bromofluorobenzene 97.9 70-130 %Rec 1 9/10/2022 8:22:26 AM Surr: Dibromofluoromethane 102 70-130 %Rec 1 9/10/2022 8:22:26 AM Surr: Toluene-d8 101 70-130 %Rec 1 9/10/2022 8:22:26 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 8:22:26 AM 48 1 Surr: BFB 101 70-130 %Rec 1 9/10/2022 8:22:26 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-17 0' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 2:15:00 PM Lab ID: 2209219-015 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO)** ND 14 mg/Kg 1 9/8/2022 11:22:21 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 9/8/2022 11:22:21 PM Surr: DNOP 94.1 21-129 %Rec 1 9/8/2022 11:22:21 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride ND 60 9/13/2022 10:29:16 AM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 0.024 9/10/2022 8:49:23 AM Benzene mg/Kg 1 Toluene ND 9/10/2022 8:49:23 AM 0.047 mg/Kg 1 Ethylbenzene ND 0.047 mg/Kg 1 9/10/2022 8:49:23 AM Xylenes, Total ND 0.095 mg/Kg 1 9/10/2022 8:49:23 AM Surr: 1,2-Dichloroethane-d4 102 70-130 %Rec 9/10/2022 8:49:23 AM 1 Surr: 4-Bromofluorobenzene 99.7 70-130 %Rec 1 9/10/2022 8:49:23 AM Surr: Dibromofluoromethane 103 70-130 %Rec 1 9/10/2022 8:49:23 AM Surr: Toluene-d8 96.7 70-130 %Rec 1 9/10/2022 8:49:23 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 8:49:23 AM 47 1 Surr: BFB 93.5 70-130 %Rec 1 9/10/2022 8:49:23 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-17 2' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 2:20:00 PM Lab ID: 2209219-016 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 9/8/2022 11:33:23 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 9/8/2022 11:33:23 PM Surr: DNOP 94.5 21-129 %Rec 1 9/8/2022 11:33:23 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 2500 150 9/14/2022 9:03:07 AM mg/Kg 50 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 0.024 9/10/2022 9:16:21 AM Benzene mg/Kg 1 Toluene ND 9/10/2022 9:16:21 AM 0.049 mg/Kg 1 Ethylbenzene ND 0.049 mg/Kg 1 9/10/2022 9:16:21 AM Xylenes, Total ND 0.097 mg/Kg 1 9/10/2022 9:16:21 AM Surr: 1,2-Dichloroethane-d4 106 70-130 %Rec 9/10/2022 9:16:21 AM 1 Surr: 4-Bromofluorobenzene 95.4 70-130 %Rec 1 9/10/2022 9:16:21 AM Surr: Dibromofluoromethane 106 70-130 %Rec 1 9/10/2022 9:16:21 AM Surr: Toluene-d8 99.6 70-130 %Rec 1 9/10/2022 9:16:21 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 9:16:21 AM 49 1 Surr: BFB 93.6 70-130 %Rec 1 9/10/2022 9:16:21 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-17 4' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 2:35:00 PM Lab ID: 2209219-017 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 9/8/2022 11:44:27 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 9/8/2022 11:44:27 PM Surr: DNOP 99.2 21-129 %Rec 1 9/8/2022 11:44:27 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 2100 150 9/14/2022 9:15:31 AM mg/Kg 50 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 0.025 9/10/2022 9:43:28 AM Benzene mg/Kg 1 Toluene ND 9/10/2022 9:43:28 AM 0.049 mg/Kg 1 Ethylbenzene ND 0.049 mg/Kg 1 9/10/2022 9:43:28 AM Xylenes, Total ND 0.099 mg/Kg 1 9/10/2022 9:43:28 AM Surr: 1,2-Dichloroethane-d4 107 70-130 %Rec 9/10/2022 9:43:28 AM 1 Surr: 4-Bromofluorobenzene 97.6 70-130 %Rec 1 9/10/2022 9:43:28 AM Surr: Dibromofluoromethane 103 70-130 %Rec 1 9/10/2022 9:43:28 AM Surr: Toluene-d8 104 70-130 %Rec 1 9/10/2022 9:43:28 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 9:43:28 AM 49 1 Surr: BFB 95.2 70-130 %Rec 1 9/10/2022 9:43:28 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level Sample Diluted Due to Matrix

- D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-18 0' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 2:40:00 PM Lab ID: 2209219-018 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS **Diesel Range Organics (DRO)** ND 15 mg/Kg 1 9/8/2022 11:55:31 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 9/8/2022 11:55:31 PM Surr: DNOP 102 21-129 %Rec 1 9/8/2022 11:55:31 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 2400 60 9/13/2022 11:31:18 AM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 0.024 9/10/2022 12:52:24 PM Benzene mg/Kg 1 Toluene ND 9/10/2022 12:52:24 PM 0.049 mg/Kg 1 Ethylbenzene ND 0.049 mg/Kg 1 9/10/2022 12:52:24 PM Xylenes, Total ND 0.098 mg/Kg 1 9/10/2022 12:52:24 PM Surr: 1,2-Dichloroethane-d4 106 70-130 %Rec 9/10/2022 12:52:24 PM 1 Surr: 4-Bromofluorobenzene 96.6 70-130 %Rec 1 9/10/2022 12:52:24 PM Surr: Dibromofluoromethane 9/10/2022 12:52:24 PM 102 70-130 %Rec 1 Surr: Toluene-d8 102 70-130 %Rec 1 9/10/2022 12:52:24 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 12:52:24 PM 49 1 Surr: BFB 94.4 70-130 %Rec 1 9/10/2022 12:52:24 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-18 2' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 2:55:00 PM Lab ID: 2209219-019 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS **Diesel Range Organics (DRO)** ND 13 mg/Kg 1 9/9/2022 12:06:33 AM Motor Oil Range Organics (MRO) ND 43 mg/Kg 1 9/9/2022 12:06:33 AM Surr: DNOP 94.0 21-129 %Rec 1 9/9/2022 12:06:33 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 8800 600 9/14/2022 9:27:56 AM mg/Kg 200 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 0.024 9/10/2022 1:19:26 PM Benzene mg/Kg 1 Toluene ND 9/10/2022 1:19:26 PM 0.048 mg/Kg 1 Ethylbenzene ND 0.048 mg/Kg 1 9/10/2022 1:19:26 PM Xylenes, Total ND 0.096 mg/Kg 1 9/10/2022 1:19:26 PM Surr: 1,2-Dichloroethane-d4 101 70-130 %Rec 9/10/2022 1:19:26 PM 1 Surr: 4-Bromofluorobenzene 96.6 70-130 %Rec 1 9/10/2022 1:19:26 PM Surr: Dibromofluoromethane 102 70-130 %Rec 1 9/10/2022 1:19:26 PM Surr: Toluene-d8 102 70-130 %Rec 1 9/10/2022 1:19:26 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 1:19:26 PM 48 1 Surr: BFB 100 70-130 %Rec 1 9/10/2022 1:19:26 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-18 3' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 3:15:00 PM Lab ID: 2209219-020 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/9/2022 12:17:49 AM Motor Oil Range Organics (MRO) ND 45 mg/Kg 1 9/9/2022 12:17:49 AM Surr: DNOP 95.7 21-129 %Rec 1 9/9/2022 12:17:49 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 7400 300 9/14/2022 10:05:12 AM mg/Kg 100 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 0.024 9/10/2022 1:46:30 PM Benzene mg/Kg 1 Toluene ND 9/10/2022 1:46:30 PM 0.048 mg/Kg 1 Ethylbenzene ND 0.048 mg/Kg 1 9/10/2022 1:46:30 PM Xylenes, Total ND 0.096 mg/Kg 1 9/10/2022 1:46:30 PM Surr: 1,2-Dichloroethane-d4 100 70-130 %Rec 9/10/2022 1:46:30 PM 1 Surr: 4-Bromofluorobenzene 93.7 70-130 %Rec 1 9/10/2022 1:46:30 PM Surr: Dibromofluoromethane 100 70-130 %Rec 1 9/10/2022 1:46:30 PM Surr: Toluene-d8 103 70-130 %Rec 1 9/10/2022 1:46:30 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 1:46:30 PM 48 1 Surr: BFB 102 70-130 %Rec 1 9/10/2022 1:46:30 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-19 0' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 3:20:00 PM Lab ID: 2209219-021 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/9/2022 12:28:58 AM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 9/9/2022 12:28:58 AM Surr: DNOP 95.4 21-129 %Rec 1 9/9/2022 12:28:58 AM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride ND 60 9/13/2022 12:33:20 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 0.024 9/10/2022 2:13:35 PM Benzene mg/Kg 1 Toluene ND 9/10/2022 2:13:35 PM 0.048 mg/Kg 1 Ethylbenzene ND 0.048 mg/Kg 1 9/10/2022 2:13:35 PM Xylenes, Total ND 0.096 mg/Kg 1 9/10/2022 2:13:35 PM Surr: 1,2-Dichloroethane-d4 100 70-130 %Rec 9/10/2022 2:13:35 PM 1 Surr: 4-Bromofluorobenzene 93.3 70-130 %Rec 1 9/10/2022 2:13:35 PM Surr: Dibromofluoromethane 102 70-130 %Rec 1 9/10/2022 2:13:35 PM Surr: Toluene-d8 106 70-130 %Rec 1 9/10/2022 2:13:35 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 2:13:35 PM 48 1 Surr: BFB 97.3 70-130 %Rec 1 9/10/2022 2:13:35 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-19 2' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 3:40:00 PM Lab ID: 2209219-022 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 15 mg/Kg 1 9/9/2022 12:40:09 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 9/9/2022 12:40:09 AM Surr: DNOP 127 21-129 %Rec 1 9/9/2022 12:40:09 AM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 60 9/13/2022 12:45:44 PM 180 mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 0.025 9/10/2022 2:40:41 PM Benzene mg/Kg 1 Toluene ND 9/10/2022 2:40:41 PM 0.050 mg/Kg 1 Ethylbenzene ND 0.050 mg/Kg 1 9/10/2022 2:40:41 PM Xylenes, Total ND 0.10 mg/Kg 1 9/10/2022 2:40:41 PM Surr: 1,2-Dichloroethane-d4 94.3 70-130 %Rec 9/10/2022 2:40:41 PM 1 Surr: 4-Bromofluorobenzene 93.9 70-130 %Rec 1 9/10/2022 2:40:41 PM Surr: Dibromofluoromethane 9/10/2022 2:40:41 PM 70-130 %Rec 1 98.4 Surr: Toluene-d8 106 70-130 %Rec 1 9/10/2022 2:40:41 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 2:40:41 PM 5.0 1 Surr: BFB 101 70-130 %Rec 1 9/10/2022 2:40:41 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-19 4' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 3:45:00 PM Lab ID: 2209219-023 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/9/2022 12:51:21 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 9/9/2022 12:51:21 AM Surr: DNOP 120 21-129 %Rec 1 9/9/2022 12:51:21 AM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 330 60 9/13/2022 12:58:08 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: BRM ND 0.024 9/10/2022 3:07:48 PM Benzene mg/Kg 1 Toluene ND 9/10/2022 3:07:48 PM 0.048 mg/Kg 1 Ethylbenzene ND 0.048 mg/Kg 1 9/10/2022 3:07:48 PM Xylenes, Total ND 0.096 mg/Kg 1 9/10/2022 3:07:48 PM Surr: 1,2-Dichloroethane-d4 100 70-130 %Rec 9/10/2022 3:07:48 PM 1 Surr: 4-Bromofluorobenzene 97.1 70-130 %Rec 1 9/10/2022 3:07:48 PM Surr: Dibromofluoromethane 107 70-130 %Rec 1 9/10/2022 3:07:48 PM Surr: Toluene-d8 107 70-130 %Rec 1 9/10/2022 3:07:48 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 3:07:48 PM 48 1 Surr: BFB 94.5 70-130 %Rec 1 9/10/2022 3:07:48 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level Sample Diluted Due to Matrix

- D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-20 0 **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 3:30:00 PM Lab ID: 2209219-024 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO)** ND 14 mg/Kg 1 9/8/2022 11:23:22 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 9/8/2022 11:23:22 AM Surr: DNOP 88.0 21-129 %Rec 1 9/8/2022 11:23:22 AM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 60 9/13/2022 1:10:33 PM 96 mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR 0.024 9/9/2022 1:05:01 PM Benzene ND mg/Kg 1 Toluene ND 9/9/2022 1:05:01 PM 0.048 mg/Kg 1 Ethylbenzene ND 0.048 mg/Kg 1 9/9/2022 1:05:01 PM Xylenes, Total ND 0.096 mg/Kg 1 9/9/2022 1:05:01 PM Surr: 1,2-Dichloroethane-d4 104 70-130 %Rec 9/9/2022 1:05:01 PM 1 Surr: 4-Bromofluorobenzene 101 70-130 %Rec 1 9/9/2022 1:05:01 PM Surr: Dibromofluoromethane 70-130 %Rec 1 9/9/2022 1:05:01 PM 116 Surr: Toluene-d8 102 70-130 %Rec 1 9/9/2022 1:05:01 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/9/2022 1:05:01 PM 48 1 Surr: BFB 114 70-130 %Rec 1 9/9/2022 1:05:01 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded ND

Not Detected at the Reporting Limit POL

Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference в Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 24 of 65

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-01 3' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 11:40:00 AM Lab ID: 2209219-025 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 9/8/2022 12:34:52 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 9/8/2022 12:34:52 PM Surr: DNOP 88.0 21-129 %Rec 1 9/8/2022 12:34:52 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 5300 300 9/14/2022 10:17:37 AM mg/Kg 100 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR ND 0.024 9/9/2022 2:30:48 PM Benzene mg/Kg 1 Toluene ND 9/9/2022 2:30:48 PM 0.049 mg/Kg 1 Ethylbenzene ND 0.049 mg/Kg 1 9/9/2022 2:30:48 PM Xylenes, Total ND 0.097 mg/Kg 1 9/9/2022 2:30:48 PM Surr: 1,2-Dichloroethane-d4 100 70-130 %Rec 9/9/2022 2:30:48 PM 1 Surr: 4-Bromofluorobenzene 101 70-130 %Rec 1 9/9/2022 2:30:48 PM Surr: Dibromofluoromethane 70-130 %Rec 1 9/9/2022 2:30:48 PM 116 Surr: Toluene-d8 105 70-130 %Rec 1 9/9/2022 2:30:48 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/9/2022 2:30:48 PM 49 1 Surr: BFB 119 70-130 %Rec 1 9/9/2022 2:30:48 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-08 2' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 8:55:00 AM Lab ID: 2209219-026 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO)** ND 15 mg/Kg 1 9/8/2022 12:58:39 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 9/8/2022 12:58:39 PM Surr: DNOP 21-129 %Rec 1 9/8/2022 12:58:39 PM 112 **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 350 60 9/13/2022 1:35:22 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR ND 0.024 9/9/2022 3:56:37 PM Benzene mg/Kg 1 Toluene ND 9/9/2022 3:56:37 PM 0.048 mg/Kg 1 Ethylbenzene ND 0.048 mg/Kg 1 9/9/2022 3:56:37 PM Xylenes, Total ND 0.096 mg/Kg 1 9/9/2022 3:56:37 PM Surr: 1,2-Dichloroethane-d4 101 70-130 %Rec 9/9/2022 3:56:37 PM 1 Surr: 4-Bromofluorobenzene 105 70-130 %Rec 1 9/9/2022 3:56:37 PM Surr: Dibromofluoromethane 122 70-130 %Rec 1 9/9/2022 3:56:37 PM Surr: Toluene-d8 104 70-130 %Rec 1 9/9/2022 3:56:37 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/9/2022 3:56:37 PM 48 1 Surr: BFB 119 70-130 %Rec 1 9/9/2022 3:56:37 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-08 2.5' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 9:20:00 AM Lab ID: 2209219-027 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO)** ND 14 mg/Kg 1 9/8/2022 1:22:25 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 9/8/2022 1:22:25 PM Surr: DNOP 123 21-129 %Rec 1 9/8/2022 1:22:25 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 750 60 9/13/2022 2:37:24 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR ND 0.025 9/9/2022 4:25:10 PM Benzene mg/Kg 1 Toluene ND 9/9/2022 4:25:10 PM 0.050 mg/Kg 1 Ethylbenzene ND 0.050 mg/Kg 1 9/9/2022 4:25:10 PM Xylenes, Total ND 0.10 mg/Kg 1 9/9/2022 4:25:10 PM Surr: 1,2-Dichloroethane-d4 99.7 70-130 %Rec 9/9/2022 4:25:10 PM 1 Surr: 4-Bromofluorobenzene 101 70-130 %Rec 1 9/9/2022 4:25:10 PM 9/9/2022 4:25:10 PM Surr: Dibromofluoromethane 70-130 %Rec 1 114 Surr: Toluene-d8 102 70-130 %Rec 1 9/9/2022 4:25:10 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/9/2022 4:25:10 PM 5.0 1 Surr: BFB 118 70-130 %Rec 1 9/9/2022 4:25:10 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-09 0' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 10:25:00 AM Lab ID: 2209219-028 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 15 mg/Kg 1 9/8/2022 1:46:12 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 9/8/2022 1:46:12 PM Surr: DNOP 84.9 21-129 %Rec 1 9/8/2022 1:46:12 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 78 59 9/13/2022 2:49:48 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR 0.023 9/9/2022 4:53:43 PM Benzene ND mg/Kg 1 Toluene ND 9/9/2022 4:53:43 PM 0.047 mg/Kg 1 Ethylbenzene ND 0.047 mg/Kg 1 9/9/2022 4:53:43 PM Xylenes, Total ND 0.093 mg/Kg 1 9/9/2022 4:53:43 PM Surr: 1,2-Dichloroethane-d4 101 70-130 %Rec 9/9/2022 4:53:43 PM 1 Surr: 4-Bromofluorobenzene 104 70-130 %Rec 1 9/9/2022 4:53:43 PM Surr: Dibromofluoromethane 9/9/2022 4:53:43 PM 70-130 %Rec 1 116 Surr: Toluene-d8 101 70-130 %Rec 1 9/9/2022 4:53:43 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/9/2022 4:53:43 PM 47 1 Surr: BFB 118 70-130 %Rec 1 9/9/2022 4:53:43 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-09 2' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 10:35:00 AM Lab ID: 2209219-029 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 9/8/2022 2:57:30 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 9/8/2022 2:57:30 PM Surr: DNOP 90.7 21-129 %Rec 1 9/8/2022 2:57:30 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 4500 150 9/14/2022 10:30:01 AM mg/Kg 50 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR ND 0.024 9/9/2022 5:22:17 PM Benzene mg/Kg 1 Toluene ND 9/9/2022 5:22:17 PM 0.047 mg/Kg 1 Ethylbenzene ND 0.047 mg/Kg 1 9/9/2022 5:22:17 PM Xylenes, Total ND 0.094 mg/Kg 1 9/9/2022 5:22:17 PM Surr: 1,2-Dichloroethane-d4 95.9 70-130 %Rec 9/9/2022 5:22:17 PM 1 Surr: 4-Bromofluorobenzene 98.3 70-130 %Rec 1 9/9/2022 5:22:17 PM Surr: Dibromofluoromethane 9/9/2022 5:22:17 PM 109 70-130 %Rec 1 Surr: Toluene-d8 101 70-130 %Rec 1 9/9/2022 5:22:17 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/9/2022 5:22:17 PM 47 1 Surr: BFB 116 70-130 %Rec 1 9/9/2022 5:22:17 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-09 3.5' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 11:00:00 AM Lab ID: 2209219-030 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 9/8/2022 3:21:14 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 9/8/2022 3:21:14 PM Surr: DNOP 92.6 21-129 %Rec 1 9/8/2022 3:21:14 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 1100 60 9/13/2022 3:14:36 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR ND 0.024 9/9/2022 5:50:52 PM Benzene mg/Kg 1 Toluene ND 9/9/2022 5:50:52 PM 0.049 mg/Kg 1 Ethylbenzene ND 0.049 mg/Kg 1 9/9/2022 5:50:52 PM Xylenes, Total ND 0.098 mg/Kg 1 9/9/2022 5:50:52 PM Surr: 1,2-Dichloroethane-d4 100 70-130 %Rec 9/9/2022 5:50:52 PM 1 Surr: 4-Bromofluorobenzene 105 70-130 %Rec 1 9/9/2022 5:50:52 PM Surr: Dibromofluoromethane 70-130 %Rec 1 9/9/2022 5:50:52 PM 115 Surr: Toluene-d8 103 70-130 %Rec 1 9/9/2022 5:50:52 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/9/2022 5:50:52 PM 49 1 Surr: BFB 118 70-130 %Rec 1 9/9/2022 5:50:52 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-10 0' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 11:10:00 AM Lab ID: 2209219-031 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/8/2022 4:08:46 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 9/8/2022 4:08:46 PM Surr: DNOP 91.9 21-129 %Rec 1 9/8/2022 4:08:46 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride ND 60 9/13/2022 3:27:00 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR ND 0.024 9/9/2022 6:19:26 PM Benzene mg/Kg 1 Toluene ND 9/9/2022 6:19:26 PM 0.048 mg/Kg 1 Ethylbenzene ND 0.048 mg/Kg 1 9/9/2022 6:19:26 PM Xylenes, Total ND 0.096 mg/Kg 1 9/9/2022 6:19:26 PM Surr: 1,2-Dichloroethane-d4 104 70-130 %Rec 9/9/2022 6:19:26 PM 1 Surr: 4-Bromofluorobenzene 104 70-130 %Rec 1 9/9/2022 6:19:26 PM Surr: Dibromofluoromethane 119 70-130 %Rec 1 9/9/2022 6:19:26 PM Surr: Toluene-d8 102 70-130 %Rec 1 9/9/2022 6:19:26 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/9/2022 6:19:26 PM 48 1 Surr: BFB 117 70-130 %Rec 1 9/9/2022 6:19:26 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-10 2' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 11:20:00 AM Lab ID: 2209219-032 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 9/8/2022 4:32:35 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 9/8/2022 4:32:35 PM Surr: DNOP 21-129 %Rec 1 9/8/2022 4:32:35 PM 127 **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 2300 60 9/13/2022 3:39:25 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR ND 0.023 9/9/2022 6:47:58 PM Benzene mg/Kg 1 Toluene ND 9/9/2022 6:47:58 PM 0.046 mg/Kg 1 Ethylbenzene ND 0.046 mg/Kg 1 9/9/2022 6:47:58 PM Xylenes, Total ND 0.091 mg/Kg 1 9/9/2022 6:47:58 PM Surr: 1,2-Dichloroethane-d4 97.7 70-130 %Rec 9/9/2022 6:47:58 PM 1 Surr: 4-Bromofluorobenzene 104 70-130 %Rec 1 9/9/2022 6:47:58 PM Surr: Dibromofluoromethane 70-130 %Rec 1 9/9/2022 6:47:58 PM 111 Surr: Toluene-d8 101 70-130 %Rec 1 9/9/2022 6:47:58 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/9/2022 6:47:58 PM 46 1 Surr: BFB 116 70-130 %Rec 1 9/9/2022 6:47:58 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

- D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-10 2.5' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 11:25:00 AM Lab ID: 2209219-033 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/8/2022 4:56:21 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 9/8/2022 4:56:21 PM Surr: DNOP 93.5 21-129 %Rec 1 9/8/2022 4:56:21 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 1900 60 9/13/2022 4:16:39 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR 0.024 9/9/2022 7:16:29 PM Benzene ND mg/Kg 1 Toluene ND 9/9/2022 7:16:29 PM 0.047 mg/Kg 1 Ethylbenzene ND 0.047 mg/Kg 1 9/9/2022 7:16:29 PM Xylenes, Total ND 0.095 mg/Kg 1 9/9/2022 7:16:29 PM Surr: 1,2-Dichloroethane-d4 104 70-130 %Rec 9/9/2022 7:16:29 PM 1 Surr: 4-Bromofluorobenzene 103 70-130 %Rec 1 9/9/2022 7:16:29 PM Surr: Dibromofluoromethane 70-130 %Rec 1 9/9/2022 7:16:29 PM 117 Surr: Toluene-d8 102 70-130 %Rec 1 9/9/2022 7:16:29 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/9/2022 7:16:29 PM 47 1 Surr: BFB 116 70-130 %Rec 1 9/9/2022 7:16:29 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Released to Imaging: 4/4/2024 9:37:02 AM

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-11 0' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 9:05:00 AM Lab ID: 2209219-034 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO)** ND 15 mg/Kg 1 9/8/2022 5:20:03 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 9/8/2022 5:20:03 PM Surr: DNOP 94.2 21-129 %Rec 1 9/8/2022 5:20:03 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 2500 150 9/14/2022 10:42:26 AM mg/Kg 50 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR ND 0.025 9/9/2022 7:45:01 PM Benzene mg/Kg 1 Toluene ND 9/9/2022 7:45:01 PM 0.049 mg/Kg 1 Ethylbenzene ND 0.049 mg/Kg 1 9/9/2022 7:45:01 PM Xylenes, Total ND 0.099 mg/Kg 1 9/9/2022 7:45:01 PM Surr: 1,2-Dichloroethane-d4 103 70-130 %Rec 9/9/2022 7:45:01 PM 1 Surr: 4-Bromofluorobenzene 101 70-130 %Rec 1 9/9/2022 7:45:01 PM Surr: Dibromofluoromethane 70-130 %Rec 1 9/9/2022 7:45:01 PM 117 Surr: Toluene-d8 100 70-130 %Rec 1 9/9/2022 7:45:01 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/9/2022 7:45:01 PM 49 1 Surr: BFB 115 70-130 %Rec 1 9/9/2022 7:45:01 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-11 2' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 9:15:00 AM Lab ID: 2209219-035 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 9/8/2022 5:43:53 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 9/8/2022 5:43:53 PM Surr: DNOP 91.7 21-129 %Rec 1 9/8/2022 5:43:53 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 11000 600 9/14/2022 10:54:51 AM mg/Kg 200 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR ND 0.024 9/9/2022 8:13:31 PM Benzene mg/Kg 1 Toluene ND 9/9/2022 8:13:31 PM 0.048 mg/Kg 1 Ethylbenzene ND 0.048 mg/Kg 1 9/9/2022 8:13:31 PM Xylenes, Total ND 0.096 mg/Kg 1 9/9/2022 8:13:31 PM Surr: 1,2-Dichloroethane-d4 99.9 70-130 %Rec 9/9/2022 8:13:31 PM 1 Surr: 4-Bromofluorobenzene 103 70-130 %Rec 1 9/9/2022 8:13:31 PM Surr: Dibromofluoromethane 70-130 %Rec 1 9/9/2022 8:13:31 PM 113 Surr: Toluene-d8 101 70-130 %Rec 1 9/9/2022 8:13:31 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/9/2022 8:13:31 PM 48 1 Surr: BFB 116 70-130 %Rec 1 9/9/2022 8:13:31 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level Sample Diluted Due to Matrix

D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-11 2.5' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 10:10:00 AM Lab ID: 2209219-036 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 9/8/2022 6:07:46 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 9/8/2022 6:07:46 PM Surr: DNOP 91.8 21-129 %Rec 1 9/8/2022 6:07:46 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 7200 300 9/14/2022 11:07:16 AM mg/Kg 100 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR 0.024 9/9/2022 8:42:00 PM Benzene ND mg/Kg 1 Toluene ND 9/9/2022 8:42:00 PM 0.048 mg/Kg 1 Ethylbenzene ND 0.048 mg/Kg 1 9/9/2022 8:42:00 PM Xylenes, Total ND 0.097 mg/Kg 1 9/9/2022 8:42:00 PM Surr: 1,2-Dichloroethane-d4 100 70-130 %Rec 9/9/2022 8:42:00 PM 1 Surr: 4-Bromofluorobenzene 100 70-130 %Rec 1 9/9/2022 8:42:00 PM Surr: Dibromofluoromethane 70-130 %Rec 1 9/9/2022 8:42:00 PM 112 Surr: Toluene-d8 102 70-130 %Rec 1 9/9/2022 8:42:00 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/9/2022 8:42:00 PM 48 1 Surr: BFB 117 70-130 %Rec 1 9/9/2022 8:42:00 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-20 2' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 3:35:00 PM Lab ID: 2209219-037 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO)** ND 14 mg/Kg 1 9/8/2022 6:31:34 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 9/8/2022 6:31:34 PM Surr: DNOP 99.4 21-129 %Rec 1 9/8/2022 6:31:34 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 300 60 9/13/2022 5:31:05 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR ND 0.024 9/9/2022 9:10:27 PM Benzene mg/Kg 1 Toluene ND 9/9/2022 9:10:27 PM 0.049 mg/Kg 1 Ethylbenzene ND 0.049 mg/Kg 1 9/9/2022 9:10:27 PM Xylenes, Total ND 0.098 mg/Kg 1 9/9/2022 9:10:27 PM Surr: 1,2-Dichloroethane-d4 98.6 70-130 %Rec 9/9/2022 9:10:27 PM 1 Surr: 4-Bromofluorobenzene 104 70-130 %Rec 1 9/9/2022 9:10:27 PM Surr: Dibromofluoromethane 70-130 %Rec 1 9/9/2022 9:10:27 PM 113 Surr: Toluene-d8 102 70-130 %Rec 1 9/9/2022 9:10:27 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/9/2022 9:10:27 PM 49 1 Surr: BFB 116 70-130 %Rec 1 9/9/2022 9:10:27 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-20 3.5' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 3:45:00 PM Lab ID: 2209219-038 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 9/8/2022 6:55:20 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 9/8/2022 6:55:20 PM Surr: DNOP 106 21-129 %Rec 1 9/8/2022 6:55:20 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 1500 60 9/13/2022 5:43:29 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR ND 0.025 9/9/2022 9:38:55 PM Benzene mg/Kg 1 Toluene ND 9/9/2022 9:38:55 PM 0.049 mg/Kg 1 Ethylbenzene ND 0.049 mg/Kg 1 9/9/2022 9:38:55 PM Xylenes, Total ND 0.098 mg/Kg 1 9/9/2022 9:38:55 PM Surr: 1,2-Dichloroethane-d4 101 70-130 %Rec 9/9/2022 9:38:55 PM 1 Surr: 4-Bromofluorobenzene 105 70-130 %Rec 1 9/9/2022 9:38:55 PM Surr: Dibromofluoromethane 70-130 %Rec 1 9/9/2022 9:38:55 PM 112 Surr: Toluene-d8 102 70-130 %Rec 1 9/9/2022 9:38:55 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/9/2022 9:38:55 PM 49 1 Surr: BFB 117 70-130 %Rec 1 9/9/2022 9:38:55 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-21 0 **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 3:50:00 PM Lab ID: 2209219-039 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 9/8/2022 7:19:10 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 9/8/2022 7:19:10 PM Surr: DNOP 97.1 21-129 %Rec 1 9/8/2022 7:19:10 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 8900 600 9/14/2022 11:19:40 AM mg/Kg 200 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR ND 0.023 9/10/2022 12:30:06 AM Benzene mg/Kg 1 Toluene ND 9/10/2022 12:30:06 AM 0.047 mg/Kg 1 Ethylbenzene ND 0.047 mg/Kg 1 9/10/2022 12:30:06 AM Xylenes, Total ND 0.094 mg/Kg 1 9/10/2022 12:30:06 AM Surr: 1,2-Dichloroethane-d4 97.6 70-130 %Rec 9/10/2022 12:30:06 AM 1 Surr: 4-Bromofluorobenzene 103 70-130 %Rec 1 9/10/2022 12:30:06 AM Surr: Dibromofluoromethane 9/10/2022 12:30:06 AM 70-130 %Rec 1 114 Surr: Toluene-d8 99.2 70-130 %Rec 1 9/10/2022 12:30:06 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 12:30:06 AM 47 1 Surr: BFB 116 70-130 %Rec 1 9/10/2022 12:30:06 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level Sample Diluted Due to Matrix

- D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-21 2' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 4:00:00 PM Lab ID: 2209219-040 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 9/8/2022 7:42:53 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 9/8/2022 7:42:53 PM Surr: DNOP 96.7 21-129 %Rec 1 9/8/2022 7:42:53 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 5300 300 9/14/2022 11:32:05 AM mg/Kg 100 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR ND 0.024 9/10/2022 12:58:38 AM Benzene mg/Kg 1 Toluene ND 9/10/2022 12:58:38 AM 0.048 mg/Kg 1 Ethylbenzene ND 0.048 mg/Kg 1 9/10/2022 12:58:38 AM Xylenes, Total ND 0.097 mg/Kg 1 9/10/2022 12:58:38 AM Surr: 1,2-Dichloroethane-d4 102 70-130 %Rec 9/10/2022 12:58:38 AM 1 Surr: 4-Bromofluorobenzene 103 70-130 %Rec 1 9/10/2022 12:58:38 AM Surr: Dibromofluoromethane 70-130 %Rec 1 9/10/2022 12:58:38 AM 110 Surr: Toluene-d8 101 70-130 %Rec 1 9/10/2022 12:58:38 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 12:58:38 AM 48 1 Surr: BFB 117 70-130 %Rec 1 9/10/2022 12:58:38 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-21 3' **Project:** SDE 31 Federal 009 Collection Date: 9/3/2022 4:05:00 PM Lab ID: 2209219-041 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 9/8/2022 8:06:39 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 9/8/2022 8:06:39 PM Surr: DNOP 94.7 21-129 %Rec 1 9/8/2022 8:06:39 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 6700 300 9/14/2022 11:44:30 AM mg/Kg 100 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR ND 0.024 9/10/2022 1:27:11 AM Benzene mg/Kg 1 Toluene ND 9/10/2022 1:27:11 AM 0.048 mg/Kg 1 Ethylbenzene ND 0.048 mg/Kg 1 9/10/2022 1:27:11 AM Xylenes, Total ND 0.096 mg/Kg 1 9/10/2022 1:27:11 AM Surr: 1,2-Dichloroethane-d4 100 70-130 %Rec 9/10/2022 1:27:11 AM 1 Surr: 4-Bromofluorobenzene 102 70-130 %Rec 1 9/10/2022 1:27:11 AM Surr: Dibromofluoromethane 70-130 %Rec 1 9/10/2022 1:27:11 AM 114 Surr: Toluene-d8 104 70-130 %Rec 1 9/10/2022 1:27:11 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 1:27:11 AM 48 1 Surr: BFB 120 70-130 %Rec 1 9/10/2022 1:27:11 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-22 0' **Project:** SDE 31 Federal 009 Collection Date: 9/4/2022 2:20:00 PM Lab ID: 2209219-042 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/8/2022 8:30:28 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 9/8/2022 8:30:28 PM Surr: DNOP 96.2 21-129 %Rec 1 9/8/2022 8:30:28 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride ND 60 9/13/2022 6:57:55 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR ND 0.024 9/10/2022 1:55:44 AM Benzene mg/Kg 1 Toluene ND 9/10/2022 1:55:44 AM 0.047 mg/Kg 1 Ethylbenzene ND 0.047 mg/Kg 1 9/10/2022 1:55:44 AM Xylenes, Total ND 0.094 mg/Kg 1 9/10/2022 1:55:44 AM Surr: 1,2-Dichloroethane-d4 103 70-130 %Rec 9/10/2022 1:55:44 AM 1 Surr: 4-Bromofluorobenzene 102 70-130 %Rec 1 9/10/2022 1:55:44 AM Surr: Dibromofluoromethane 70-130 %Rec 1 9/10/2022 1:55:44 AM 111 Surr: Toluene-d8 102 70-130 %Rec 1 9/10/2022 1:55:44 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 1:55:44 AM 47 1 Surr: BFB 115 70-130 %Rec 1 9/10/2022 1:55:44 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-22 2' **Project:** SDE 31 Federal 009 Collection Date: 9/4/2022 2:30:00 PM Lab ID: 2209219-043 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO)** ND 14 mg/Kg 1 9/8/2022 8:54:23 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 9/8/2022 8:54:23 PM Surr: DNOP 101 21-129 %Rec 1 9/8/2022 8:54:23 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 66 60 9/13/2022 7:35:08 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JR 0.024 9/10/2022 2:24:16 AM Benzene ND mg/Kg 1 Toluene ND 9/10/2022 2:24:16 AM 0.049 mg/Kg 1 Ethylbenzene ND 0.049 mg/Kg 1 9/10/2022 2:24:16 AM Xylenes, Total ND 0.097 mg/Kg 1 9/10/2022 2:24:16 AM Surr: 1,2-Dichloroethane-d4 102 70-130 %Rec 9/10/2022 2:24:16 AM 1 Surr: 4-Bromofluorobenzene 102 70-130 %Rec 1 9/10/2022 2:24:16 AM Surr: Dibromofluoromethane 70-130 %Rec 1 9/10/2022 2:24:16 AM 115 Surr: Toluene-d8 102 70-130 %Rec 1 9/10/2022 2:24:16 AM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JR Gasoline Range Organics (GRO) ND mg/Kg 9/10/2022 2:24:16 AM 49 1 Surr: BFB 120 70-130 %Rec 1 9/10/2022 2:24:16 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level
 Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-22 4' **Project:** SDE 31 Federal 009 Collection Date: 9/4/2022 2:40:00 PM Lab ID: 2209219-044 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/9/2022 10:21:31 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 9/9/2022 10:21:31 PM Surr: DNOP 87.5 21-129 %Rec 1 9/9/2022 10:21:31 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 9/9/2022 9:20:35 PM 4.9 mg/Kg 1 Surr: BFB 99.6 37.7-212 %Rec 1 9/9/2022 9:20:35 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 0.025 9/9/2022 9:20:35 PM mg/Kg 1 Toluene ND 0.049 mg/Kg 1 9/9/2022 9:20:35 PM Ethylbenzene ND 0.049 mg/Kg 1 9/9/2022 9:20:35 PM Xylenes, Total ND 0.098 mg/Kg 1 9/9/2022 9:20:35 PM Surr: 4-Bromofluorobenzene 93.6 70-130 %Rec 1 9/9/2022 9:20:35 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride 9/13/2022 7:47:33 PM 500 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-23 0 **Project:** SDE 31 Federal 009 Collection Date: 9/4/2022 2:45:00 PM Lab ID: 2209219-045 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 9/9/2022 10:53:57 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 9/9/2022 10:53:57 PM Surr: DNOP 87.3 21-129 %Rec 1 9/9/2022 10:53:57 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 9/9/2022 10:30:55 PM 5.0 mg/Kg 1 Surr: BFB 98.4 37.7-212 %Rec 1 9/9/2022 10:30:55 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 0.025 9/9/2022 10:30:55 PM mg/Kg 1 Toluene ND 0.050 mg/Kg 1 9/9/2022 10:30:55 PM Ethylbenzene ND 0.050 mg/Kg 1 9/9/2022 10:30:55 PM Xylenes, Total ND mg/Kg 1 9/9/2022 10:30:55 PM 0.10 Surr: 4-Bromofluorobenzene 92.5 70-130 %Rec 1 9/9/2022 10:30:55 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride 9/13/2022 7:59:57 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-23 2' **Project:** SDE 31 Federal 009 Collection Date: 9/4/2022 2:50:00 PM Lab ID: 2209219-046 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 13 mg/Kg 1 9/9/2022 11:04:52 PM Motor Oil Range Organics (MRO) ND 43 mg/Kg 1 9/9/2022 11:04:52 PM Surr: DNOP 21-129 %Rec 1 9/9/2022 11:04:52 PM 116 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 9/9/2022 11:41:15 PM 4.9 mg/Kg 1 Surr: BFB 99.4 37.7-212 %Rec 1 9/9/2022 11:41:15 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 0.025 9/9/2022 11:41:15 PM mg/Kg 1 Toluene ND 0.049 mg/Kg 1 9/9/2022 11:41:15 PM Ethylbenzene ND 0.049 mg/Kg 1 9/9/2022 11:41:15 PM Xylenes, Total ND 0.098 mg/Kg 1 9/9/2022 11:41:15 PM Surr: 4-Bromofluorobenzene 94.2 70-130 %Rec 1 9/9/2022 11:41:15 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride 9/13/2022 8:12:22 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

POL

Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference в Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 46 of 65

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-23 3.5' **Project:** SDE 31 Federal 009 Collection Date: 9/4/2022 2:55:00 PM Lab ID: 2209219-047 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/9/2022 11:15:47 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 9/9/2022 11:15:47 PM Surr: DNOP 88.4 21-129 %Rec 1 9/9/2022 11:15:47 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 9/10/2022 12:04:39 AM 5.0 mg/Kg 1 Surr: BFB 96.6 37.7-212 %Rec 1 9/10/2022 12:04:39 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 0.025 9/10/2022 12:04:39 AM mg/Kg 1 Toluene ND 0.050 mg/Kg 1 9/10/2022 12:04:39 AM Ethylbenzene ND 0.050 mg/Kg 1 9/10/2022 12:04:39 AM Xylenes, Total ND mg/Kg 1 9/10/2022 12:04:39 AM 0.10 Surr: 4-Bromofluorobenzene 90.8 70-130 %Rec 1 9/10/2022 12:04:39 AM **EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride 9/13/2022 8:24:47 PM 170 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

POL

Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference в Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 47 of 65

Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-24 0 **Project:** SDE 31 Federal 009 Collection Date: 9/4/2022 2:55:00 PM Lab ID: 2209219-048 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/9/2022 11:26:44 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 9/9/2022 11:26:44 PM Surr: DNOP 120 21-129 %Rec 1 9/9/2022 11:26:44 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 9/10/2022 12:28:15 AM 4.9 mg/Kg 1 Surr: BFB 96.3 37.7-212 %Rec 1 9/10/2022 12:28:15 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 9/10/2022 12:28:15 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 9/10/2022 12:28:15 AM Ethylbenzene ND 0.049 mg/Kg 1 9/10/2022 12:28:15 AM Xylenes, Total ND 0.099 mg/Kg 1 9/10/2022 12:28:15 AM Surr: 4-Bromofluorobenzene 91.3 70-130 %Rec 1 9/10/2022 12:28:15 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 9/14/2022 11:56:55 AM 16000 600 200

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-24 2' **Project:** SDE 31 Federal 009 Collection Date: 9/4/2022 3:00:00 PM Lab ID: 2209219-049 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 9/9/2022 11:37:43 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 9/9/2022 11:37:43 PM Surr: DNOP 87.1 21-129 %Rec 1 9/9/2022 11:37:43 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 9/10/2022 12:51:37 AM 4.9 mg/Kg 1 Surr: BFB 97.4 37.7-212 %Rec 1 9/10/2022 12:51:37 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 9/10/2022 12:51:37 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 9/10/2022 12:51:37 AM Ethylbenzene ND 0.049 mg/Kg 1 9/10/2022 12:51:37 AM Xylenes, Total ND 0.098 mg/Kg 9/10/2022 12:51:37 AM 1 Surr: 4-Bromofluorobenzene 92.2 70-130 %Rec 1 9/10/2022 12:51:37 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT mg/Kg Chloride 9/14/2022 12:34:09 PM 4900 150 50

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Date Reported: 9/19/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-24 4' **Project:** SDE 31 Federal 009 Collection Date: 9/4/2022 3:10:00 PM Lab ID: 2209219-050 Matrix: SOIL Received Date: 9/7/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 9/9/2022 11:48:45 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 9/9/2022 11:48:45 PM Surr: DNOP 89.3 21-129 %Rec 1 9/9/2022 11:48:45 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 9/10/2022 1:15:00 AM 4.9 mg/Kg 1 Surr: BFB 98.2 37.7-212 %Rec 1 9/10/2022 1:15:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 0.025 9/10/2022 1:15:00 AM mg/Kg 1 Toluene ND 0.049 mg/Kg 1 9/10/2022 1:15:00 AM Ethylbenzene ND 0.049 mg/Kg 1 9/10/2022 1:15:00 AM Xylenes, Total ND 0.098 mg/Kg 1 9/10/2022 1:15:00 AM Surr: 4-Bromofluorobenzene 93.2 70-130 %Rec 1 9/10/2022 1:15:00 AM **EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride 9/13/2022 9:02:00 PM 510 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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•	vironmen			aborato	ry, Inc.					WO#:	2209219 19-Sep-22
Client: Project:		Resources S 1 Federal 00	,	Inc.							
Sample ID:	MB-70129	Samp	Гуре: mb	olk	Tes	atCode: EF	PA Method	300.0: Anions	6		
Client ID:	PBS	Batcl	h ID: 70 ′	129	F	RunNo: 9 ′	1016				
Prep Date:	9/13/2022	Analysis [Date: 9/	13/2022	:	SeqNo: 32	254887	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								

Sample ID: LCS-70129	SampType: Ics	TestCode: EPA Method	300.0: Anions	
Client ID: LCSS	Batch ID: 70129	RunNo: 91016		
Prep Date: 9/13/2022	Analysis Date: 9/13/2022	SeqNo: 3254888	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	14 1.5 15.00	0 90.0 90	110	
Sample ID: MB-70135	SampType: mblk	TestCode: EPA Method	300.0: Anions	
Client ID: PBS	Batch ID: 70135	RunNo: 91016		
Prep Date: 9/13/2022	Analysis Date: 9/13/2022	SeqNo: 3254917	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
Sample ID: LCS-70135	SampType: Ics	TestCode: EPA Method	300.0: Anions	
Sample ID: LCS-70135 Client ID: LCSS	SampType: Ics Batch ID: 70135	TestCode: EPA Method RunNo: 91016	300.0: Anions	
			300.0: Anions Units: mg/Kg	
Client ID: LCSS	Batch ID: 70135 Analysis Date: 9/13/2022	RunNo: 91016	Units: mg/Kg	RPDLimit Qual
Client ID: LCSS Prep Date: 9/13/2022	Batch ID: 70135 Analysis Date: 9/13/2022	RunNo: 91016 SeqNo: 3254918 SPK Ref Val %REC LowLimit	Units: mg/Kg HighLimit %RPD	RPDLimit Qual
Client ID: LCSS Prep Date: 9/13/2022 Analyte	Batch ID: 70135 Analysis Date: 9/13/2022 Result PQL SPK value	RunNo: 91016 SeqNo: 3254918 SPK Ref Val %REC LowLimit	Units: mg/Kg HighLimit %RPD 110	RPDLimit Qual
Client ID: LCSS Prep Date: 9/13/2022 Analyte Chloride	Batch ID: 70135 Analysis Date: 9/13/2022 <u>Result PQL SPK value</u> 14 1.5 15.00	RunNo: 91016 SeqNo: 3254918 SPK Ref Val %REC LowLimit 0 94.8 90	Units: mg/Kg HighLimit %RPD 110	RPDLimit Qual
Client ID: LCSS Prep Date: 9/13/2022 Analyte Chloride Sample ID: MB-70121	Batch ID: 70135 Analysis Date: 9/13/2022 Result PQL SPK value 14 1.5 15.00 SampType: MBLK	RunNo: 91016 SeqNo: 3254918 SPK Ref Val %REC LowLimit 0 94.8 90 TestCode: EPA Method	Units: mg/Kg HighLimit %RPD 110	RPDLimit Qual
Client ID: LCSS Prep Date: 9/13/2022 Analyte Chloride Sample ID: MB-70121 Client ID: PBS	Batch ID: 70135 Analysis Date: 9/13/2022 Result PQL SPK value 14 1.5 15.00 SampType: MBLK Batch ID: 70121 Analysis Date: 9/13/2022	RunNo: 91016 SeqNo: 3254918 SPK Ref Val %REC LowLimit 0 94.8 90 TestCode: EPA Method RunNo: 90987	Units: mg/Kg HighLimit %RPD 110 300.0: Anions Units: mg/Kg	RPDLimit Qual

Sample ID: LCS-70121 SampType: LCS Dient ID: LCSS Batch ID: 70121				Tes	tCode: EF	A Method	300.0: Anions	5		
				F	RunNo: 9(987				
Prep Date: 9/13/2022	Analysis [Date: 9/ *	13/2022	5	SeqNo: 32	255010	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.9	90	110			

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference S
- в Analyte detected in the associated Method Blank
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Client: Project:		ex Resources Ser 31 Federal 009	rvices,	Inc.							
Sample ID:	MB-70126	SampTy	pe: mb	lk	Tes	tCode: EF	A Method	300.0: Anions	5		
Client ID:	PBS	Batch	ID: 70 1	26	F	RunNo: 9(978				
Prep Date:	9/13/2022	Analysis Da	ate: 9/ *	13/2022	5	SeqNo: 32	255241	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID:	LCS-70126	SampTy	pe: Ics		Tes	tCode: EF	PA Method	300.0: Anions	;		
Client ID:	LCSS	Batch	ID: 70 1	26	F	RunNo: 9(978				
Prep Date:	9/13/2022	Analysis Da	ate: 9/	13/2022	S	SeqNo: 32	255242	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0	93.7	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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	Resources Se Federal 009		Inc.							
Sample ID: MB-70035	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID: PBS	Batch	ID: 700)35	F	RunNo: 9(0889				
Prep Date: 9/7/2022	Analysis D	ate: 9/8	8/2022	S	SeqNo: 32	249478	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.7		10.00		97.1	21	129			
Sample ID: LCS-70021	SampT	ype: LC	s	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID: LCSS	Batch	ID: 700)21	F	RunNo: 9(0851				
Prep Date: 9/7/2022	Analysis D	ate: 9/9	9/2022	S	SeqNo: 32	250672	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	36	15	50.00	0	72.2	64.4	127			
Surr: DNOP	3.7		5.000		73.4	21	129			
Sample ID: LCS-70026	SampT	ype: LC	s	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID: LCSS	Batch	ID: 700)26	F	RunNo: 9(0851				
Prep Date: 9/7/2022	Analysis D	ate: 9/8	8/2022	S	SeqNo: 32	250674	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	15	50.00	0	74.4	64.4	127			
Surr: DNOP	4.0		5.000		80.0	21	129			
Sample ID: MB-70021	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID: PBS	Batch	ID: 700)21	F	RunNo: 9(0851				
Prep Date: 9/7/2022	Analysis D	ate: 9/9	9/2022	S	SeqNo: 32	250681	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.9		10.00		98.6	21	129			
Sample ID: MB-70026	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID: PBS	Batch	ID: 700)26	F	RunNo: 9(0851				
Prep Date: 9/7/2022	Analysis D	ate: 9/8	8/2022	S	SeqNo: 32	250682	Units: mg/K	g		
Fiep Date. 9/1/2022	Analysis D									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Analyte Diesel Range Organics (DRO)	Result ND	PQL 15	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
-	Result	PQL	SPK value 10.00	SPK Ref Val	%REC 103	LowLimit 21	HighLimit 129	%RPD	RPDLimit	Qual

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

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- B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

WO#: 2209219 19-Sep-22

Client:Vertex ResProject:SDE 31 Fe	ources Services deral 009	, Inc.							
Sample ID: LCS-70041	SampType: L(s	Tes	tCode: EF	PA Method	8015M/D: Dies	sel Range	Organics	
Client ID: LCSS	Batch ID: 70	041	R	lunNo: 90	0851				
Prep Date: 9/8/2022	Analysis Date: 9	9/2022	S	SeqNo: 32	251929	Units: mg/Kg	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	34 15	50.00	0	67.8	64.4	127			
Surr: DNOP	3.7	5.000		73.1	21	129			
Sample ID: MB-70041	SampType: M	BLK	Tes	tCode: EF	PA Method	8015M/D: Dies	sel Range	Organics	
Client ID: PBS	Batch ID: 70	041	R	lunNo: 90	0851				
Prep Date: 9/8/2022	Analysis Date: 9	9/2022	S	SeqNo: 32	251931	Units: mg/Kg	9		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND 15								
Motor Oil Range Organics (MRO) Surr: DNOP	ND 50 11	10.00		105	21	129			
				100	21	129			
Sample ID: 2209219-044AMS	SampType: M					8015M/D: Dies	sel Range	Organics	
Client ID: BH22-22 4'	Batch ID: 70	-		lunNo: 9(
Prep Date: 9/8/2022	Analysis Date: 9	9/2022	S	SeqNo: 32	252501	Units: mg/Kg	g		
Analyte	Result PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO) Surr: DNOP	43 14 4.8	47.62 4.762	0	89.5 99.8	36.1 21	154 129			
	4.0	4.702							
Sample ID: 2209219-044AMSD	SampType: M					8015M/D: Dies	sel Range	Organics	
Client ID: BH22-22 4'	Batch ID: 70	-		lunNo: 90					
Prep Date: 9/8/2022	Analysis Date: 9	9/2022	5	SeqNo: 32	252502	Units: mg/Kg	9		
Analyte	Result PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO) Surr: DNOP	43 15 4.5	49.90 4.990	0	86.4 90.4	36.1 21	154 129	1.15 0	33.9 0	
							-		
Sample ID: LCS-70082	SampType: L(8015M/D: Dies	sel Range	Organics	
Client ID: LCSS	Batch ID: 70			lunNo: 90					
Prep Date: 9/9/2022	Analysis Date: 9	/12/2022	5	SeqNo: 32	252836	Units: %Rec			
Analyte	Result PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.9	5.000		78.7	21	129			
Sample ID: MB-70082	SampType: M	BLK	Tes	tCode: EF	PA Method	8015M/D: Dies	sel Range	Organics	
Client ID: PBS	Batch ID: 70	082	R	lunNo: 9(0945				
Prep Date: 9/9/2022	Analysis Date: 9	/12/2022	S	SeqNo: 32	252837	Units: %Rec			
Analyte	Result PQL	SPK voluo	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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- H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

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

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19-Sep-22

Client: Project:	Vertex Re SDE 31 F			Inc.							
Sample ID:	MB-70082	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	PBS	Batch	n ID: 70	082	F	RunNo: 9(945				
Prep Date:	9/9/2022	Analysis D)ate: 9/	12/2022	S	SeqNo: 32	252837	Units: %Rec	:		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		8.6		10.00		86.0	21	129			
Sample ID:	LCS-70070	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	LCSS	Batch	n ID: 70	070	F	RunNo: 9(945				
Prep Date:	9/9/2022	Analysis D)ate: 9/	13/2022	S	SeqNo: 32	253581	Units: %Rec	:		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		4.0		5.000		79.7	21	129			
Sample ID:	MB-70070	SampT	уре: МЕ	BLK	Tes	tCode: EF	A Method	8015M/D: Die	sel Range	Organics	
Client ID:	PBS	Batch	n ID: 70	070	F	RunNo: 9(945				
Prep Date:	9/9/2022	Analysis D)ate: 9/	13/2022	S	SeqNo: 32	253585	Units: %Rec	;		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		8.6		10.00		85.7	21	129			
Sample ID:	LCS-70035	SampT	ype: LC	S	Tes	tCode: EF	A Method	8015M/D: Die	sel Range	Organics	
Sample ID: Client ID:		•	'ype: LC n ID: 70			tCode: EF RunNo: 9(8015M/D: Die	sel Range	Organics	
		•	n ID: 70	035	F)889	8015M/D: Die Units: mg/K	•	Organics	
Client ID:	LCSS	Batch	n ID: 70	035 8/2022	F	RunNo: 9()889		•	Organics RPDLimit	Qual
Client ID: Prep Date: Analyte	LCSS	Batch Analysis D	n ID: 70 Date: 9/	035 8/2022	F	RunNo: 9(SeqNo: 32)889 255226	Units: mg/K	g	-	Qual
Client ID: Prep Date: Analyte	LCSS 9/7/2022 Drganics (DRO)	Batch Analysis D Result	n ID: 70 Date: 9/ PQL	035 8/2022 SPK value	F S SPK Ref Val	RunNo: 90 SeqNo: 32 %REC	0889 255226 LowLimit	Units: mg/K HighLimit	g	-	Qual
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP	LCSS 9/7/2022 Drganics (DRO)	Batch Analysis D Result 54 4.7	n ID: 70 Date: 9/ PQL	035 8/2022 SPK value 50.00 5.000	F SPK Ref Val 0	RunNo: 90 SeqNo: 32 %REC 107 94.5	255226 LowLimit 64.4 21	Units: mg/K HighLimit 127	g %RPD	RPDLimit	Qual
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP	LCSS 9/7/2022 Drganics (DRO)	Batch Analysis D Result 54 4.7 SampT	Date: 9 /a PQL 15	035 8/2022 SPK value 50.00 5.000	F SPK Ref Val 0 Tes	RunNo: 90 SeqNo: 32 %REC 107 94.5	255226 LowLimit 64.4 21 PA Method	Units: mg/K HighLimit 127 129	g %RPD	RPDLimit	Qual
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID:	LCSS 9/7/2022 Drganics (DRO) 2209219-024AMS	Batch Analysis D Result 54 4.7 SampT	PQL 15 Type: MS	035 8/2022 SPK value 50.00 5.000	F SPK Ref Val 0 Tes F	RunNo: 90 SeqNo: 32 %REC 107 94.5 tCode: EF	255226 LowLimit 64.4 21 PA Method 0889	Units: mg/K HighLimit 127 129	g %RPD sel Range	RPDLimit	Qual
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID: Client ID:	LCSS 9/7/2022 Drganics (DRO) 2209219-024AMS BH22-20 0'	Batch Analysis D Result 54 4.7 SampT Batch	PQL 15 Type: MS	035 8/2022 SPK value 50.00 5.000 5.000 5.000 5.000 5.000 5.000	F SPK Ref Val 0 Tes F	RunNo: 90 SeqNo: 32 <u>%REC</u> 107 94.5 tCode: EF RunNo: 90	255226 LowLimit 64.4 21 PA Method 0889	Units: mg/K HighLimit 127 129 8015M/D: Die	g %RPD sel Range	RPDLimit	Qual
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID: Client ID: Prep Date: Analyte Diesel Range (LCSS 9/7/2022 Drganics (DRO) 2209219-024AMS BH22-20 0' 9/7/2022 Drganics (DRO)	Batch Analysis D Result 4.7 SampT Batch Analysis D Result 40	PQL 15 700 9/4 15 75 75 75 75 75 75 75 75 75 75 75 75 75	035 8/2022 SPK value 50.00 5.000 3 035 8/2022 SPK value 46.17	F SPK Ref Val 0 Tes F	RunNo: 90 SeqNo: 32 %REC 107 94.5 tCode: EF RunNo: 90 SeqNo: 32 %REC 86.5	255226 LowLimit 64.4 21 24 Method 2889 255228 LowLimit 36.1	Units: mg/K HighLimit 127 129 8015M/D: Die Units: mg/K HighLimit 154	g %RPD sel Range g	RPDLimit Organics	
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID: Client ID: Prep Date: Analyte	LCSS 9/7/2022 Drganics (DRO) 2209219-024AMS BH22-20 0' 9/7/2022 Drganics (DRO)	Batch Analysis D Result 54 4.7 SampT Batch Analysis D Result	PQL PQL 15 Type: MS DD: 700 PQL PQL	035 8/2022 SPK value 50.00 5.000 3 035 8/2022 SPK value	F SPK Ref Val 0 Tes F SPK Ref Val	RunNo: 90 SeqNo: 32 <u>%REC</u> 107 94.5 tCode: EF RunNo: 90 SeqNo: 32 %REC	255226 LowLimit 64.4 21 24 24 25 25 25 25 25 25 25 28 LowLimit	Units: mg/K HighLimit 127 129 8015M/D: Die Units: mg/K HighLimit	g %RPD sel Range g	RPDLimit Organics	
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID: Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP	LCSS 9/7/2022 Drganics (DRO) 2209219-024AMS BH22-20 0' 9/7/2022 Drganics (DRO)	Batch Analysis D Result 54 4.7 SampT Batch Analysis D Result 40 3.5	PQL PQL 15 Type: MS DD: 700 PQL PQL	035 8/2022 SPK value 50.00 5.000 35 8/2022 SPK value 46.17 4.617	F SPK Ref Val 0 Tes F SPK Ref Val 0	RunNo: 90 SeqNo: 32 %REC 107 94.5 tCode: EF RunNo: 90 SeqNo: 32 %REC 86.5 76.0	255226 LowLimit 64.4 21 24 24 255228 LowLimit 36.1 21	Units: mg/K HighLimit 127 129 8015M/D: Die Units: mg/K HighLimit 154	g %RPD sel Range g %RPD	RPDLimit Organics RPDLimit	
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID: Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP	LCSS 9/7/2022 Drganics (DRO) 2209219-024AMS BH22-20 0' 9/7/2022 Drganics (DRO)	Batch Analysis D Result 54 4.7 SampT Batch Analysis D Result 40 3.5	PQL PQL 15 ype: MS DD: 700 pype: MS DD: 700 pate: 9/4 PQL 14	035 8/2022 SPK value 50.00 5.000 035 8/2022 SPK value 46.17 4.617	F SPK Ref Val 0 Tes SPK Ref Val 0 Tes	RunNo: 90 SeqNo: 32 %REC 107 94.5 tCode: EF RunNo: 90 SeqNo: 32 %REC 86.5 76.0	255226 LowLimit 64.4 21 24 Method 2889 255228 LowLimit 36.1 21 24 Method	Units: mg/K HighLimit 127 129 8015M/D: Die Units: mg/K HighLimit 154 129	g %RPD sel Range g %RPD	RPDLimit Organics RPDLimit	
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID: Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID:	LCSS 9/7/2022 Drganics (DRO) 2209219-024AMS BH22-20 0' 9/7/2022 Drganics (DRO) 2209219-024AMSD	Batch Analysis D Result 54 4.7 SampT Batch Analysis D Result 40 3.5	PQL 12 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	035 8/2022 SPK value 50.00 5.000 035 8/2022 SPK value 46.17 4.617 4.617	F SPK Ref Val 0 Tes SPK Ref Val 0 Tes F	RunNo: 90 SeqNo: 32 %REC 107 94.5 tCode: EF RunNo: 90 SeqNo: 32 %REC 86.5 76.0 tCode: EF	255226 LowLimit 64.4 21 24 24 255228 LowLimit 36.1 21 24 24 255228 255228 255228 255228 26 27 27 28 20 29 29 20 20 20 20 20 20 20 20 20 20	Units: mg/K HighLimit 127 129 8015M/D: Die Units: mg/K HighLimit 154 129	g %RPD sel Range %RPD sel Range	RPDLimit Organics RPDLimit	
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID: Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID: Client ID: Prep Date: Analyte	LCSS 9/7/2022 Drganics (DRO) 2209219-024AMS BH22-20 0' 9/7/2022 Drganics (DRO) 2209219-024AMSD BH22-20 0' 9/7/2022	Batch Analysis D Result 54 4.7 SampT Batch Analysis D Result 40 3.5 SampT Batch	PQL 12 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	035 8/2022 SPK value 50.00 5.000 035 8/2022 SPK value 46.17 4.617 50 035 8/2022	F SPK Ref Val 0 Tes SPK Ref Val 0 Tes F	RunNo: 90 SeqNo: 32 %REC 107 94.5 tCode: EF RunNo: 90 SeqNo: 32 %REC 86.5 76.0 tCode: EF	255226 LowLimit 64.4 21 24 24 255228 LowLimit 36.1 21 24 24 255228 255228 255228 255228 26 27 27 28 20 29 29 20 20 20 20 20 20 20 20 20 20	Units: mg/K HighLimit 127 129 8015M/D: Die Units: mg/K HighLimit 154 129 8015M/D: Die	g %RPD sel Range %RPD sel Range	RPDLimit Organics RPDLimit	
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID: Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID: Client ID: Prep Date: Analyte	LCSS 9/7/2022 Drganics (DRO) 2209219-024AMS BH22-20 0' 9/7/2022 Drganics (DRO) 2209219-024AMSD BH22-20 0' 9/7/2022 Drganics (DRO)	Batch Analysis D Result 54 4.7 SampT Batch Analysis D 3.5 SampT Batch Analysis D	PQL 15 7ype: MS 10: 700 15 7ype: MS 10: 700 20ate: 9/ 14 7ype: MS 10: 700 20ate: 9/ 20ate: 9/	035 8/2022 SPK value 50.00 5.000 035 8/2022 SPK value 46.17 4.617 50 035 8/2022	F SPK Ref Val 0 Tes SPK Ref Val 0 Tes F S	RunNo: 90 SeqNo: 32 %REC 107 94.5 tCode: EF RunNo: 90 SeqNo: 32 %REC 86.5 76.0 tCode: EF RunNo: 90 SeqNo: 32	255226 LowLimit 64.4 21 24 Method 2889 255228 LowLimit 36.1 21 24 Method 2889 255229	Units: mg/K HighLimit 127 129 8015M/D: Die Units: mg/K HighLimit 154 129 8015M/D: Die Units: mg/K	g %RPD sel Range g %RPD sel Range g	RPDLimit Organics RPDLimit Organics	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 Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Client: Project:		ex Resources Set 31 Federal 009	rvices,	Inc.							
Sample ID: L	CS-70107	SampTy	pe: LC	S	Tes	tCode: E	PA Method	8015M/D: Dies	el Range	Organics	
Client ID: L	CSS	Batch	ID: 70	107	F	lunNo:	91025				
Prep Date:	9/12/2022	Analysis Da	ate: 9/	13/2022	5	SeqNo:	3255463	Units: %Rec			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		4.4		5.000		87.4	21	129			
Sample ID: M	IB-70107	SampTy	pe: ME	BLK	Tes	tCode: E	PA Method	8015M/D: Dies	el Range	Organics	
Client ID: P	BS	Batch	ID: 70	107	F	unNo:	91025				
Prep Date:	9/12/2022	Analysis Da	ate: 9/	13/2022	5	SeqNo:	3255465	Units: %Rec			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		9.5		10.00		95.2	21	129			

- * Value exceeds Maximum Contaminant Level.
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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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19-Sep-22

	esources Se Federal 009	,	Inc.							
Sample ID: mb-70028	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	8015D: Gasol	ine Range		
Client ID: PBS	Batch	ID: 700)28	F	RunNo: 9(0918				
Prep Date: 9/7/2022	Analysis D	ate: 9/	10/2022	5	SeqNo: 32	251222	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0		of fiction var	701 CE 0	LOWEININ	i iigiiLiinit	, or the D		Quu
Surr: BFB	1000		1000		100	37.7	212			
Sample ID: Ics-70028	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015D: Gasol	ine Range		
Client ID: LCSS		ID: 700			RunNo: 9(
Prep Date: 9/7/2022	Analysis D	ate: 9/9	9/2022	;	SeqNo: 32	251223	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.4	72.3	137			
Surr: BFB	2000		1000		198	37.7	212			
Sample ID: 2209219-044ams	SampT	уре: МS	5	Tes	tCode: EF	PA Method	8015D: Gasol	ine Range		
Client ID: BH22-22 4'	Batch	ID: 700)28	F	RunNo: 9(0918				
Prep Date: 9/7/2022	Analysis D	ate: 9/9	9/2022	:	SeqNo: 32	251225	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.9	24.61	0	93.0	70	130			
Surr: BFB	1900		984.3		197	37.7	212			
Sample ID: 2209219-044amsd	SampT	уре: МS	D	Tes	tCode: EF	PA Method	8015D: Gasol	ine Range		
Client ID: BH22-22 4'	Batch	ID: 700)28	F	RunNo: 9(0918				
Prep Date: 9/7/2022	Analysis D	ate: 9/9	9/2022	:	SeqNo: 32	251226	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	24.83	0	88.1	70	130	4.54	20	
Surr: BFB	1900		993.0		194	37.7	212	0	0	
Sample ID: mb-70060	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	8015D: Gasol	ine Range		
Client ID: PBS	Batch	ID: 700	060	F	RunNo: 9(0918				
Prep Date: 9/8/2022	Analysis D	ate: 9/ *	10/2022	:	SeqNo: 32	251246	Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		100	37.7	212			
Sample ID: Ics-70060	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015D: Gasol	ine Range		
Client ID: LCSS	Batch	ID: 700	060		RunNo: 9(-		
Prep Date: 9/8/2022	Analysis D	ate: 9/ *	10/2022	:	SeqNo: 32	251247	Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
7 th lary to	Result	- GL		OF INTRO Var		LOWLINI	ringinennin			Quai

Qualifiers:

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- H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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	Resources S I Federal 00		Inc.							
Sample ID: mb-70028	Samp	Туре: МЕ	BLK	Tes	stCode: EF	A Method	8021B: Volat	iles		
Client ID: PBS	Batc	h ID: 700)28	F	RunNo: 9(918				
Prep Date: 9/7/2022	Analysis I	Date: 9/ *	10/2022	:	SeqNo: 32	251296	Units: mg/K	٤g		
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	0.94		1.000		94.4	70	130			
Sample ID: LCS-70028	Samp	Туре: LC	S	Tes	stCode: EF	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batc	h ID: 70)28	F	RunNo: 9(918				
Prep Date: 9/7/2022	Analysis I	Date: 9/ 9	9/2022	:	SeqNo: 32	251297	Units: mg/K	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	89.8	80	120			
Toluene	0.93	0.050	1.000	0	92.6	80	120			
Ethylbenzene	0.92	0.050	1.000	0	92.2	80	120			
Xylenes, Total	2.8	0.10	3.000	0	91.7	80	120			
Surr: 4-Bromofluorobenzene	0.94		1.000		93.8	70	130			
Sample ID: 2209219-045ams	s Samp	Type: MS	5	Tes	stCode: EF	PA Method	8021B: Volat	iles		
Client ID: BH22-23 0'	Batc	h ID: 700)28	F	RunNo: 9(0918				
Prep Date: 9/7/2022	Analysis I	Date: 9/ 9	9/2022	:	SeqNo: 32	251300	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.025	0.9970	0	85.6	68.8	120			
Toluene	0.88	0.050	0.9970	0	88.0	73.6	124			
Ethylbenzene	0.88	0.050	0.9970	0	88.2	72.7	129			
Xylenes, Total	2.6	0.10	2.991	0.01892	86.3	75.7	126			
Surr: 4-Bromofluorobenzene	0.93		0.9970		93.7	70	130			
Sample ID: 2209219-045am	sd Samp	Type: MS	D	Tes	stCode: EF	PA Method	8021B: Volat	iles		
Client ID: BH22-23 0'		h ID: 70(F	RunNo: 9(918				
Prep Date: 9/7/2022	Analysis I	Date: 9/9	9/2022	:	SeqNo: 32	251301	Units: mg/K	ζg		
Analyte	Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.024	0.9785	0	83.8	68.8	120	4.06	20	
Toluene	0.86	0.049	0.9785	0	87.7	73.6	124	2.25	20	
Ethylbenzene	0.85	0.049	0.9785	0	87.2	72.7	129	2.96	20	
Xylenes, Total	2.5	0.098	2.935	0.01892	85.3	75.7	126	3.02	20	
Surr: 4-Bromofluorobenzene	0.94		0.9785		96.3	70	130	0	0	

Qualifiers:

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- D Sample Diluted Due to Matrix
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- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference S
- Analyte detected in the associated Method Blank В
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL
 - Reporting Limit

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19-Sep-22

	Resources Services, Inc 1 Federal 009	2.				
Sample ID: mb-70060	SampType: MBLK	Tes	tCode: EPA Method	8021B: Volatiles		
Client ID: PBS	Batch ID: 70060	R	tunNo: 90918			
Prep Date: 9/8/2022	Analysis Date: 9/10/2	022 S	GeqNo: 3251320	Units: %Rec		
Analyte	Result PQL SF	PK value SPK Ref Val	%REC LowLimit	HighLimit %R	PD RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.95	1.000	95.0 70	130		
Sample ID: LCS-70060	SampType: LCS	Tesi	tCode: EPA Method	8021B: Volatiles		
Client ID: LCSS	Batch ID: 70060	R	RunNo: 90918			
Prep Date: 9/8/2022	Analysis Date: 9/10/2	022 S	SeqNo: 3251321	Units: %Rec		
Analyte	Result PQL SF	PK value SPK Ref Val	%REC LowLimit	HighLimit %R	PD RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.95	1.000	95.3 70	130		

Qualifiers:

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

2209219

19-Sep-22

Client:

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Vertex Resources Services, Inc.

	Federal 00		inc.							
Sample ID: 2209219-025ams	Samp	Туре: МS	64	Tes	stCode: El	PA Method	8260B: Volati	les Short	List	
Client ID: BH22-01 3'	Batc	h ID: 700	022	F	RunNo: 9	0942				
Prep Date: 9/7/2022	Analysis I	Date: 9/9	9/2022	:	SeqNo: 3	251466	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.024	0.9533	0	94.2	75.8	123			
Toluene	0.92	0.048	0.9533	0	96.7	68.3	130			
Ethylbenzene	0.97	0.048	0.9533	0	102	76.6	132			
Xylenes, Total	2.9	0.095	2.860	0	102	74.7	132			
Surr: 1,2-Dichloroethane-d4	0.47		0.4766		98.8	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.4766		104	70	130			
Surr: Dibromofluoromethane	0.56		0.4766		117	70	130			
Surr: Toluene-d8	0.49		0.4766		102	70	130			
Sample ID: 2209219-025amsd	I Samp	Туре: МS	SD4	Tes	stCode: El	PA Method	8260B: Volati	les Short	List	
Client ID: BH22-01 3'	Batc	h ID: 700	022	F	RunNo: 9	0942				
Prep Date: 9/7/2022	Analysis I	Date: 9/9	9/2022	:	SeqNo: 3	251468	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.024	0.9747	0	90.7	75.8	123	1.50	20	
Toluene	0.94	0.049	0.9747	0	96.1	68.3	130	1.55	20	
Ethylbenzene	0.96	0.049	0.9747	0	98.1	76.6	132	1.38	20	
Xylenes, Total	3.0	0.097	2.924	0	101	74.7	132	0.751	20	
Surr: 1,2-Dichloroethane-d4	0.50		0.4873		102	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.48		0.4873		99.0	70	130	0	0	
Surr: Dibromofluoromethane	0.57		0.4873		116	70	130	0	0	
Surr: Toluene-d8	0.50		0.4873		103	70	130	0	0	
Sample ID: Ics-70022	Samp	Туре: LC	S4	Tes	stCode: El	PA Method	8260B: Volati	les Short	List	
Client ID: BatchQC	Batc	:h ID: 700	022	F	RunNo: 9	0942				
Prep Date: 9/7/2022	Analysis I	Date: 9/9	9/2022	:	SeqNo: 3	251501	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	97.6	80	120			
Toluene	0.95	0.050	1.000	0	95.2	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.7	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.4	80	120			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.9	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.9	70	130			
	0.58		0.5000		115	70	130			
Surr: Dibromofluoromethane	0.50		0.0000			10				

Qualifiers:

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- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

2209219

19-Sep-22

	WO#:	2209219	
sis Laboratory, Inc.		19-Sep-22	

	esources S		Inc.							
Project: SDE 31 I	Federal 00	9								
Sample ID: mb-70022	Samp	Туре: МЕ	BLK	Tes	tCode: EF	PA Method	8260B: Volati	les Short	List	
Client ID: PBS	Batc	h ID: 700)22	F	RunNo: 9(0942				
Prep Date: 9/7/2022	Analysis I	Date: 9/	9/2022	S	SeqNo: 32	251503	Units: mg/K	g		
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: 1,2-Dichloroethane-d4	0.48		0.5000		96.9	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.58		0.5000		116	70	130			
Surr: Toluene-d8	0.50		0.5000		99.4	70	130			
Sample ID: 2209219-005ams	Samp	Type: MS	64	Tes	tCode: EF	PA Method	8260B: Volati	les Short	List	
Client ID: BH22-13 2'	Batc	h ID: 70	018	F	RunNo: 9(0934				
Prep Date: 9/7/2022	Analysis I	Date: 9/	10/2022	S	SeqNo: 32	251544	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	0.9960	0	95.7	75.8	123			
Toluene	1.0	0.050	0.9960	0	105	68.3	130			
Ethylbenzene	1.1	0.050	0.9960	0	106	76.6	132			
Xylenes, Total	3.2	0.10	2.988	0	106	74.7	132			
Surr: 1,2-Dichloroethane-d4	0.48		0.4980		96.9	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.4980		92.9	70	130			
Surr: Dibromofluoromethane	0.47		0.4980		95.0	70	130			
Surr: Toluene-d8	0.50		0.4980		101	70	130			
Sample ID: 2209219-005amsd	Samp	Type: MS	D4	Tes	tCode: EF	PA Method	8260B: Volati	les Short	List	
Client ID: BH22-13 2'	Batc	h ID: 700)18	F	RunNo: 9(0934				
Prep Date: 9/7/2022	Analysis I	Date: 9/	10/2022	S	SeqNo: 32	251545	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	0.9940	0	95.9	75.8	123	0.0807	20	
Toluene	1.1	0.050	0.9940	0	110	68.3	130	4.15	20	
Ethylbenzene	1.1	0.050	0.9940	0	107	76.6	132	0.464	20	
Kylenes, Total	3.3	0.099	2.982	0	111	74.7	132	4.75	20	
Surr: 1,2-Dichloroethane-d4	0.48		0.4970		97.6	70	130	0	0	
	0.10									
Surr: 4-Bromofluorobenzene	0.46		0.4970		92.7	70	130	0	0	
			0.4970 0.4970		92.7 97.5	70 70	130 130	0 0	0 0	

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- ND Not Detected at the Reporting Limit
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- % Recovery outside of range due to dilution or matrix interference S
- Analyte detected in the associated Method Blank В
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Limit RL

	Resources S Federal 00		Inc.							
Sample ID: Ics-70015	Samp	Type: LC	S4	Tes	tCode: EF	PA Method	8260B: Volati	les Short	List	
Client ID: BatchQC	Batc	h ID: 700)15	F	RunNo: 9(0934				
Prep Date: 9/7/2022	Analysis I	Date: 9/9	9/2022	S	SeqNo: 32	251564	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	90.8	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.0	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		103	70	130			
Surr: Toluene-d8	0.52		0.5000		104	70	130			
Sample ID: Ics-70018	Samp	Type: LC	S4	Tes	tCode: EF	PA Method	8260B: Volati	les Short	List	
Client ID: BatchQC	Batc	h ID: 700	018	F	RunNo: 9(0934				
Prep Date: 9/7/2022	Analysis I	Date: 9/9	9/2022	S	SeqNo: 32	251565	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.4	80	120			
Toluene	1.1	0.050	1.000	0	105	80	120			
Ethylbenzene	0.99	0.050	1.000	0	98.5	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.6	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		98.5	70	130			
Surr: Toluene-d8	0.54		0.5000		108	70	130			
Sample ID: mb-70015	Samp	Туре: МВ	LK	Tes	tCode: EF	PA Method	8260B: Volati	les Short	List	
Client ID: PBS	Batc	h ID: 700	015	F	RunNo: 9(0934				
Prep Date: 9/7/2022	Analysis I	Date: 9/ 9	9/2022	S	SeqNo: 32	251566	Units: mg/K	g		
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: 1,2-Dichloroethane-d4	0.50		0.5000		100	70	130			
,	0.00									
Surr: 4-Bromofluorobenzene	0.50		0.5000		101	70	130			
			0.5000 0.5000		101 102	70 70	130 130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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2209219

19-Sep-22

Client:

Vertex Resources Services, Inc.

Project: SDE 3	Federal 00	9								
Sample ID: mb-70018	Samp	Гуре: МЕ	BLK	Tes	tCode: EF	PA Method	8260B: Volati	les Short	List	
Client ID: PBS	Batc	h ID: 700)18	F	RunNo: 9(0934				
Prep Date: 9/7/2022	Analysis [Date: 9/ *	10/2022	S	SeqNo: 32	251567	Units: mg/K	g		
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: 1,2-Dichloroethane-d4	0.49		0.5000		97.3	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		93.6	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		97.9	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

2209219

19-Sep-22

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Client: Project:	Vertex Re SDE 31 F			Inc.							
Sample ID:	2209219-004ams	SampT	ype: MS	;	Tes	tCode: EF	PA Method	8015D Mod: (Gasoline R	lange	
Client ID:	BH22-13 0'	Batch	n ID: 700)18	F	RunNo: 9(0934				
Prep Date:	9/7/2022	Analysis D	Date: 9/ *	10/2022	S	SeqNo: 32	251484	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range	e Organics (GRO)	49	24	23.65	35.35	58.8	65.9	123			S
Surr: BFB		2400		2365		101	70	130			
Sample ID:	2209219-004amsd	SampT	ype: MS	D	Tes	tCode: EF	PA Method	8015D Mod: (Gasoline R	ange	
Client ID:	BH22-13 0'	Batch	n ID: 700)18	F	RunNo: 9(0934				
Prep Date:	9/7/2022	Analysis D	Date: 9/ *	10/2022	Ş	SeqNo: 32	251486	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	53	24	23.63	35.35	73.6	65.9	123	6.86	20	
Surr: BFB		2500		2363		105	70	130	0	0	
Sample ID:	lcs-70015	SampT	ype: LC	s	Tes	tCode: EF	PA Method	8015D Mod: (Gasoline R	ange	
Client ID:	LCSS	Batch	n ID: 700)15	F	RunNo: 9(0934				
Prep Date:	9/7/2022	Analysis D	Date: 9/9	9/2022	\$	SeqNo: 32	251516	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range	e Organics (GRO)	26	5.0	25.00	0	105	70	130			
Surr: BFB		510		500.0		103	70	130			
Sample ID:	lcs-70018	SampT	ype: LC	s	Tes	tCode: EF	PA Method	8015D Mod: (Gasoline R	lange	
Client ID:	LCSS	Batch	n ID: 700)18	F	RunNo: 9(0934				
Prep Date:	9/7/2022	Analysis D	Date: 9/9	9/2022	\$	SeqNo: 32	251517	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range	e Organics (GRO)	23	5.0	25.00	0	92.0	70	130			
Surr: BFB		480		500.0		95.6	70	130			
Sample ID:	mb-70015	SampT	уре: МЕ	BLK	Tes	stCode: EF	PA Method	8015D Mod: (Gasoline R	ange	
Client ID:	PBS	Batch	n ID: 700)15	F	RunNo: 9(0934				
Prep Date:	9/7/2022	Analysis D	Date: 9/9	9/2022	5	SeqNo: 32	251518	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
-	e Organics (GRO)	ND	5.0								
Surr: BFB		510		500.0		102	70	130			
Sample ID:	mb-70018	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	8015D Mod: (Gasoline R	ange	
Client ID:	PBS	Batch	n ID: 700)18	F	RunNo: 9(0934				
Prep Date:	9/7/2022	Analysis D	Date: 9/ *	10/2022	S	SeqNo: 32	251519	Units: mg/K	g		
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

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

- % Recovery outside of range due to dilution or matrix interference S
- Analyte detected in the associated Method Blank В
- Е Estimated value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

Reporting Limit RL

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WO#: 2209219 19-Sep-22

all Environmental Analysis Laboratory, Inc.	19-Sep-22

Client: Project:	Vertex Re SDE 31 F			Inc.							
Sample ID:	mb-70018	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	8015D Mod: (Gasoline R	ange	
Client ID:	PBS	Batch	n ID: 70	018	F	RunNo: 9	0934				
Prep Date:	9/7/2022	Analysis D	Date: 9/	10/2022	Ş	SeqNo: 32	251519	Units: mg/K	ζg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Surr: BFB	e Organics (GRO)	ND 470	5.0	500.0		94.7	70	130			
Sample ID:	2209219-024ams	SampT	уре: МS	6	Tes	tCode: EF	PA Method	8015D Mod:	Gasoline R	ange	
Client ID:	BH22-20 0'	Batch	n ID: 70	022	F	RunNo: 9	0942				
Prep Date:	9/7/2022	Analysis D	Date: 9/	9/2022	\$	SeqNo: 32	251687	Units: mg/K	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	e Organics (GRO)	22	4.8	24.13	0	91.7	65.9	123			
Surr: BFB		560		482.6		116	70	130			
Sample ID:	2209219-024amsd	SampT	уре: МS	SD	Tes	tCode: EF	PA Method	8015D Mod: (Gasoline R	ange	
Client ID:	BH22-20 0'	Batch	n ID: 70	022	F	RunNo: 9	0942				
Prep Date:	9/7/2022	Analysis D	Date: 9/	9/2022	Ś	SeqNo: 32	251688	Units: mg/K	٤g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
-	e Organics (GRO)	21	4.8	24.11	0	87.3	65.9	123	5.01	20	
Surr: BFB		530		482.2		111	70	130	0	0	
Sample ID:	lcs-70022	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015D Mod: (Gasoline R	ange	
Client ID:	LCSS	Batch	n ID: 700	022	F	RunNo: 9	0942				
Prep Date:	9/7/2022	Analysis D	Date: 9/	9/2022	S	SeqNo: 32	251708	Units: mg/K	ζg		
Analyte		Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	e Organics (GRO)	23	5.0	25.00	0	90.2	70	130			
Surr: BFB		550		500.0		111	70	130			
Sample ID:	mb-70022	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	8015D Mod: (Gasoline R	ange	
Client ID:	PBS	Batch	n ID: 70	022	F	RunNo: 9	0942				
Prep Date:	9/7/2022	Analysis D	Date: 9/	9/2022	Ş	SeqNo: 32	2517 0 9	Units: mg/K	٢g		
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
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference S
- Analyte detected in the associated Method Blank В
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Services Received By: Juan Re	ojas ivingston Q · O 7 · mplete? elivered?	Work Order Numb 9/7/2022 7:30:00 AM 9/7/2022 7:53:24 AM 22	и		Guarrante S-L		
Completed By: Sean Li Reviewed By: KCA <u>Chain of Custody</u> 1. Is Chain of Custody cor 2. How was the sample de <u>Log In</u>	ivingston Q · O 7 · mplete? elivered?	9/7/2022 7:53:24 AM	M Yes				
Completed By: Sean Li Reviewed By: KMA Chain of Custody 1. Is Chain of Custody cor 2. How was the sample de Log In	ivingston Q · O 7 · mplete? elivered?	9/7/2022 7:53:24 AM	M Yes				
Reviewed By: KPG <u>Chain of Custody</u> 1. Is Chain of Custody cor 2. How was the sample de <u>Log In</u>	Q · O 7 · mplete? elivered?		Yes				
 Is Chain of Custody cor How was the sample de Log In 	elivered?				. –		
2. How was the sample de Log In	elivered?			V			
Log In			Cour	1.000	No 🗌	Not Present	
	o cool the samples			rier			
3. Was an attempt made t	o cool the samples			-	_		
		?	Yes		No 🗌	NA	
4. Were all samples receiv	ed at a temperature	e of >0° C to 6.0°C	Yes		No 🗌		
5. Sample(s) in proper con	ntainer(s)?		Yes		No 🗌		
6. Sufficient sample volume	e for indicated test(s)?	Yes		No 🗌		
7. Are samples (except VO	A and ONG) prope	rly 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 conta	iners received brok	en?	Yes		No 🗹	H . F	
11.Does paperwork match I			Yes		No 🗌	# of preserved bottles checked for pH:	
(Note discrepancies on o 12. Are matrices correctly id		f Custody2	Yes		No 🗌	Adjusted?	unless noted)
13. Is it clear what analyses		rousiouy:	Yes			/	
14. Were all holding times a (If no, notify customer fo	ble to be met?		Yes		No 🗆	Checked by: JA	117/22
Special Handling (if a	pplicable)				-		
15. Was client notified of all	The second s	this order?	Yes		No 🗌	NA 🔽	
Person Notified:	1	Date:	1	-			
By Whom:	1	Via:	eMa	ail 🗌 Pho	ne 🗌 Fax	In Person	
Regarding:	1						
Client Instructions	H.						
16. Additional remarks:							
17. <u>Cooler Information</u> Cooler No Temp [®] 1 1.7	°C Condition S Good	Seal Intact Seal No	Seal Da	ate Si	gned By		

Page 1 of 1

Client:	L o		1 00.1		1					1		
ACIICA	A standard	d D Rush	(mpl C 4	-	t	_	Z		S		ANALYSIS LABORATORY	A OF
(direct bill to Devon)	Project Name:	le:					MMM	.halle	nviron	menta	www.hallenvironmental.com	
Mailing Address:	SDE 31 Federal #009	leral #009			4901	4901 Hawkins NE	kins N	1	nbnqr	erque	Albuquerque, NM 87109	
	Project #:			_	Tel.	505-345-3975	45-39		Fax	505-3	Fax 505-345-4107	
Phone #:	22E-02816-36	36					ŧ	Ana	Analysis	Request	lest	
email or Fax#:	Project Manager:	ager:		(1	(0			.0:	*~	1	()u	_
QA/QC Package:	Kent Stallings	St		208		0.0	SN	5	0 14		əsq	
Standard Level 4 (Full Validation)	ation) kstallings@vertex.ca	vertex.ca		3) s'	20.2	0.1	lisc	Ua	~ 1		A\tr	
Accreditation: Az Compliance	Sampler:		Englebert	BM.	1.2.1	-	228	' ^z OI	17 0		Iəse	_
	On Ice:	11-Yes	ON 🗆	1/		_	3 10			(A((Pre	
EDD (Type)	# of Coolers:	: 1		BE			018		-	-۸C	u.	
	Cooler Temp(including CF):		トレナシュニューア	TM		-	y 83	_		imə	ofilo	
Date Time Matrix Sample Name	Container Type and #	Preservative Type	HEAL No.	/ XJT8	08:H9T 9 1808	EDB (N	d eHA9	RCRA 8	A) 0928	S) 0728	Total C	
09/03 9:20 Soil BH22-12 0'	1, 4oz jar		8		×		73,	×				
09/03 9:55 Soil BH22-12 2'	1, 4oz jar		200	×	×			×	_			
09/03 10:00 Soil BH22-12 2.5'	1, 4oz jar		\$Q					×				
09/03 10:35 Soil BH22-13 0'	1, 4oz jar		hao	××	~			×				
09/03 10:45 Soil BH22-13 2'	1, 4oz jar		200	××	~			×				
09/03 11:00 Soil BH22-13 2.5'	1, 4oz jar		200	x x	~			×				
09/03 11:00 Soil BH22-14 0'	1, 4oz jar		430		~			×				
09/03 11:25 Soil BH22-14 2'	1, 4oz jar		200	x x				×				
09/03 13:40 Soil BH22-15 0'	1, 4oz jar		600	x x	>			×				
09/03 13:45 Soil BH22-15 2'	1, 4oz jar		OIO	x x				×				
09/03 13:50 Soil BH22-15 3'	1, 4oz jar		10	××				×				
09/03 13:55 Soil BH22-16 0'	1, 4oz jar		210	××				×				
Date: Time: Relinquished by:	Received by:	Via:	Date Time 9/6/22 700	Remarks Direct bil	Remarks: Direct bill to Devon, Dale Woodall	to De	von, I	Dale V	Nood			
Date: Time: Relinquished by:	Received by:	Via:	Date Time	SC. K	cc. kstallings@vertex.ca tor Final Keport	(m)s6	(епе)	c.ca ro		al Ke	LIOC	
9 6/27 19MN A. A. V 7	0	1 Incented	0212 602 JESO									

Client: Vertex		N CLEAR AND A	 -		_	1	-		DALL			NON	ENVIRONMENIAL
		A Standard	Rush	Amon ca	L	t	-	AN		S	V	AROR	ANALYSTS LARORATORY
(direct bill to Devon)	to Devon)	Project Name:						MM	w.hall	enviro) ume	www.hallenvironmental.com	
Mailing Address:		SDE 31 Federal #009	600# I			4901	Haw	4901 Hawkins NE	, Å	Albuc	uero	Albuqueraue. NM 87109	60
		Project #:			_	Tel.	505-	505-345-3975	975		x 50	505-345-4107	
Phone #:		22E-02816-36							A	nalysi	s Re	Analysis Request	
email or Fax#:		Project Manage	er:		()	(0	-	-		† 0		()L	
QA/QC Package:		Kent Stallings			305	_	S.g	SV		S '*	-	iəsc	
Standard	Level 4 (Full Validation)	kstallings@vertex.ca	ex.ca		3) s'		5	VISC		DО	_	IA\tr	
Accreditation:	pliance	Sampler: Z	Zachary Englebert	bert	BM.	1.11		1.1.1		^{'7} 0	-	JƏSE	
□ NELAC □ Other_)		ON D	L /		10		9	N '	(A(
🗆 EDD (Type)		# of Coolers:			BE	_		100	elete	-			
		Cooler Temp(including CF):	1.6.	千.1-1-1子	TM		-		əM a		_	_	
Date Time Matrix S	Sample Name	Container P	Preservative Type	HEAL No.	/ XƏT8	08:H9T	8081 Pe	d sHA9	8 АЯЭЯ	CI' E' B	V) 0728 2) 0728	Total Cc	_
09/03 14:00 Soil	BH22-16 2'	1, 4oz jar		610	×	×	-			-	-		
09/03 14:10 Soil	BH22-16 3'	1, 4oz jar		DIA	1.1	×	-			×	-		
09/03 14:15 Soil	BH22-17 0'	1, 4oz jar		015	×	×				×	_		
09/03 14:20 Soil	BH22-17 2'	1, 4oz jar		910	×	×				×			
09/03 14:35 Soil	BH22-17 4'	1, 4oz jar		1210	X	×			~	×			
09/03 14:40 Soil	BH22-18 0'	1, 4oz jar		SIS	X	x			~	×	_		
09/03 14:55 Soil	BH22-18 2'	1, 4oz jar		しいち	×	×			^	×			
09/03 15:15 Soil	BH22-18 3'	1, 4oz jar		020	×	x			^	×			
09/03 15:20 Soil	BH22-19 0'	1, 4oz jar	I	120	×	×			×	~			
09/03 15:40 Soil	BH22-19 2'	1, 4oz jar		220	x x	~			×		2		
09/03 15:45 Soil	BH22-19 4'	1, 4oz jar		620	x x	~			×				
3 15:30	BH22-20 0'	-		120	××	~			×				
Pate: Time: Relinquishedby P-6-1, 07:00 LL-0-9	Aby: NAMA	AAAAA	Via:	9 Date Time	Remarks: Direct bill	Remarks: Direct bill to Devon, Dale Woodall	to De	von,	Dale	Woo	dall		
Date: Time: Relinquished by	by:		-	1	cc. k	stallir)gs(a	verte	ex.ca	tor H	nalk	cc. kstallings@vertex.ca for Final Report	
10/07 Om MALLILL	CULAN	18/10	01. 1 C	12/2> 7130									

Released to Imaging: 4/4/2024 9:37:02 AM

Client:			- I					JALL			DYT	IN I	
Vertex		Standard	A Rush	5 Clark				N N	X	STS	I AF	ANALYSTS LABODATOD	2
(direct bill to Devon)	Devon)	Project Name:	e:	>				www.	hallen	/ironm	www.hallenvironmental.com		l by 0
Mailing Address:		SDE 31 Feder	eral #009			4901	Hawk	4901 Hawkins NE	1.1	andne	rque. N	Albuquerque, NM 87109	CD:
		Project #:				Tel.	505-34	505-345-3975		Fax 5	505-345-4107	4107	3/2.
Phone #:		22E-02816-36	99						Anal	ysis F	Request		1/20.
email or Fax#:		Project Manag	ager:		()	(0			۴O		(tr		24.2
QA/QC Package:		Kent Stallings	S		208			SV	S '*		iəsc		:58
Standard In L	Level 4 (Full Validation)	kstallings@vertex.ca	ertex.ca		3) s			VIS	ЪО		JA\J		:02
Accreditation: Az Compliance	ance	Sampler:	>	Englebert	MB	-	_	022	' ⁷ 0		uəs		PM
		On Ice:		D No	1/		-	-	111		-		
EDD (Type)		# of Coolers:			BE		_	_	-				
		Cooler Temp(including CF):	(including CF):), (たいしょう	TM	_			-	(AO			
Date Time Matrix Sa	Sample Name	Container Type and #	Preservative Type	HEAL No.	X X X	08:H9T	M) 803	d eHAq	S (F, E	∧) 0928	2) 0728 Dotal Co		
09/03 11:40 Soil	BH22-01 3'	1, 4oz jar		925	×		-	-	- ^		-		
09/03 8:55 Soil	BH22-08 2'	1, 4oz jar		22¢					×				
09/03 9:20 Soil	BH22-08 2.5'	1, 4oz jar		420	11.3				×				
09/03 10:25 Soil	BH22-09 0'	1, 4oz jar		\$20	- 7.1				×				
09/03 10:35 Soil	BH22-09 2'	1, 4oz jar		629	x x				x				
09/03 11:00 Soil	BH22-09 3.5'	1, 4oz jar		030	××	12			×				
09/03 11:10 Soil	BH22-10 0'	1, 4oz jar		120	x x				×				
09/03 11:20 Soil	BH22-10 2'	1, 4oz jar		250	x x				×				
09/03 11:25 Soil	BH22-10 2.5'	1, 4oz jar		033	××			-	×				
09/03 9:05 Soil	BH22-11 0'	1, 4oz jar		Ú34	××				×				
09/03 9:15 Soil	BH22-11 2'	1, 4oz jar		235	××				×				
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Released to Imaging: 4/4/2024 9:37:02 AM

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November 17, 2022

Kent Stallings Vertex Resources Services, Inc. 3101 Boyd Drive Carlsbad, NM 88220 TEL: (505) 506-0040 FAX:

RE: SDE 31 Federal 009

Hall Environmental Analysis Laboratory

TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

OrderNo.: 2211577

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 13 sample(s) on 11/10/2022 for the analyses presented in the following report.

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

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Date Reported: 11/17/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-13 4' **Project:** SDE 31 Federal 009 Collection Date: 11/7/2022 8:30:00 AM Lab ID: 2211577-001 Matrix: SOIL Received Date: 11/10/2022 7:15:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 11/14/2022 7:08:55 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 11/14/2022 7:08:55 PM Surr: DNOP 21-129 %Rec 1 11/14/2022 7:08:55 PM 111 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/14/2022 12:49:00 PM 4.8 mg/Kg 1 Surr: BFB 101 37.7-212 %Rec 1 11/14/2022 12:49:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 0.024 11/14/2022 12:49:00 PM mg/Kg 1 Toluene ND 0.048 mg/Kg 1 11/14/2022 12:49:00 PM Ethylbenzene ND 0.048 mg/Kg 1 11/14/2022 12:49:00 PM Xylenes, Total ND 0.096 mg/Kg 11/14/2022 12:49:00 PM 1 Surr: 4-Bromofluorobenzene 105 70-130 %Rec 1 11/14/2022 12:49:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 11/15/2022 5:30:37 PM 3500 150 50

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits

Р Sample pH Not In Range RL Reporting Limit

Page 1 of 18

Date Reported: 11/17/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-13 6' **Project:** SDE 31 Federal 009 Collection Date: 11/7/2022 8:45:00 AM Lab ID: 2211577-002 Matrix: SOIL Received Date: 11/10/2022 7:15:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 11/14/2022 7:19:29 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 11/14/2022 7:19:29 PM Surr: DNOP 104 21-129 %Rec 1 11/14/2022 7:19:29 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/14/2022 1:48:00 PM 4.8 mg/Kg 1 Surr: BFB 93.7 37.7-212 %Rec 1 11/14/2022 1:48:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 0.024 11/14/2022 1:48:00 PM mg/Kg 1 Toluene ND 0.048 mg/Kg 1 11/14/2022 1:48:00 PM Ethylbenzene ND 0.048 mg/Kg 1 11/14/2022 1:48:00 PM Xylenes, Total ND 0.096 mg/Kg 11/14/2022 1:48:00 PM 1 Surr: 4-Bromofluorobenzene 103 70-130 %Rec 1 11/14/2022 1:48:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 11/14/2022 11:27:43 PM 160 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits

Р Sample pH Not In Range RL Reporting Limit

Page 2 of 18

Date Reported: 11/17/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-13 8' **Project:** SDE 31 Federal 009 Collection Date: 11/7/2022 9:00:00 AM Lab ID: 2211577-003 Matrix: SOIL Received Date: 11/10/2022 7:15:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 11/14/2022 7:30:04 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 11/14/2022 7:30:04 PM 21-129 Surr: DNOP %Rec 1 11/14/2022 7:30:04 PM 112 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/14/2022 2:08:00 PM 4.8 mg/Kg 1 Surr: BFB 98.2 37.7-212 %Rec 1 11/14/2022 2:08:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/14/2022 2:08:00 PM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 11/14/2022 2:08:00 PM Ethylbenzene ND 0.048 mg/Kg 1 11/14/2022 2:08:00 PM Xylenes, Total ND 0.097 mg/Kg 11/14/2022 2:08:00 PM 1 Surr: 4-Bromofluorobenzene 106 70-130 %Rec 1 11/14/2022 2:08:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 11/15/2022 12:04:57 AM 190 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits

Р Sample pH Not In Range Reporting Limit

RL

Page 3 of 18

Date Reported: 11/17/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-25 0' **Project:** SDE 31 Federal 009 Collection Date: 11/7/2022 11:15:00 AM Lab ID: 2211577-004 Matrix: SOIL Received Date: 11/10/2022 7:15:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH **Diesel Range Organics (DRO)** ND 13 mg/Kg 1 11/14/2022 7:40:37 PM Motor Oil Range Organics (MRO) ND 44 mg/Kg 1 11/14/2022 7:40:37 PM Surr: DNOP 128 21-129 %Rec 1 11/14/2022 7:40:37 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/14/2022 2:27:00 PM 4.9 mg/Kg 1 Surr: BFB 98.6 37.7-212 %Rec 1 11/14/2022 2:27:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/14/2022 2:27:00 PM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 11/14/2022 2:27:00 PM Ethylbenzene ND 0.049 mg/Kg 1 11/14/2022 2:27:00 PM Xylenes, Total ND 0.097 mg/Kg 11/14/2022 2:27:00 PM 1 Surr: 4-Bromofluorobenzene 102 70-130 %Rec 1 11/14/2022 2:27:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 11/15/2022 12:17:22 AM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 4 of 18

Date Reported: 11/17/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-25 2' **Project:** SDE 31 Federal 009 Collection Date: 11/7/2022 11:20:00 AM Lab ID: 2211577-005 Matrix: SOIL Received Date: 11/10/2022 7:15:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 11/14/2022 7:51:09 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 11/14/2022 7:51:09 PM Surr: DNOP 21-129 %Rec 1 11/14/2022 7:51:09 PM 114 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/14/2022 2:47:00 PM 4.8 mg/Kg 1 Surr: BFB 96.8 37.7-212 %Rec 1 11/14/2022 2:47:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/14/2022 2:47:00 PM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 11/14/2022 2:47:00 PM Ethylbenzene ND 0.048 mg/Kg 1 11/14/2022 2:47:00 PM Xylenes, Total ND 0.097 mg/Kg 11/14/2022 2:47:00 PM 1 Surr: 4-Bromofluorobenzene 107 70-130 %Rec 1 11/14/2022 2:47:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 11/15/2022 12:29:46 AM 120 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 5 of 18

CLIENT: Vertex Resources Services, Inc.

Project: SDE 31 Federal 009

Analytical Report Lab Order 2211577

Date Reported: 11/17/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-26 0' Collection Date: 11/7/2022 1:00:00 PM oired Data: 11/10/2022 7.15.00 AM

Lab ID: 2211577-006	Matrix: SOIL	Rece	Received Date: 11/10/2022 7:15:00 AM			
Analyses	Result	RL Qua	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS				Analyst: DGH	
Diesel Range Organics (DRO)	ND	15	mg/Kg	1	11/14/2022 8:01:39 PM	
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/14/2022 8:01:39 PM	
Surr: DNOP	109	21-129	%Rec	1	11/14/2022 8:01:39 PM	
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst: RAA	
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/14/2022 3:07:00 PM	
Surr: BFB	100	37.7-212	%Rec	1	11/14/2022 3:07:00 PM	
EPA METHOD 8021B: VOLATILES					Analyst: RAA	
Benzene	ND	0.024	mg/Kg	1	11/14/2022 3:07:00 PM	
Toluene	ND	0.048	mg/Kg	1	11/14/2022 3:07:00 PM	
Ethylbenzene	ND	0.048	mg/Kg	1	11/14/2022 3:07:00 PM	
Xylenes, Total	ND	0.096	mg/Kg	1	11/14/2022 3:07:00 PM	
Surr: 4-Bromofluorobenzene	107	70-130	%Rec	1	11/14/2022 3:07:00 PM	
EPA METHOD 300.0: ANIONS					Analyst: NAI	
Chloride	190	60	mg/Kg	20	11/15/2022 12:42:11 AM	

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

Qualifiers:

* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 6 of 18

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Date Reported: 11/17/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-26 2' **Project:** SDE 31 Federal 009 Collection Date: 11/7/2022 1:05:00 PM Lab ID: 2211577-007 Matrix: SOIL Received Date: 11/10/2022 7:15:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 11/14/2022 8:22:30 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 11/14/2022 8:22:30 PM 21-129 Surr: DNOP %Rec 1 11/14/2022 8:22:30 PM 113 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/14/2022 3:27:00 PM 4.9 mg/Kg 1 Surr: BFB 103 37.7-212 %Rec 1 11/14/2022 3:27:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/14/2022 3:27:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 11/14/2022 3:27:00 PM Ethylbenzene ND 0.049 mg/Kg 1 11/14/2022 3:27:00 PM Xylenes, Total ND 0.098 mg/Kg 11/14/2022 3:27:00 PM 1 Surr: 4-Bromofluorobenzene 107 70-130 %Rec 1 11/14/2022 3:27:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 11/15/2022 12:54:35 AM 210 59 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

POL

Practical Quanitative Limit S

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 7 of 18

Project:

Lab ID:

CLIENT: Vertex Resources Services, Inc.

SDE 31 Federal 009 2211577-008

Analytical Report Lab Order 2211577

Date Reported: 11/17/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-27 0' Collection Date: 11/7/2022 2:15:00 PM Received Date: 11/10/2022 7:15:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	15	mg/Kg	1	11/14/2022 8:32:58 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/14/2022 8:32:58 PM
Surr: DNOP	109	21-129	%Rec	1	11/14/2022 8:32:58 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/14/2022 3:47:00 PM
Surr: BFB	102	37.7-212	%Rec	1	11/14/2022 3:47:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.023	mg/Kg	1	11/14/2022 3:47:00 PM
Toluene	ND	0.047	mg/Kg	1	11/14/2022 3:47:00 PM
Ethylbenzene	ND	0.047	mg/Kg	1	11/14/2022 3:47:00 PM
Xylenes, Total	ND	0.094	mg/Kg	1	11/14/2022 3:47:00 PM
Surr: 4-Bromofluorobenzene	108	70-130	%Rec	1	11/14/2022 3:47:00 PM
EPA METHOD 300.0: ANIONS					Analyst: NAI
Chloride	ND	60	mg/Kg	20	11/15/2022 1:07:00 AM

Matrix: SOIL

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit PQL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range RL Reporting Limit

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Date Reported: 11/17/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-27 2' **Project:** SDE 31 Federal 009 Collection Date: 11/7/2022 2:20:00 PM Lab ID: 2211577-009 Matrix: SOIL Received Date: 11/10/2022 7:15:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 11/14/2022 8:43:26 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 11/14/2022 8:43:26 PM Surr: DNOP 21-129 %Rec 1 11/14/2022 8:43:26 PM 110 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/14/2022 4:06:00 PM 4.9 mg/Kg 1 Surr: BFB 96.8 37.7-212 %Rec 1 11/14/2022 4:06:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/14/2022 4:06:00 PM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 11/14/2022 4:06:00 PM Ethylbenzene ND 0.049 mg/Kg 1 11/14/2022 4:06:00 PM Xylenes, Total ND 0.097 mg/Kg 1 11/14/2022 4:06:00 PM Surr: 4-Bromofluorobenzene 106 70-130 %Rec 1 11/14/2022 4:06:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 11/15/2022 1:19:25 AM 210 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 9 of 18

Date Reported: 11/17/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-28 0' **Project:** SDE 31 Federal 009 Collection Date: 11/7/2022 3:00:00 PM Lab ID: 2211577-010 Matrix: SOIL Received Date: 11/10/2022 7:15:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 11/14/2022 8:53:56 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 11/14/2022 8:53:56 PM Surr: DNOP 108 21-129 %Rec 1 11/14/2022 8:53:56 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/14/2022 4:46:00 PM 4.6 mg/Kg 1 Surr: BFB 103 37.7-212 %Rec 1 11/14/2022 4:46:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/14/2022 4:46:00 PM 0.023 mg/Kg 1 Toluene ND 0.046 mg/Kg 1 11/14/2022 4:46:00 PM Ethylbenzene ND 0.046 mg/Kg 1 11/14/2022 4:46:00 PM Xylenes, Total ND 0.093 mg/Kg 11/14/2022 4:46:00 PM 1 Surr: 4-Bromofluorobenzene 109 70-130 %Rec 1 11/14/2022 4:46:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 11/15/2022 1:31:49 AM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 10 of 18

Date Reported: 11/17/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-28 2' **Project:** SDE 31 Federal 009 Collection Date: 11/7/2022 3:15:00 PM Lab ID: 2211577-011 Matrix: SOIL Received Date: 11/10/2022 7:15:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 11/14/2022 9:04:28 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 11/14/2022 9:04:28 PM Surr: DNOP 117 21-129 %Rec 1 11/14/2022 9:04:28 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/14/2022 5:06:00 PM 4.8 mg/Kg 1 Surr: BFB 97.8 37.7-212 %Rec 1 11/14/2022 5:06:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 0.024 11/14/2022 5:06:00 PM mg/Kg 1 Toluene ND 0.048 mg/Kg 1 11/14/2022 5:06:00 PM Ethylbenzene ND 0.048 mg/Kg 1 11/14/2022 5:06:00 PM Xylenes, Total ND 0.096 mg/Kg 1 11/14/2022 5:06:00 PM Surr: 4-Bromofluorobenzene 108 70-130 %Rec 1 11/14/2022 5:06:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 11/15/2022 1:44:13 AM 440 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

ND Not Detected at the Reporting PQL Practical Quanitative 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 11 of 18

Date Reported: 11/17/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-35 0' **Project:** SDE 31 Federal 009 Collection Date: 11/7/2022 1:45:00 PM Lab ID: 2211577-012 Matrix: SOIL Received Date: 11/10/2022 7:15:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 11/14/2022 9:15:00 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 11/14/2022 9:15:00 PM Surr: DNOP 105 21-129 %Rec 1 11/14/2022 9:15:00 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/14/2022 5:25:00 PM 4.9 mg/Kg 1 Surr: BFB 94.0 37.7-212 %Rec 1 11/14/2022 5:25:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/14/2022 5:25:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 11/14/2022 5:25:00 PM Ethylbenzene ND 0.049 mg/Kg 1 11/14/2022 5:25:00 PM Xylenes, Total ND 0.098 mg/Kg 11/14/2022 5:25:00 PM 1 Surr: 4-Bromofluorobenzene 103 70-130 %Rec 1 11/14/2022 5:25:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 11/15/2022 1:34:49 PM ND 59 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 12 of 18

Date Reported: 11/17/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-35 2' **Project:** SDE 31 Federal 009 Collection Date: 11/7/2022 1:50:00 PM Lab ID: 2211577-013 Matrix: SOIL Received Date: 11/10/2022 7:15:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 11/14/2022 9:25:31 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 11/14/2022 9:25:31 PM Surr: DNOP 21-129 %Rec 1 11/14/2022 9:25:31 PM 110 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 4.7 11/14/2022 5:45:00 PM mg/Kg 1 Surr: BFB 103 37.7-212 %Rec 1 11/14/2022 5:45:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/14/2022 5:45:00 PM 0.023 mg/Kg 1 Toluene ND 0.047 mg/Kg 1 11/14/2022 5:45:00 PM Ethylbenzene ND 0.047 mg/Kg 1 11/14/2022 5:45:00 PM Xylenes, Total ND 0.093 mg/Kg 11/14/2022 5:45:00 PM 1 Surr: 4-Bromofluorobenzene 107 70-130 %Rec 1 11/14/2022 5:45:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 11/15/2022 2:12:02 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range Reporting Limit

RL

Page 13 of 18

Client: Project:		Resources Service 1 Federal 009	es, Inc.							
Sample ID:	MB-71490	SampType: n	nblk	Tes	tCode: EF	PA Method	300.0: Anions	;		
Client ID:	PBS	Batch ID: 7	1490	F	RunNo: 92	2581				
Prep Date:	11/14/2022	Analysis Date:	11/14/2022	S	SeqNo: 33	329330	Units: mg/K	g		
Analyte		Result PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND 1.	5							
Sample ID:	LCS-71490	SampType: I	cs	Tes	tCode: EF	PA Method	300.0: Anions	;		
Client ID:	LCSS	Batch ID: 7	1490	F	RunNo: 92	2581				
Prep Date:	11/14/2022	Analysis Date:	11/14/2022	Ś	SeqNo: 33	329331	Units: mg/K	g		
Analyte		Result PQL	. SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		15 1.	5 15.00	0	97.6	90	110			
Sample ID:	MB-71506	SampType: n	nblk	Tes	tCode: EF	PA Method	300.0: Anions	;		
Client ID:	PBS	Batch ID: 7	1506	F	RunNo: 92	2584				
Prep Date:	11/15/2022	Analysis Date:	11/15/2022	5	SeqNo: 33	331205	Units: mg/K	g		
Analyte		Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND 1.	5							
Sample ID:	LCS-71506	SampType: I	cs	Tes	tCode: EF	PA Method	300.0: Anions	;		
Client ID:	LCSS	Batch ID: 7	1506	F	RunNo: 92	2584				
Prep Date:	11/15/2022	Analysis Date:	11/15/2022	\$	SeqNo: 33	331206	Units: mg/K	g		
Analyte		Result PQL	. SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14 1.	5 15.00	0	96.6	90	110			

Qualifiers:

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

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2211577

17-Nov-22

WO#:

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Project:		Resources Se Federal 009	,	Inc.							
Sample ID:	LCS-71461	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015M/D: Dies	sel Range	Organics	
Client ID:	LCSS	Batch	ID: 714	461	F	RunNo: 92	2557				
Prep Date:	11/14/2022	Analysis D	ate: 11	/14/2022	S	SeqNo: 33	327869	Units: %Rec			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		5.0		5.000		101	21	129			
Sample ID:	MB-71461	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8015M/D: Dies	sel Range	Organics	
Client ID:	PBS	Batch	ID: 714	461	F	RunNo: 92	2557				
Prep Date:	11/14/2022	Analysis D	ate: 11	/14/2022	S	SeqNo: 33	327870	Units: %Rec			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP)	9.3		10.00		92.6	21	129			
Sample ID:	LCS-71439	SampT	ype: LC	s	Tes	tCode: EF	PA Method	8015M/D: Dies	sel Range	Organics	
	LCS-71439 LCSS		ype: LC ID: 71 4			tCode: EF RunNo: 92		8015M/D: Dies	sel Range	Organics	
			ID: 714	139	F		2557	8015M/D: Dies Units: mg/K	-	Organics	
Client ID:	LCSS	Batch	ID: 714	139 /14/2022	F	RunNo: 92	2557		-	Organics RPDLimit	Qual
Client ID: Prep Date: Analyte	LCSS	Batch Analysis D	ID: 714 ate: 11	139 /14/2022	F	RunNo: 92 SeqNo: 3 3	2557 329477	Units: mg/K	g	-	Qual
Client ID: Prep Date: Analyte	LCSS 11/11/2022 Organics (DRO)	Batch Analysis D Result	ID: 714 ate: 11 PQL	139 /14/2022 SPK value	F S SPK Ref Val	RunNo: 92 SeqNo: 33 %REC	2557 329477 LowLimit	Units: mg/K q HighLimit	g	-	Qual S
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP	LCSS 11/11/2022 Organics (DRO)	Batch Analysis D Result 63 7.4	ID: 714 ate: 11 PQL	139 /14/2022 SPK value 50.00 5.000	F SPK Ref Val 0	RunNo: 92 SeqNo: 33 %REC 126 149	2557 329477 LowLimit 64.4 21	Units: mg/K g HighLimit 127	g %RPD	RPDLimit	
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP	LCSS 11/11/2022 Organics (DRO)	Batch Analysis D Result 63 7.4 SampT	ID: 714 ate: 11 PQL 15	139 /14/2022 SPK value 50.00 5.000 BLK	F SPK Ref Val 0 Tes	RunNo: 92 SeqNo: 33 %REC 126 149	2557 329477 LowLimit 64.4 21 PA Method	Units: mg/Kg HighLimit 127 129	g %RPD	RPDLimit	
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID:	LCSS 11/11/2022 Organics (DRO) MB-71439	Batch Analysis D Result 63 7.4 SampT	ID: 714 ate: 11 PQL 15 ype: ME ID: 714	139 /14/2022 SPK value 50.00 5.000 BLK 139	F SPK Ref Val 0 Tes F	RunNo: 92 SeqNo: 33 %REC 126 149 tCode: EF	2557 329477 LowLimit 64.4 21 PA Method 2557	Units: mg/Kg HighLimit 127 129	g %RPD sel Range	RPDLimit	
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID: Client ID:	LCSS 11/11/2022 Organics (DRO) MB-71439 PBS	Batch Analysis D Result 63 7.4 SampT Batch	ID: 714 ate: 11 PQL 15 ype: ME ID: 714	139 /14/2022 SPK value 50.00 5.000 BLK 139 /14/2022	F SPK Ref Val 0 Tes F	RunNo: 92 SeqNo: 33 %REC 126 149 tCode: EF RunNo: 92	2557 329477 LowLimit 64.4 21 PA Method 2557	Units: mg/Kg HighLimit 127 129 8015M/D: Dies	g %RPD sel Range	RPDLimit	
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID: Client ID: Prep Date: Analyte	LCSS 11/11/2022 Organics (DRO) MB-71439 PBS	Batch Analysis D Result 63 7.4 SampT Batch Analysis D Result ND	ID: 714 ate: 11 PQL 15 ype: ME ID: 714 ate: 11	139 /14/2022 SPK value 50.00 5.000 BLK 139 /14/2022	F SPK Ref Val 0 Tes F	RunNo: 92 SeqNo: 33 %REC 126 149 tCode: EF RunNo: 92 SeqNo: 33	2557 329477 64.4 21 24 2557 329478	Units: mg/Kg HighLimit 127 129 8015M/D: Dies Units: mg/Kg	g %RPD sel Range	RPDLimit Organics	S
Client ID: Prep Date: Analyte Diesel Range (Surr: DNOP Sample ID: Client ID: Prep Date: Analyte Diesel Range (LCSS 11/11/2022 Organics (DRO) MB-71439 PBS 11/11/2022 Organics (DRO) ge Organics (MRO)	Batch Analysis D Result 63 7.4 SampT Batch Analysis D Result	ID: 714 ate: 11 PQL 15 ype: ME ID: 714 ate: 11 PQL	139 /14/2022 SPK value 50.00 5.000 BLK 139 /14/2022	F SPK Ref Val 0 Tes F	RunNo: 92 SeqNo: 33 %REC 126 149 tCode: EF RunNo: 92 SeqNo: 33	2557 329477 64.4 21 24 2557 329478	Units: mg/Kg HighLimit 127 129 8015M/D: Dies Units: mg/Kg	g %RPD sel Range	RPDLimit Organics	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
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- 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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2211577

17-Nov-22

WO#:

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:	Vertex F	Resources Serv	vices, Inc.							
Project:	SDE 31	Federal 009								
Sample ID:	lcs-71438	SampType	e: LCS	Tes	stCode: EPA	Method	8015D: Gasoli	ne Range		
Client ID:	LCSS	Batch ID): 71438	I	RunNo: 9256	69				
Prep Date:	11/11/2022	Analysis Date	e: 11/14/2022	2	SeqNo: 3328	8706	Units: mg/Kg	J		
Analyte		Result F	PQL SPK va	alue SPK Ref Val	%REC L	_owLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	26	5.0 25	.00 0	104	72.3	137			
Surr: BFB		2300	10	000	226	37.7	212			S
Sample ID:	mb-71438	SampType	e: MBLK	Tes	stCode: EPA	Method	8015D: Gasoli	ne Range		
Client ID:	PBS	Batch ID): 71438	I	RunNo: 9256	69				
Prep Date:	11/11/2022	Analysis Date	e: 11/14/2022	2	SeqNo: 3328	8707	Units: mg/Kg	9		
Analyte		Result F	PQL SPK va	alue SPK Ref Val	%REC L	_owLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	ND	5.0							
Surr: BFB		1000	10	000	101	37.7	212			
Sample ID:	lcs-71448	SampType	e: LCS	Tes	stCode: EPA	Method	8015D: Gasoli	ne Range		
Client ID:	LCSS	Batch ID): 71448	I	RunNo: 9256	69				
Prep Date:	11/11/2022	Analysis Date	e: 11/14/2022	2	SeqNo: 3328	8730	Units: %Rec			
Analyte		Result F	PQL SPK va	alue SPK Ref Val	%REC L	_owLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		2300	10	000	227	37.7	212			S
Sample ID:	mb-71448	SampType	e: MBLK	Tes	stCode: EPA	Method	8015D: Gasoli	ne Range		
Client ID:	PBS	Batch ID): 71448	I	RunNo: 9256	69				
Prep Date:	11/11/2022	Analysis Date	e: 11/14/2022	2	SeqNo: 3328	8731	Units: %Rec			
Analyte			PQL SPK va			_owLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		990	1(000	99.2	37.7	212			

Qualifiers:

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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of 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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2211577

17-Nov-22

WO#:

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QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Vertex Re SDE 31 F			Inc.							
Sample ID:	lcs-71438	SampT	Гуре: LC	s	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID:	LCSS	Batcl	h ID: 714	138	F	RunNo: 92	2569				
Prep Date:	11/11/2022	Analysis [Date: 11	/14/2022	S	SeqNo: 33	328759	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.1	0.025	1.000	0	113	80	120			
Toluene		1.1	0.050	1.000	0	113	80	120			
Ethylbenzene		1.1	0.050	1.000	0	113	80	120			
Kylenes, Total		3.3	0.10	3.000	0	111	80	120			
Surr: 4-Brom	nofluorobenzene	1.1		1.000		111	70	130			
Sample ID:	mb-71438	SampT	Гуре: МЕ	BLK	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID:	PBS	Batcl	h ID: 71 4	138	F	RunNo: 92	2569				
Prep Date:	11/11/2022	Analysis [Date: 11	/14/2022	S	SeqNo: 33	328760	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.025								
oluene		ND	0.050								
thylbenzene		ND	0.050								
(ylenes, Total		ND	0.10								
Surr: 4-Brom	nofluorobenzene	1.1		1.000		109	70	130			
Sample ID:	2211577-001ams	SampT	Гуре: МS	5	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID:	BH22-13 4'	Batcl	h ID: 71 4	138	F	RunNo: 92	2569				
Prep Date:	11/11/2022	Analysis I	Date: 11	/14/2022	S	SeqNo: 33	328763	Units: mg/k	٢g		
Analyte		Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.0	0.024	0.9643	0	104	68.8	120			
oluene		1.0	0.048	0.9643	0	104	73.6	124			
thylbenzene		1.0	0.048	0.9643	0	105	72.7	129			
(ylenes, Total		3.0	0.096	2.893	0	104	75.7	126			
Surr: 4-Brom	ofluorobenzene	1.0		0.9643		106	70	130			
Sample ID:	2211577-001amsd	SampT	Гуре: МS	D	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID:	BH22-13 4'	Batcl	h ID: 714	138	F	RunNo: 92	2569				
Prep Date:	11/11/2022	Analysis [Date: 11	/14/2022	S	SeqNo: 33	328764	Units: mg/k	٢g		
Analyte		Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.0	0.024	0.9588	0	105	68.8	120	0.466	20	
		1.0	0.048	0.9588	0	104	73.6	124	0.724	20	
oluene											
oluene Ethylbenzene		1.0	0.048	0.9588	0	106	72.7	129	0.641	20	
thylbenzene Kylenes, Total	nofluorobenzene		0.048 0.096	0.9588 2.876 0.9588	0 0	106 105 108	72.7 75.7 70	129 126 130	0.641 0.772 0	20 20 0	

Qualifiers:

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- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank В
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Limit RL

WO#:	2211577

17-Nov-22

Client: Project:		x Resources S 31 Federal 009		, Inc.							
Sample ID: Ics-	71448	SampT	ype: LC	s	Tes	tCode: EF	A Method	8021B: Volatil	es		
Client ID: LCS	S	Batch	n ID: 71	448	F	RunNo: 92	2569				
Prep Date: 11/	/11/2022	Analysis D	Date: 11	1/14/2022	S	SeqNo: 33	328782	Units: %Rec			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluor	robenzene	1.1		1.000		107	70	130			
Sample ID: mb-	71448	SampT	уре: М	BLK	Tes	tCode: EF	PA Method	8021B: Volatil	es		
Client ID: PBS	5	Batch	n ID: 71	448	F	RunNo: 92	2569				
Prep Date: 11/	/11/2022	Analysis D	Date: 11	1/14/2022	S	SeqNo: 33	328783	Units: %Rec			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluor	robenzene	1.1		1.000		109	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
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- ND Not Detected at the Reporting Limit
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- P Sample pH Not In Range
- RL Reporting Limit

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2211577

17-Nov-22

WO#:

HALL ENVIRONMENTAL ANALYSIS LABORATORY	TEL: 505-345	ental Analysis Labor 4901 Hawkin Albuquerque, NM 8 3975 FAX: 505-345- w.hallenvironmenta	ns NE 87109 Sam 4107	nple Log-In Check L	ist
Client Name: Vertex Resources Services, Inc.	Work Order Num	nber: 2211577		RcptNo: 1	
Received By: Juan Rojas	11/10/2022 7:15:0	0 AM	Geowards		
Completed By: Desiree Dominguez	11/10/2022 8:18:2	4 AM	TP		
Reviewed By: 以アム ハトロ	.22				
Chain of Custody					
1. Is Chain of Custody complete?		Yes 🗹	No 🗌	Not Present	
2. How was the sample delivered?		Courier			
Log In 3. Was an attempt made to cool the samples?	,	Yes 🗹	No 🗌	na 🗌	
4. Were all samples received at a temperature	of >0° C to 6.0°C	Yes 🔽	No 🗌	NA 🗌	
5. Sample(s) in proper container(s)?		Yes 🗹	No 📋		
6. Sufficient sample volume for indicated test(3)?	Yes 🖌	No 🗌		
7. Are samples (except VOA and ONG) property	ly 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 broke	en?	Yes 🗌	No 🗹	# of preserved bottles checked	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	No 🗆	for pH: (<2 or >12 unless	noted)
12. Are matrices correctly identified on Chain of	Custody?	Yes 🗹	No 🗌	Adjusted?	
13. Is it clear what analyses were requested?		Yes 🔽	No 🗌		1
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗹	No 🗆	Checked by: MIL	122
<u>Special Handling (if applicable)</u>					
15. Was client notified of all discrepancies with	this order?	Yes	No 🗍		
Person Notified: By Whom: Regarding:	Date Via:	,	Phone 🗌 Fax	In Person	

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.4	Good	Not Present			

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

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Received	3.384-2021	Received Charles - 284-284 Stock & Record	Turn-Around Time:	le:				H	HALL	N		NO	FNVTRONMENTAL	420
Client:	Vertex		🗶 Standard	K Rush 5	5 Day	Л		A	AL	SI	5	ABO	ANALYSIS LABORATORY	
	(direct b	(direct bill to Devon)	Project Name:					M	w.halle	unviron	ment	www.hallenvironmental.com		
Mailing Address			SDE 31 Federal	600#		4	4901 Hawkins NE	wkins		Albuqu	lerqu	Albuquerque, NM 87109	109	
			Project #:				Tel. 505-345-3975	-345-3		Fax	505-	Fax 505-345-4107	7	1
Phone #:			22E-02816-36						An	Analysis Request	Req	uest		
email or Fax#:			Project Manager			_	-	-		*O4		(Jua		-
QA/QC Package:	ē:		Kent Stallings				_	SM		۲ ^۰ ۲		əsq{		
Standard		Level 4 (Full Validation)	kstallings@vertex.ca	x.ca				1907)ਰ ⁽		/Jui		
Accreditation:		Az Compliance	Sampler:				280				(əsə		
			On Ice:		ON C		8/se		S	3° L	(AC	19) (Pr		
EDD (Type)			# of Coolers:				əpic		lete			w		
			Cooler Temp(Including CF):	ding CF): () -	Soulso.y		oitse		W 8			ofilo		
Date Time	Matrix	Sample Name	Container Prese Type and # Type	Preservative Type	7211577	BTEX / 1913	A 1808	N) 803 PAHs b	к АЯЭЯ	8560 (/ Cl' E' E	S) 0728	O listoT		
11/07/22 8:5	8:30 Soil	BH22-13 4'	1, 4oz jar		301	XX				×				200
11/07/22 8:4	8:45 Soil	BH22-13 6'	1, 4oz jar		202	X X				×				
11/07/22 9:0	9:00 Soil	BH22-13 8'	1, 4oz jar	V	<i>co</i> 3	× ×				×				
11/07/22 11:1	11:15 Soil	BH22-25 0'	1, 4oz jar	_0	HOL	XX				×				
11/07/22 11:2	11:20 Soil	BH22-25 2'	1, 4oz jar		005	×				×				
11/07/22 13:0	13:00 Soil	BH22-26 0'	1, 4oz jar	0	006	×				×				
11/07/22 13:(13:05 Soil	BH22-26 2'	1, 4oz jar	0	001	×				×				
11/07/22 14:1	14:15 Soil	BH22-27 0'	1, 4oz jar	0	908 1	×				×				_
11/07/22 14:2	14:20 Soil	BH22-27 2'	1, 4oz jar		600	×				×				
11/07/22 15:0	15:00 Soil	BH22-28 0'	1, 4oz jar	0	010	×				×				
11/07/22 15:1	15:15 Soil	BH22-28 2'	1, 4oz jar	V	01	× ×				×				T
Date: Time:	Relinouished b@	hed b%: A A	Received by:	Via:	Date Time	Remarks	×					_		
ន		a Pulling	Culauru		001 22/10/ M	Direct	Direct bill to Devon, Dale Woodall	Devon	, Dale	Wood	all Q			
Date: Time:	Relinquished by	hed by:		ia:	Date Time	2	୦୦. ନରାଶାା।।ସୁରଙ୍କି ୧ଟାକେନ.ଦଶ । ୦୦ ୮ । ।।ସୋ ମକ୍ଟମିଦା ।		פאירס	5				
WAR 1900	o ale	amund ,	X	うとう	Slie 22/01/11									
If necess	ary, samples su	If necessary, samples submitted to Hall Environmental may be subcontracted to on	contracted to other accrec	lited laboratories	ier accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.	s possibility	. Any sub	contracte	id data w	ll be clea	rly nota	ted on the a	nalytical report.	

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December 15, 2022

Kent Stallings Vertex Resources Services, Inc. 3101 Boyd Drive Carlsbad, NM 88220 TEL: (505) 506-0040 FAX:

RE: SDE 31 Federal 009

OrderNo.: 2212211

Hall Environmental Analysis Laboratory

TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 143 sample(s) on 12/6/2022 for the analyses presented in the following report.

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

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-01 0-4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 7:05:00 AM Lab ID: 2212211-001 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: JME Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 12:04:36 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/7/2022 12:04:36 PM Surr: DNOP 101 21-129 %Rec 1 12/7/2022 12:04:36 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/7/2022 1:54:40 PM 5.0 mg/Kg 1 Surr: BFB 90.9 37.7-212 %Rec 1 12/7/2022 1:54:40 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/7/2022 1:54:40 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/7/2022 1:54:40 PM Ethylbenzene ND 0.050 mg/Kg 1 12/7/2022 1:54:40 PM Xylenes, Total ND mg/Kg 1 12/7/2022 1:54:40 PM 0.099 Surr: 4-Bromofluorobenzene 92.4 70-130 %Rec 1 12/7/2022 1:54:40 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/7/2022 10:13:59 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 1 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-02 0-4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 7:05:00 AM Lab ID: 2212211-002 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: JME Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 1:15:47 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/7/2022 1:15:47 PM Surr: DNOP 104 21-129 %Rec 1 12/7/2022 1:15:47 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/7/2022 2:18:19 PM 4.9 mg/Kg 1 Surr: BFB 92.3 37.7-212 %Rec 1 12/7/2022 2:18:19 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 0.024 12/7/2022 2:18:19 PM mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/7/2022 2:18:19 PM Ethylbenzene ND 0.049 mg/Kg 1 12/7/2022 2:18:19 PM Xylenes, Total ND 0.098 mg/Kg 1 12/7/2022 2:18:19 PM Surr: 4-Bromofluorobenzene 93.5 70-130 %Rec 1 12/7/2022 2:18:19 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/7/2022 10:26:23 PM ND 61 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 2 of 167

Date Reported: 12/15/2022

12/7/2022 10:38:47 PM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-03 0-4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 7:10:00 AM Lab ID: 2212211-003 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: JME Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 1:39:28 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/7/2022 1:39:28 PM Surr: DNOP 99.5 21-129 %Rec 1 12/7/2022 1:39:28 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/7/2022 2:41:49 PM 5.0 mg/Kg 1 Surr: BFB 92.6 37.7-212 %Rec 1 12/7/2022 2:41:49 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/7/2022 2:41:49 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/7/2022 2:41:49 PM Ethylbenzene ND 0.050 mg/Kg 1 12/7/2022 2:41:49 PM Xylenes, Total ND mg/Kg 12/7/2022 2:41:49 PM 0.10 1 Surr: 4-Bromofluorobenzene 92.6 70-130 %Rec 1 12/7/2022 2:41:49 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT

ND

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

Qualifiers:

Chloride

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

mg/Kg

20

60

Р Sample pH Not In Range

RL Reporting Limit Page 3 of 167

Project:

CLIENT: Vertex Resources Services, Inc.

SDE 31 Federal 009

Analytical Report Lab Order 2212211

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: WS22-04 -04' Collection Date: 12/2/2022 7:10:00 AM Received Date: 12/6/2022 7:30:00 AM

Lab ID: 2212211-004	Matrix: SOIL	SOIL Received Date: 12/6/2022 7:30:00 AM			
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: J					
Diesel Range Organics (DRO)	ND	15	mg/Kg	1	12/7/2022 2:03:09 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/7/2022 2:03:09 PM
Surr: DNOP	99.3	21-129	%Rec	1	12/7/2022 2:03:09 PM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	12/7/2022 3:05:14 PM
Surr: BFB	94.2	37.7-212	%Rec	1	12/7/2022 3:05:14 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.025	mg/Kg	1	12/7/2022 3:05:14 PM
Toluene	ND	0.050	mg/Kg	1	12/7/2022 3:05:14 PM
Ethylbenzene	ND	0.050	mg/Kg	1	12/7/2022 3:05:14 PM
Xylenes, Total	ND	0.10	mg/Kg	1	12/7/2022 3:05:14 PM
Surr: 4-Bromofluorobenzene	92.7	70-130	%Rec	1	12/7/2022 3:05:14 PM
EPA METHOD 300.0: ANIONS					Analyst: JTT
Chloride	ND	60	mg/Kg	20	12/7/2022 10:51:11 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

Above Quantitation Range/Estimated Value Е

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 4 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-05 0-4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 7:15:00 AM Lab ID: 2212211-005 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: JME Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 2:50:35 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 12/7/2022 2:50:35 PM Surr: DNOP 105 21-129 %Rec 1 12/7/2022 2:50:35 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/7/2022 4:15:32 PM 5.0 mg/Kg 1 Surr: BFB 93.5 37.7-212 %Rec 1 12/7/2022 4:15:32 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/7/2022 4:15:32 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/7/2022 4:15:32 PM Ethylbenzene ND 0.050 mg/Kg 1 12/7/2022 4:15:32 PM Xylenes, Total ND mg/Kg 1 12/7/2022 4:15:32 PM 0.099 Surr: 4-Bromofluorobenzene 93.9 70-130 %Rec 1 12/7/2022 4:15:32 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/7/2022 11:03:36 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

ND Not Detected at the Reporting PQL Practical Quanitative 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

RL Rep

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Date Reported: 12/15/2022

12/7/2022 11:40:48 PM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-06 0-4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 7:15:00 AM Lab ID: 2212211-006 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: JME Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 3:14:14 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/7/2022 3:14:14 PM Surr: DNOP 104 21-129 %Rec 1 12/7/2022 3:14:14 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/7/2022 4:39:08 PM 5.0 mg/Kg 1 Surr: BFB 89.5 37.7-212 %Rec 1 12/7/2022 4:39:08 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/7/2022 4:39:08 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/7/2022 4:39:08 PM Ethylbenzene ND 0.050 mg/Kg 1 12/7/2022 4:39:08 PM Xylenes, Total ND mg/Kg 1 12/7/2022 4:39:08 PM 0.10 Surr: 4-Bromofluorobenzene 92.0 70-130 %Rec 1 12/7/2022 4:39:08 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT

ND

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

Qualifiers:

Chloride

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

ND Not Detected at the Reporting PQL Practical Quanitative 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

mg/Kg

20

60

P Sample pH Not In Range

RL Reporting Limit

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-07 0-4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 7:20:00 AM Lab ID: 2212211-007 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: JME Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 3:37:57 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/7/2022 3:37:57 PM Surr: DNOP 101 21-129 %Rec 1 12/7/2022 3:37:57 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/7/2022 5:02:44 PM 5.0 mg/Kg 1 Surr: BFB 90.2 37.7-212 %Rec 1 12/7/2022 5:02:44 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/7/2022 5:02:44 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/7/2022 5:02:44 PM Ethylbenzene ND 0.050 mg/Kg 1 12/7/2022 5:02:44 PM Xylenes, Total ND mg/Kg 1 12/7/2022 5:02:44 PM 0.099 Surr: 4-Bromofluorobenzene 91.9 70-130 %Rec 1 12/7/2022 5:02:44 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/7/2022 11:53:13 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 7 of 167

2212211-008

Project:

Lab ID:

Analyses

Analytical Report Lab Order 2212211

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 12/15/2022 **CLIENT:** Vertex Resources Services, Inc. Client Sample ID: WS22-08 0-4' SDE 31 Federal 009 Collection Date: 12/2/2022 7:20:00 AM Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: JME в

Diesel Range Organics (DRO)	ND	14	mg/Kg	1	12/7/2022 4:01:38 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/7/2022 4:01:38 PM
Surr: DNOP	102	21-129	%Rec	1	12/7/2022 4:01:38 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/7/2022 5:26:22 PM
Surr: BFB	91.4	37.7-212	%Rec	1	12/7/2022 5:26:22 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.025	mg/Kg	1	12/7/2022 5:26:22 PM
Toluene	ND	0.049	mg/Kg	1	12/7/2022 5:26:22 PM
Ethylbenzene	ND	0.049	mg/Kg	1	12/7/2022 5:26:22 PM
Xylenes, Total	ND	0.099	mg/Kg	1	12/7/2022 5:26:22 PM
Surr: 4-Bromofluorobenzene	92.5	70-130	%Rec	1	12/7/2022 5:26:22 PM
EPA METHOD 300.0: ANIONS					Analyst: JTT
Chloride	83	60	mg/Kg	20	12/7/2022 4:23:40 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits

Р Sample pH Not In Range Reporting Limit

RL

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Project:

CLIENT: Vertex Resources Services, Inc.

SDE 31 Federal 009

Analytical Report Lab Order 2212211

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: WS22-09 0-4' Collection Date: 12/2/2022 7:25:00 AM Received Date: 12/6/2022 7:30:00 AM

Lab ID: 2212211-009	Matrix: SOIL	SOIL Received Date: 12/6/2022 7:30:00 AM			
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: J					
Diesel Range Organics (DRO)	ND	15	mg/Kg	1	12/7/2022 4:25:20 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/7/2022 4:25:20 PM
Surr: DNOP	105	21-129	%Rec	1	12/7/2022 4:25:20 PM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	12/7/2022 5:50:07 PM
Surr: BFB	93.6	37.7-212	%Rec	1	12/7/2022 5:50:07 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.025	mg/Kg	1	12/7/2022 5:50:07 PM
Toluene	ND	0.050	mg/Kg	1	12/7/2022 5:50:07 PM
Ethylbenzene	ND	0.050	mg/Kg	1	12/7/2022 5:50:07 PM
Xylenes, Total	ND	0.10	mg/Kg	1	12/7/2022 5:50:07 PM
Surr: 4-Bromofluorobenzene	95.0	70-130	%Rec	1	12/7/2022 5:50:07 PM
EPA METHOD 300.0: ANIONS					Analyst: JTT
Chloride	110	60	mg/Kg	20	12/7/2022 5:00:43 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit PQL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 9 of 167

2212211-010

Diesel Range Organics (DRO)

Project:

Lab ID:

Analyses

Analytical Report Lab Order 2212211

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 12/15/2022 **CLIENT:** Vertex Resources Services, Inc. Client Sample ID: WS22-10 0-4' SDE 31 Federal 009 Collection Date: 12/2/2022 7:25:00 AM Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: JME ND 12/7/2022 4:49:00 PM 15 mg/Kg 1

5 5 ()			0 0		
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	12/7/2022 4:49:00 PM
Surr: DNOP	103	21-129	%Rec	1	12/7/2022 4:49:00 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/7/2022 6:13:45 PM
Surr: BFB	91.3	37.7-212	%Rec	1	12/7/2022 6:13:45 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.025	mg/Kg	1	12/7/2022 6:13:45 PM
Toluene	ND	0.049	mg/Kg	1	12/7/2022 6:13:45 PM
Ethylbenzene	ND	0.049	mg/Kg	1	12/7/2022 6:13:45 PM
Xylenes, Total	ND	0.098	mg/Kg	1	12/7/2022 6:13:45 PM
Surr: 4-Bromofluorobenzene	92.4	70-130	%Rec	1	12/7/2022 6:13:45 PM
EPA METHOD 300.0: ANIONS					Analyst: JTT
Chloride	ND	60	mg/Kg	20	12/7/2022 5:37:43 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 10 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-11 0-4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 7:30:00 AM Lab ID: 2212211-011 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: JME Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 5:12:44 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/7/2022 5:12:44 PM Surr: DNOP 99.0 21-129 %Rec 1 12/7/2022 5:12:44 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/7/2022 6:37:18 PM 5.0 mg/Kg 1 Surr: BFB 91.9 37.7-212 %Rec 1 12/7/2022 6:37:18 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/7/2022 6:37:18 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/7/2022 6:37:18 PM Ethylbenzene ND 0.050 mg/Kg 1 12/7/2022 6:37:18 PM Xylenes, Total ND mg/Kg 1 12/7/2022 6:37:18 PM 0.099 Surr: 4-Bromofluorobenzene 92.9 70-130 %Rec 1 12/7/2022 6:37:18 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/7/2022 5:50:04 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 11 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-12 0-4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 7:30:00 AM Lab ID: 2212211-012 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: JME Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 5:36:23 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 12/7/2022 5:36:23 PM Surr: DNOP 104 21-129 %Rec 1 12/7/2022 5:36:23 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/7/2022 7:00:54 PM 4.9 mg/Kg 1 Surr: BFB 91.4 37.7-212 %Rec 1 12/7/2022 7:00:54 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/7/2022 7:00:54 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/7/2022 7:00:54 PM Ethylbenzene ND 0.049 mg/Kg 1 12/7/2022 7:00:54 PM Xylenes, Total ND 0.099 mg/Kg 1 12/7/2022 7:00:54 PM Surr: 4-Bromofluorobenzene 92.5 70-130 %Rec 1 12/7/2022 7:00:54 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/7/2022 6:27:05 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 12 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-13 0-4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 7:35:00 AM Lab ID: 2212211-013 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: JME Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 6:00:02 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/7/2022 6:00:02 PM Surr: DNOP 99.9 21-129 %Rec 1 12/7/2022 6:00:02 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/7/2022 7:24:23 PM 4.9 mg/Kg 1 Surr: BFB 89.6 37.7-212 %Rec 1 12/7/2022 7:24:23 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/7/2022 7:24:23 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/7/2022 7:24:23 PM Ethylbenzene ND 0.049 mg/Kg 1 12/7/2022 7:24:23 PM Xylenes, Total ND 0.098 mg/Kg 12/7/2022 7:24:23 PM 1 Surr: 4-Bromofluorobenzene 91.5 70-130 %Rec 1 12/7/2022 7:24:23 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/7/2022 6:39:26 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 13 of 167

Surr: 4-Bromofluorobenzene

EPA METHOD 300.0: ANIONS

Chloride

Analytical Report Lab Order 2212211

Date Reported: 12/15/2022

12/7/2022 7:47:56 PM

12/7/2022 6:51:46 PM

Analyst: JTT

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-14 0-4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 7:35:00 AM Lab ID: 2212211-014 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: JME Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 6:23:37 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/7/2022 6:23:37 PM Surr: DNOP 98.5 21-129 %Rec 1 12/7/2022 6:23:37 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/7/2022 7:47:56 PM 5.0 mg/Kg 1 Surr: BFB 91.0 37.7-212 %Rec 1 12/7/2022 7:47:56 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/7/2022 7:47:56 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/7/2022 7:47:56 PM Ethylbenzene ND 0.050 mg/Kg 1 12/7/2022 7:47:56 PM Xylenes, Total ND mg/Kg 12/7/2022 7:47:56 PM 0.10 1

92.0

ND

70-130

60

%Rec

mg/Kg

1

20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 14 of 167

Released to Imaging: 4/4/2024 9:37:02 AM

Date Reported: 12/15/2022

12/7/2022 7:04:07 PM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-15 0-4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 7:40:00 AM Lab ID: 2212211-015 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 9:18:56 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/7/2022 9:18:56 PM Surr: DNOP 97.8 21-129 %Rec 1 12/7/2022 9:18:56 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/7/2022 12:19:00 PM 4.9 mg/Kg 1 Surr: BFB 104 37.7-212 %Rec 1 12/7/2022 12:19:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/7/2022 12:19:00 PM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/7/2022 12:19:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/7/2022 12:19:00 PM Xylenes, Total ND 0.097 mg/Kg 12/7/2022 12:19:00 PM 1 Surr: 4-Bromofluorobenzene 106 70-130 %Rec 1 12/7/2022 12:19:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT

ND

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

Qualifiers:

Chloride

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

ND Not Detected at the Reporting PQL Practical Quanitative 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

mg/Kg

20

60

P Sample pH Not In Range RL Reporting Limit

Page 15 of 167

Project:

Lab ID:

CLIENT: Vertex Resources Services, Inc.

SDE 31 Federal 009

2212211-016

Analytical Report Lab Order 2212211

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: WS22-16 0-4' Collection Date: 12/2/2022 7:40:00 AM Received Date: 12/6/2022 7:30:00 AM

	Soll				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE C	ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	12/7/2022 10:00:16 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/7/2022 10:00:16 PM
Surr: DNOP	98.4	21-129	%Rec	1	12/7/2022 10:00:16 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/7/2022 1:19:00 PM
Surr: BFB	107	37.7-212	%Rec	1	12/7/2022 1:19:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: CCM
Benzene	ND	0.024	mg/Kg	1	12/7/2022 1:19:00 PM
Toluene	ND	0.049	mg/Kg	1	12/7/2022 1:19:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	12/7/2022 1:19:00 PM
Xylenes, Total	ND	0.098	mg/Kg	1	12/7/2022 1:19:00 PM
Surr: 4-Bromofluorobenzene	109	70-130	%Rec	1	12/7/2022 1:19:00 PM
EPA METHOD 300.0: ANIONS					Analyst: JTT
Chloride	ND	60	mg/Kg	20	12/7/2022 7:16:27 PM

Matrix: SOIL

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 16 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-01 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 7:50:00 AM Lab ID: 2212211-017 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 10:13:46 PM Motor Oil Range Organics (MRO) ND 45 mg/Kg 1 12/7/2022 10:13:46 PM Surr: DNOP 102 21-129 %Rec 1 12/7/2022 10:13:46 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/7/2022 2:18:00 PM 4.8 mg/Kg 1 Surr: BFB 102 37.7-212 %Rec 1 12/7/2022 2:18:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/7/2022 2:18:00 PM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 12/7/2022 2:18:00 PM Ethylbenzene ND 0.048 mg/Kg 1 12/7/2022 2:18:00 PM Xylenes, Total ND 0.097 mg/Kg 1 12/7/2022 2:18:00 PM Surr: 4-Bromofluorobenzene 101 70-130 %Rec 1 12/7/2022 2:18:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/7/2022 7:28:48 PM ND 61 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 17 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-02 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 7:50:00 AM Lab ID: 2212211-018 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 10:27:23 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/7/2022 10:27:23 PM Surr: DNOP 104 21-129 %Rec 1 12/7/2022 10:27:23 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/7/2022 2:37:00 PM 4.8 mg/Kg 1 Surr: BFB 103 37.7-212 %Rec 1 12/7/2022 2:37:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 0.024 12/7/2022 2:37:00 PM mg/Kg 1 Toluene ND 0.048 mg/Kg 1 12/7/2022 2:37:00 PM Ethylbenzene ND 0.048 mg/Kg 1 12/7/2022 2:37:00 PM Xylenes, Total ND 0.096 mg/Kg 12/7/2022 2:37:00 PM 1 Surr: 4-Bromofluorobenzene 103 70-130 %Rec 1 12/7/2022 2:37:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/7/2022 7:41:09 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 18 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-03 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 7:55:00 AM Lab ID: 2212211-019 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 10:41:02 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/7/2022 10:41:02 PM Surr: DNOP 102 21-129 %Rec 1 12/7/2022 10:41:02 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/7/2022 2:57:00 PM 4.8 mg/Kg 1 Surr: BFB 106 37.7-212 %Rec 1 12/7/2022 2:57:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 0.024 12/7/2022 2:57:00 PM mg/Kg 1 Toluene ND 0.048 mg/Kg 1 12/7/2022 2:57:00 PM Ethylbenzene ND 0.048 mg/Kg 1 12/7/2022 2:57:00 PM Xylenes, Total ND 0.096 mg/Kg 1 12/7/2022 2:57:00 PM Surr: 4-Bromofluorobenzene 103 70-130 %Rec 1 12/7/2022 2:57:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/7/2022 7:53:29 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 19 of 167

Date Reported: 12/15/2022

12/7/2022 8:05:50 PM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-04 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 7:55:00 AM Lab ID: 2212211-020 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 10:54:43 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/7/2022 10:54:43 PM Surr: DNOP 105 21-129 %Rec 1 12/7/2022 10:54:43 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/7/2022 3:16:00 PM 4.8 mg/Kg 1 Surr: BFB 102 37.7-212 %Rec 1 12/7/2022 3:16:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 0.024 12/7/2022 3:16:00 PM mg/Kg 1 Toluene ND 0.048 mg/Kg 1 12/7/2022 3:16:00 PM Ethylbenzene ND 0.048 mg/Kg 1 12/7/2022 3:16:00 PM Xylenes, Total ND 0.095 mg/Kg 1 12/7/2022 3:16:00 PM Surr: 4-Bromofluorobenzene 103 70-130 %Rec 1 12/7/2022 3:16:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT

ND

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

Qualifiers:

Chloride

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits

mg/Kg

20

60

Р Sample pH Not In Range Reporting Limit

RL

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-05 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 8:00:00 AM Lab ID: 2212211-021 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 11:08:30 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/7/2022 11:08:30 PM Surr: DNOP 100 21-129 %Rec 1 12/7/2022 11:08:30 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 4.7 12/7/2022 3:36:00 PM mg/Kg 1 Surr: BFB 103 37.7-212 %Rec 1 12/7/2022 3:36:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/7/2022 3:36:00 PM 0.024 mg/Kg 1 Toluene ND 0.047 mg/Kg 1 12/7/2022 3:36:00 PM Ethylbenzene ND 0.047 mg/Kg 1 12/7/2022 3:36:00 PM Xylenes, Total ND 0.094 mg/Kg 1 12/7/2022 3:36:00 PM Surr: 4-Bromofluorobenzene 107 70-130 %Rec 1 12/7/2022 3:36:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/7/2022 8:18:10 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 21 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-06 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 8:00:00 AM Lab ID: 2212211-022 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 11:22:06 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/7/2022 11:22:06 PM Surr: DNOP 106 21-129 %Rec 1 12/7/2022 11:22:06 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 4.7 12/7/2022 3:56:00 PM mg/Kg 1 Surr: BFB 99.9 37.7-212 %Rec 1 12/7/2022 3:56:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/7/2022 3:56:00 PM 0.023 mg/Kg 1 Toluene ND 0.047 mg/Kg 1 12/7/2022 3:56:00 PM Ethylbenzene ND 0.047 mg/Kg 1 12/7/2022 3:56:00 PM Xylenes, Total ND 0.093 mg/Kg 1 12/7/2022 3:56:00 PM Surr: 4-Bromofluorobenzene 104 70-130 %Rec 1 12/7/2022 3:56:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/7/2022 8:55:13 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 22 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-07 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 8:05:00 AM Lab ID: 2212211-023 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 11:49:13 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/7/2022 11:49:13 PM Surr: DNOP 106 21-129 %Rec 1 12/7/2022 11:49:13 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/7/2022 4:16:00 PM 4.9 mg/Kg 1 Surr: BFB 105 37.7-212 %Rec 1 12/7/2022 4:16:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 0.024 12/7/2022 4:16:00 PM mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/7/2022 4:16:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/7/2022 4:16:00 PM Xylenes, Total ND 0.098 mg/Kg 1 12/7/2022 4:16:00 PM Surr: 4-Bromofluorobenzene 107 70-130 %Rec 1 12/7/2022 4:16:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/7/2022 9:07:33 PM 67 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 23 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-08 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 8:05:00 AM Lab ID: 2212211-024 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/8/2022 12:02:50 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/8/2022 12:02:50 AM Surr: DNOP 21-129 %Rec 1 12/8/2022 12:02:50 AM 115 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/7/2022 4:35:00 PM 4.6 mg/Kg 1 Surr: BFB 110 37.7-212 %Rec 1 12/7/2022 4:35:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/7/2022 4:35:00 PM 0.023 mg/Kg 1 Toluene ND 0.046 mg/Kg 1 12/7/2022 4:35:00 PM Ethylbenzene ND 0.046 mg/Kg 1 12/7/2022 4:35:00 PM Xylenes, Total ND 0.092 mg/Kg 1 12/7/2022 4:35:00 PM Surr: 4-Bromofluorobenzene 108 70-130 %Rec 1 12/7/2022 4:35:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/7/2022 9:19:54 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 24 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-09 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 8:10:00 AM Lab ID: 2212211-025 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 12:16:38 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/8/2022 12:16:38 AM Surr: DNOP 104 21-129 %Rec 1 12/8/2022 12:16:38 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/7/2022 5:15:00 PM 4.8 mg/Kg 1 Surr: BFB 105 37.7-212 %Rec 1 12/7/2022 5:15:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 0.024 12/7/2022 5:15:00 PM mg/Kg 1 Toluene ND 0.048 mg/Kg 1 12/7/2022 5:15:00 PM Ethylbenzene ND 0.048 mg/Kg 1 12/7/2022 5:15:00 PM Xylenes, Total ND 0.096 mg/Kg 1 12/7/2022 5:15:00 PM Surr: 4-Bromofluorobenzene 105 70-130 %Rec 1 12/7/2022 5:15:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/7/2022 9:32:15 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 25 of 167

Released to Imaging: 4/4/2024 9:37:02 AM

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-10 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 8:10:00 AM Lab ID: 2212211-026 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/8/2022 12:30:15 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/8/2022 12:30:15 AM Surr: DNOP 105 21-129 %Rec 1 12/8/2022 12:30:15 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/7/2022 5:34:00 PM 4.9 mg/Kg 1 Surr: BFB 102 37.7-212 %Rec 1 12/7/2022 5:34:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/7/2022 5:34:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/7/2022 5:34:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/7/2022 5:34:00 PM Xylenes, Total ND 0.098 mg/Kg 1 12/7/2022 5:34:00 PM Surr: 4-Bromofluorobenzene 107 70-130 %Rec 1 12/7/2022 5:34:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/7/2022 9:44:35 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 26 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-11 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 8:15:00 AM Lab ID: 2212211-027 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 12:43:45 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/8/2022 12:43:45 AM Surr: DNOP 96.1 21-129 %Rec 1 12/8/2022 12:43:45 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/7/2022 5:54:00 PM 4.9 mg/Kg 1 Surr: BFB 104 37.7-212 %Rec 1 12/7/2022 5:54:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/7/2022 5:54:00 PM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/7/2022 5:54:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/7/2022 5:54:00 PM Xylenes, Total ND 0.097 mg/Kg 1 12/7/2022 5:54:00 PM Surr: 4-Bromofluorobenzene 103 70-130 %Rec 1 12/7/2022 5:54:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/7/2022 9:56:56 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 27 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-12 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 8:15:00 AM Lab ID: 2212211-028 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 12:57:08 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/8/2022 12:57:08 AM Surr: DNOP 99.4 21-129 %Rec 1 12/8/2022 12:57:08 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/7/2022 6:14:00 PM 5.0 mg/Kg 1 Surr: BFB 95.5 37.7-212 %Rec 1 12/7/2022 6:14:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/7/2022 6:14:00 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/7/2022 6:14:00 PM Ethylbenzene ND 0.050 mg/Kg 1 12/7/2022 6:14:00 PM Xylenes, Total ND mg/Kg 1 12/7/2022 6:14:00 PM 0.099 Surr: 4-Bromofluorobenzene 99.6 70-130 %Rec 1 12/7/2022 6:14:00 PM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 11:28:33 AM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 28 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-13 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 8:20:00 AM Lab ID: 2212211-029 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 1:10:25 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/8/2022 1:10:25 AM Surr: DNOP 107 21-129 %Rec 1 12/8/2022 1:10:25 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/7/2022 6:33:00 PM 4.9 mg/Kg 1 Surr: BFB 97.2 37.7-212 %Rec 1 12/7/2022 6:33:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 0.024 12/7/2022 6:33:00 PM mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/7/2022 6:33:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/7/2022 6:33:00 PM Xylenes, Total ND 0.098 mg/Kg 1 12/7/2022 6:33:00 PM Surr: 4-Bromofluorobenzene 103 70-130 %Rec 1 12/7/2022 6:33:00 PM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 12:05:46 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 29 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-14 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 8:20:00 AM Lab ID: 2212211-030 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 1:23:35 AM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/8/2022 1:23:35 AM Surr: DNOP 103 21-129 %Rec 1 12/8/2022 1:23:35 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/7/2022 6:53:00 PM 4.8 mg/Kg 1 Surr: BFB 108 37.7-212 %Rec 1 12/7/2022 6:53:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 0.024 12/7/2022 6:53:00 PM mg/Kg 1 Toluene ND 0.048 mg/Kg 1 12/7/2022 6:53:00 PM Ethylbenzene ND 0.048 mg/Kg 1 12/7/2022 6:53:00 PM Xylenes, Total ND 0.096 mg/Kg 1 12/7/2022 6:53:00 PM Surr: 4-Bromofluorobenzene 106 70-130 %Rec 1 12/7/2022 6:53:00 PM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 12:43:00 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 30 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-15 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 8:25:00 AM Lab ID: 2212211-031 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/8/2022 1:36:48 AM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/8/2022 1:36:48 AM Surr: DNOP 100 21-129 %Rec 1 12/8/2022 1:36:48 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/7/2022 7:13:00 PM 4.9 mg/Kg 1 Surr: BFB 104 37.7-212 %Rec 1 12/7/2022 7:13:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/7/2022 7:13:00 PM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/7/2022 7:13:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/7/2022 7:13:00 PM Xylenes, Total ND 0.097 mg/Kg 1 12/7/2022 7:13:00 PM Surr: 4-Bromofluorobenzene 106 70-130 %Rec 1 12/7/2022 7:13:00 PM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 12:55:24 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 31 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-16 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 8:25:00 AM Lab ID: 2212211-032 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 1:49:51 AM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/8/2022 1:49:51 AM Surr: DNOP 100 21-129 %Rec 1 12/8/2022 1:49:51 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/7/2022 7:32:00 PM 4.9 mg/Kg 1 Surr: BFB 101 37.7-212 %Rec 1 12/7/2022 7:32:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/7/2022 7:32:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/7/2022 7:32:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/7/2022 7:32:00 PM Xylenes, Total ND 0.099 mg/Kg 1 12/7/2022 7:32:00 PM Surr: 4-Bromofluorobenzene 104 70-130 %Rec 1 12/7/2022 7:32:00 PM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 1:32:37 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

ND POL

Practical Quanitative Limit S

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

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

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-17 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 8:30:00 AM Lab ID: 2212211-033 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 13 mg/Kg 1 12/8/2022 2:02:54 AM Motor Oil Range Organics (MRO) ND 45 mg/Kg 1 12/8/2022 2:02:54 AM Surr: DNOP 98.4 21-129 %Rec 1 12/8/2022 2:02:54 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/7/2022 7:52:00 PM 4.8 mg/Kg 1 Surr: BFB 98.6 37.7-212 %Rec 1 12/7/2022 7:52:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/7/2022 7:52:00 PM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 12/7/2022 7:52:00 PM Ethylbenzene ND 0.048 mg/Kg 1 12/7/2022 7:52:00 PM Xylenes, Total ND 0.095 mg/Kg 12/7/2022 7:52:00 PM 1 Surr: 4-Bromofluorobenzene 104 70-130 %Rec 1 12/7/2022 7:52:00 PM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 1:45:01 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 33 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-18 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 8:30:00 AM Lab ID: 2212211-034 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 2:15:52 AM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/8/2022 2:15:52 AM Surr: DNOP 107 21-129 %Rec 1 12/8/2022 2:15:52 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/7/2022 8:12:00 PM 4.9 mg/Kg 1 Surr: BFB 104 37.7-212 %Rec 1 12/7/2022 8:12:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 0.024 12/7/2022 8:12:00 PM mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/7/2022 8:12:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/7/2022 8:12:00 PM Xylenes, Total ND 0.098 mg/Kg 1 12/7/2022 8:12:00 PM Surr: 4-Bromofluorobenzene 105 70-130 %Rec 1 12/7/2022 8:12:00 PM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 1:57:25 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 34 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-19 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 8:35:00 AM Lab ID: 2212211-035 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 8:38:03 AM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/7/2022 8:38:03 AM Surr: DNOP 80.4 21-129 %Rec 1 12/7/2022 8:38:03 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/7/2022 10:09:00 PM 5.0 mg/Kg 1 Surr: BFB 101 37.7-212 %Rec 1 12/7/2022 10:09:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/7/2022 10:09:00 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/7/2022 10:09:00 PM Ethylbenzene ND 0.050 mg/Kg 1 12/7/2022 10:09:00 PM Xylenes, Total ND mg/Kg 1 12/7/2022 10:09:00 PM 0.10 Surr: 4-Bromofluorobenzene 103 70-130 %Rec 1 12/7/2022 10:09:00 PM **EPA METHOD 300.0: ANIONS** Analyst: CAS mg/Kg Chloride 12/8/2022 2:09:50 PM ND 59 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 35 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-20 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 8:35:00 AM Lab ID: 2212211-036 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 9:18:39 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/7/2022 9:18:39 AM Surr: DNOP 94.7 21-129 %Rec 1 12/7/2022 9:18:39 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/7/2022 11:09:00 PM 5.0 mg/Kg 1 Surr: BFB 109 37.7-212 %Rec 1 12/7/2022 11:09:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/7/2022 11:09:00 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/7/2022 11:09:00 PM Ethylbenzene ND 0.050 mg/Kg 1 12/7/2022 11:09:00 PM Xylenes, Total ND mg/Kg 1 12/7/2022 11:09:00 PM 0.099 Surr: 4-Bromofluorobenzene 106 70-130 %Rec 1 12/7/2022 11:09:00 PM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 2:22:14 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

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

RL

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-21 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 8:40:00 AM Lab ID: 2212211-037 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 9:32:21 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/7/2022 9:32:21 AM Surr: DNOP 92.5 21-129 %Rec 1 12/7/2022 9:32:21 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 12:07:00 AM 4.9 mg/Kg 1 Surr: BFB 100 37.7-212 %Rec 1 12/8/2022 12:07:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 12:07:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 12:07:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 12:07:00 AM Xylenes, Total ND 0.099 mg/Kg 1 12/8/2022 12:07:00 AM Surr: 4-Bromofluorobenzene 102 70-130 %Rec 1 12/8/2022 12:07:00 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 2:34:38 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 37 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-22 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 8:40:00 AM Lab ID: 2212211-038 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 9:46:00 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/7/2022 9:46:00 AM Surr: DNOP 84.6 21-129 %Rec 1 12/7/2022 9:46:00 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 12:27:00 AM 5.0 mg/Kg 1 Surr: BFB 98.9 37.7-212 %Rec 1 12/8/2022 12:27:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 12:27:00 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 12:27:00 AM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 12:27:00 AM Xylenes, Total ND mg/Kg 12/8/2022 12:27:00 AM 0.099 1 Surr: 4-Bromofluorobenzene 105 70-130 %Rec 1 12/8/2022 12:27:00 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 3:11:51 PM ND 61 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

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

RL

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-23 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 8:55:00 AM Lab ID: 2212211-039 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 9:59:34 AM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/7/2022 9:59:34 AM Surr: DNOP 95.5 21-129 %Rec 1 12/7/2022 9:59:34 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 12:47:00 AM 4.9 mg/Kg 1 Surr: BFB 99.8 37.7-212 %Rec 1 12/8/2022 12:47:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 12:47:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 12:47:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 12:47:00 AM Xylenes, Total ND 0.098 mg/Kg 12/8/2022 12:47:00 AM 1 Surr: 4-Bromofluorobenzene 104 70-130 %Rec 1 12/8/2022 12:47:00 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 3:24:16 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 39 of 167

Project:

Lab ID:

Analyses

Analytical Report Lab Order 2212211

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 12/15/2022 Client Sample ID: BS22-24 4' **CLIENT:** Vertex Resources Services, Inc. SDE 31 Federal 009 Collection Date: 12/2/2022 8:55:00 AM 2212211-040 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 12/7/2022 10:12:59 AM 14 mg/Kg 1 AM AM СМ Μ М

				•	
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/7/2022 10:12:59 AM
Surr: DNOP	94.6	21-129	%Rec	1	12/7/2022 10:12:59 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/8/2022 1:06:00 AM
Surr: BFB	104	37.7-212	%Rec	1	12/8/2022 1:06:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: CCM
Benzene	ND	0.025	mg/Kg	1	12/8/2022 1:06:00 AM
Toluene	ND	0.049	mg/Kg	1	12/8/2022 1:06:00 AM
Ethylbenzene	ND	0.049	mg/Kg	1	12/8/2022 1:06:00 AM
Xylenes, Total	ND	0.098	mg/Kg	1	12/8/2022 1:06:00 AM
Surr: 4-Bromofluorobenzene	105	70-130	%Rec	1	12/8/2022 1:06:00 AM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	12/8/2022 3:36:40 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

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

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

RL

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-25 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 9:00:00 AM Lab ID: 2212211-041 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 10:27:03 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/7/2022 10:27:03 AM 21-129 Surr: DNOP %Rec 1 12/7/2022 10:27:03 AM 112 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 1:26:00 AM 5.0 mg/Kg 1 Surr: BFB 102 37.7-212 %Rec 1 12/8/2022 1:26:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 1:26:00 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 1:26:00 AM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 1:26:00 AM Xylenes, Total ND mg/Kg 1 12/8/2022 1:26:00 AM 0.10 Surr: 4-Bromofluorobenzene 104 70-130 %Rec 1 12/8/2022 1:26:00 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 3:49:04 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 41 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-26 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 9:00:00 AM Lab ID: 2212211-042 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 10:54:34 AM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/7/2022 10:54:34 AM Surr: DNOP 92.0 21-129 %Rec 1 12/7/2022 10:54:34 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 1:46:00 AM 5.0 mg/Kg 1 Surr: BFB 107 37.7-212 %Rec 1 12/8/2022 1:46:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 1:46:00 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 1:46:00 AM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 1:46:00 AM Xylenes, Total ND mg/Kg 1 12/8/2022 1:46:00 AM 0.10 Surr: 4-Bromofluorobenzene 104 70-130 %Rec 1 12/8/2022 1:46:00 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 4:01:28 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 42 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-27 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 9:05:00 AM Lab ID: 2212211-043 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 11:08:03 AM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/7/2022 11:08:03 AM Surr: DNOP 122 21-129 %Rec 1 12/7/2022 11:08:03 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 2:06:00 AM 4.9 mg/Kg 1 Surr: BFB 101 37.7-212 %Rec 1 12/8/2022 2:06:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 2:06:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 2:06:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 2:06:00 AM Xylenes, Total ND 0.099 mg/Kg 1 12/8/2022 2:06:00 AM Surr: 4-Bromofluorobenzene 105 70-130 %Rec 1 12/8/2022 2:06:00 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 4:13:53 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 43 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-28 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 9:05:00 AM Lab ID: 2212211-044 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 11:21:34 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/7/2022 11:21:34 AM Surr: DNOP 95.1 21-129 %Rec 1 12/7/2022 11:21:34 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 2:25:00 AM 5.0 mg/Kg 1 Surr: BFB 105 37.7-212 %Rec 1 12/8/2022 2:25:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 2:25:00 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 2:25:00 AM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 2:25:00 AM Xylenes, Total ND mg/Kg 1 12/8/2022 2:25:00 AM 0.099 Surr: 4-Bromofluorobenzene 107 70-130 %Rec 1 12/8/2022 2:25:00 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 4:26:17 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 44 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-29 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 9:10:00 AM Lab ID: 2212211-045 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 11:35:17 AM Motor Oil Range Organics (MRO) ND 51 mg/Kg 1 12/7/2022 11:35:17 AM Surr: DNOP 96.9 21-129 %Rec 1 12/7/2022 11:35:17 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 3:05:00 AM 4.9 mg/Kg 1 Surr: BFB 107 37.7-212 %Rec 1 12/8/2022 3:05:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 3:05:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 3:05:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 3:05:00 AM Xylenes, Total ND 0.099 mg/Kg 1 12/8/2022 3:05:00 AM Surr: 4-Bromofluorobenzene 107 70-130 %Rec 1 12/8/2022 3:05:00 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 5:03:30 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 45 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-30 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 9:10:00 AM Lab ID: 2212211-046 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 11:49:16 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/7/2022 11:49:16 AM Surr: DNOP 90.9 21-129 %Rec 1 12/7/2022 11:49:16 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 3:24:00 AM 4.9 mg/Kg 1 Surr: BFB 98.6 37.7-212 %Rec 1 12/8/2022 3:24:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 3:24:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 3:24:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 3:24:00 AM Xylenes, Total ND 0.098 mg/Kg 1 12/8/2022 3:24:00 AM Surr: 4-Bromofluorobenzene 102 70-130 %Rec 1 12/8/2022 3:24:00 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 6:05:32 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 46 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-31 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 9:15:00 AM Lab ID: 2212211-047 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 12:02:46 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/7/2022 12:02:46 PM Surr: DNOP 93.8 21-129 %Rec 1 12/7/2022 12:02:46 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 3:44:00 AM 5.0 mg/Kg 1 Surr: BFB 207 37.7-212 %Rec 1 12/8/2022 3:44:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 3:44:00 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 3:44:00 AM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 3:44:00 AM Xylenes, Total ND mg/Kg 12/8/2022 3:44:00 AM 0.10 1 Surr: 4-Bromofluorobenzene 217 70-130 S %Rec 1 12/8/2022 3:44:00 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 6:42:45 PM 510 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 47 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-32 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 9:15:00 AM Lab ID: 2212211-048 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 12:16:37 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/7/2022 12:16:37 PM Surr: DNOP 100 21-129 %Rec 1 12/7/2022 12:16:37 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 4:04:00 AM 5.0 mg/Kg 1 Surr: BFB 99.6 37.7-212 %Rec 1 12/8/2022 4:04:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 4:04:00 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 4:04:00 AM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 4:04:00 AM Xylenes, Total ND mg/Kg 1 12/8/2022 4:04:00 AM 0.10 Surr: 4-Bromofluorobenzene 104 70-130 %Rec 1 12/8/2022 4:04:00 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS mg/Kg Chloride 12/8/2022 6:55:10 PM ND 61 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 48 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-33 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 9:20:00 AM Lab ID: 2212211-049 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 12:30:44 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/7/2022 12:30:44 PM Surr: DNOP 95.3 21-129 %Rec 1 12/7/2022 12:30:44 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 4:23:00 AM 4.9 mg/Kg 1 Surr: BFB 104 37.7-212 %Rec 1 12/8/2022 4:23:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 4:23:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 4:23:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 4:23:00 AM Xylenes, Total ND 0.099 mg/Kg 1 12/8/2022 4:23:00 AM Surr: 4-Bromofluorobenzene 104 70-130 %Rec 1 12/8/2022 4:23:00 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 7:07:34 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

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

RL

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SDE 31 Federal 009

2212211-050

Project:

Lab ID:

Analytical Report Lab Order 2212211

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 12/15/2022 CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-34 4' Collection Date: 12/2/2022 9:20:00 AM Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS					Analyst: DGH
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	12/7/2022 12:44:30 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/7/2022 12:44:30 PM
Surr: DNOP	92.2	21-129	%Rec	1	12/7/2022 12:44:30 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: CCM
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	12/8/2022 4:43:00 AM
Surr: BFB	101	37.7-212	%Rec	1	12/8/2022 4:43:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: CCM
Benzene	ND	0.025	mg/Kg	1	12/8/2022 4:43:00 AM
Toluene	ND	0.050	mg/Kg	1	12/8/2022 4:43:00 AM
Ethylbenzene	ND	0.050	mg/Kg	1	12/8/2022 4:43:00 AM
Xylenes, Total	ND	0.099	mg/Kg	1	12/8/2022 4:43:00 AM
Surr: 4-Bromofluorobenzene	105	70-130	%Rec	1	12/8/2022 4:43:00 AM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	12/8/2022 7:19:59 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н Holding times for preparation or analysis exceeded

- Not Detected at the Reporting Limit
- ND PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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*

Date Reported: 12/15/2022

12/8/2022 7:32:23 PM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-35 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 9:25:00 AM Lab ID: 2212211-051 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 12:58:16 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/7/2022 12:58:16 PM Surr: DNOP 93.2 21-129 %Rec 1 12/7/2022 12:58:16 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 5:03:00 AM 5.0 mg/Kg 1 Surr: BFB 101 37.7-212 %Rec 1 12/8/2022 5:03:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 5:03:00 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 5:03:00 AM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 5:03:00 AM Xylenes, Total ND mg/Kg 1 12/8/2022 5:03:00 AM 0.099 Surr: 4-Bromofluorobenzene 104 70-130 %Rec 1 12/8/2022 5:03:00 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS

ND

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

Qualifiers:

Chloride

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits

mg/Kg

20

60

Р Sample pH Not In Range Reporting Limit

RL

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-36 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 9:25:00 AM Lab ID: 2212211-052 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 1:11:55 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/7/2022 1:11:55 PM Surr: DNOP 95.1 21-129 %Rec 1 12/7/2022 1:11:55 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 5:22:00 AM 4.9 mg/Kg 1 Surr: BFB 99.9 37.7-212 %Rec 1 12/8/2022 5:22:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 5:22:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 5:22:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 5:22:00 AM Xylenes, Total ND 0.098 mg/Kg 1 12/8/2022 5:22:00 AM Surr: 4-Bromofluorobenzene 105 70-130 %Rec 1 12/8/2022 5:22:00 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 8:09:36 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 52 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-37 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 9:30:00 AM Lab ID: 2212211-053 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 1:25:32 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/7/2022 1:25:32 PM Surr: DNOP 93.1 21-129 %Rec 1 12/7/2022 1:25:32 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 5:42:00 AM 4.9 mg/Kg 1 Surr: BFB 104 37.7-212 %Rec 1 12/8/2022 5:42:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 5:42:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 5:42:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 5:42:00 AM Xylenes, Total ND 0.098 mg/Kg 1 12/8/2022 5:42:00 AM Surr: 4-Bromofluorobenzene 107 70-130 %Rec 1 12/8/2022 5:42:00 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 8:22:01 PM 100 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 53 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-38 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 9:30:00 AM Lab ID: 2212211-054 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 1:39:18 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/7/2022 1:39:18 PM Surr: DNOP 94.2 21-129 %Rec 1 12/7/2022 1:39:18 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 6:02:00 AM 4.9 mg/Kg 1 Surr: BFB 100 37.7-212 %Rec 1 12/8/2022 6:02:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 6:02:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 6:02:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 6:02:00 AM Xylenes, Total ND 0.099 mg/Kg 1 12/8/2022 6:02:00 AM Surr: 4-Bromofluorobenzene 106 70-130 %Rec 1 12/8/2022 6:02:00 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 8:34:25 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 54 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-39 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 9:35:00 AM Lab ID: 2212211-055 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 2:34:11 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/7/2022 2:34:11 PM Surr: DNOP 101 21-129 %Rec 1 12/7/2022 2:34:11 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/7/2022 10:09:00 PM 5.0 mg/Kg 1 Surr: BFB 91.3 37.7-212 %Rec 1 12/7/2022 10:09:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/7/2022 10:09:00 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/7/2022 10:09:00 PM Ethylbenzene ND 0.050 mg/Kg 1 12/7/2022 10:09:00 PM Xylenes, Total ND mg/Kg 1 12/7/2022 10:09:00 PM 0.099 Surr: 4-Bromofluorobenzene 93.1 70-130 %Rec 1 12/7/2022 10:09:00 PM **EPA METHOD 300.0: ANIONS** Analyst: CAS mg/Kg Chloride 12/8/2022 8:46:49 PM 89 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

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

RL

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-40 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 9:35:00 AM Lab ID: 2212211-056 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 3:15:03 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/7/2022 3:15:03 PM Surr: DNOP 109 21-129 %Rec 1 12/7/2022 3:15:03 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/7/2022 11:19:29 PM 5.0 mg/Kg 1 Surr: BFB 93.6 37.7-212 %Rec 1 12/7/2022 11:19:29 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/7/2022 11:19:29 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/7/2022 11:19:29 PM Ethylbenzene ND 0.050 mg/Kg 1 12/7/2022 11:19:29 PM Xylenes, Total ND mg/Kg 12/7/2022 11:19:29 PM 0.10 1 Surr: 4-Bromofluorobenzene 95.0 70-130 %Rec 1 12/7/2022 11:19:29 PM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 8:59:13 PM 180 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 56 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-41 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 9:40:00 AM Lab ID: 2212211-057 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 3:28:40 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 12/7/2022 3:28:40 PM Surr: DNOP 21-129 %Rec 1 12/7/2022 3:28:40 PM 118 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 12:30:07 AM 5.0 mg/Kg 1 Surr: BFB 92.6 37.7-212 %Rec 1 12/8/2022 12:30:07 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 12:30:07 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 12:30:07 AM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 12:30:07 AM Xylenes, Total ND mg/Kg 1 12/8/2022 12:30:07 AM 0.10 Surr: 4-Bromofluorobenzene 95.0 70-130 %Rec 1 12/8/2022 12:30:07 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS mg/Kg Chloride 12/8/2022 9:11:37 PM 280 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 57 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-42 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 9:40:00 AM Lab ID: 2212211-058 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 3:42:16 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/7/2022 3:42:16 PM Surr: DNOP 21-129 %Rec 1 12/7/2022 3:42:16 PM 119 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 12:53:36 AM 5.0 mg/Kg 1 Surr: BFB 92.7 37.7-212 %Rec 1 12/8/2022 12:53:36 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 12:53:36 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 12:53:36 AM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 12:53:36 AM Xylenes, Total ND mg/Kg 1 12/8/2022 12:53:36 AM 0.10 Surr: 4-Bromofluorobenzene 93.3 70-130 %Rec 1 12/8/2022 12:53:36 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 9:24:01 PM 280 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 58 of 167

Released to Imaging: 4/4/2024 9:37:02 AM

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-43 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 9:45:00 AM Lab ID: 2212211-059 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 3:55:47 PM Motor Oil Range Organics (MRO) ND 45 mg/Kg 1 12/7/2022 3:55:47 PM Surr: DNOP 101 21-129 %Rec 1 12/7/2022 3:55:47 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 1:16:55 AM 5.0 mg/Kg 1 Surr: BFB 95.3 37.7-212 %Rec 1 12/8/2022 1:16:55 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 1:16:55 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 1:16:55 AM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 1:16:55 AM Xylenes, Total ND mg/Kg 1 12/8/2022 1:16:55 AM 0.10 Surr: 4-Bromofluorobenzene 97.7 70-130 %Rec 1 12/8/2022 1:16:55 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS mg/Kg Chloride 12/8/2022 9:36:25 PM 430 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

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

RL

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-44 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 9:45:00 AM Lab ID: 2212211-060 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 4:09:23 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/7/2022 4:09:23 PM Surr: DNOP 96.5 21-129 %Rec 1 12/7/2022 4:09:23 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 4.7 12/8/2022 1:40:27 AM mg/Kg 1 Surr: BFB 90.6 37.7-212 %Rec 1 12/8/2022 1:40:27 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 1:40:27 AM 0.024 mg/Kg 1 Toluene ND 0.047 mg/Kg 1 12/8/2022 1:40:27 AM Ethylbenzene ND 0.047 mg/Kg 1 12/8/2022 1:40:27 AM Xylenes, Total ND 0.094 mg/Kg 1 12/8/2022 1:40:27 AM Surr: 4-Bromofluorobenzene 92.6 70-130 %Rec 1 12/8/2022 1:40:27 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 9:48:50 PM 330 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 60 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-45 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:00:00 AM Lab ID: 2212211-061 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) 51 15 mg/Kg 1 12/7/2022 4:23:17 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/7/2022 4:23:17 PM Surr: DNOP 106 21-129 %Rec 1 12/7/2022 4:23:17 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 2:03:58 AM 4.9 mg/Kg 1 Surr: BFB 89.9 37.7-212 %Rec 1 12/8/2022 2:03:58 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 0.024 12/8/2022 2:03:58 AM mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 2:03:58 AM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 2:03:58 AM Xylenes, Total ND 0.098 mg/Kg 1 12/8/2022 2:03:58 AM Surr: 4-Bromofluorobenzene 90.6 70-130 %Rec 1 12/8/2022 2:03:58 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 10:01:14 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 61 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-46 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:00:00 AM Lab ID: 2212211-062 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 4:36:48 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/7/2022 4:36:48 PM Surr: DNOP 106 21-129 %Rec 1 12/7/2022 4:36:48 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 2:27:28 AM 4.9 mg/Kg 1 Surr: BFB 92.3 37.7-212 %Rec 1 12/8/2022 2:27:28 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 2:27:28 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 2:27:28 AM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 2:27:28 AM Xylenes, Total ND 0.099 mg/Kg 1 12/8/2022 2:27:28 AM Surr: 4-Bromofluorobenzene 94.0 70-130 %Rec 1 12/8/2022 2:27:28 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 10:38:27 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

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

RL

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-47 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:05:00 AM Lab ID: 2212211-063 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 5:58:25 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 12/7/2022 5:58:25 PM Surr: DNOP 21-129 %Rec 1 12/7/2022 5:58:25 PM 113 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 2:51:01 AM 4.8 mg/Kg 1 Surr: BFB 90.9 37.7-212 %Rec 1 12/8/2022 2:51:01 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 2:51:01 AM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 12/8/2022 2:51:01 AM Ethylbenzene ND 0.048 mg/Kg 1 12/8/2022 2:51:01 AM Xylenes, Total ND 0.096 mg/Kg 1 12/8/2022 2:51:01 AM Surr: 4-Bromofluorobenzene 93.4 70-130 %Rec 1 12/8/2022 2:51:01 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 10:50:52 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 63 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-48 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:05:00 AM Lab ID: 2212211-064 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 6:11:48 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/7/2022 6:11:48 PM Surr: DNOP 98.2 21-129 %Rec 1 12/7/2022 6:11:48 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 3:14:24 AM 4.8 mg/Kg 1 Surr: BFB 90.8 37.7-212 %Rec 1 12/8/2022 3:14:24 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 3:14:24 AM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 12/8/2022 3:14:24 AM Ethylbenzene ND 0.048 mg/Kg 1 12/8/2022 3:14:24 AM Xylenes, Total ND 0.096 mg/Kg 1 12/8/2022 3:14:24 AM Surr: 4-Bromofluorobenzene 93.3 70-130 %Rec 1 12/8/2022 3:14:24 AM **EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride mg/Kg 12/8/2022 11:03:16 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-49 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:10:00 AM Lab ID: 2212211-065 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 6:25:09 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/7/2022 6:25:09 PM Surr: DNOP 97.3 21-129 %Rec 1 12/7/2022 6:25:09 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 4:01:20 AM 5.0 mg/Kg 1 Surr: BFB 90.8 37.7-212 %Rec 1 12/8/2022 4:01:20 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 4:01:20 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 4:01:20 AM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 4:01:20 AM Xylenes, Total ND mg/Kg 1 12/8/2022 4:01:20 AM 0.10 Surr: 4-Bromofluorobenzene 93.2 70-130 %Rec 1 12/8/2022 4:01:20 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/8/2022 9:44:17 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 65 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-50 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:10:00 AM Lab ID: 2212211-066 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 6:38:29 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/7/2022 6:38:29 PM Surr: DNOP 109 21-129 %Rec 1 12/7/2022 6:38:29 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 4:24:45 AM 4.9 mg/Kg 1 Surr: BFB 91.5 37.7-212 %Rec 1 12/8/2022 4:24:45 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 4:24:45 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 4:24:45 AM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 4:24:45 AM Xylenes, Total ND 0.099 mg/Kg 1 12/8/2022 4:24:45 AM Surr: 4-Bromofluorobenzene 92.9 70-130 %Rec 1 12/8/2022 4:24:45 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/8/2022 10:21:18 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 66 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-51 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:15:00 AM Lab ID: 2212211-067 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 6:51:47 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/7/2022 6:51:47 PM Surr: DNOP 106 21-129 %Rec 1 12/7/2022 6:51:47 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 4.7 12/8/2022 4:48:12 AM mg/Kg 1 Surr: BFB 90.8 37.7-212 %Rec 1 12/8/2022 4:48:12 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 4:48:12 AM 0.024 mg/Kg 1 Toluene ND 0.047 mg/Kg 1 12/8/2022 4:48:12 AM Ethylbenzene ND 0.047 mg/Kg 1 12/8/2022 4:48:12 AM Xylenes, Total ND 0.095 mg/Kg 1 12/8/2022 4:48:12 AM Surr: 4-Bromofluorobenzene 92.5 70-130 %Rec 1 12/8/2022 4:48:12 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/8/2022 11:23:01 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 67 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-52 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:15:00 AM Lab ID: 2212211-068 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 7:05:06 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/7/2022 7:05:06 PM Surr: DNOP 106 21-129 %Rec 1 12/7/2022 7:05:06 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 5:11:45 AM 4.9 mg/Kg 1 Surr: BFB 90.2 37.7-212 %Rec 1 12/8/2022 5:11:45 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 5:11:45 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 5:11:45 AM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 5:11:45 AM Xylenes, Total ND 0.098 mg/Kg 1 12/8/2022 5:11:45 AM Surr: 4-Bromofluorobenzene 92.7 70-130 %Rec 1 12/8/2022 5:11:45 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/8/2022 11:35:22 PM ND 59 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 68 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-53 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:20:00 AM Lab ID: 2212211-069 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 7:18:22 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/7/2022 7:18:22 PM Surr: DNOP 102 21-129 %Rec 1 12/7/2022 7:18:22 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 9:34:42 AM 4.8 mg/Kg 1 Surr: BFB 90.8 37.7-212 %Rec 1 12/8/2022 9:34:42 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 9:34:42 AM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 12/8/2022 9:34:42 AM Ethylbenzene ND 0.048 mg/Kg 1 12/8/2022 9:34:42 AM Xylenes, Total ND 0.096 mg/Kg 1 12/8/2022 9:34:42 AM Surr: 4-Bromofluorobenzene 92.8 70-130 %Rec 1 12/8/2022 9:34:42 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/8/2022 11:47:42 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 69 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-54 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:20:00 AM Lab ID: 2212211-070 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/7/2022 7:31:39 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/7/2022 7:31:39 PM Surr: DNOP 107 21-129 %Rec 1 12/7/2022 7:31:39 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 9:58:13 AM 5.0 mg/Kg 1 Surr: BFB 94.3 37.7-212 %Rec 1 12/8/2022 9:58:13 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 9:58:13 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 9:58:13 AM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 9:58:13 AM Xylenes, Total ND mg/Kg 1 12/8/2022 9:58:13 AM 0.099 Surr: 4-Bromofluorobenzene 96.9 70-130 %Rec 1 12/8/2022 9:58:13 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/9/2022 12:00:04 AM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 70 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-55 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:25:00 AM Lab ID: 2212211-071 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/7/2022 7:44:49 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/7/2022 7:44:49 PM Surr: DNOP 103 21-129 %Rec 1 12/7/2022 7:44:49 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 10:21:45 AM 4.9 mg/Kg 1 Surr: BFB 91.1 37.7-212 %Rec 1 12/8/2022 10:21:45 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 10:21:45 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 10:21:45 AM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 10:21:45 AM Xylenes, Total ND 0.099 mg/Kg 1 12/8/2022 10:21:45 AM Surr: 4-Bromofluorobenzene 94.2 70-130 %Rec 1 12/8/2022 10:21:45 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/9/2022 12:12:24 AM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

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

RL

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-56 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:25:00 AM Lab ID: 2212211-072 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 7:57:56 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/7/2022 7:57:56 PM Surr: DNOP 21-129 %Rec 1 12/7/2022 7:57:56 PM 119 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 10:45:21 AM 5.0 mg/Kg 1 Surr: BFB 90.4 37.7-212 %Rec 1 12/8/2022 10:45:21 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 10:45:21 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 10:45:21 AM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 10:45:21 AM Xylenes, Total ND mg/Kg 1 12/8/2022 10:45:21 AM 0.10 Surr: 4-Bromofluorobenzene 93.3 70-130 %Rec 1 12/8/2022 10:45:21 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/9/2022 12:24:46 AM ND 59 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 72 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-57 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:30:00 AM Lab ID: 2212211-073 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/7/2022 8:11:08 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/7/2022 8:11:08 PM Surr: DNOP 107 21-129 %Rec 1 12/7/2022 8:11:08 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 11:08:48 AM 5.0 mg/Kg 1 Surr: BFB 90.6 37.7-212 %Rec 1 12/8/2022 11:08:48 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 11:08:48 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 11:08:48 AM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 11:08:48 AM Xylenes, Total ND mg/Kg 1 12/8/2022 11:08:48 AM 0.099 Surr: 4-Bromofluorobenzene 93.1 70-130 %Rec 1 12/8/2022 11:08:48 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/9/2022 12:37:06 AM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

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

RL

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-58 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:30:00 AM Lab ID: 2212211-074 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/7/2022 8:24:10 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/7/2022 8:24:10 PM Surr: DNOP 108 21-129 %Rec 1 12/7/2022 8:24:10 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 11:32:09 AM 4.9 mg/Kg 1 Surr: BFB 95.5 37.7-212 %Rec 1 12/8/2022 11:32:09 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 0.024 12/8/2022 11:32:09 AM mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 11:32:09 AM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 11:32:09 AM Xylenes, Total ND 0.098 mg/Kg 12/8/2022 11:32:09 AM 1 Surr: 4-Bromofluorobenzene 96.5 70-130 %Rec 1 12/8/2022 11:32:09 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/9/2022 12:49:27 AM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 74 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-59 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:35:00 AM Lab ID: 2212211-075 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: SB EPA METHOD 8015M/D: DIESEL RANGE ORGANICS **Diesel Range Organics (DRO)** ND 15 mg/Kg 1 12/8/2022 9:42:45 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/8/2022 9:42:45 AM 21-129 Surr: DNOP 99.3 %Rec 1 12/8/2022 9:42:45 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 5:42:00 PM 5.0 mg/Kg 1 Surr: BFB 102 37.7-212 %Rec 1 12/8/2022 5:42:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 5:42:00 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 5:42:00 PM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 5:42:00 PM Xylenes, Total ND mg/Kg 1 12/8/2022 5:42:00 PM 0.10 Surr: 4-Bromofluorobenzene 103 70-130 %Rec 1 12/8/2022 5:42:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/9/2022 1:01:47 AM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 75 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-60 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:35:00 AM Lab ID: 2212211-076 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: SB EPA METHOD 8015M/D: DIESEL RANGE ORGANICS **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/8/2022 10:23:55 AM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/8/2022 10:23:55 AM Surr: DNOP 21-129 %Rec 1 12/8/2022 10:23:55 AM 112 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 6:41:00 PM 4.9 mg/Kg 1 Surr: BFB 99.1 37.7-212 %Rec 1 12/8/2022 6:41:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 6:41:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 6:41:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 6:41:00 PM Xylenes, Total ND 0.099 mg/Kg 1 12/8/2022 6:41:00 PM Surr: 4-Bromofluorobenzene 101 70-130 %Rec 1 12/8/2022 6:41:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/9/2022 1:14:08 AM 120 59 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 76 of 167

Released to Imaging: 4/4/2024 9:37:02 AM

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-61 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:40:00 AM Lab ID: 2212211-077 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: SB **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO)** 47 15 mg/Kg 1 12/8/2022 10:37:53 AM Motor Oil Range Organics (MRO) 76 49 mg/Kg 1 12/8/2022 10:37:53 AM Surr: DNOP 108 21-129 %Rec 1 12/8/2022 10:37:53 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 7:40:00 PM 4.9 mg/Kg 1 Surr: BFB 100 37.7-212 %Rec 1 12/8/2022 7:40:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 7:40:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 7:40:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 7:40:00 PM Xylenes, Total ND 0.098 mg/Kg 1 12/8/2022 7:40:00 PM Surr: 4-Bromofluorobenzene 99.8 70-130 %Rec 1 12/8/2022 7:40:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg ND 60 20 12/9/2022 1:51:09 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

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

RL

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-62 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:40:00 AM Lab ID: 2212211-078 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: SB EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 10:51:42 AM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/8/2022 10:51:42 AM Surr: DNOP 21-129 %Rec 1 12/8/2022 10:51:42 AM 116 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 7:59:00 PM 4.9 mg/Kg 1 Surr: BFB 99.3 37.7-212 %Rec 1 12/8/2022 7:59:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 7:59:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 7:59:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 7:59:00 PM Xylenes, Total ND 0.098 mg/Kg 1 12/8/2022 7:59:00 PM Surr: 4-Bromofluorobenzene 102 70-130 %Rec 1 12/8/2022 7:59:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/9/2022 2:03:31 AM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 78 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-63 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:45:00 AM Lab ID: 2212211-079 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: SB EPA METHOD 8015M/D: DIESEL RANGE ORGANICS **Diesel Range Organics (DRO)** ND 15 mg/Kg 1 12/8/2022 11:05:52 AM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/8/2022 11:05:52 AM Surr: DNOP 106 21-129 %Rec 1 12/8/2022 11:05:52 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 8:19:00 PM 5.0 mg/Kg 1 Surr: BFB 99.0 37.7-212 %Rec 1 12/8/2022 8:19:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 8:19:00 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 8:19:00 PM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 8:19:00 PM Xylenes, Total ND mg/Kg 1 12/8/2022 8:19:00 PM 0.099 Surr: 4-Bromofluorobenzene 100 70-130 %Rec 1 12/8/2022 8:19:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/9/2022 2:15:52 AM 230 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

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

RL

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-64 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:45:00 AM Lab ID: 2212211-080 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: SB EPA METHOD 8015M/D: DIESEL RANGE ORGANICS **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/8/2022 11:19:51 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/8/2022 11:19:51 AM Surr: DNOP 101 21-129 %Rec 1 12/8/2022 11:19:51 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 8:39:00 PM 4.9 mg/Kg 1 Surr: BFB 98.4 37.7-212 %Rec 1 12/8/2022 8:39:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 8:39:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 8:39:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 8:39:00 PM Xylenes, Total ND 0.098 mg/Kg 1 12/8/2022 8:39:00 PM Surr: 4-Bromofluorobenzene 102 70-130 %Rec 1 12/8/2022 8:39:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg ND 60 20 12/9/2022 2:28:13 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 80 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-65 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:50:00 AM Lab ID: 2212211-081 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: SB EPA METHOD 8015M/D: DIESEL RANGE ORGANICS **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/8/2022 11:33:37 AM Motor Oil Range Organics (MRO) ND 45 mg/Kg 1 12/8/2022 11:33:37 AM Surr: DNOP 98.0 21-129 %Rec 1 12/8/2022 11:33:37 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 8:58:00 PM 4.9 mg/Kg 1 Surr: BFB 102 37.7-212 %Rec 1 12/8/2022 8:58:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 8:58:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 8:58:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 8:58:00 PM Xylenes, Total ND 0.099 mg/Kg 1 12/8/2022 8:58:00 PM Surr: 4-Bromofluorobenzene 101 70-130 %Rec 1 12/8/2022 8:58:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/9/2022 2:40:33 AM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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

RL Rep

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-66 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 10:50:00 AM Lab ID: 2212211-082 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: SB EPA METHOD 8015M/D: DIESEL RANGE ORGANICS **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/8/2022 12:01:46 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/8/2022 12:01:46 PM Surr: DNOP 99.0 21-129 %Rec 1 12/8/2022 12:01:46 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 9:18:00 PM 4.9 mg/Kg 1 Surr: BFB 96.7 37.7-212 %Rec 1 12/8/2022 9:18:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 9:18:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 9:18:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 9:18:00 PM Xylenes, Total ND 0.099 mg/Kg 1 12/8/2022 9:18:00 PM Surr: 4-Bromofluorobenzene 101 70-130 %Rec 1 12/8/2022 9:18:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg 12/9/2022 2:52:53 AM 180 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 82 of 167

Date Reported: 12/15/2022

12/9/2022 3:05:14 AM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-67 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 11:00:00 AM Lab ID: 2212211-083 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB **Diesel Range Organics (DRO)** ND 13 mg/Kg 1 12/8/2022 2:05:27 PM Motor Oil Range Organics (MRO) ND 45 mg/Kg 1 12/8/2022 2:05:27 PM Surr: DNOP 99.3 21-129 %Rec 1 12/8/2022 2:05:27 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 9:38:00 PM 5.0 mg/Kg 1 Surr: BFB 98.3 37.7-212 %Rec 1 12/8/2022 9:38:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 9:38:00 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 9:38:00 PM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 9:38:00 PM Xylenes, Total ND mg/Kg 1 12/8/2022 9:38:00 PM 0.10 Surr: 4-Bromofluorobenzene 102 70-130 %Rec 1 12/8/2022 9:38:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT

ND

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

Qualifiers:

Chloride

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

ND POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

mg/Kg

20

60

Р Sample pH Not In Range

RL Reporting Limit Page 83 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-68 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 11:00:00 AM Lab ID: 2212211-084 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB **Diesel Range Organics (DRO)** ND 15 mg/Kg 1 12/8/2022 2:19:23 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/8/2022 2:19:23 PM Surr: DNOP 99.7 21-129 %Rec 1 12/8/2022 2:19:23 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 9:58:00 PM 5.0 mg/Kg 1 Surr: BFB 99.2 37.7-212 %Rec 1 12/8/2022 9:58:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 9:58:00 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 9:58:00 PM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 9:58:00 PM Xylenes, Total ND mg/Kg 1 12/8/2022 9:58:00 PM 0.10 Surr: 4-Bromofluorobenzene 102 70-130 %Rec 1 12/8/2022 9:58:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride mg/Kg ND 60 20 12/9/2022 3:17:35 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 84 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-69 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 11:05:00 AM Lab ID: 2212211-085 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/8/2022 2:33:01 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/8/2022 2:33:01 PM Surr: DNOP 102 21-129 %Rec 1 12/8/2022 2:33:01 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 10:37:00 PM 5.0 mg/Kg 1 Surr: BFB 95.4 37.7-212 %Rec 1 12/8/2022 10:37:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 10:37:00 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 10:37:00 PM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 10:37:00 PM Xylenes, Total ND mg/Kg 1 12/8/2022 10:37:00 PM 0.10 Surr: 4-Bromofluorobenzene 100 70-130 %Rec 1 12/8/2022 10:37:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 170 60 20 12/9/2022 8:46:26 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 85 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-70 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 11:05:00 AM Lab ID: 2212211-086 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/8/2022 2:47:01 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/8/2022 2:47:01 PM Surr: DNOP 98.4 21-129 %Rec 1 12/8/2022 2:47:01 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 10:56:00 PM 4.9 mg/Kg 1 Surr: BFB 98.8 37.7-212 %Rec 1 12/8/2022 10:56:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 10:56:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 10:56:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 10:56:00 PM Xylenes, Total ND 0.099 mg/Kg 1 12/8/2022 10:56:00 PM Surr: 4-Bromofluorobenzene 98.9 70-130 %Rec 1 12/8/2022 10:56:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg ND 60 20 12/9/2022 9:23:27 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 86 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-71 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 11:10:00 AM Lab ID: 2212211-087 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/8/2022 3:01:10 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/8/2022 3:01:10 PM Surr: DNOP 102 21-129 %Rec 1 12/8/2022 3:01:10 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 11:16:00 PM 5.0 mg/Kg 1 Surr: BFB 93.1 37.7-212 %Rec 1 12/8/2022 11:16:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 11:16:00 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 11:16:00 PM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 11:16:00 PM Xylenes, Total ND mg/Kg 1 12/8/2022 11:16:00 PM 0.10 Surr: 4-Bromofluorobenzene 98.4 70-130 %Rec 1 12/8/2022 11:16:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 10:00:29 AM 66 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-72 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 11:10:00 AM Lab ID: 2212211-088 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/12/2022 12:55:53 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/12/2022 12:55:53 PM Surr: DNOP 21-129 %Rec 1 12/12/2022 12:55:53 PM 115 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 11:35:00 PM 4.9 mg/Kg 1 Surr: BFB 96.9 37.7-212 %Rec 1 12/8/2022 11:35:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 11:35:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 11:35:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 11:35:00 PM Xylenes, Total ND 0.098 mg/Kg 1 12/8/2022 11:35:00 PM Surr: 4-Bromofluorobenzene 97.3 70-130 %Rec 1 12/8/2022 11:35:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 10:12:51 AM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

- ND Not Detected at the Reporting Limit POL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range RL Reporting Limit

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Date Reported: 12/15/2022

12/9/2022 10:49:52 AM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-73 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 11:15:00 AM Lab ID: 2212211-089 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB **Diesel Range Organics (DRO)** ND 13 mg/Kg 1 12/8/2022 3:28:45 PM Motor Oil Range Organics (MRO) ND 45 mg/Kg 1 12/8/2022 3:28:45 PM Surr: DNOP 96.0 21-129 %Rec 1 12/8/2022 3:28:45 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/8/2022 11:55:00 PM 4.9 mg/Kg 1 Surr: BFB 93.8 37.7-212 %Rec 1 12/8/2022 11:55:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/8/2022 11:55:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 11:55:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 11:55:00 PM Xylenes, Total ND 0.099 mg/Kg 1 12/8/2022 11:55:00 PM Surr: 4-Bromofluorobenzene 97.1 70-130 %Rec 1 12/8/2022 11:55:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI

490

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

Qualifiers:

Chloride

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits

mg/Kg

20

59

Р Sample pH Not In Range

RL Reporting Limit Page 89 of 167

Date Reported: 12/15/2022

12/9/2022 11:02:12 AM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-74 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 11:15:00 AM Lab ID: 2212211-090 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB **Diesel Range Organics (DRO)** ND 15 mg/Kg 1 12/8/2022 3:42:35 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/8/2022 3:42:35 PM Surr: DNOP 21-129 %Rec 1 12/8/2022 3:42:35 PM 119 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/9/2022 12:15:00 AM 4.9 mg/Kg 1 Surr: BFB 95.2 37.7-212 %Rec 1 12/9/2022 12:15:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/9/2022 12:15:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 12:15:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 12:15:00 AM Xylenes, Total ND 0.099 mg/Kg 12/9/2022 12:15:00 AM 1 Surr: 4-Bromofluorobenzene 98.9 70-130 %Rec 1 12/9/2022 12:15:00 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI

ND

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

Qualifiers:

Chloride

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

mg/Kg

20

60

Р Sample pH Not In Range

RL Reporting Limit Page 90 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-75 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 11:20:00 AM Lab ID: 2212211-091 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/8/2022 3:56:23 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/8/2022 3:56:23 PM Surr: DNOP 21-129 %Rec 1 12/8/2022 3:56:23 PM 111 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/9/2022 12:34:00 AM 5.0 mg/Kg 1 Surr: BFB 90.9 37.7-212 %Rec 1 12/9/2022 12:34:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/9/2022 12:34:00 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/9/2022 12:34:00 AM Ethylbenzene ND 0.050 mg/Kg 1 12/9/2022 12:34:00 AM Xylenes, Total ND mg/Kg 12/9/2022 12:34:00 AM 0.10 1 Surr: 4-Bromofluorobenzene 95.9 70-130 %Rec 1 12/9/2022 12:34:00 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg ND 60 20 12/9/2022 11:14:33 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 91 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-76 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 11:20:00 AM Lab ID: 2212211-092 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: SB EPA METHOD 8015M/D: DIESEL RANGE ORGANICS **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/8/2022 4:10:16 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/8/2022 4:10:16 PM Surr: DNOP 106 21-129 %Rec 1 12/8/2022 4:10:16 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/9/2022 12:54:00 AM 5.0 mg/Kg 1 Surr: BFB 98.1 37.7-212 %Rec 1 12/9/2022 12:54:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/9/2022 12:54:00 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/9/2022 12:54:00 AM Ethylbenzene ND 0.050 mg/Kg 1 12/9/2022 12:54:00 AM Xylenes, Total ND mg/Kg 12/9/2022 12:54:00 AM 0.099 1 Surr: 4-Bromofluorobenzene 98.6 70-130 %Rec 1 12/9/2022 12:54:00 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 11:26:53 AM 200 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-77 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 12:30:00 PM Lab ID: 2212211-093 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB Diesel Range Organics (DRO) ND 13 mg/Kg 1 12/8/2022 4:23:54 PM Motor Oil Range Organics (MRO) ND 45 mg/Kg 1 12/8/2022 4:23:54 PM Surr: DNOP 121 21-129 %Rec 1 12/8/2022 4:23:54 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/9/2022 1:13:00 AM 5.0 mg/Kg 1 Surr: BFB 95.2 37.7-212 %Rec 1 12/9/2022 1:13:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/9/2022 1:13:00 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/9/2022 1:13:00 AM Ethylbenzene ND 0.050 mg/Kg 1 12/9/2022 1:13:00 AM Xylenes, Total ND mg/Kg 1 12/9/2022 1:13:00 AM 0.10 Surr: 4-Bromofluorobenzene 98.6 70-130 %Rec 1 12/9/2022 1:13:00 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 11:39:14 AM 540 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 93 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-78 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 12:30:00 PM Lab ID: 2212211-094 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/8/2022 4:37:34 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 12/8/2022 4:37:34 PM Surr: DNOP 107 21-129 %Rec 1 12/8/2022 4:37:34 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/9/2022 1:33:00 AM 4.9 mg/Kg 1 Surr: BFB 92.4 37.7-212 %Rec 1 12/9/2022 1:33:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/9/2022 1:33:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 1:33:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 1:33:00 AM Xylenes, Total ND 0.098 mg/Kg 1 12/9/2022 1:33:00 AM Surr: 4-Bromofluorobenzene 95.3 70-130 %Rec 1 12/9/2022 1:33:00 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg ND 60 20 12/9/2022 11:51:35 AM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 94 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-79 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 12:35:00 PM Lab ID: 2212211-095 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 13 mg/Kg 1 12/9/2022 3:30:36 PM Motor Oil Range Organics (MRO) ND 43 mg/Kg 1 12/9/2022 3:30:36 PM Surr: DNOP 21-129 %Rec 1 12/9/2022 3:30:36 PM 113 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 3:50:19 PM 4.8 mg/Kg 1 Surr: BFB 95.4 37.7-212 %Rec 1 12/8/2022 3:50:19 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 0.024 12/8/2022 3:50:19 PM mg/Kg 1 Toluene ND 0.048 mg/Kg 1 12/8/2022 3:50:19 PM Ethylbenzene ND 0.048 mg/Kg 1 12/8/2022 3:50:19 PM Xylenes, Total ND 0.096 mg/Kg 1 12/8/2022 3:50:19 PM Surr: 4-Bromofluorobenzene 98.0 70-130 %Rec 1 12/8/2022 3:50:19 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 12:03:56 PM ND 59 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 95 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-80 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 12:35:00 PM Lab ID: 2212211-096 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: SB EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/8/2022 11:43:35 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/8/2022 11:43:35 AM Surr: DNOP 102 21-129 %Rec 1 12/8/2022 11:43:35 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 5:47:44 PM 5.0 mg/Kg 1 Surr: BFB 92.4 37.7-212 %Rec 1 12/8/2022 5:47:44 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 5:47:44 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 5:47:44 PM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 5:47:44 PM Xylenes, Total ND mg/Kg 1 12/8/2022 5:47:44 PM 0.10 Surr: 4-Bromofluorobenzene 94.4 70-130 %Rec 1 12/8/2022 5:47:44 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI mg/Kg Chloride 12/9/2022 12:16:17 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-81 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 12:40:00 PM Lab ID: 2212211-097 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: SB EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/8/2022 12:07:32 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/8/2022 12:07:32 PM Surr: DNOP 102 21-129 %Rec 1 12/8/2022 12:07:32 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 6:58:21 PM 5.0 mg/Kg 1 Surr: BFB 92.2 37.7-212 %Rec 1 12/8/2022 6:58:21 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 6:58:21 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 6:58:21 PM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 6:58:21 PM Xylenes, Total ND mg/Kg 1 12/8/2022 6:58:21 PM 0.099 Surr: 4-Bromofluorobenzene 94.6 70-130 %Rec 1 12/8/2022 6:58:21 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 12:28:37 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 97 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-82 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 12:40:00 PM Lab ID: 2212211-098 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: SB Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/8/2022 12:31:28 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 12/8/2022 12:31:28 PM Surr: DNOP 102 21-129 %Rec 1 12/8/2022 12:31:28 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 7:21:51 PM 4.9 mg/Kg 1 Surr: BFB 91.0 37.7-212 %Rec 1 12/8/2022 7:21:51 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 7:21:51 PM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 7:21:51 PM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 7:21:51 PM Xylenes, Total ND 0.097 mg/Kg 12/8/2022 7:21:51 PM 1 Surr: 4-Bromofluorobenzene 93.7 70-130 %Rec 1 12/8/2022 7:21:51 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI mg/Kg Chloride 12/9/2022 12:40:57 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 98 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-83 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 12:45:00 PM Lab ID: 2212211-099 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: SB **Diesel Range Organics (DRO)** ND 15 mg/Kg 1 12/8/2022 12:55:39 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/8/2022 12:55:39 PM Surr: DNOP 101 21-129 %Rec 1 12/8/2022 12:55:39 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 7:45:23 PM 5.0 mg/Kg 1 Surr: BFB 92.9 37.7-212 %Rec 1 12/8/2022 7:45:23 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 7:45:23 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 7:45:23 PM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 7:45:23 PM Xylenes, Total ND mg/Kg 1 12/8/2022 7:45:23 PM 0.10 Surr: 4-Bromofluorobenzene 94.9 70-130 %Rec 1 12/8/2022 7:45:23 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI mg/Kg Chloride 12/9/2022 1:18:00 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 99 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-84 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 12:45:00 PM Lab ID: 2212211-100 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: SB **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO)** 17 15 mg/Kg 1 12/8/2022 1:19:48 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/8/2022 1:19:48 PM Surr: DNOP 96.4 21-129 %Rec 1 12/8/2022 1:19:48 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 8:08:49 PM 5.0 mg/Kg 1 Surr: BFB 93.4 37.7-212 %Rec 1 12/8/2022 8:08:49 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 8:08:49 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 8:08:49 PM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 8:08:49 PM Xylenes, Total ND mg/Kg 1 12/8/2022 8:08:49 PM 0.099 Surr: 4-Bromofluorobenzene 96.2 70-130 %Rec 1 12/8/2022 8:08:49 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 1:30:21 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 100 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-85 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 12:50:00 PM Lab ID: 2212211-101 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/8/2022 1:44:00 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/8/2022 1:44:00 PM Surr: DNOP 21-129 %Rec 1 12/8/2022 1:44:00 PM 110 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 8:32:18 PM 4.9 mg/Kg 1 Surr: BFB 90.9 37.7-212 %Rec 1 12/8/2022 8:32:18 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 8:32:18 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 8:32:18 PM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 8:32:18 PM Xylenes, Total ND 0.099 mg/Kg 1 12/8/2022 8:32:18 PM Surr: 4-Bromofluorobenzene 93.8 70-130 %Rec 1 12/8/2022 8:32:18 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 1:42:41 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 101 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-86 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 12:50:00 PM Lab ID: 2212211-102 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB **Diesel Range Organics (DRO)** ND 15 mg/Kg 1 12/8/2022 2:08:05 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/8/2022 2:08:05 PM Surr: DNOP 90.2 21-129 %Rec 1 12/8/2022 2:08:05 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 8:55:49 PM 4.9 mg/Kg 1 Surr: BFB 93.0 37.7-212 %Rec 1 12/8/2022 8:55:49 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 8:55:49 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 8:55:49 PM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 8:55:49 PM Xylenes, Total ND 0.099 mg/Kg 1 12/8/2022 8:55:49 PM Surr: 4-Bromofluorobenzene 95.6 70-130 %Rec 1 12/8/2022 8:55:49 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 1:55:02 PM 360 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 102 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-87 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 12:55:00 PM Lab ID: 2212211-103 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 2:32:22 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/8/2022 2:32:22 PM Surr: DNOP 100 21-129 %Rec 1 12/8/2022 2:32:22 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 9:19:17 PM 4.8 mg/Kg 1 Surr: BFB 90.7 37.7-212 %Rec 1 12/8/2022 9:19:17 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 0.024 12/8/2022 9:19:17 PM mg/Kg 1 Toluene ND 0.048 mg/Kg 1 12/8/2022 9:19:17 PM Ethylbenzene ND 0.048 mg/Kg 1 12/8/2022 9:19:17 PM Xylenes, Total ND 0.096 mg/Kg 1 12/8/2022 9:19:17 PM Surr: 4-Bromofluorobenzene 93.1 70-130 %Rec 1 12/8/2022 9:19:17 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 2:07:23 PM ND 59 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 103 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-88 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 12:55:00 PM Lab ID: 2212211-104 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/8/2022 2:56:30 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/8/2022 2:56:30 PM Surr: DNOP 21-129 %Rec 1 12/8/2022 2:56:30 PM 115 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 9:42:49 PM 4.9 mg/Kg 1 Surr: BFB 90.7 37.7-212 %Rec 1 12/8/2022 9:42:49 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 9:42:49 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 9:42:49 PM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 9:42:49 PM Xylenes, Total ND 0.099 mg/Kg 1 12/8/2022 9:42:49 PM Surr: 4-Bromofluorobenzene 93.4 70-130 %Rec 1 12/8/2022 9:42:49 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 2:19:44 PM 320 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 104 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-89 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 1:00:00 PM Lab ID: 2212211-105 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: SB Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 3:20:47 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/8/2022 3:20:47 PM Surr: DNOP 101 21-129 %Rec 1 12/8/2022 3:20:47 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 10:06:15 PM 4.9 mg/Kg 1 Surr: BFB 89.6 37.7-212 %Rec 1 12/8/2022 10:06:15 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 0.024 12/8/2022 10:06:15 PM mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 10:06:15 PM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 10:06:15 PM Xylenes, Total ND 0.098 mg/Kg 1 12/8/2022 10:06:15 PM Surr: 4-Bromofluorobenzene 91.6 70-130 %Rec 1 12/8/2022 10:06:15 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 3:27:56 PM 1100 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-90 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 1:00:00 PM Lab ID: 2212211-106 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/8/2022 3:44:58 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/8/2022 3:44:58 PM Surr: DNOP 99.8 21-129 %Rec 1 12/8/2022 3:44:58 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 11:16:31 PM 4.9 mg/Kg 1 Surr: BFB 91.2 37.7-212 %Rec 1 12/8/2022 11:16:31 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 11:16:31 PM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/8/2022 11:16:31 PM Ethylbenzene ND 0.049 mg/Kg 1 12/8/2022 11:16:31 PM Xylenes, Total ND 0.097 mg/Kg 1 12/8/2022 11:16:31 PM Surr: 4-Bromofluorobenzene 93.9 70-130 %Rec 1 12/8/2022 11:16:31 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 4:05:09 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 106 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-91 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 1:05:00 PM Lab ID: 2212211-107 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/8/2022 4:09:16 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 12/8/2022 4:09:16 PM Surr: DNOP 104 21-129 %Rec 1 12/8/2022 4:09:16 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/8/2022 11:39:55 PM 5.0 mg/Kg 1 Surr: BFB 92.0 37.7-212 %Rec 1 12/8/2022 11:39:55 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/8/2022 11:39:55 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/8/2022 11:39:55 PM Ethylbenzene ND 0.050 mg/Kg 1 12/8/2022 11:39:55 PM Xylenes, Total ND mg/Kg 1 12/8/2022 11:39:55 PM 0.099 Surr: 4-Bromofluorobenzene 94.5 70-130 %Rec 1 12/8/2022 11:39:55 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 4:17:33 PM 700 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 107 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-92 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 1:05:00 PM Lab ID: 2212211-108 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/8/2022 4:33:21 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/8/2022 4:33:21 PM Surr: DNOP 106 21-129 %Rec 1 12/8/2022 4:33:21 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/9/2022 12:03:17 AM 4.9 mg/Kg 1 Surr: BFB 91.0 37.7-212 %Rec 1 12/9/2022 12:03:17 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/9/2022 12:03:17 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 12:03:17 AM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 12:03:17 AM Xylenes, Total ND 0.098 mg/Kg 12/9/2022 12:03:17 AM 1 Surr: 4-Bromofluorobenzene 94.5 70-130 %Rec 1 12/9/2022 12:03:17 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 5:19:34 PM 1600 61 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 108 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-93 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 1:10:00 PM Lab ID: 2212211-109 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB **Diesel Range Organics (DRO)** ND 15 mg/Kg 1 12/8/2022 4:57:37 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/8/2022 4:57:37 PM Surr: DNOP 104 21-129 %Rec 1 12/8/2022 4:57:37 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/9/2022 12:26:34 AM 4.9 mg/Kg 1 Surr: BFB 90.5 37.7-212 %Rec 1 12/9/2022 12:26:34 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/9/2022 12:26:34 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 12:26:34 AM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 12:26:34 AM Xylenes, Total ND 0.099 mg/Kg 12/9/2022 12:26:34 AM 1 Surr: 4-Bromofluorobenzene 93.5 70-130 %Rec 1 12/9/2022 12:26:34 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 5:31:58 PM 850 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 109 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-94 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 1:10:00 PM Lab ID: 2212211-110 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB **Diesel Range Organics (DRO)** ND 15 mg/Kg 1 12/8/2022 5:21:45 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/8/2022 5:21:45 PM Surr: DNOP 101 21-129 %Rec 1 12/8/2022 5:21:45 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/9/2022 12:49:54 AM 4.9 mg/Kg 1 Surr: BFB 86.7 37.7-212 %Rec 1 12/9/2022 12:49:54 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/9/2022 12:49:54 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 12:49:54 AM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 12:49:54 AM Xylenes, Total ND 0.099 mg/Kg 1 12/9/2022 12:49:54 AM Surr: 4-Bromofluorobenzene 89.8 70-130 %Rec 1 12/9/2022 12:49:54 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/10/2022 5:01:19 PM 3900 150 50

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 110 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-95 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 1:15:00 PM Lab ID: 2212211-111 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/8/2022 5:46:04 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 12/8/2022 5:46:04 PM Surr: DNOP 98.6 21-129 %Rec 1 12/8/2022 5:46:04 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/9/2022 1:13:15 AM 4.9 mg/Kg 1 Surr: BFB 91.3 37.7-212 %Rec 1 12/9/2022 1:13:15 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/9/2022 1:13:15 AM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 1:13:15 AM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 1:13:15 AM Xylenes, Total ND 0.097 mg/Kg 12/9/2022 1:13:15 AM 1 Surr: 4-Bromofluorobenzene 93.9 70-130 %Rec 1 12/9/2022 1:13:15 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 5:56:47 PM 310 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 111 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-96 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 1:15:00 AM Lab ID: 2212211-112 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: SB EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 6:10:11 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/8/2022 6:10:11 PM Surr: DNOP 98.9 21-129 %Rec 1 12/8/2022 6:10:11 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/9/2022 1:36:31 AM 4.8 mg/Kg 1 Surr: BFB 90.2 37.7-212 %Rec 1 12/9/2022 1:36:31 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/9/2022 1:36:31 AM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 12/9/2022 1:36:31 AM Ethylbenzene ND 0.048 mg/Kg 1 12/9/2022 1:36:31 AM Xylenes, Total ND 0.096 mg/Kg 1 12/9/2022 1:36:31 AM Surr: 4-Bromofluorobenzene 92.9 70-130 %Rec 1 12/9/2022 1:36:31 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 4:36:37 PM 230 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 112 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-97 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 1:20:00 PM Lab ID: 2212211-113 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB Diesel Range Organics (DRO) ND 13 mg/Kg 1 12/8/2022 6:34:36 PM Motor Oil Range Organics (MRO) ND 44 mg/Kg 1 12/8/2022 6:34:36 PM Surr: DNOP 96.5 21-129 %Rec 1 12/8/2022 6:34:36 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/9/2022 1:59:48 AM 4.8 mg/Kg 1 Surr: BFB 90.7 37.7-212 %Rec 1 12/9/2022 1:59:48 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 0.024 12/9/2022 1:59:48 AM mg/Kg 1 Toluene ND 0.048 mg/Kg 1 12/9/2022 1:59:48 AM Ethylbenzene ND 0.048 mg/Kg 1 12/9/2022 1:59:48 AM Xylenes, Total ND 0.096 mg/Kg 1 12/9/2022 1:59:48 AM Surr: 4-Bromofluorobenzene 93.1 70-130 %Rec 1 12/9/2022 1:59:48 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 4:48:59 PM 88 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 113 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-98 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 1:20:00 PM Lab ID: 2212211-114 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 6:58:46 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/8/2022 6:58:46 PM Surr: DNOP 98.0 21-129 %Rec 1 12/8/2022 6:58:46 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/9/2022 2:23:04 AM 4.9 mg/Kg 1 Surr: BFB 88.1 37.7-212 %Rec 1 12/9/2022 2:23:04 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/9/2022 2:23:04 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 2:23:04 AM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 2:23:04 AM Xylenes, Total ND 0.098 mg/Kg 1 12/9/2022 2:23:04 AM Surr: 4-Bromofluorobenzene 90.5 70-130 %Rec 1 12/9/2022 2:23:04 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 5:26:01 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 114 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-99 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 1:25:00 PM Lab ID: 2212211-115 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 3:34:35 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/8/2022 3:34:35 PM Surr: DNOP 21-129 %Rec 1 12/8/2022 3:34:35 PM 118 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/9/2022 3:30:00 AM 4.9 mg/Kg 1 Surr: BFB 93.7 37.7-212 %Rec 1 12/9/2022 3:30:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/9/2022 3:30:00 AM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 3:30:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 3:30:00 AM Xylenes, Total ND 0.097 mg/Kg 1 12/9/2022 3:30:00 AM Surr: 4-Bromofluorobenzene 96.7 70-130 %Rec 1 12/9/2022 3:30:00 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 5:38:21 PM 1900 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 115 of 167

Lab ID:

CLIENT: Vertex Resources Services, Inc.

SDE 31 Federal 009

2212211-116

Analytical Report Lab Order 2212211

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BS22-100 4' Collection Date: 12/2/2022 1:25:00 PM Received Date: 12/6/2022 7:30:00 AM

	Soll					
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH	
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	12/8/2022 3:45:05 PM	
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/8/2022 3:45:05 PM	
Surr: DNOP	120	21-129	%Rec	1	12/8/2022 3:45:05 PM	
EPA METHOD 8015D: GASOLINE RANGE	i i				Analyst: CCM	
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/9/2022 4:28:00 AM	
Surr: BFB	103	37.7-212	%Rec	1	12/9/2022 4:28:00 AM	
EPA METHOD 8021B: VOLATILES					Analyst: CCM	
Benzene	ND	0.025	mg/Kg	1	12/9/2022 4:28:00 AM	
Toluene	ND	0.049	mg/Kg	1	12/9/2022 4:28:00 AM	
Ethylbenzene	ND	0.049	mg/Kg	1	12/9/2022 4:28:00 AM	
Xylenes, Total	ND	0.098	mg/Kg	1	12/9/2022 4:28:00 AM	
Surr: 4-Bromofluorobenzene	98.4	70-130	%Rec	1	12/9/2022 4:28:00 AM	
EPA METHOD 300.0: ANIONS					Analyst: NAI	
Chloride	5000	300	mg/Kg	100	12/10/2022 5:13:39 PM	

Matrix: SOIL

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

SDE 31 Federal 009

Analytical Report
Lab Order 2212211

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BS22-101 4' Collection Date: 12/2/2022 1:30:00 PM Received Date: 12/6/2022 7:30:00 AM

Lab ID: 2212211-117	Matrix: SOIL	Received Date: 12/6/2022 7:30:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH	
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	12/8/2022 4:16:47 PM	
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/8/2022 4:16:47 PM	
Surr: DNOP	117	21-129	%Rec	1	12/8/2022 4:16:47 PM	
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: CCM	
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	12/9/2022 5:27:00 AM	
Surr: BFB	96.4	37.7-212	%Rec	1	12/9/2022 5:27:00 AM	
EPA METHOD 8021B: VOLATILES					Analyst: CCM	
Benzene	ND	0.025	mg/Kg	1	12/9/2022 5:27:00 AM	
Toluene	ND	0.050	mg/Kg	1	12/9/2022 5:27:00 AM	
Ethylbenzene	ND	0.050	mg/Kg	1	12/9/2022 5:27:00 AM	
Xylenes, Total	ND	0.099	mg/Kg	1	12/9/2022 5:27:00 AM	
Surr: 4-Bromofluorobenzene	99.5	70-130	%Rec	1	12/9/2022 5:27:00 AM	
EPA METHOD 300.0: ANIONS					Analyst: NAI	
Chloride	6300	300	mg/Kg	100	12/10/2022 5:26:00 PM	

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

Qualifiers:

- Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix
- D Sample Diluted Due to Matrix
 H Holding times for preparation or analysis exceed
- H Holding times for preparation or analysis exceeded
- NDNot Detected at the Reporting LimitPQLPractical Quanitative Limit
- PQL Practical Quanitative 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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Released to Imaging: 4/4/2024 9:37:02 AM

Lab ID:

CLIENT: Vertex Resources Services, Inc.

SDE 31 Federal 009

2212211-118

Analytical Report Lab Order 2212211

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BS22-102 4' Collection Date: 12/2/2022 1:30:00 PM Received Date: 12/6/2022 7:30:00 AM

EPA METHOD 8015M/D: DIESEL RANGE OR Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP	GANICS ND ND 122	14 46 21-129	mg/Kg mg/Kg	1 1	Analyst: DGH 12/8/2022 4:27:24 PM 12/8/2022 4:27:24 PM
Motor Oil Range Organics (MRO)	ND	46	mg/Kg		
			0 0	1	12/8/2022 4:27:24 PM
Surr: DNOP	122	21-129	0/De-		
			%Rec	1	12/8/2022 4:27:24 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: CCM
Gasoline Range Organics (GRO)	ND	49	mg/Kg	1	12/9/2022 5:46:00 AM
Surr: BFB	97.3	37.7-212	%Rec	1	12/9/2022 5:46:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: CCM
Benzene	ND	0.25	mg/Kg	1	12/9/2022 5:46:00 AM
Toluene	ND	0.49	mg/Kg	1	12/9/2022 5:46:00 AM
Ethylbenzene	ND	0.49	mg/Kg	1	12/9/2022 5:46:00 AM
Xylenes, Total	ND	0.98	mg/Kg	1	12/9/2022 5:46:00 AM
Surr: 4-Bromofluorobenzene	98.1	70-130	%Rec	1	12/9/2022 5:46:00 AM
EPA METHOD 300.0: ANIONS					Analyst: NAI
Chloride	700	60	mg/Kg	20	12/9/2022 6:15:24 PM

Matrix: SOIL

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range Reporting Limit

RL

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CLIENT: Vertex Resources Services, Inc.

SDE 31 Federal 009

Analytical Report Lab Order 2212211

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BS22-103 4' Collection Date: 12/2/2022 1:35:00 PM Received Date: 12/6/2022 7:30:00 AM

Lab ID: 2212211-119	Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM				022 7:30:00 AM
Analyses	Result	RL Qua	l Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	15	mg/Kg	1	12/8/2022 4:38:01 PM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	12/8/2022 4:38:01 PM
Surr: DNOP	125	21-129	%Rec	1	12/8/2022 4:38:01 PM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/9/2022 6:06:00 AM
Surr: BFB	96.6	37.7-212	%Rec	1	12/9/2022 6:06:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: CCM
Benzene	ND	0.025	mg/Kg	1	12/9/2022 6:06:00 AM
Toluene	ND	0.049	mg/Kg	1	12/9/2022 6:06:00 AM
Ethylbenzene	ND	0.049	mg/Kg	1	12/9/2022 6:06:00 AM
Xylenes, Total	ND	0.098	mg/Kg	1	12/9/2022 6:06:00 AM
Surr: 4-Bromofluorobenzene	100	70-130	%Rec	1	12/9/2022 6:06:00 AM
EPA METHOD 300.0: ANIONS					Analyst: NAI
Chloride	1300	59	mg/Kg	20	12/9/2022 6:27:45 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit PQL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 119 of 167

EPA METHOD 300.0: ANIONS

Chloride

Analytical Report Lab Order 2212211

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-104 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 1:35:00 PM Lab ID: 2212211-120 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/8/2022 4:48:36 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/8/2022 4:48:36 PM Surr: DNOP 123 21-129 %Rec 1 12/8/2022 4:48:36 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/9/2022 6:25:00 AM 4.9 mg/Kg 1 Surr: BFB 92.1 37.7-212 %Rec 1 12/9/2022 6:25:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/9/2022 6:25:00 AM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 6:25:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 6:25:00 AM Xylenes, Total ND 0.097 mg/Kg 1 12/9/2022 6:25:00 AM Surr: 4-Bromofluorobenzene 98.6 70-130 %Rec 1 12/9/2022 6:25:00 AM

930

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits

mg/Kg

20

60

Р Sample pH Not In Range

RL Reporting Limit Page 120 of 167

Analyst: NAI

12/9/2022 6:40:06 PM

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-105 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:00:00 PM Lab ID: 2212211-121 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/8/2022 4:59:13 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/8/2022 4:59:13 PM Surr: DNOP 126 21-129 %Rec 1 12/8/2022 4:59:13 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/9/2022 6:45:00 AM 4.9 mg/Kg 1 Surr: BFB 98.5 37.7-212 %Rec 1 12/9/2022 6:45:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/9/2022 6:45:00 AM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 6:45:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 6:45:00 AM Xylenes, Total ND 0.097 mg/Kg 1 12/9/2022 6:45:00 AM Surr: 4-Bromofluorobenzene 100 70-130 %Rec 1 12/9/2022 6:45:00 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 6:52:27 PM 600 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 121 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-106 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:00:00 PM Lab ID: 2212211-122 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 5:09:51 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/8/2022 5:09:51 PM Surr: DNOP 143 21-129 S %Rec 1 12/8/2022 5:09:51 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/9/2022 7:04:00 AM 5.0 mg/Kg 1 Surr: BFB 95.3 37.7-212 %Rec 1 12/9/2022 7:04:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/9/2022 7:04:00 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/9/2022 7:04:00 AM Ethylbenzene ND 0.050 mg/Kg 1 12/9/2022 7:04:00 AM Xylenes, Total ND mg/Kg 1 12/9/2022 7:04:00 AM 0.10 Surr: 4-Bromofluorobenzene 100 70-130 %Rec 1 12/9/2022 7:04:00 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/10/2022 5:38:20 PM 4200 150 50

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Lab ID:

CLIENT: Vertex Resources Services, Inc.

SDE 31 Federal 009

2212211-123

Analytical Report Lab Order 2212211

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BS22-107 4' Collection Date: 12/2/2022 2:05:00 PM Received Date: 12/6/2022 7:30:00 AM

Eub ID: 2212211 125	Mutha Sole					
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANICS				Analyst: DGH	
Diesel Range Organics (DRO)	ND	15	mg/Kg	1	12/8/2022 5:20:31 PM	
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	12/8/2022 5:20:31 PM	
Surr: DNOP	114	21-129	%Rec	1	12/8/2022 5:20:31 PM	
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst: CCM	
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	12/9/2022 7:24:00 AM	
Surr: BFB	95.9	37.7-212	%Rec	1	12/9/2022 7:24:00 AM	
EPA METHOD 8021B: VOLATILES					Analyst: CCM	
Benzene	ND	0.025	mg/Kg	1	12/9/2022 7:24:00 AM	
Toluene	ND	0.050	mg/Kg	1	12/9/2022 7:24:00 AM	
Ethylbenzene	ND	0.050	mg/Kg	1	12/9/2022 7:24:00 AM	
Xylenes, Total	ND	0.099	mg/Kg	1	12/9/2022 7:24:00 AM	
Surr: 4-Bromofluorobenzene	99.4	70-130	%Rec	1	12/9/2022 7:24:00 AM	
EPA METHOD 300.0: ANIONS					Analyst: NAI	
Chloride	930	60	mg/Kg	20	12/9/2022 7:17:09 PM	

Matrix: SOIL

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

- н
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range Reporting Limit

RL

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-108 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:05:00 PM Lab ID: 2212211-124 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 5:31:08 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/8/2022 5:31:08 PM 21-129 Surr: DNOP 125 %Rec 1 12/8/2022 5:31:08 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/9/2022 7:44:00 AM 4.9 mg/Kg 1 Surr: BFB 102 37.7-212 %Rec 1 12/9/2022 7:44:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/9/2022 7:44:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 7:44:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 7:44:00 AM Xylenes, Total ND 0.098 mg/Kg 1 12/9/2022 7:44:00 AM Surr: 4-Bromofluorobenzene 101 70-130 %Rec 1 12/9/2022 7:44:00 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 7:54:12 PM 120 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 124 of 167

CLIENT: Vertex Resources Services, Inc.

SDE 31 Federal 009

Analytical Report
Lab Order 2212211

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BS22-109 4' Collection Date: 12/2/2022 2:10:00 PM Received Date: 12/6/2022 7:30:00 AM

Lab ID: 2212211-125	2211-125 Matrix: SOIL			Received Date: 12/6/2022 7:30:00 AM			
Analyses	Result	RL Qu	ual Units	DF	Date Analyzed		
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH		
Diesel Range Organics (DRO)	ND	15	mg/Kg	1	12/8/2022 5:41:48 PM		
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/8/2022 5:41:48 PM		
Surr: DNOP	129	21-129	S %Rec	1	12/8/2022 5:41:48 PM		
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: CCM		
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/9/2022 8:23:00 AM		
Surr: BFB	95.8	37.7-212	%Rec	1	12/9/2022 8:23:00 AM		
EPA METHOD 8021B: VOLATILES					Analyst: CCM		
Benzene	ND	0.024	mg/Kg	1	12/9/2022 8:23:00 AM		
Toluene	ND	0.049	mg/Kg	1	12/9/2022 8:23:00 AM		
Ethylbenzene	ND	0.049	mg/Kg	1	12/9/2022 8:23:00 AM		
Xylenes, Total	ND	0.098	mg/Kg	1	12/9/2022 8:23:00 AM		
Surr: 4-Bromofluorobenzene	99.7	70-130	%Rec	1	12/9/2022 8:23:00 AM		
EPA METHOD 300.0: ANIONS					Analyst: NAI		
Chloride	ND	60	mg/Kg	20	12/9/2022 8:43:34 PM		

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Sample Diluted Due to Matrix
 H Holding times for preparation or analysis exceed.

H Holding times for preparation or analysis exceeded

NDNot Detected at the Reporting LimitPQLPractical Quanitative 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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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-110 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:10:00 PM Lab ID: 2212211-126 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 5:52:25 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/8/2022 5:52:25 PM Surr: DNOP 21-129 %Rec 1 12/8/2022 5:52:25 PM 119 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/9/2022 8:42:00 AM 5.0 mg/Kg 1 Surr: BFB 97.8 37.7-212 %Rec 1 12/9/2022 8:42:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/9/2022 8:42:00 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/9/2022 8:42:00 AM Ethylbenzene ND 0.050 mg/Kg 1 12/9/2022 8:42:00 AM Xylenes, Total ND mg/Kg 1 12/9/2022 8:42:00 AM 0.099 Surr: 4-Bromofluorobenzene 100 70-130 %Rec 1 12/9/2022 8:42:00 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 8:06:32 PM 160 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 126 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-111 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:15:00 PM Lab ID: 2212211-127 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 6:03:00 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/8/2022 6:03:00 PM Surr: DNOP 21-129 %Rec 1 12/8/2022 6:03:00 PM 115 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/9/2022 9:02:00 AM 4.9 mg/Kg 1 Surr: BFB 96.5 37.7-212 %Rec 1 12/9/2022 9:02:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/9/2022 9:02:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 9:02:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 9:02:00 AM Xylenes, Total ND 0.098 mg/Kg 1 12/9/2022 9:02:00 AM Surr: 4-Bromofluorobenzene 98.1 70-130 %Rec 1 12/9/2022 9:02:00 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 9:20:36 PM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

ND Not Detected at the Reporting PQL Practical Quanitative 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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EPA METHOD 300.0: ANIONS

Chloride

Analytical Report Lab Order 2212211

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-112 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:15:00 PM Lab ID: 2212211-128 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/8/2022 6:13:34 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/8/2022 6:13:34 PM Surr: DNOP 134 21-129 S %Rec 1 12/8/2022 6:13:34 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/9/2022 9:21:00 AM 4.9 mg/Kg 1 Surr: BFB 96.1 37.7-212 %Rec 1 12/9/2022 9:21:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/9/2022 9:21:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 9:21:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 9:21:00 AM Xylenes, Total ND 0.099 mg/Kg 1 12/9/2022 9:21:00 AM Surr: 4-Bromofluorobenzene 98.2 70-130 %Rec 1 12/9/2022 9:21:00 AM

ND

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

mg/Kg

20

60

Р Sample pH Not In Range

RL Reporting Limit Page 128 of 167

Analyst: NAI

12/9/2022 9:32:57 PM

Date Reported: 12/15/2022

12/9/2022 9:45:17 PM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-113 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:20:00 PM Lab ID: 2212211-129 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/8/2022 6:24:09 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/8/2022 6:24:09 PM Surr: DNOP 144 21-129 S %Rec 1 12/8/2022 6:24:09 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/9/2022 9:41:00 AM 4.9 mg/Kg 1 Surr: BFB 102 37.7-212 %Rec 1 12/9/2022 9:41:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/9/2022 9:41:00 AM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 9:41:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 9:41:00 AM Xylenes, Total ND 0.097 mg/Kg 1 12/9/2022 9:41:00 AM Surr: 4-Bromofluorobenzene 102 70-130 %Rec 1 12/9/2022 9:41:00 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI

ND

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

Qualifiers:

Chloride

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits

mg/Kg

20

60

Р Sample pH Not In Range

RL Reporting Limit Page 129 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-114 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:20:00 PM Lab ID: 2212211-130 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) 19 15 mg/Kg 1 12/8/2022 6:34:50 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/8/2022 6:34:50 PM Surr: DNOP 119 21-129 %Rec 1 12/8/2022 6:34:50 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/9/2022 10:01:00 AM 4.9 mg/Kg 1 Surr: BFB 97.3 37.7-212 %Rec 1 12/9/2022 10:01:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/9/2022 10:01:00 AM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 10:01:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 10:01:00 AM Xylenes, Total ND 0.097 mg/Kg 1 12/9/2022 10:01:00 AM Surr: 4-Bromofluorobenzene 103 70-130 %Rec 1 12/9/2022 10:01:00 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 10:22:19 PM ND 61 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

ND Not Detected at the Reporting PQL Practical Quanitative 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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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-115 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:25:00 PM Lab ID: 2212211-131 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) 30 15 mg/Kg 1 12/8/2022 6:45:31 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/8/2022 6:45:31 PM Surr: DNOP 124 21-129 %Rec 1 12/8/2022 6:45:31 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/9/2022 10:20:00 AM 4.9 mg/Kg 1 Surr: BFB 103 37.7-212 %Rec 1 12/9/2022 10:20:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/9/2022 10:20:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 10:20:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 10:20:00 AM Xylenes, Total ND 0.098 mg/Kg 1 12/9/2022 10:20:00 AM Surr: 4-Bromofluorobenzene 100 70-130 %Rec 1 12/9/2022 10:20:00 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/9/2022 10:34:40 PM 150 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

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

RL

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-116 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:25:00 PM Lab ID: 2212211-132 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 6:56:10 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/8/2022 6:56:10 PM Surr: DNOP 21-129 %Rec 1 12/8/2022 6:56:10 PM 115 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/9/2022 10:40:00 AM 4.9 mg/Kg 1 Surr: BFB 98.6 37.7-212 %Rec 1 12/9/2022 10:40:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/9/2022 10:40:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 10:40:00 AM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 10:40:00 AM Xylenes, Total ND 0.098 mg/Kg 1 12/9/2022 10:40:00 AM Surr: 4-Bromofluorobenzene 103 70-130 %Rec 1 12/9/2022 10:40:00 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/10/2022 12:50:28 AM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 132 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-117 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:30:00 PM Lab ID: 2212211-133 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 7:06:48 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/8/2022 7:06:48 PM Surr: DNOP 133 21-129 S %Rec 1 12/8/2022 7:06:48 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/9/2022 11:00:00 AM 4.8 mg/Kg 1 Surr: BFB 98.3 37.7-212 %Rec 1 12/9/2022 11:00:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/9/2022 11:00:00 AM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 12/9/2022 11:00:00 AM Ethylbenzene ND 0.048 mg/Kg 1 12/9/2022 11:00:00 AM Xylenes, Total ND 0.097 mg/Kg 1 12/9/2022 11:00:00 AM Surr: 4-Bromofluorobenzene 104 70-130 %Rec 1 12/9/2022 11:00:00 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/10/2022 1:02:48 AM 77 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 133 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-118 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:30:00 PM Lab ID: 2212211-134 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH **Diesel Range Organics (DRO)** ND 15 mg/Kg 1 12/8/2022 7:17:24 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/8/2022 7:17:24 PM 21-129 Surr: DNOP 120 %Rec 1 12/8/2022 7:17:24 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/9/2022 11:19:00 AM 5.0 mg/Kg 1 Surr: BFB 102 37.7-212 %Rec 1 12/9/2022 11:19:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/9/2022 11:19:00 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/9/2022 11:19:00 AM Ethylbenzene ND 0.050 mg/Kg 1 12/9/2022 11:19:00 AM Xylenes, Total ND mg/Kg 12/9/2022 11:19:00 AM 0.099 1 Surr: 4-Bromofluorobenzene 104 70-130 %Rec 1 12/9/2022 11:19:00 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/10/2022 1:15:09 AM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 134 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-119 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:35:00 PM Lab ID: 2212211-135 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 5:32:01 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/8/2022 5:32:01 PM Surr: DNOP 108 21-129 %Rec 1 12/8/2022 5:32:01 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/9/2022 3:55:58 AM 5.0 mg/Kg 1 Surr: BFB 90.0 37.7-212 %Rec 1 12/9/2022 3:55:58 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/9/2022 3:55:58 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/9/2022 3:55:58 AM Ethylbenzene ND 0.050 mg/Kg 1 12/9/2022 3:55:58 AM Xylenes, Total ND mg/Kg 1 12/9/2022 3:55:58 AM 0.099 Surr: 4-Bromofluorobenzene 92.2 70-130 %Rec 1 12/9/2022 3:55:58 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/10/2022 1:27:29 AM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 135 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-120 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:35:00 PM Lab ID: 2212211-136 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/8/2022 6:12:04 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/8/2022 6:12:04 PM Surr: DNOP 99.7 21-129 %Rec 1 12/8/2022 6:12:04 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/9/2022 4:49:50 PM 5.0 mg/Kg 1 Surr: BFB 91.9 37.7-212 %Rec 1 12/9/2022 4:49:50 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/9/2022 4:49:50 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/9/2022 4:49:50 PM Ethylbenzene ND 0.050 mg/Kg 1 12/9/2022 4:49:50 PM Xylenes, Total ND mg/Kg 1 12/9/2022 4:49:50 PM 0.099 Surr: 4-Bromofluorobenzene 92.2 70-130 %Rec 1 12/9/2022 4:49:50 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/10/2022 1:39:51 AM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 136 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-121 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:40:00 PM Lab ID: 2212211-137 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/8/2022 6:25:09 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/8/2022 6:25:09 PM Surr: DNOP 108 21-129 %Rec 1 12/8/2022 6:25:09 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/9/2022 5:13:23 PM 4.9 mg/Kg 1 Surr: BFB 94.6 37.7-212 %Rec 1 12/9/2022 5:13:23 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/9/2022 5:13:23 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 5:13:23 PM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 5:13:23 PM Xylenes, Total ND 0.099 mg/Kg 12/9/2022 5:13:23 PM 1 Surr: 4-Bromofluorobenzene 95.5 70-130 %Rec 1 12/9/2022 5:13:23 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/10/2022 1:52:11 AM ND 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

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

RL

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Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-122 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:40:00 PM Lab ID: 2212211-138 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/8/2022 6:38:17 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/8/2022 6:38:17 PM Surr: DNOP 99.7 21-129 %Rec 1 12/8/2022 6:38:17 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/9/2022 5:37:00 PM 4.9 mg/Kg 1 Surr: BFB 94.2 37.7-212 %Rec 1 12/9/2022 5:37:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/9/2022 5:37:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 5:37:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 5:37:00 PM Xylenes, Total ND 0.099 mg/Kg 1 12/9/2022 5:37:00 PM Surr: 4-Bromofluorobenzene 95.6 70-130 %Rec 1 12/9/2022 5:37:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/10/2022 2:04:31 AM 340 61 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 138 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-123 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:45:00 PM Lab ID: 2212211-139 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: SB EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/8/2022 6:51:16 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/8/2022 6:51:16 PM Surr: DNOP 100 21-129 %Rec 1 12/8/2022 6:51:16 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/9/2022 6:00:35 PM 5.0 mg/Kg 1 Surr: BFB 95.7 37.7-212 %Rec 1 12/9/2022 6:00:35 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/9/2022 6:00:35 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/9/2022 6:00:35 PM Ethylbenzene ND 0.050 mg/Kg 1 12/9/2022 6:00:35 PM Xylenes, Total ND mg/Kg 1 12/9/2022 6:00:35 PM 0.099 Surr: 4-Bromofluorobenzene 96.6 70-130 %Rec 1 12/9/2022 6:00:35 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI mg/Kg Chloride 12/10/2022 2:16:52 AM 110 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

POL

Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 139 of 167

Xylenes, Total

Chloride

Surr: 4-Bromofluorobenzene

EPA METHOD 300.0: ANIONS

Analytical Report Lab Order 2212211

Date Reported: 12/15/2022

12/9/2022 6:24:06 PM

12/9/2022 6:24:06 PM

12/10/2022 2:29:12 AM

Analyst: NAI

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-124 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:45:00 PM Lab ID: 2212211-140 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: SB EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/8/2022 7:04:11 PM Motor Oil Range Organics (MRO) ND 45 mg/Kg 1 12/8/2022 7:04:11 PM Surr: DNOP 117 21-129 %Rec 1 12/8/2022 7:04:11 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/9/2022 6:24:06 PM 4.9 mg/Kg 1 Surr: BFB 92.4 37.7-212 %Rec 1 12/9/2022 6:24:06 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/9/2022 6:24:06 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 6:24:06 PM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 6:24:06 PM

ND

92.5

94

0.099

70-130

60

mg/Kg

%Rec

mg/Kg

1

1

20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 140 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-125 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:50:00 PM Lab ID: 2212211-141 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: SB EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/8/2022 7:17:11 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/8/2022 7:17:11 PM Surr: DNOP 104 21-129 %Rec 1 12/8/2022 7:17:11 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/9/2022 8:21:33 PM 5.0 mg/Kg 1 Surr: BFB 96.1 37.7-212 %Rec 1 12/9/2022 8:21:33 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/9/2022 8:21:33 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/9/2022 8:21:33 PM Ethylbenzene ND 0.050 mg/Kg 1 12/9/2022 8:21:33 PM Xylenes, Total ND mg/Kg 1 12/9/2022 8:21:33 PM 0.10 Surr: 4-Bromofluorobenzene 97.4 70-130 %Rec 1 12/9/2022 8:21:33 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI mg/Kg Chloride 12/10/2022 2:41:33 AM 140 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 141 of 167

Released to Imaging: 4/4/2024 9:37:02 AM

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-126 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:50:00 PM Lab ID: 2212211-142 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB Diesel Range Organics (DRO) ND 13 mg/Kg 1 12/8/2022 7:30:04 PM Motor Oil Range Organics (MRO) ND 43 mg/Kg 1 12/8/2022 7:30:04 PM Surr: DNOP 99.8 21-129 %Rec 1 12/8/2022 7:30:04 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/9/2022 8:45:07 PM 4.9 mg/Kg 1 Surr: BFB 92.2 37.7-212 %Rec 1 12/9/2022 8:45:07 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/9/2022 8:45:07 PM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 8:45:07 PM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 8:45:07 PM Xylenes, Total ND 0.097 mg/Kg 1 12/9/2022 8:45:07 PM Surr: 4-Bromofluorobenzene 93.2 70-130 %Rec 1 12/9/2022 8:45:07 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/10/2022 3:18:35 AM 160 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 142 of 167

Date Reported: 12/15/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-127 4' **Project:** SDE 31 Federal 009 Collection Date: 12/2/2022 2:55:00 PM Lab ID: 2212211-143 Matrix: SOIL Received Date: 12/6/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/8/2022 7:42:56 PM Motor Oil Range Organics (MRO) ND 45 mg/Kg 1 12/8/2022 7:42:56 PM Surr: DNOP 100 21-129 %Rec 1 12/8/2022 7:42:56 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/9/2022 9:08:42 PM 4.9 mg/Kg 1 Surr: BFB 96.2 37.7-212 %Rec 1 12/9/2022 9:08:42 PM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/9/2022 9:08:42 PM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/9/2022 9:08:42 PM Ethylbenzene ND 0.049 mg/Kg 1 12/9/2022 9:08:42 PM Xylenes, Total ND 0.097 mg/Kg 1 12/9/2022 9:08:42 PM Surr: 4-Bromofluorobenzene 97.2 70-130 %Rec 1 12/9/2022 9:08:42 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/10/2022 3:30:54 AM 210 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

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

Analyte detected in the associated Method Blank в

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 143 of 167

Client: Project:		ex Resources Services, Inc. 31 Federal 009		
Sample ID:	MB-71904	SampType: MBLK	TestCode: EPA Method 300.0: Anions	
Client ID:	PBS	Batch ID: 71904	RunNo: 93106	
Prep Date:	12/7/2022	Analysis Date: 12/7/2022	SeqNo: 3353799 Units: mg/Kg	
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLi	mit Qual
Chloride		ND 1.5		
Sample ID:	LCS-71904	SampType: LCS	TestCode: EPA Method 300.0: Anions	
Client ID:	LCSS	Batch ID: 71904	RunNo: 93106	
Prep Date:	12/7/2022	Analysis Date: 12/7/2022	SeqNo: 3353800 Units: mg/Kg	
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLi	mit Qual
Chloride		14 1.5 15.00	0 94.0 90 110	
Sample ID:	MB-71919	SampType: MBLK	TestCode: EPA Method 300.0: Anions	
Client ID:	PBS	Batch ID: 71919	RunNo: 93118	
Prep Date:	12/7/2022	Analysis Date: 12/7/2022	SeqNo: 3354258 Units: mg/Kg	
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLi	mit Qual
Chloride		ND 1.5		
Sample ID:	LCS-71919	SampType: LCS	TestCode: EPA Method 300.0: Anions	
Client ID:	LCSS	Batch ID: 71919	RunNo: 93118	
Prep Date:	12/7/2022	Analysis Date: 12/7/2022	SeqNo: 3354259 Units: mg/Kg	
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLi	mit Qual
Chloride		14 1.5 15.00	0 93.8 90 110	
Sample ID:	MB-71936	SampType: mblk	TestCode: EPA Method 300.0: Anions	
Client ID:	PBS	Batch ID: 71936	RunNo: 93147	
Prep Date:	12/8/2022	Analysis Date: 12/8/2022	SeqNo: 3355705 Units: mg/Kg	
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLi	mit Qual
Chloride		ND 1.5		
Sample ID:	LCS-71936	SampType: Ics	TestCode: EPA Method 300.0: Anions	
Client ID:	LCSS	Batch ID: 71936	RunNo: 93147	
Prep Date:	12/8/2022	Analysis Date: 12/8/2022	SeqNo: 3355706 Units: mg/Kg	
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLi	mit Qual
Chloride		14 1.5 15.00	0 93.5 90 110	

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- 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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2212211

15-Dec-22

Client: Project:		x Resources Services, Inc. 31 Federal 009		
Sample ID:	MB-71941	SampType: mblk	TestCode: EPA Method 300.0: Anions	5
Client ID:	PBS	Batch ID: 71941	RunNo: 93147	
Prep Date:	12/8/2022	Analysis Date: 12/8/2022	SeqNo: 3355735 Units: mg/K	g
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit	%RPD RPDLimit Qual
Chloride		ND 1.5		
Sample ID:	LCS-71941	SampType: Ics	TestCode: EPA Method 300.0: Anions	6
Client ID:	LCSS	Batch ID: 71941	RunNo: 93147	
Prep Date:	12/8/2022	Analysis Date: 12/8/2022	SeqNo: 3355736 Units: mg/K	g
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit	%RPD RPDLimit Qual
Chloride		14 1.5 15.00	0 93.9 90 110	
Sample ID:	MB-71943	SampType: MBLK	TestCode: EPA Method 300.0: Anions	5
Client ID:	PBS	Batch ID: 71943	RunNo: 93152	
Prep Date:	12/8/2022	Analysis Date: 12/8/2022	SeqNo: 3356079 Units: mg/K	g
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit	%RPD RPDLimit Qual
Chloride		ND 1.5		
Sample ID:	LCS-71943	SampType: LCS	TestCode: EPA Method 300.0: Anions	6
Client ID:	LCSS	Batch ID: 71943	RunNo: 93152	
Prep Date:	12/8/2022	Analysis Date: 12/8/2022	SeqNo: 3356080 Units: mg/K	g
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit	%RPD RPDLimit Qual
Chloride		14 1.5 15.00	0 92.6 90 110	
Sample ID:	MB-71987	SampType: mblk	TestCode: EPA Method 300.0: Anions	5
Client ID:	PBS	Batch ID: 71987	RunNo: 93172	
Prep Date:	12/9/2022	Analysis Date: 12/9/2022	SeqNo: 3357597 Units: mg/K	g
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit	%RPD RPDLimit Qual
Chloride		ND 1.5		
Sample ID:	LCS-71987	SampType: Ics	TestCode: EPA Method 300.0: Anions	5
Client ID:	LCSS	Batch ID: 71987	RunNo: 93172	
Prep Date:	12/9/2022	Analysis Date: 12/9/2022	SeqNo: 3357598 Units: mg/K	g
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit	%RPD RPDLimit Qual
Chloride		14 1.5 15.00	0 92.9 90 110	

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2212211

15-Dec-22

Client:

Project:

Client ID:

Prep Date:

Prep Date:

Analyte Chloride

Analyte Chloride

Sample ID: MB-71946

Sample ID: LCS-71946 Client ID: LCSS

Sample ID: MB-72001

PBS

12/8/2022

12/8/2022

QC SUMMARY F Hall Environmental

MAR	Y REP(ORT							WO#·	2212211
nmen	Batch ID: 71946 RunNo: 93190 22 Analysis Date: 12/9/2022 SeqNo: 3357887 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual ND 1.5									
		,	Inc.							
946	SampT	Type: mb	olk	Tes	tCode: El	PA Method	300.0: Anion	S		
	Batch	h ID: 719	946	F	RunNo: 9 :	3190				
2022	Analysis D	Date: 12	2/9/2022	S	SeqNo: 3	357887	Units: mg/k	٢g		
	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	ND	1.5								
1946	SampT	Type: Ics		Tes	tCode: El	PA Method	300.0: Anion	s		
	Batch	h ID: 719	946	F	RunNo: 9 :	3190				
2022	Analysis D	Date: 12	2/9/2022	S	SeqNo: 3	357889	Units: mg/k	٢g		
	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	14	1.5	15.00	0	90.3	90	110			
2001	SampT	Type: mb	olk	Tes	tCode: El	PA Method	300.0: Anion	s		
	Batch	h ID: 720	001	F	RunNo: 9 :	3190				

Client ID: PBS	Batch ID: 72001	RunNo: 93190		
Prep Date: 12/9/2022	Analysis Date: 12/9/2022	SeqNo: 3357945	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
Sample ID: LCS-72001	SampType: Ics	TestCode: EPA Method	300.0: Anions	
Client ID: LCSS	Batch ID: 72001	RunNo: 93190		
Prep Date: 12/9/2022	Analysis Date: 12/9/2022	SeqNo: 3357947	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	
Sample ID: MB-72002	SampType: mblk	TestCode: EPA Method	300.0: Anions	
Client ID: PBS	Batch ID: 72002	RunNo: 93190		
Prep Date: 12/9/2022	Analysis Date: 12/9/2022	SeqNo: 3357982	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
Sample ID: LCS-72002	SampType: Ics	TestCode: EPA Method	300.0: Anions	
Client ID: LCSS	Batch ID: 72002	RunNo: 93190		
Prep Date: 12/9/2022	Analysis Date: 12/9/2022	SeqNo: 3357983	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

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110

- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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	WO#:	2212211
lall Environmental Analysis Laboratory, Inc.		15-Dec-22

Project: SDE	ex Resources Service 31 Federal 009	es, Inc.						
Sample ID: MB-71884	SampType:	IBLK	Tes	tCode: EPA Me	ethod 8015M/D: Die	esel Range	Organics	
Client ID: PBS	Batch ID: 7	1884	F	RunNo: 93058				
Prep Date: 12/6/2022	Analysis Date:	12/7/2022	S	SeqNo: 335275	1 Units: mg/ł	٢g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC Low	/Limit HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND 1	-						
Motor Oil Range Organics (MRC								
Surr: DNOP	9.5	10.00		94.7	21 129			
Sample ID: LCS-71884	SampType: L	_CS	Tes	tCode: EPA Me	ethod 8015M/D: Die	esel Range	Organics	
Client ID: LCSS	Batch ID: 7	1884	F	RunNo: 93058				
Prep Date: 12/6/2022	Analysis Date:	12/7/2022	5	SeqNo: 335275	2 Units: mg/ł	٢g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC Low	/Limit HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48 1	5 50.00	0	95.3	64.4 127			
Surr: DNOP	4.7	5.000		94.0	21 129			
Sample ID: 2212211-001	AMS SampType: N	IS	Tes	tCode: EPA Me	ethod 8015M/D: Die	esel Range	Organics	
Client ID: WS22-01 0-4	Batch ID: 7	1884	F	RunNo: 93058				
Prep Date: 12/6/2022	Analysis Date:	12/7/2022	S	SeqNo: 335276	3 Units: mg/ł	٢g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC Low	/Limit HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46 1	4 47.39	0	97.3	36.1 154			
Surr: DNOP	4.8	4.739		102	21 129			
Comple ID: 0040044 004	AMSD SampType: N	ISD	Too				<u> </u>	
Sample ID: 2212211-001			165	tCode: EPA Me	ethod 8015M/D: Die	esel Range	Organics	
Client ID: WS22-01 0-4	Batch ID: 7			RunNo: 93058	ethod 8015M/D: Die	esel Range	Organics	
•	Batch ID: 7 Analysis Date:	1884	F			Ū	Organics	
Client ID: WS22-01 0-4		71884 12/7/2022	F	RunNo: 93058 SeqNo: 335276		Ū	RPDLimit	Qual
Client ID: WS22-01 0-4* Prep Date: 12/6/2022 Analyte	Analysis Date:	7 1884 1 2/7/2022 - SPK value	F	RunNo: 93058 SeqNo: 335276	4 Units: mg/ł	(g	-	Qual
Client ID: WS22-01 0-4 * Prep Date: 12/6/2022 Analyte	Analysis Date: Result PQL	7 1884 1 2/7/2022 - SPK value	F SPK Ref Val	RunNo: 93058 SeqNo: 335276 %REC Low	i 4 Units: mg/ł /Limit HighLimit	(g %RPD	RPDLimit	Qual
Client ID: WS22-01 0-4' Prep Date: 12/6/2022 Analyte Diesel Range Organics (DRO)	Analysis Date: Result PQL 45 1 4.6	12/7/2022 <u>SPK value</u> 4 46.17 4.617	F SPK Ref Val 0	RunNo: 93058 SeqNo: 335276 <u>%REC Low</u> 97.0 100	4 Units: mg/ł /Limit HighLimit 36.1 154	(g %RPD 2.95 0	RPDLimit 33.9 0	Qual
Client ID: WS22-01 0-4' Prep Date: 12/6/2022 Analyte Diesel Range Organics (DRO) Surr: DNOP	Analysis Date: Result PQL 45 1 4.6	1884 12/7/2022 SPK value 4 46.17 4.617	F SPK Ref Val 0 Tes	RunNo: 93058 SeqNo: 335276 <u>%REC Low</u> 97.0 100	4 Units: mg/k /Limit HighLimit 36.1 154 21 129	(g %RPD 2.95 0	RPDLimit 33.9 0	Qual
Client ID: WS22-01 0-4 Prep Date: 12/6/2022 Analyte Diesel Range Organics (DRO) Surr: DNOP Sample ID: 2212211-095/	Analysis Date: <u>Result</u> PQL 45 1 4.6 AMS SampType: M	1884 12/7/2022 SPK value 4 46.17 4.617 MS 1908	F SPK Ref Val 0 Tes F	RunNo: 93058 SeqNo: 335276 <u>%REC Low</u> 97.0 100 tCode: EPA Me	4 Units: mg/k /Limit HighLimit 36.1 154 21 129 ethod 8015M/D: Die	Kg %RPD 2.95 0 esel Range	RPDLimit 33.9 0	Qual
Client ID: WS22-01 0-4' Prep Date: 12/6/2022 Analyte Diesel Range Organics (DRO) Surr: DNOP Sample ID: 2212211-095/ Client ID: BS22-79 4'	Analysis Date: <u>Result</u> PQL 45 1 4.6 AMS SampType: M Batch ID: 7	11884 12/7/2022 SPK value 4 46.17 4.617 MS 71908 12/8/2022	F SPK Ref Val 0 Tes F	RunNo: 93058 SeqNo: 335276 <u>%REC Low</u> 97.0 100 tCode: EPA Me RunNo: 93135 SeqNo: 335506	4 Units: mg/k /Limit HighLimit 36.1 154 21 129 ethod 8015M/D: Die	Kg %RPD 2.95 0 esel Range	RPDLimit 33.9 0	Qual
Client ID: WS22-01 0-4' Prep Date: 12/6/2022 Analyte Diesel Range Organics (DRO) Surr: DNOP Sample ID: 2212211-095/ Client ID: BS22-79 4' Prep Date: 12/7/2022	Analysis Date: <u>Result</u> PQL 45 1 4.6 AMS SampType: M Batch ID: 7 Analysis Date:	11884 12/7/2022 SPK value 4 46.17 4.617 1908 12/8/2022 SPK value	F SPK Ref Val 0 Tes F	RunNo: 93058 SeqNo: 335276 <u>%REC Low</u> 97.0 100 tCode: EPA Me RunNo: 93135 SeqNo: 335506	4 Units: mg/k /Limit HighLimit 36.1 154 21 129 ethod 8015M/D: Dia 64 Units: mg/k	(g %RPD 2.95 0 essel Range	RPDLimit 33.9 0 Organics	

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Client: Project:	Vertex Re SDE 31 Fe			Inc.							
Sample ID:	2212211-095AMSD	SampT	ype: MS	D	Tes	tCode: EF	A Method	8015M/D: Die	sel Range	Organics	
Client ID:	BS22-79 4'	Batch	ID: 719	908	F	RunNo: 93	8135				
Prep Date:	12/7/2022	Analysis D	ate: 12	/8/2022	S	SeqNo: 33	355065	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	rganics (DRO)	43	14	47.98	0	88.7	36.1	154	9.32	33.9	
Surr: DNOP		4.5		4.798		93.1	21	129	0	0	
Sample ID:	LCS-71908	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	LCSS	Batch	ID: 719	908	F	RunNo: 93	8135				
Prep Date:	12/7/2022	Analysis D	ate: 12	/8/2022	S	SeqNo: 33	55085	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	rganics (DRO)	52	15	50.00	0	104	64.4	127			
Surr: DNOP		5.2		5.000		103	21	129			
Sample ID:	MB-71908	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	PBS	Batch	ID: 719	908	F	RunNo: 9 3	8135				
Prep Date:	12/7/2022	Analysis D	ate: 12	/8/2022	S	SeqNo: 33	55086	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C		ND	15								
-	e Organics (MRO)	ND	50	40.00		405	04	400			
Surr: DNOP		10		10.00		105	21	129			
Sample ID:	MB-71894	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	PBS	Batch	ID: 718	394	F	RunNo: 93	8121				
Prep Date:	12/6/2022	Analysis D	ate: 12	/7/2022	Ş	SeqNo: 33	855795	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C		ND	15								
-	e Organics (MRO)	ND	50								
Surr: DNOP		11		10.00		105	21	129			
Sample ID:	LCS-71894	SampT	ype: LC	S	Tes	tCode: EF	A Method	8015M/D: Die	sel Range	Organics	
Client ID:	LCSS	Batch	ID: 718	394	F	RunNo: 93	8121				
Prep Date:	12/6/2022	Analysis D	ate: 12	/7/2022	S	SeqNo: 33	355796	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	rganics (DRO)	47	15	50.00	0	94.1	64.4	127			
Surr: DNOP		4.8		5.000		95.6	21	129			

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2212211

15-Dec-22

Client: Project:	Vertex Re SDE 31 Fe			Inc.							
Sample ID:	2212211-035AMS	SampT	Гуре: МЅ	;	Tes	tCode: EP	A Method	8015M/D: Die	sel Range	Organics	
Client ID:	BS22-19 4'	Batcl	h ID: 718	394	F	RunNo: 93	3121				
Prep Date:	12/6/2022	Analysis E	Date: 12	/7/2022	S	SeqNo: 33	55798	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	57	14	46.55	0	123	36.1	154			
Surr: DNOP		4.9		4.655		106	21	129			
Sample ID:	2212211-035AMSD	SampT	Гуре: МЅ	D	Tes	tCode: EP	A Method	8015M/D: Die	sel Range	Organics	
Client ID:	BS22-19 4'	Batcl	h ID: 718	394	F	RunNo: 9 3	121				
Prep Date:	12/6/2022	Analysis E	Date: 12	/7/2022	S	SeqNo: 33	55799	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	49	14	47.13	0	104	36.1	154	14.8	33.9	
Surr: DNOP		4.6		4.713		97.4	21	129	0	0	
Sample ID:	MB-71900 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics										
Client ID:	PBS	Batcl	h ID: 719	900	F	RunNo: 93	3121				
Prep Date:	12/6/2022	Analysis E	Date: 12	/7/2022	S	SeqNo: 33	55821	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	ND	15								
Motor Oil Rang	je Organics (MRO)	ND	50								
Surr: DNOP		11		10.00		109	21	129			
Sample ID:	LCS-71900	SampT	Гуре: LC	s	Tes	tCode: EP	A Method	8015M/D: Die	sel Range	Organics	
Client ID:	LCSS	Batcl	h ID: 719	900	F	RunNo: 9 3	3121				
Prep Date:	12/6/2022	Analysis E	Date: 12	/7/2022	S	SeqNo: 33	55822	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	Organics (DRO)	Result 64	PQL 15	SPK value 50.00	SPK Ref Val 0	%REC 129	LowLimit 64.4	HighLimit 127	%RPD	RPDLimit	Qual S
	• • •							ě	%RPD	RPDLimit	
Diesel Range C Surr: DNOP	• • •	64 5.3		50.00 5.000	0	129 106	64.4 21	127			
Diesel Range (Surr: DNOP		64 5.3 SampT	15	50.00 5.000	0 Tes	129 106	64.4 21 PA Method	127 129			
Diesel Range (Surr: DNOP Sample ID:	2212211-055AMS	64 5.3 SampT	15 Гуре: MS h ID: 719	50.00 5.000	0 Tes F	129 106 tCode: EP	64.4 21 PA Method 8	127 129	sel Range		
Diesel Range C Surr: DNOP Sample ID: Client ID:	2212211-055AMS BS22-39 4'	64 5.3 SampT Batcl	15 Гуре: MS h ID: 719	50.00 5.000	0 Tes F	129 106 tCode: EF RunNo: 93	64.4 21 PA Method 8	127 129 8015M/D: Die	sel Range		
Diesel Range C Surr: DNOP Sample ID: Client ID: Prep Date: Analyte	2212211-055AMS BS22-39 4'	64 5.3 SampT Batcl Analysis E	15 Гуре: MS h ID: 719 Date: 12	50.00 5.000	0 Tes F	129 106 tCode: EF RunNo: 93 SeqNo: 33	64.4 21 PA Method 5 3121 355824	127 129 8015M/D: Die Units: mg/K	sel Range g	Organics	S

Qualifiers:

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

WO#: 2212211 15-Dec-22

C SUMMART REFORT	WO#:	2212211
all Environmental Analysis Laboratory, Inc.		15-Dec-22

Client: Project:	Vertex Res SDE 31 Fe		· · · · · ·	Inc.							
Sample ID:	2212211-055AMSD	SampT	ype: MS	D	Tes	tCode: EF	A Method	8015M/D: Die	sel Range	Organics	
Client ID:	BS22-39 4'	Batch	n ID: 719	900	F	RunNo: 93	3121				
Prep Date:	12/6/2022	Analysis D	Date: 12	/7/2022	Ş	SeqNo: 33	855825	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Surr: DNOP	Organics (DRO)	45 4.5	14	47.39 4.739	0	95.3 95.7	36.1 21	154 129	4.61 0	33.9 0	
Sample ID:	MB-71885	SampT	уре: МЕ	BLK	Tes	stCode: EP	A Method	8015M/D: Die	sel Range	Organics	
Client ID:	PBS	Batch	n ID: 718	385	F	RunNo: 93	8121				
Prep Date:	12/6/2022	Analysis D	Date: 12	/7/2022	5	SeqNo: 33	855851	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
0	Drganics (DRO) e Organics (MRO)	ND ND	15 50								
Surr: DNOP		9.7	00	10.00		96.9	21	129			
Sample ID:	LCS-71885	SampT	ype: LC	S	Tes	stCode: EP	A Method	8015M/D: Die	sel Range	Organics	
Client ID:	LCSS	Batch	n ID: 718	385	F	RunNo: 93	8121				
Prep Date:	12/6/2022	Analysis D)ate: 12	/7/2022	5	SeqNo: 33	855852	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
-	Organics (DRO)	53	15	50.00	0	106	64.4	127			
Surr: DNOP		5.1		5.000		103	21	129			
Sample ID:	2212211-015AMS	SampT	ype: MS	5	Tes	stCode: EP	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	WS22-15 0-4'	Batch	n ID: 718	385	F	RunNo: 9 3	8121				
Prep Date:	12/6/2022	Analysis D	Date: 12	/7/2022	5	SeqNo: 33	855854	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
-	Organics (DRO)	48	13	44.21	0	109	36.1	154			
Surr: DNOP		4.6		4.421		105	21	129			
Sample ID:	2212211-015AMSD	SampT	уре: МS	5D	Tes	stCode: EP	A Method	8015M/D: Die	sel Range	Organics	
Client ID:	WS22-15 0-4'	Batch	n ID: 718	385	F	RunNo: 93	3121				
Prep Date:	12/6/2022	Analysis D)ate: 12	/7/2022	S	SeqNo: 33	855855	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
•	Organics (DRO)	41	14	45.29	0	90.4	36.1	154	16.0	33.9	
Surr: DNOP		4.2		4.529		93.1	21	129	0	0	

Qualifiers:

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- Analyte detected in the associated Method Blank В
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	esources Service Federal 009	es, Inc.					
Sample ID: 2212211-116AMS	SampType:	IS	Tes	tCode: EPA Method	8015M/D: Diesel	Range Organics	
Client ID: BS22-100 4'	Batch ID: 7	1924	F	RunNo: 93157			
Prep Date: 12/7/2022	Analysis Date:	12/8/2022	S	SeqNo: 3356241	Units: mg/Kg		
Analyte	Result PQL	. SPK value	SPK Ref Val	%REC LowLimit	HighLimit %	RPD RPDLimit	Qual
Diesel Range Organics (DRO)	45 1	5 48.73	0	93.3 36.1	154		
Surr: DNOP	5.7	4.873		117 21	129		
Sample ID: 2212211-116AMSD	SampType: N	ISD	Tes	tCode: EPA Method	8015M/D: Diesel	Range Organics	
Client ID: BS22-100 4'	Batch ID: 7	1924	F	RunNo: 93157			
Prep Date: 12/7/2022	Analysis Date:	12/8/2022	S	SeqNo: 3356242	Units: mg/Kg		
Analyte	Result PQL	. SPK value	SPK Ref Val	%REC LowLimit	HighLimit %	RPD RPDLimit	Qual
Diesel Range Organics (DRO)	47 1	5 49.16	0	94.7 36.1	154	2.41 33.9	
Surr: DNOP	6.0	4.916		123 21	129	0 0	
Sample ID: LCS-71924	SampType: L	.CS	Tes	tCode: EPA Method	8015M/D: Diesel	Range Organics	
Client ID: LCSS	Batch ID: 7	1924	F	RunNo: 93157			
Prep Date: 12/7/2022	Analysis Date:	12/8/2022	S	SeqNo: 3356261	Units: mg/Kg		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC LowLimit	HighLimit %	GRPD RPDLimit	Qual
Diesel Range Organics (DRO)	59 1	5 50.00	0	117 64.4	127		
Surr: DNOP	7.3	5.000		146 21	129		S
Sample ID: MB-71924	SampType:	IBLK	Tes	tCode: EPA Method	8015M/D: Diesel	Range Organics	
Client ID: PBS	Batch ID: 7	1924	F	RunNo: 93157			
Prep Date: 12/7/2022	Analysis Date:	12/8/2022	S	SeqNo: 3356262	Units: mg/Kg		
Analyte	Result PQL	. SPK value	SPK Ref Val	%REC LowLimit	HighLimit %	RPD RPDLimit	Qual
Diesel Range Organics (DRO)	ND 1						
Motor Oil Range Organics (MRO)	ND 5				100		•
Surr: DNOP	14	10.00		144 21	129		S
Sample ID: MB-71902	SampType:	IBLK	Tes	tCode: EPA Method	8015M/D: Diesel	Range Organics	
Client ID: PBS	Batch ID: 7	1902	F	RunNo: 93122			
Prep Date: 12/7/2022	Analysis Date:	12/8/2022	S	SeqNo: 3356874	Units: mg/Kg		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC LowLimit	HighLimit %	RPD RPDLimit	Qual
Diesel Range Organics (DRO)	ND 1						
Motor Oil Range Organics (MRO)	ND 5			00.0	400		
Surr: DNOP	9.9	10.00		99.0 21	129		

Qualifiers:

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15-Dec-22

Client:	Vertex Re	sources Se	ervices,	Inc.							
Project:	SDE 31 F	ederal 009)								
Sample ID: LCS	-71902	SampT	vpe: LC	s	Tes	tCode: EF	PA Method	8015M/D: Dies	sel Range	Organics	
Client ID: LCS	S	Batch	ID: 719	02		RunNo: 9 3			J	- 3 -	
Prep Date: 12/	7/2022	Analysis D	ate: 12	/8/2022	S	SeqNo: 33	356875	Units: mg/Kg	9		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organic	s (DRO)	52	15	50.00	0	104	64.4	127	, or tr 2		444
Surr: DNOP		4.9		5.000		97.2	21	129			
Sample ID: 2212	211-075AMS	SampT	ype: MS	;	Tes	tCode: EF	PA Method	8015M/D: Dies	sel Range	Organics	
Client ID: BS2	2-59 4'	Batch	ID: 719	02	F	RunNo: 93	3122				
Prep Date: 12/	7/2022	Analysis D	ate: 12	/8/2022	S	SeqNo: 33	356877	Units: mg/Kg	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organic	s (DRO)	57	15	49.07	0	117	36.1	154			
Surr: DNOP		5.1		4.907		103	21	129			
Sample ID: 2212	211-075AMSD	SampT	уре: МЅ	D	Tes	tCode: EF	PA Method	8015M/D: Dies	sel Range	Organics	
Client ID: BS2	2-59 4'	Batch	ID: 719	02	F	RunNo: 93	3122				
Prep Date: 12/	7/2022	Analysis D	ate: 12	/8/2022	S	SeqNo: 33	356878	Units: mg/Kg	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organic	cs (DRO)	49	14	46.38	0	106	36.1	154	15.5	33.9	
Surr: DNOP		4.9		4.638		105	21	129	0	0	
Sample ID: MB-	71920	SampT	уре: МВ	LK	Tes	tCode: EF	A Method	8015M/D: Dies	sel Range	Organics	
Client ID: PBS		Batch	ID: 719	20	F	RunNo: 93	3122				
Prep Date: 12/	7/2022	Analysis D	ate: 12	/8/2022	S	SeqNo: 33	356908	Units: mg/Kg	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organic	s (DRO)	ND	15								
Motor Oil Range Orga	anics (MRO)	ND	50								
Surr: DNOP		11		10.00		108	21	129			
Sample ID: LCS	-71920	SampT	ype: LC	s	Tes	tCode: EF	PA Method	8015M/D: Dies	sel Range	Organics	
Client ID: LCS	s	Batch	ID: 719	20	F	RunNo: 9 3	3122				
Prep Date: 12/	7/2022	Analysis D	ate: 12	/8/2022	5	SeqNo: 33	356909	Units: mg/Kg	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organic	s (DRO)	57	15	50.00	0	113	64.4	127			
Surr: DNOP		5.4		5.000		107	21	129			

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2212211

15-Dec-22

Client: Project:	Vertex Re SDE 31 Fe			Inc.							
Sample ID:	2212211-135AMS	Samp	Гуре: МS	5	Tes	stCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	BS22-119 4'	Batcl	h ID: 719	920	F	RunNo: 93	3122				
Prep Date:	12/7/2022	Analysis [Date: 12	/8/2022	Ş	SeqNo: 33	356911	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
-	Drganics (DRO)	51	14	48.08	0	105	36.1	154			
Surr: DNOP		4.9		4.808		102	21	129			
Sample ID:	2212211-135AMSD	SampT	Гуре: МS	D	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	BS22-119 4'	Batcl	h ID: 719	920	F	RunNo: 93	3122				
Prep Date:	12/7/2022	Analysis E	Date: 12	/8/2022	:	SeqNo: 33	356912	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	Organics (DRO)	55	14	46.21	0	120	36.1	154	9.15	33.9	
Surr: DNOP		5.6		4.621		120	21	129	0	0	
Sample ID:	MB-71951	SampT	Гуре: МЕ	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	PBS	Batcl	h ID: 71 9	951	F	RunNo: 93	3161				
Prep Date:	12/8/2022	Analysis [Date: 12	/9/2022	:	SeqNo: 33	858851	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
•	Organics (DRO)	ND	15								
Motor Oil Rang Surr: DNOP	e Organics (MRO)	ND	50	10.00		110	01	129			
Sull. DNOP		11		10.00		110	21	129			
Sample ID:	LCS-71951	SampT	Гуре: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	LCSS	Batcl	h ID: 719	951	F	RunNo: 93	3161				
Prep Date:	12/8/2022	Analysis E	Date: 12	/9/2022		SeqNo: 33	358853	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
•	Organics (DRO)	57	15	50.00	0	113	64.4	127			
Surr: DNOP		5.5		5.000		109	21	129			
Sample ID:	LCS-71900	SampT	Гуре: LC	S	Tes	stCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	LCSS	Batcl	h ID: 719	900	F	RunNo: 9 3	3242				
Prep Date:	12/6/2022	Analysis [Date: 12	/9/2022		SeqNo: 33	860557	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
•	Drganics (DRO)	54	15	50.00	0	108	64.4	127			
Surr: DNOP		4.8		5.000		96.0	21	129			

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2212211

15-Dec-22

	esources Services, Inc. Jederal 009		
Sample ID: mb-71865	SampType: MBLK	TestCode: EPA Method 801	5D: Gasoline Range
Client ID: PBS	Batch ID: 71865	RunNo: 93088	
Prep Date: 12/6/2022	Analysis Date: 12/7/2022	SeqNo: 3352646 Un	its: mg/Kg
Analyte		SPK Ref Val %REC LowLimit H	lighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO) Surr: BFB	ND 5.0 910 1000	91.3 37.7	212
Sample ID: Ics-71865	SampType: LCS	TestCode: EPA Method 801	5D: Gasoline Range
Client ID: LCSS	Batch ID: 71865	RunNo: 93088	
Prep Date: 12/6/2022	Analysis Date: 12/7/2022	SeqNo: 3352647 Un	nits: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit H	lighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	25 5.0 25.00	0 99.8 72.3	137
Surr: BFB	1900 1000	186 37.7	212
Sample ID: mb-71893	SampType: MBLK	TestCode: EPA Method 801	5D: Gasoline Range
Client ID: PBS	Batch ID: 71893	RunNo: 93088	
Prep Date: 12/6/2022	Analysis Date: 12/7/2022	SeqNo: 3352670 Un	nits: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit H	lighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO) Surr: BFB	ND 5.0 930 1000	92.7 37.7	212
Sample ID: Ics-71893	SampType: LCS	TestCode: EPA Method 801	5D: Gasoline Range
Client ID: LCSS	Batch ID: 71893	RunNo: 93088	
Prep Date: 12/6/2022	Analysis Date: 12/7/2022	SeqNo: 3352671 Un	nits: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit H	lighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	26 5.0 25.00	0 103 72.3	137
Surr: BFB	1900 1000	193 37.7	212
Sample ID: 2212211-055ams	SampType: MS	TestCode: EPA Method 801	5D: Gasoline Range
Client ID: BS22-39 4'	Batch ID: 71893	RunNo: 93088	
Prep Date: 12/6/2022	Analysis Date: 12/7/2022	SeqNo: 3352673 Un	nits: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit H	lighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	25 4.9 24.58	0 102 70	130
Surr: BFB	1900 983.3	195 37.7	212
Sample ID: 2212211-055amsd	SampType: MSD	TestCode: EPA Method 801	5D: Gasoline Range
Client ID: BS22-39 4'	Batch ID: 71893	RunNo: 93088	
Prep Date: 12/6/2022	Analysis Date: 12/7/2022	SeqNo: 3352674 Un	nits: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit H	lighLimit %RPD RPDLimit Qual

Qualifiers:

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ND Not Detected at the Reporting Limit

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- E Above Quantitation Range/Estimated Value
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- P Sample pH Not In Range

RL Reporting Limit

2212211

15-Dec-22

Client: Project:	Vertex Re SDE 31 F		,	Inc.							
	2212211-055amsd		ype: MS	<u>```</u>	Too	tCodo: EE	A Mothed	8015D: Gaso	line Dense		
Client ID:	BS22-39 4'		n ID: 718			RunNo: 93		oursp: Gaso	ine kange		
								Lipite: ma/K	a		
Prep Date:	12/6/2022	Analysis D				SeqNo: 33		Units: mg/K	•		
Analyte		Result	PQL		SPK Ref Val		LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Surr: BFB	e Organics (GRO)	29 2100	4.9	24.73 989.1	0	119 208	70 37.7	130 212	15.7 0	20 0	
Sample ID:	lcs-71882	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	LCSS	Batch	n ID: 718	382	F	RunNo: 9 3	3125				
Prep Date:	12/6/2022	Analysis D	ate: 12	2/7/2022	S	SeqNo: 33	354577	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range	e Organics (GRO)	26	5.0	25.00	0	103	72.3	137			
Surr: BFB		2300		1000		232	37.7	212			S
Sample ID:	mb-71882	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	PBS	Batch	n ID: 718	382	F	RunNo: 93	8125				
Prep Date:	12/6/2022	Analysis D	ate: 12	2/7/2022	S	SeqNo: 33	354578	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Surr: BFB	e Organics (GRO)	ND 1000	5.0	1000		103	37.7	212			
Sample ID:	2212211-015AMS	SampT	уре: МS	;	Tes	tCode: EF	A Method	8015D: Gaso	line Range		
Client ID:	WS22-15 0-4'	Batch	n ID: 718	382	F	RunNo: 93	3125				
Prep Date:	12/6/2022	Analysis D	ate: 12	2/7/2022	5	SeqNo: 33	354580	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	e Organics (GRO)	26	4.7	23.74	0	111	70	130			
Surr: BFB		2300		949.7		239	37.7	212			S
Sample ID:											
	2212211-015AMSD	SampT	ype: MS	SD .	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	2212211-015AMSD WS22-15 0-4'		ype: MS D: 718			tCode: EF RunNo: 93		8015D: Gasol	line Range		
			n ID: 718	382	F		3125	8015D: Gasol Units: mg/K	Ū		
	WS22-15 0-4'	Batch	n ID: 718	382 2/7/2022	F	RunNo: 93 SeqNo: 33	3125		Ū	RPDLimit	Qual
Prep Date: Analyte Gasoline Range	WS22-15 0-4'	Batch Analysis D Result 28	n ID: 718 Date: 12	382 2/7/2022 SPK value 24.15	F	RunNo: 93 SeqNo: 33 %REC 116	3125 354581 LowLimit 70	Units: mg/K HighLimit 130	.g <u>%RPD</u> 6.32	RPDLimit 20	
Prep Date: Analyte	WS22-15 0-4' 12/6/2022	Batch Analysis D Result	Date: 12	382 2/7/2022 SPK value	F S SPK Ref Val	RunNo: 93 SeqNo: 33 %REC	3125 354581 LowLimit	Units: mg/K HighLimit	g %RPD	RPDLimit	Qual S
Prep Date: Analyte Gasoline Range	WS22-15 0-4' 12/6/2022 e Organics (GRO)	Batch Analysis D Result 28 2400	Date: 12	382 2/7/2022 SPK value 24.15 966.2	F SPK Ref Val 0	RunNo: 93 SeqNo: 33 %REC 116 246	3125 354581 LowLimit 70 37.7	Units: mg/K HighLimit 130	.g <u>%RPD</u> 6.32 0	RPDLimit 20 0	
Prep Date: Analyte Gasoline Range Surr: BFB Sample ID:	WS22-15 0-4' 12/6/2022 e Organics (GRO)	Batch Analysis D Result 28 2400 SampT	Date: 12 PQL 4.8	382 277/2022 SPK value 24.15 966.2 S	F SPK Ref Val 0 Tes	RunNo: 93 SeqNo: 33 %REC 116 246	3125 354581 LowLimit 70 37.7 PA Method	Units: mg/K HighLimit 130 212	.g <u>%RPD</u> 6.32 0	RPDLimit 20 0	
Prep Date: Analyte Gasoline Range Surr: BFB Sample ID:	WS22-15 0-4' 12/6/2022 e Organics (GRO) Ics-71887	Batch Analysis D Result 28 2400 SampT	Date: 12 PQL 4.8 Type: LC	382 277/2022 SPK value 24.15 966.2 S 387	F SPK Ref Val 0 Tes F	RunNo: 93 SeqNo: 33 %REC 116 246 tCode: EF	3125 354581 LowLimit 70 37.7 PA Method 3125	Units: mg/K HighLimit 130 212	g %RPD 6.32 0	RPDLimit 20 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 Quanitative 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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15-Dec-22

	Vertex Resources	,	Inc.							
Sample ID: Ics-71887			<u> </u>	Too	tCodo: E		901ED: Casa	line Denge		
Client ID: LCSS		Type: LC ch ID: 718			RunNo: 9		8015D: Gaso	line Range		
		Date: 12					Lipite: ma/K	'a		
					SeqNo: 3		Units: mg/K	•		
Analyte Gasoline Range Organics (GRO) 25	PQL 5.0	SPK value 25.00	SPK Ref Val	%REC 100	LowLimit 72.3	HighLimit 137	%RPD	RPDLimit	Qual
Surr: BFB	2200 2200	5.0	1000	U	223	37.7	212			S
Sample ID: mb-7188	7 Samp	туре: МЕ	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Range		
Client ID: PBS	Bat	ch ID: 718	387	F	RunNo: 9 :	3125				
Prep Date: 12/6/202	22 Analysis	Date: 12	/7/2022	Ş	SeqNo: 3	354602	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (Surr: BFB	GRO) ND 1000	5.0	1000		102	37.7	212			
Sample ID: 2212211-	035AMS Samp	Type: MS	5	Tes	tCode: El	PA Method	8015D: Gaso	line Range		
Client ID: BS22-19	4' Bat	ch ID: 718	387	F	RunNo: 9 :	3125				
Prep Date: 12/6/202	22 Analysis	Date: 12	/7/2022	Ş	SeqNo: 3	354604	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (Surr: BFB	GRO) 26 2300	5.0	24.98 999.0	0	104 229	70 37.7	130 212			S
Sample ID: 2212211-	035AMSD Samp	Type: MS	D	Tes	tCode: El	PA Method	8015D: Gaso	line Range		
Client ID: BS22-19	4' Bat	ch ID: 718	387	F	RunNo: 9 :	3125				
Prep Date: 12/6/202	22 Analysis	Date: 12	/7/2022	5	SeqNo: 3	354605	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (5.0	24.95	0	100	70	130	3.78	20	
Surr: BFB	2200		998.0		217	37.7	212	0	0	S
Sample ID: mb-7190	l Samp	туре: МЕ	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Range		
Client ID: PBS	Bat	ch ID: 719	901	F	RunNo: 9 :	3131				
Prep Date: 12/7/202	22 Analysis	Date: 12	/8/2022	S	SeqNo: 3	354750	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (Surr: BFB	GRO) ND 930	5.0	1000		93.0	37.7	212			
Sample ID: Ics-7190	Sam	Type: LC	S	Tes	tCode: El	PA Method	8015D: Gaso	line Range		
Client ID: LCSS	Bat	ch ID: 719	901	F	RunNo: 9 :	3131				
Prep Date: 12/7/202	22 Analysis	Date: 12	/8/2022	S	SeqNo: 3	354751	Units: mg/K	g		
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 Quanitative 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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Client: Project:	Vertex Re SDE 31 Fe		· · · ·	Inc.							
Sample ID: Ics	s-71901	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015D: Gasol	ine Range		
Client ID: LC	ss	Batch	n ID: 719	901	F	RunNo: 9 3	3131				
Prep Date: 1	2/7/2022	Analysis D)ate: 12	/8/2022	5	SeqNo: 33	354751	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Or Surr: BFB	rganics (GRO)	26 1900	5.0	25.00 1000	0	103 192	72.3 37.7	137 212			
	12211-095ams		vpe: MS		Tes			8015D: Gasol	ine Range		
	S22-79 4'	Batch	n ID: 719	901		RunNo: 9 3					
_	2/7/2022	Analysis D				SeqNo: 33		Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Or	rganics (GRO)	29	4.8	24.13	0	120	70	130			
Surr: BFB		2100		965.3		214	37.7	212			S
Sample ID: 22	12211-095amsd	SampT	уре: МS	D	Tes	tCode: EF	PA Method	8015D: Gasol	ine Range		
Client ID: BS	S22-79 4'	Batch	n ID: 719	901	F	RunNo: 9 3	3131				
Prep Date: 1	2/7/2022	Analysis D)ate: 12	/8/2022	S	SeqNo: 33	354754	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Or	rganics (GRO)	27	4.8	24.11	0	111	70	130	8.01	20	
Surr: BFB		2000		964.3		205	37.7	212	0	0	
Sample ID: mb	b-71909	SampT	уре: МВ	BLK	Tes	tCode: EF	PA Method	8015D: Gasol	ine Range		
Client ID: PB	BS	Batch	n ID: 719	909	F	RunNo: 9 3	3131				
Prep Date: 1	2/7/2022	Analysis D)ate: 12	/9/2022	S	SeqNo: 33	354774	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Or Surr: BFB	rganics (GRO)	ND 870	5.0	1000		86.9	37.7	212			
Sample ID: Ics	s-71909	SampT	ype: LC	s	Tes	tCode: FF	PA Method	8015D: Gasol	ine Range		
-	SS		n ID: 719			RunNo: 93					
Prep Date: 1	2/7/2022	Analysis D				SeqNo: 33		Units: mg/K	g		
Analyte											Qual
		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Quai
Gasoline Range Or	rganics (GRO)	Result 24	PQL 5.0	SPK value 25.00	SPK Ref Val	%REC 96.9	LowLimit 72.3	HignLimit 137	%RPD	RPDLIMIt	Quai
Gasoline Range Or Surr: BFB	rganics (GRO)							-	%RPD	RPDLIMIt	Quai
Surr: BFB	rganics (GRO) 12211-135ams	24 1800		25.00 1000	0	96.9 185	72.3 37.7	137			Quai
Surr: BFB		24 1800 SampT	5.0	25.00 1000	0 Tes	96.9 185	72.3 37.7 PA Method	137 212			
Surr: BFB Sample ID: 22 Client ID: BS	12211-135ams	24 1800 SampT	5.0 Type: MS n ID: 719	25.00 1000	0 Tes F	96.9 185 tCode: EF	72.3 37.7 PA Method 3131	137 212	ine Range		

Qualifiers:

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

WO#: 2212211 15-Dec-22

Client: Project:	Vertex Re SDE 31 Fe		· · · · ·	Inc.							
Sample ID:	2212211-135ams	SampT	ype: MS	;	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	BS22-119 4'	Batch	ID: 719	909	F	RunNo: 9 :	3131				
Prep Date:	12/7/2022	Analysis D	ate: 12	/9/2022	S	SeqNo: 3	354777	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Surr: BFB	e Organics (GRO)	26 1900	4.9	24.73 989.1	0	105 194	70 37.7	130 212			
Sample ID:	2212211-135amsd	SampT	уре: МS	D	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	BS22-119 4'	Batch	ID: 719	909	F	RunNo: 93	3131				
Prep Date:	12/7/2022	Analysis D	ate: 12	/9/2022	S	SeqNo: 3	354778	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range	e Organics (GRO)	28	4.9	24.73	0	113	70	130	7.69	20	
Surr: BFB		2000		989.1		201	37.7	212	0	0	
Sample ID:	lcs-71895	SampT	ype: LC	s	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	LCSS	Batch	ID: 718	395	F	RunNo: 93	3141				
Prep Date:	12/6/2022	Analysis D	ate: 12	/8/2022	S	SeqNo: 3	355290	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
•	e Organics (GRO)	26	5.0	25.00	0	103	72.3	137			
Surr: BFB		2300		1000		226	37.7	212			S
Sample ID:	mb-71895	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	PBS	Batch	ID: 718	395	F	RunNo: 9 :	3141				
Prep Date:	12/6/2022	Analysis D	ate: 12	/8/2022	S	SeqNo: 3	355291	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
-	e Organics (GRO)	ND	5.0								
Surr: BFB		1000		1000		101	37.7	212			
Sample ID:	2212211-075AMS	SampT	ype: MS	;	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	BS22-59 4'	Batch	ID: 718	395	F	RunNo: 93	3141				
Prep Date:	12/6/2022	Analysis D	ate: 12	/8/2022	S	SeqNo: 3	355293	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
•	e Organics (GRO)	24	5.0	24.98	0	96.9	70	130			
		2200		999.0		217	37.7	212			S
Surr: BFB		2200		000.0							
	2212211-075AMSD		ype: MS		Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
	2212211-075AMSD BS22-59 4'	SampT	ype: MS ID: 71 8	D		tCode: EF		8015D: Gaso	line Range		
Sample ID:		SampT	ID: 718	5D 395	F		3141	8015D: Gasol Units: mg/K	Ū		

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

- S % Recovery outside of standard limits. If undiluted results may be estimated.
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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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WO#:	2212211
	15-Dec-22

pp Date: 12/6/2022 Analysis Date: 12/8/2022 SeqNo: 3355294 Units: mg/kg alyte Result PQL SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GR0) 26 5.0 24.90 0 103 70 130 5.40 20 urr. BFB 2200 996.0 221 37.7 212 0 0 S mple ID: Ics-71906 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range ent ID: LCSS Batch ID: 71906 RunNo: 93141 units: mg/kg alyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual dine Range Organics (GR0) 24 5.0 25.00 0 97.3 72.3 137 urr. BFB 2000 1000 205 37.7 212 Units: mg/kg andine Range Organics (GR0) ND 5.0 SPK Ref Val %REC LowL	Client: Project:	Vertex Re SDE 31 Fe		,	Inc.							
pp Date: 12/6/2022 Analysis Date: 12/8/2022 SeqNo: 3355294 Units: mg/kg alyte Result PQL SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GR0) 26 5.0 24.90 0 103 70 130 5.40 20 urr. BFB 2200 996.0 221 37.7 212 0 0 S mple ID: Lcss Batch ID: 71906 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range alyte 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3355314 Units: mg/kg alyte Result POL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual dine Range Organics (GR0) 24 5.0 25.00 0 97.3 72.3 137 urr. BFB 2000 1000 205 37.7 212 Units: mg/kg alyte Result POL SPK Ref Val <td>Sample ID:</td> <td>2212211-075AMSD</td> <td>SampT</td> <td>уре: МS</td> <td>SD.</td> <td>Tes</td> <td>stCode: EF</td> <td>PA Method</td> <td>8015D: Gaso</td> <td>line Range</td> <td>•</td> <td></td>	Sample ID:	2212211-075AMSD	SampT	уре: МS	SD.	Tes	stCode: EF	PA Method	8015D: Gaso	line Range	•	
alyte Result PQL SPK value SPK ref Val %REC LowLimit High Limit %RPD RPDLimit Qual alyte 2200 996.0 221 37.7 212 0 0 S mmple ID: LCS TestCode: EPA Method 8015D: Gasoline Range ap Date: 127/2022 Analysis Date: 129/2022 SeqNo: 3355314 Units: mg/Kg alyte Result PQL SPK value SPK Ref Val %REC LowLimit High Limit %RPD RPDLimit Qual alyte Result PQL SPK value SPK Ref Val %REC LowLimit High Limit %RPD RPDLimit Qual alyte Result PQL SPK value SPK Ref Val %REC LowLimit High Limit %RPD RPDLimit Qual alyte Result PQL SPK value SPK Ref Val %REC LowLimit High Limit %RPD RPDLimit Qual <td>Client ID:</td> <td>BS22-59 4'</td> <td>Batch</td> <td>n ID: 718</td> <td>395</td> <td>F</td> <td>RunNo: 93</td> <td>3141</td> <td></td> <td></td> <td></td> <td></td>	Client ID:	BS22-59 4'	Batch	n ID: 718	395	F	RunNo: 93	3141				
Bine Range Organics (GR0) 26 5.0 24.90 0 103 70 130 5.40 20 urr. BFB 2200 996.0 221 37.7 212 0 0 S mmple ID: tcs-71906 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range ent ID: LCSS Batch ID: 71906 RunNo: 93141 pp Date: 12/9/2022 SeqNo: 3355314 Units: mg/Kg alyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GR0) 24 5.0 25.00 97.6 72.3 137 rmple ID: mb-71906 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range ent ID: PBS Batch ID: 71906 RunNo: 93141 pp Date: 12/9/2022 SeqNo: 3355315 Units: mg/Kg alyte	Prep Date:	12/6/2022	Analysis D	ate: 12	2/8/2022	\$	SeqNo: 33	355294	Units: mg/K	g		
urr. BFB 2200 996.0 221 37.7 212 0 0 S mple ID: ics-71906 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range ent ID: LCSS Batch ID: 71906 RunNo: 93141 Units: mg/Kg alyte Result POL SPK xelva SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual alyte Result POL SPK xelva SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual alyte Result POL SPK xelva SPK Kef Val %REC LowLimit HighLimit %RPD RPDLimit Qual mmple ID: mbr.71906 SampType: MBL TestCode: EPA Method 8015D: Gasoline Rang/Kg alyte Result POL SPK xelva SPK Kef Val %REC LowLimit HighLimit %RPD RPDLimit Qual <	Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Inspire ID: Ics-71906 SampType: ICs TestCode: EPA Method 8015D: Gasoline Range ent ID: LCSS Batch ID: 71906 RunNo: 93141 Units: mg/Kg apb Tet: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3355314 Units: mg/Kg alayte Result POL SPK value SPK Kef Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) 24 5.0 25.00 0 97.6 72.3 137 urr: BFB 2000 1000 205 37.7 212 mple ID: mb-71906 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range ent ID: PBS Batch ID: 71906 RunNo: 93141 ep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3355315 Units: mg/Kg alyte Result POL SPK valu	Gasoline Range	e Organics (GRO)	26	5.0	24.90	0	103	70	130	5.40	20	
ent ID: LCSS Batch ID: 71906 RunNo: 93141 Units: mg/Kg alyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) 24 5.0 25.00 0 976. 72.3 137 urr: BFB 2000 1000 205 37.7 212 212 mple ID: mb-71906 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range ent ID: PBS Batch ID: 71906 RunNo: 93141 units: mg/Kg alyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) ND 5.0	Surr: BFB		2200		996.0		221	37.7	212	0	0	S
pp Date:12/7/2022Analysis Date:12/9/2022SeqNo:3355314Units:mg/KgalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualoline Range Organics (GRO)245.025.00097.672.3137130137201mple ID:212211-115amsSampType:MSTestCode:EVHethod BiDFiD:68011NPDNPDNPDNPD100094.237.721213713013713013713013713013713013713013713013713013713013013713013313713013313113013013720mple ID:212211-115amsSampType:MSF ValueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQual1010137212137130137212137131	Sample ID:	lcs-71906	SampT	ype: LC	S	Tes	stCode: EF	PA Method	8015D: Gaso	line Range)	
Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GR0) 24 5.0 25.00 0 97.6 72.3 137 urt: BFB 2000 1000 205 37.7 212 200 1000 205 37.7 212 mple ID: mb-71906 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range ent ID: PBS Batch ID: 71906 RunNo: 93141 gasta gast	Client ID:	LCSS	Batch	n ID: 719	906	F	RunNo: 93	3141				
oline Range Organics (GR0) 24 5.0 25.00 0 97.6 72.3 137 urr: BFB 2000 1000 205 37.7 212 mple ID: mb-71906 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range ent ID: PBS Batch ID: 71906 RunNo: 93141 ep Date: 1277/2022 Analysis Date: 12/9/2022 SeqNo: 3355315 Units: mg/Kg alayte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GR0) ND 5.0 urr: BFB 940 1000 94.2 37.7 212 mple ID: 2212211-115ams SampType: MS TestCode: EPA Method 8015D: Gasoline Range ent ID: BS22-99 4' Batch ID: 71906 RunNo: 93141 gp 24.3 0 94.1 70 130 alayte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual <tr< td=""><td>Prep Date:</td><td>12/7/2022</td><td>Analysis D</td><td>ate: 12</td><td>2/9/2022</td><td>Ş</td><td>SeqNo: 33</td><td>355314</td><td>Units: mg/K</td><td>g</td><td></td><td></td></tr<>	Prep Date:	12/7/2022	Analysis D	ate: 12	2/9/2022	Ş	SeqNo: 33	355314	Units: mg/K	g		
urr: BFB 200 1000 205 37.7 212 mple ID: mb-71906 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range ent ID: PBS Batch ID: 71906 RunNo: 93141 ep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3355315 Units: mg/Kg alyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) ND 5.0 940 1000 94.2 37.7 212 mple ID: 2212211-115ams SampType: MS TestCode: EPA Method 8015D: Gasoline Range Rangk gramma gra	Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
mple ID: mb-71906 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range ent ID: PBS Batch ID: 71906 RunNo: 93141 ep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3355315 Units: mg/Kg alyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) ND 5.0 37.7 212 mple ID: 2212211-115ams SampType: MS TestCode: EPA Method 8015D: Gasoline Range ep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3355317 Units: mg/Kg alyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) 23 4.9 24.37 0 94.1 70 130	Gasoline Range	e Organics (GRO)	24	5.0	25.00	0	97.6	72.3	137			
PBS Batch ID: 71906 RunNo: 93141 ep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3355315 Units: mg/Kg alyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) ND 5.0 940 1000 94.2 37.7 212 <td< td=""><td>Surr: BFB</td><td></td><td>2000</td><td></td><td>1000</td><td></td><td>205</td><td>37.7</td><td>212</td><td></td><td></td><td></td></td<>	Surr: BFB		2000		1000		205	37.7	212			
ep Date:12/7/2022Analysis Date:12/9/2022SeqNo:3355315Units:mg/KgealyteResultPQLPPK valueSPK Kef Val%RECLowLimitHighLimit%RPDRPDLimitQualoline Range Organics (GRO)ND5.094.237.7212212100094.237.7212mple ID:2212211-115amsSampType: MSTestCode:EPA Method 8015D:Gasoline RangeRangeRangeRangeRangeRange100094.237.721210001000ent ID:BS22-99 4'BatchID:71906RunNo:931419355317Units:mg/Kg10001000alyteResultPQLSPK valueSPK Kef Val%RECLowLimitHighLimit%RPDRPDLimitQualoline Range Organics (GRO)234.924.37094.170130130130130130urr: BFB1900974.719737.721210151000100010001000100010001000100010001000urr: BFB1900974.719737.72121000<	Sample ID:	mb-71906	SampT	ype: ME	BLK	Tes	stCode: EF	PA Method	8015D: Gaso	line Range)	
And yre Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual urr: BFB 940 1000 94.2 37.7 212 1000 94.2 37.7 212 1000 94.2 37.7 212 1000 94.2 37.7 212 1000 94.2 37.7 212 1000 1000 94.2 37.7 212 1000 1000 94.2 37.7 212 1000 1000 94.2 37.7 212 1000 1000 94.2 37.7 212 1000 1	Client ID:	PBS	Batch	ID: 719	906	F	RunNo: 9 3	3141				
Oline Range Organics (GRO) ND 5.0 940 1000 94.2 37.7 212 Imple ID: 2212211-115ams SampType: MS TestCode: EPA Method 8015D: Gasoline Range ent ID: BS22-99 4' Batch ID: 71906 RunNo: 93141 ep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3355317 Units: mg/Kg alyte Result PQL SPK xalue SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) 23 4.9 24.37 0 94.1 70 130 urr: BFB 1900 974.7 197 37.7 212 197 mple ID: 2212211-115amsd SampType: MSD TestCode: EPA Method 8015D: Gasoline Range ent ID: BS22-99 4' Batch ID: 71906 RunNo: 93141 ep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqN	Prep Date:	12/7/2022	Analysis D	ate: 12	2/9/2022	:	SeqNo: 33	355315	Units: mg/K	g		
urr. BFB 940 1000 94.2 37.7 212 mple ID: 2212211-115ams SampType: MS TestCode: EPA Method 8015D: Gasoline Range ent ID: B522-99 4' Batch ID: 71906 RunNo: 93141 ep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3355317 Units: mg/Kg alyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) 23 4.9 24.37 0 94.1 70 130 130 urr: BFB 1900 974.7 197 37.7 212 140 1	Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Imple ID: 2212211-115ams SampType: MS TestCode: EPA Method 8015D: Gasoline Range ent ID: BS22-99 4' Batch ID: 71906 RunNo: 93141 ep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3355317 Units: mg/kg alyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) 23 4.9 24.37 0 94.1 70 130 130 urr: BFB 1900 974.7 197 37.7 212 140	Gasoline Range	e Organics (GRO)	ND	5.0								
ent ID: BS22-99 4' Batch ID: 71906 RunNo: 93141 ep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3355317 Units: mg/Kg alyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) 23 4.9 24.37 0 94.1 70 130 urr: BFB 1900 974.7 197 37.7 212 212 mple ID: 2212211-115amsd SampType: MSD TestCode: EPA Method 8015D: Gasoline Range ent ID: BS22-99 4' Batch ID: 71906 RunNo: 93141 93141 ep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3355318 Units: mg/Kg alyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) 23 4.9 24.32 0 95.6 70 130	Surr: BFB		940		1000		94.2	37.7	212			
ep Date: 12/7/2022 SeqNo:: 3355317 Units: mg/Kg adyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) 23 4.9 24.37 0 94.1 70 130 130 urr: BFB 1900 974.7 197 37.7 212 140	Sample ID:	2212211-115ams	SampT	ype: MS	6	Tes	stCode: EF	PA Method	8015D: Gaso	line Range	•	
nalyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) 23 4.9 24.37 0 94.1 70 130 urr: BFB 1900 974.7 197 37.7 212 212 mple ID: 2212211-115amsd SampType: MSD TestCode: EPA Method 8015D: Gasoline Range ent ID: BS22-99 4' Batch ID: 71906 RunNo: 93141 ep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3355318 Units: mg/Kg alyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) 23 4.9 24.32 0 95.6 70 130 1.37 20	Client ID:	BS22-99 4'	Batch	ID: 719	906	F	RunNo: 93	3141				
Oline Range Organics (GRO) 23 4.9 24.37 0 94.1 70 130 urr: BFB 1900 974.7 197 37.7 212 212 imple ID: 2212211-115amsd SampType: MSD TestCode: EPA Method 8015D: Gasoline Range ent ID: BS22-99 4' Batch ID: 71906 RunNo: 93141 ep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3355318 Units: mg/Kg ialyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) 23 4.9 24.32 0 95.6 70 130 1.37 20	Prep Date:	12/7/2022	Analysis D	ate: 12	2/9/2022	ę	SeqNo: 33	355317	Units: mg/K	g		
urr: BFB 1900 974.7 197 37.7 212 mple ID: 2212211-115amsd SampType: MSD TestCode: EPA Method 8015D: Gasoline Range ent ID: BS22-99 4' Batch ID: 71906 RunNo: 93141 ep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3355318 Units: mg/Kg alyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) 23 4.9 24.32 0 95.6 70 130 1.37 20	Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Imple ID: 2212211-115amsd SampType: MSD TestCode: EPA Method 8015D: Gasoline Range ent ID: BS22-99 4' Batch ID: 71906 RunNo: 93141 ep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3355318 Units: mg/Kg alyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) 23 4.9 24.32 0 95.6 70 130 1.37 20	Gasoline Range	e Organics (GRO)	23	4.9	24.37	0	94.1	70	130			
BS22-99 4' Batch ID: 71906 RunNo: 93141 ep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3355318 Units: mg/Kg alyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) 23 4.9 24.32 0 95.6 70 130 1.37 20	Surr: BFB		1900		974.7		197	37.7	212			
ep Date: 12/7/2022 SeqNo: 3355318 Units: mg/Kg ealyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) 23 4.9 24.32 0 95.6 70 130 1.37 20	Sample ID:	2212211-115amsd	SampT	ype: MS	SD.	Tes	stCode: EF	PA Method	8015D: Gaso	line Range	•	
Nalyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual oline Range Organics (GRO) 23 4.9 24.32 0 95.6 70 130 1.37 20	Client ID:	BS22-99 4'	Batch	n ID: 719	906	F	RunNo: 93	3141				
oline Range Organics (GRO) 23 4.9 24.32 0 95.6 70 130 1.37 20	Prep Date:	12/7/2022	Analysis D	ate: 12	2/9/2022	:	SeqNo: 33	355318	Units: mg/K	g		
	Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
urr: BFB 2100 972.8 215 37.7 212 0 0 S	Gasoline Range	e Organics (GRO)	23	4.9	24.32	0	95.6	70	130	1.37	20	
	Surr: BFB		2100		972.8		215	37.7	212	0	0	S

Qualifiers:

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

Released to Imaging: 4/4/2024 9:37:02 AM

- 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

WO#: 2212211 15-Dec-22

Client: Project:		Resources S 1 Federal 009		Inc.							
Sample ID:	mb-71865	SampT	Гуре: МЕ	BLK	Tes	stCode: EF	PA Method	8021B: Volati	les		
Client ID:	PBS	Batch	h ID: 718	365	I	RunNo: 93	3088				
Prep Date:	12/6/2022	Analysis E	Date: 12	/7/2022	:	SeqNo: 3	352693	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.025					0			
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Brom	nofluorobenzene	0.93		1.000		93.3	70	130			
Sample ID:	LCS-71865	SampT	Type: LC	s	Tes	stCode: EF	PA Method	8021B: Volati	les		
Client ID:	LCSS	Batcl	h ID: 718	365	I	RunNo: 9 :	3088				
Prep Date:	12/6/2022	Analysis E	Date: 12	/7/2022	:	SeqNo: 3	352694	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.89	0.025	1.000	0	88.7	80	120			
Toluene		0.93	0.050	1.000	0	92.5	80	120			
Ethylbenzene		0.92	0.050	1.000	0	91.7	80	120			
Xylenes, Total		2.8	0.10	3.000	0	92.3	80	120			
Surr: 4-Brom	nofluorobenzene	0.94		1.000		94.1	70	130			
Sample ID:	mb-71893	SampT	Гуре: МЕ	BLK	Tes	stCode: EF	PA Method	8021B: Volati	les		
Client ID:	PBS	Batch	h ID: 718	393	I	RunNo: 9 3	3088				
Prep Date:	12/6/2022	Analysis E	Date: 12	/7/2022	:	SeqNo: 3	352717	Units: mg/K	g		
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	4 000				100			
Surr: 4-Brom	nofluorobenzene	0.94		1.000		93.8	70	130			
Sample ID:	LCS-71893	SampT	Гуре: LC	S	Tes	stCode: EF	PA Method	8021B: Volati	les		
Client ID:	LCSS	Batcl	h ID: 718	393	I	RunNo: 93	3088				
Prep Date:	12/6/2022	Analysis E	Date: 12	/7/2022	:	SeqNo: 3	352718	Units: mg/K	g		
Analyte		Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.92	0.025	1.000	0	92.0	80	120			
Toluene		0.93	0.050	1.000	0	93.1	80	120			
Ethylbenzene		0.92	0.050	1.000	0	92.5	80	120			
Xylenes, Total		2.8	0.10	3.000	0	92.8	80	120			
Surr: 4-Brom	nofluorobenzene	0.93		1.000		92.8	70	130			

Qualifiers:

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

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15-Dec-22

	Resources S Federal 00		Inc.							
Sample ID: 2212211-056ams	Samp	Туре: МS	5	Tes	stCode: El	PA Method	8021B: Volati	iles		
Client ID: BS22-40 4'	Batc	h ID: 718	393	F	RunNo: 9 :	3088				
Prep Date: 12/6/2022	Analysis I	Date: 12	2/7/2022	:	SeqNo: 3	352721	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	0.9872	0	93.6	68.8	120			
Toluene	0.95	0.049	0.9872	0	95.8	73.6	124			
Ethylbenzene	0.94	0.049	0.9872	0	95.4	72.7	129			
Xylenes, Total	2.8	0.099	2.962	0.01876	94.9	75.7	126			
Surr: 4-Bromofluorobenzene	0.94		0.9872		95.5	70	130			
Sample ID: Ics-71882	Samp	Type: LC	S	Tes	stCode: El	PA Method	8021B: Volati	iles		
Client ID: LCSS	Batc	h ID: 718	382	F	RunNo: 9 :	3125				
Prep Date: 12/6/2022	Analysis I	Date: 12	2/7/2022	:	SeqNo: 3	354679	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.0	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	70	130			
Sample ID: mb-71882	Samp	Туре: МЕ	BLK	Tes	stCode: El	PA Method	8021B: Volati	iles		
Client ID: PBS	Batc	h ID: 718	382	F	RunNo: 9 :	3125				
Prep Date: 12/6/2022	Analysis I	Date: 12	2/7/2022	:	SeqNo: 3	354680	Units: mg/K	(g		
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	70	130			
Sample ID: 2212211-016AMS	Samp ⁻	Туре: МS	6	Tes	stCode: El	PA Method	8021B: Volati	iles		
Client ID: WS22-16 0-4'	Batc	h ID: 718	382	F	RunNo: 9 :	3125				
Prep Date: 12/6/2022	Analysis I	Date: 12	2/7/2022	:	SeqNo: 3	354685	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.024	0.9681	0	101	68.8	120			
Toluene	1.0	0.048	0.9681	0	106	73.6	124			
Ethylbenzene	1.0	0.048	0.9681	0	108	72.7	129			
Xylenes, Total	3.2	0.097	2.904	0	109	75.7	126			
Surr: 4-Bromofluorobenzene	1.0		0.9681		107	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of 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

Client:	Vertex Re	sources S	ervices,	Inc.							
Project:	SDE 31 F	ederal 00 ⁴	9								
Sample ID:	2212211-016AMSD	Samo	Туре: МS	20	Tes	tCode: E	PA Mothod	8021B: Volati	loc		
•	WS22-16 0-4'		h ID: 718			RunNo: 9			163		
Prep Date:	12/6/2022	Analysis [SeqNo: 3		Units: mg/K	a		
•	12/0/2022	-						•	•		
Analyte		Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.97	0.024	0.9662	0	100	68.8	120	1.40	20	
		1.0	0.048	0.9662	0	104	73.6	124	2.13	20	
Ethylbenzene		1.0	0.048	0.9662	0	106	72.7	129	2.45	20	
Xylenes, Total		3.1	0.097	2.899	0	106	75.7	126	2.14	20	
Surr: 4-Brom	nofluorobenzene	0.99		0.9662		103	70	130	0	0	
Sample ID:	lcs-71887	Samp	Туре: LC	S	Tes	stCode: El	PA Method	8021B: Volati	les		
Client ID:	LCSS	Batc	h ID: 718	387	F	RunNo: 9	3125				
Prep Date:	12/6/2022	Analysis [Date: 12	2/7/2022	S	SeqNo: 3	354705	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.0	0.025	1.000	0	99.7	80	120			
Toluene		1.0	0.050	1.000	0	100	80	120			
Ethylbenzene		1.0	0.050	1.000	0	99.7	80	120			
Xylenes, Total		3.0	0.10	3.000	0	99.8	80	120			
Surr: 4-Brom	nofluorobenzene	1.0		1.000		103	70	130			
Sample ID:	mb-71887	Samp⊺	Туре: МЕ	BLK	Tes	stCode: El	PA Method	8021B: Volati	les		
Client ID:	PBS	Batc	h ID: 718	387	F	RunNo: 9	3125				
Prep Date:	12/6/2022	Analysis [Date: 12	2/7/2022	Ş	SeqNo: 3	354706	Units: mg/K	g		
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-Brom	nofluorobenzene	1.1		1.000		105	70	130			
O											
Sample ID:	2212211-036AMS	Sampī	Type: MS	6	Tes	stCode: El	PA Method	8021B: Volati	les		
	2212211-036AMS BS22-20 4'		Type: MS h ID: 718			stCode: El RunNo: 9		8021B: Volati	les		
			h ID: 718	387	F		3125	8021B: Volati Units: mg/K			
Client ID:	BS22-20 4'	Batcl	h ID: 718	387 2/7/2022	F	RunNo: 9	3125			RPDLimit	Qual
Client ID: Prep Date: Analyte	BS22-20 4'	Batcl Analysis [h ID: 718 Date: 12	387 2/7/2022	F	RunNo: 9 SeqNo: 3	3125 354709	Units: mg/K	g	RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene	BS22-20 4'	Batcl Analysis I Result	h ID: 718 Date: 12 PQL	387 2/7/2022 SPK value	F SPK Ref Val	RunNo: 9 SeqNo: 3 %REC	3125 354709 LowLimit	Units: mg/K HighLimit	g	RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene Toluene	BS22-20 4'	Batch Analysis I Result 0.99	h ID: 718 Date: 12 PQL 0.025	387 2/7/2022 SPK value 0.9911	F SPK Ref Val 0	RunNo: 9 SeqNo: 3 %REC 99.9	3125 354709 LowLimit 68.8	Units: mg/K HighLimit 120	g	RPDLimit	Qual
Client ID: Prep Date: Analyte	BS22-20 4'	Batch Analysis D Result 0.99 1.0	h ID: 718 Date: 12 PQL 0.025 0.050	887 2/7/2022 SPK value 0.9911 0.9911	F SPK Ref Val 0 0	RunNo: 9 SeqNo: 3 <u>%REC</u> 99.9 101	3125 354709 LowLimit 68.8 73.6	Units: mg/K HighLimit 120 124	g	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 Quanitative 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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15-Dec-22

Draiaat.	V CITCA ICC	sources S	bervices,	Inc.							
Project:	SDE 31 F	ederal 00	9								
Sample ID:	2212211-036AMSD	Samp	Туре: МS		Tes	tCode: E	PA Method	8021B: Volati	los		
Client ID:	BS22-20 4'		h ID: 718			RunNo: 9					
Prep Date:	12/6/2022	Analysis [SeqNo: 3		Units: mg/K	a		
		-						•	•		
Analyte		Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.95	0.025	0.9911	0	96.2	68.8 73.6	120	3.73	20	
		0.96	0.050	0.9911	0	97.3	73.6	124	3.64	20	
Ethylbenzene		0.96	0.050	0.9911	0	97.2	72.7	129	3.71	20	
Kylenes, Total	ofluorobonzono	2.9	0.099	2.973	0	97.4	75.7	126	3.73	20	
Surr: 4-Brom	nofluorobenzene	1.1		0.9911		108	70	130	0	0	
Sample ID:	2212211-056amsd		Type: MS		Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID:	BS22-40 4'	Batc	h ID: 718	893	F	RunNo: 9 :	3131				
Prep Date:	12/6/2022	Analysis [Date: 12	/8/2022	S	SeqNo: 3	354783	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.84	0.025	0.9891	0	85.4	68.8	120	9.01	20	
oluene		0.86	0.049	0.9891	0	87.1	73.6	124	9.35	20	
Ethylbenzene		0.86	0.049	0.9891	0	87.0	72.7	129	9.05	20	
Kylenes, Total		2.6	0.099	2.967	0.01876	86.2	75.7	126	9.36	20	
Surr: 4-Brom	nofluorobenzene	0.97		0.9891		98.3	70	130	0	0	
Sample ID:	mb-71901	Samp	Туре: МЕ	LK	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID:	PBS	Batc	h ID: 719	01	F	RunNo: 9:	3131				
				•••							
Prep Date:	12/7/2022	Analysis [S	SeqNo: 3	354798	Units: mg/K	g		
	12/7/2022	Analysis [Result		/8/2022	SPK Ref Val	SeqNo: 3: %REC	3 54798 LowLimit	Units: mg/K HighLimit	g %RPD	RPDLimit	Qual
Analyte	12/7/2022	Result ND	Date: 12 PQL 0.025	/8/2022		•		•	•	RPDLimit	Qual
Analyte Benzene	12/7/2022	Result	Date: 12 PQL	/8/2022		•		•	•	RPDLimit	Qual
Analyte Benzene Toluene	12/7/2022	Result ND	Date: 12 PQL 0.025	/8/2022		•		•	•	RPDLimit	Qual
Analyte Benzene Foluene Ethylbenzene	12/7/2022	Result ND ND	Date: 12 PQL 0.025 0.050	/8/2022		•		•	•	RPDLimit	Qual
Analyte Benzene Foluene Ethylbenzene Kylenes, Total	12/7/2022	Result ND ND ND	Date: 12 PQL 0.025 0.050 0.050	/8/2022		•		•	•	RPDLimit	Qual
Analyte Benzene Foluene Ethylbenzene Kylenes, Total Surr: 4-Brom	ofluorobenzene	Result ND ND ND ND 0.95	Date: 12 PQL 0.025 0.050 0.050	/8/2022 SPK value 1.000	SPK Ref Val	%REC 95.4	LowLimit 70	HighLimit	%RPD	RPDLimit	Qual
Analyte Benzene Foluene Ethylbenzene Kylenes, Total Surr: 4-Brom Sample ID:	nofluorobenzene	Result ND ND ND 0.95 Samp	Date: 12 PQL 0.025 0.050 0.050 0.10	/8/2022 SPK value 1.000	SPK Ref Val	%REC 95.4	LowLimit 70 PA Method	HighLimit	%RPD	RPDLimit	Qual
Analyte Benzene Foluene Ethylbenzene Kylenes, Total Surr: 4-Brom Sample ID: Client ID:	nofluorobenzene	Result ND ND ND 0.95 Samp	Date: 12 PQL 0.025 0.050 0.050 0.10 Type: LC h ID: 719	/8/2022 SPK value 1.000 S 001	SPK Ref Val Tes F	%REC 95.4 tCode: EF	LowLimit 70 PA Method 3131	HighLimit	%RPD	RPDLimit	Qual
Analyte Benzene Foluene Ethylbenzene Kylenes, Total	nofluorobenzene LCS-71901 LCSS	Result ND ND ND 0.95 Samp Batc	Date: 12 PQL 0.025 0.050 0.050 0.10 Type: LC h ID: 719	/8/2022 SPK value 1.000 S 001 /8/2022	SPK Ref Val Tes F	95.4 tCode: EF	LowLimit 70 PA Method 3131	HighLimit 130 8021B: Volati	%RPD	RPDLimit	Qual
Analyte Benzene Foluene Ethylbenzene Kylenes, Total Surr: 4-Brom Sample ID: Client ID: Prep Date: Analyte	nofluorobenzene LCS-71901 LCSS	Result ND ND ND 0.95 Samp Batc Analysis I	Date: 12 PQL 0.025 0.050 0.10 Type: LC h ID: 719 Date: 12	/8/2022 SPK value 1.000 S 001 /8/2022	SPK Ref Val Tes	95.4 95.4 tCode: Ef RunNo: 9: SeqNo: 3:	200 270 294 Method 2 3131 354799	HighLimit 130 8021B: Volati Units: mg/K	%RPD		
Analyte Benzene Toluene Ethylbenzene Kylenes, Total Surr: 4-Brom Sample ID: Client ID: Prep Date: Analyte Benzene	nofluorobenzene LCS-71901 LCSS	Result ND ND 0.95 Samp Batc Analysis I Result	Date: 12 PQL 0.025 0.050 0.10 Type: LC h ID: 719 Date: 12 PQL	/8/2022 SPK value 1.000 S 001 /8/2022 SPK value	SPK Ref Val Tes F SPK Ref Val	95.4 95.4 tCode: EF RunNo: 9: SeqNo: 3: %REC	200 201 202 203 203 203 203 203 203 203 203 203	HighLimit 130 8021B: Volati Units: mg/K HighLimit	%RPD		
Analyte Benzene Toluene Ethylbenzene Kylenes, Total Surr: 4-Brom Sample ID: Client ID: Prep Date: Analyte Benzene Toluene	nofluorobenzene LCS-71901 LCSS	Result ND ND 0.95 Samp Batc Analysis I Result 0.92	Date: 12 PQL 0.025 0.050 0.050 0.10 Type: LC h ID: 719 Date: 12 PQL 0.025	/8/2022 SPK value 1.000 S 001 /8/2022 SPK value 1.000	SPK Ref Val Tes F SPK Ref Val 0	%REC 95.4 tCode: EF RunNo: 9: SeqNo: 3: %REC 91.9	LowLimit 70 PA Method 3131 354799 LowLimit 80	HighLimit 130 8021B: Volati Units: mg/K HighLimit 120	%RPD		
Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID: Client ID: Prep Date:	nofluorobenzene LCS-71901 LCSS	Result ND ND 0.95 Samp Batc Analysis I Result 0.92 0.93	Date: 12 PQL 0.025 0.050 0.10 Type: LC h ID: 719 Date: 12 PQL 0.025 0.050	/8/2022 SPK value 1.000 S 001 /8/2022 SPK value 1.000 1.000	SPK Ref Val	%REC 95.4 tCode: Ef RunNo: 9: SeqNo: 3: %REC 91.9 92.9	LowLimit 70 PA Method 3131 354799 LowLimit 80 80	HighLimit 130 8021B: Volati Units: mg/K HighLimit 120 120	%RPD		

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of 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

WO#:

15-Dec-22

2212211

Perp Date: 12/17/2022 Analysis Date: 12/8/2022 SeqNo: 335-802 Units: mg/kg malyte Result PQL SPK value SPK Kef Val %REC LowLinit HighLimit %RPD RPD Limit Qual tzene 0.97 0.025 0.9950 0 97.1 61.2 - <t< th=""><th>Client: Project:</th><th>Vertex Re SDE 31 F</th><th></th><th></th><th>Inc.</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>	Client: Project:	Vertex Re SDE 31 F			Inc.								
rep Date: 12/7/2022 Analysis Date: 12/8/2022 SeqNo: 3354802 Units: mg/Kg nalyte Result PQL SPK value SPK ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual tzerne 0.87 0.025 0.9950 0 87.1 68.8 124 wigherzane 0.91 0.050 0.9950 0 92.1 72.7 129 -	Sample ID:	2212211-096ams	Samp ⁻	Туре: МS	5	Tes	TestCode: EPA Method 8021B: Volatiles						
Result POL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual varee 0.97 0.025 0.9950 0 91.4 73.6 124 Venee 0.91 0.050 0.9950 0 92.1 72.7 129 enes, Total 2.8 0.10 2.985 0.02036 91.5 75.7 126 Surr.4-Bromofluorobenzene 0.96 0 95.0 96.6 70 130	Client ID:	BS22-80 4'	Batch ID: 71901			F							
Tzare 0.87 0.025 0.9950 0 87.1 68.8 120 uene 0.91 0.050 0.9950 0 91.4 73.6 124 byberzene 0.92 0.050 0.9950 0 92.1 72.7 129 enes, Total 2.8 0.10 2.985 0.02036 91.5 75.7 126 sample ID: 221211-096amsd SampType: MSD TestCode: EPA Method 8021B: Volatiles itent ID: B522-80.4* Batch ID: 71901 RunNo: 93131 rep Date: 12/8/2022 SeqNo: 3354603 Units: mg/Kg najte Result POL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual vene 1.0 0.050 0.9950 0 102 75.7 126 10.4 20 sar.4 Batch ID: 7190 RunNo: 93131 0 0	Prep Date:	12/7/2022	Analysis [Date: 12	/8/2022	\$	SeqNo: 3	354802	Units: mg/K	g			
Tzare 0.87 0.025 0.9950 0 87.1 68.8 120 uene 0.91 0.050 0.9950 0 91.4 73.6 124 byberzene 0.92 0.050 0.9950 0 92.1 72.7 129 enes, Total 2.8 0.10 2.985 0.02036 91.5 75.7 126 sample ID: 221211-096amsd SampType: MSD TestCode: EPA Method 8021B: Volatiles itent ID: B522-80.4* Batch ID: 71901 RunNo: 93131 rep Date: 12/8/2022 SeqNo: 3354603 Units: mg/Kg najte Result POL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual vene 1.0 0.050 0.9950 0 102 75.7 126 10.4 20 sar.4 Batch ID: 7190 RunNo: 93131 0 0	Analyta		Result	POI	SPK value	SPK Rof Val	%REC	Lowl imit	_	-	RPDI imit	Qual	
uene 0.91 0.050 0.9950 0 91.4 73.6 124 ylbenzene 0.92 0.050 0.9950 0 92.1 72.7 129 enes, Total 2.8 0.00 2.9950 0.9950 96.6 70 130 ample ID: 212211-096amsd Sam: JD: TJ9J TestCode: EPA Method 9018 100 2.9950 analyte Result DT 128/2022 SeqN:: 3354803 Units: mg/kg ranghe Result POL SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual tzene 0.95 0.025 0.9950 0 102 72.7 129 10.2 200 ylberzene 1.0 0.050 0.9950 0 102 72.7 129 10.2 200 wine - Abromofluorobenzene 0.97 0.9950 0 102 75.7 130 0 0 0 0 <t< th=""><th>Benzene</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>-</th><th></th><th></th><th>Quai</th></t<>	Benzene								-			Quai	
enes, Total 2.8 0.10 2.985 0.02036 91.5 75.7 126 surr. 4-Bromofluorobenzene 0.96 0.9950 96.6 70 130 ample ID: 2212211-096amsd SampType: MSD TestCode: EPA Method 8021B: Volatiles ifent ID: B52-80 4' Batch ID: 71901 RunNo: 3313 Units: mg/Kg nalyte Result PQL SPK value SPK Ref Val %REC LowLinit HighLinit %RPD RPDLinit Qual uene 0.95 0.050 0.950 0 100 73.6 124 9.37 20 ylberzene 1.0 0.050 0.9950 0 100 72.7 129 10.2 20 surr. 4-Bromofluorobenzene 0.97 0.9950 0 102 72.7 129 10.4 20 surr. 4-Bromofluorobenzene 0.97 0.9950 PRL PRL PRDLimit Qual treep Date:	Toluene												
Surr. 4-Bromofluorobenzene 0.96 0.950 96.6 70 130 Itern ID: 2522211-096amsd SampType: NS TestCode: EPA Method 8021B: Volatilus rep Date: 12/7/2022 Analysis Date: 12/8/2022 SeqNo: 3354803 Units: mg/g nalyte Result PQL SPK value SPK Kef Val %REC LowLimit HighLimit %RPD RPDLimit Qual vienee 0.95 0.025 0.9950 0 100 73.6 124 9.37 20 vienee 1.0 0.050 0.9950 0 102 75.7 126 10.4 20 ornes, Total 3.1 0.10 2.985 0.0205 97.5 70 130 0 0 0 ample ID: mb/s5 Batch ID: 71909 RunNv: 93131 2 2 104 20 2 2 2 2 2 2 101 2 2	Ethylbenzene		0.92	0.050	0.9950	0	92.1	72.7	129				
ample ID: 2212211-096amsd. Batch ID: SampType: MSD TestCode: EPA Method 8021B: Volatiles ient ID: BS22-80 4' Batch ID: 71901 RunNo: 93131 Sagt 800 Units: mg/Kg Qual Qual Qual Qual Qual Qual Qual Qual Qual Qual Qual Qual Qual Qual Qual Qual Qual Qual Qual Qual Qual	Xylenes, Total		2.8	0.10	2.985	0.02036	91.5	75.7	126				
Hiert ID: BS22-80 4' Batch ID: 7190T Kandysis Date: 12/8/2022 Analysis Date: 12/8/2022 SeqNo: 3354803 Units: mg/Kg <p< th=""><th>Surr: 4-Bron</th><th>nofluorobenzene</th><th>0.96</th><th></th><th>0.9950</th><th></th><th>96.6</th><th>70</th><th>130</th><th></th><th></th><th></th></p<>	Surr: 4-Bron	nofluorobenzene	0.96		0.9950		96.6	70	130				
rep Date: 12/7/2022 Analysis Date: 12/8/2022 SeqNo: 3354803 Units: mg/Kg RPDL Qual nalyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDL Qual transpondence 0.05 0.025 0.9950 0 100 73.6 124 9.37 20 when PL 1.0 0.050 0.9950 0 102 72.7 129 10.2 20 when PL 3.1 0.10 2.985 0.02036 102 75.7 126 10.4 20 smr.4 Promothuorobenzene 0.97 when PTper Result POL 97.5 70 130 0 0 0 ample ID: rbS Batch I: 12/9/2022 SeqNo: 335482 Units: mg/Kg razene ND 0.050 - - LowLimit HighLimit %RPD RPDLimit Qual start A Bromothuorobenzene ND 0.050 - - LowLimit Hig	Sample ID:	2212211-096amsd SampType: MSD			D	TestCode: EPA Method 8021B: Volatiles							
Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual tzene 0.025 0.025 0.9950 0 95.2 68.8 120 8.82 20 uene 1.0 0.050 0.9950 0 100 73.6 124 9.37 20 ylberzene 1.0 0.050 0.9950 0 102 72.7 129 10.2 200 str.4 Bromofluorobenzene 0.97 0.9950 97.5 70 130 0 0 0 ample ID: mb-71909 SampType: MBLK TestCode: EPA Method 8021B: Volatiles Volatiles ample ID: PBS Batch ID: 71909 RunNo: 93131 malyte MREN NC 0.050 stare ND 0.050 Stare YO 130 Volatiles stare ND 0.050 Stare YO	Client ID:	BS22-80 4'	Batc	h ID: 719	901	RunNo: 93131							
No. 0.95 0.025 0.9950 0 95.2 68.8 120 8.82 20 uene 1.0 0.050 0.9950 0 100 73.6 124 9.37 20 ylberzene 1.0 0.050 0.9950 0 102 72.7 129 10.2 20 enes, Total 3.1 0.10 2.985 0.02036 102 75.7 126 10.4 20 Strir. 4-Bromofluorobenzene 0.97 0.9950 97.5 70 130 0 0 ample ID: mb-71909 SampType: MBLK TestCode: EPA Method 8021B: Volatiles ient ID: PBS Batch ID: 71909 RunNo: 93131 Qual rep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3354822 Units: mg/kg nalyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit	Prep Date:	12/7/2022	Analysis [Analysis Date: 12/8/2022			SeqNo: 3	354803	Units: mg/Kg				
uene 1.0 0.050 0.9950 0 100 73.6 124 9.37 20 ylbenzene 1.0 0.050 0.9950 0 102 72.7 129 10.2 20 enes, Total 3.1 0.10 2.985 0.02036 102 75.7 126 10.4 20 Surr. 4-Bromofluorobenzene 0.97 0.9950 97.5 70 130 0 0 ample ID: mb-71909 SampType: MBLK TestCode: EPA Method 8021B: Volatiles velocities veloci	Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
yplenzene 1.0 0.050 0.9950 0 102 72.7 129 10.2 20 enes, Total 3.1 0.10 2.985 0.02036 102 75.7 126 10.4 20 Surr 4.Bromofluorobenzene 0.97 V 0.9950 97.5 70 130 0 0 ample ID: mb-71909 SampType: MBLr TestCode: EVAttool SUIS Volatiles Volatiles itent ID: PBS Batch ID: 71909 Serve 4.8700001 %RPD RPDLimit Qual nalyte Result PQL SPK value SPK ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual uene ND 0.050 Serve 4.870001 89.4 70 130 Serve 4.8700	Benzene		0.95	0.025	0.9950	0	95.2	68.8	120	8.82	20		
Answer Surrisk Bromofluorobenzene 3.1 0.10 2.985 0.02036 102 75.7 126 10.4 20 Surri 4.Bromofluorobenzene 0.97 0.9950 97.5 70 130 0 0 ample ID: mb-71909 SampType: MBLK TestCode: EPA Method 8021B: Volatiles rep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3354822 Units: mg/Kg nalyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual nzene ND 0.050 SerX Asta 70 130 uene ND 0.050 SerX Asta 70 130	Toluene		1.0	0.050	0.9950	0	100	73.6	124	9.37	20		
Surr: 4-Bromofluorobenzene 0.97 0.9950 97.5 70 130 0 0 ample ID: mb-71909 SampType: MBLK TestCode: EPA Method 8021B: Volatiles Image: Control of the con	Ethylbenzene		1.0	0.050	0.9950	0	102	72.7	129	10.2	20		
ample ID: mb-71909 SampType: MBLK TestCode: EPA Method 8021B: Volatiles lient ID: PBS Batch ID: 71909 RunNo: 93131 rep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3354822 Units: mg/Kg nalyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual nzene ND 0.025 uene ND 0.050 uene ND 0.050 grephenzene ND 0.10 SampType: LCS TestCode: EPA Method 8021B: Volatiles ample ID: LCS-71909 SampType: LCS TestCode: EPA Method 8021B: Volatiles ample ID: LCSS Batch ID: 71909 RunNo: 93131 rep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3354823 Units: mg/Kg nalyte Result PQL SPK value	Xylenes, Total		3.1	0.10	2.985	0.02036	102	75.7	126	10.4	20		
Itient ID:PBSBatch ID: 71902 Run No: 93131 rep Date: $12/7/2022$ Analysis Date: $12/9/2022$ SeqNo: 3354822 Units: mg/Kg nalyteResultPQLSPK valueSPK Ref Val $\% REC$ LowLimitHighLimit $\% RPD$ RPDLimitQualnalyteResultPQLSPK Net ValueSPK Ref Val $\% REC$ LowLimitHighLimit $\% RPD$ RPDLimitQualnalyteND 0.025 50005	Surr: 4-Bron	nofluorobenzene	0.97		0.9950		97.5	70	130	0	0		
rep Date:12/7/2022Analysis Date:12/9/2022SeqNo:3354822Units:Ing/KgnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualnzeneND0.0250.050<	Sample ID:	mb-71909	SampType: MBLK			Tes							
nalyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual nzene ND 0.025	Client ID:	PBS	Batch ID: 71909			RunNo: 93131							
ND 0.025 uene ND 0.050 ylbenzene ND 0.050 enes, Total ND 0.10 Surr: 4-Bromofluorobenzene 0.89 1.000 89.4 70 130 ample ID: LCS-71909 SampType: LCS TestCode: EPA Method 8021B: Volatiles lient ID: LCSS Batch ID: 71909 RunNo: 93131 rep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3354823 Units: mg/Kg nalyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual nzene 0.97 0.025 1.000 0 96.7 80 120 uene 0.97 0.050 1.000 0 95.7 80 120 uene 0.96 0.050 1.000 0 95.3 80 120 uene 0.96 0.050	Prep Date:	12/7/2022	Analysis Date: 12/9/2022		SeqNo: 3354822			Units: mg/Kg					
uene ND 0.050 ND 0.050 enes, Total ND 0.10 Sur: 4-Bromofluorobenzene 0.89 1.000 89.4 70 130 ample ID: LCS-71909 SampType: LCS TestCode: EPA Method 8021B: Volatiles ample ID: LCSS Batch ID: 71909 RunNo: 93131 rep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3354823 Units: mg/kg nalyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual uene 0.97 0.050 1.000 0 96.7 80 120 120 uene 0.97 0.050 1.000 97.2 80 120 120 120 120 uene 0.96 0.050 1.000 0 95.7 80 120 120 120 120 120 120 120 120 120 120 120 120 120 120 <	Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
ND 0.050 enes, Total ND 0.00 Surr: 4-Bromofluorobenzene 0.89 1.000 89.4 70 130 ample ID: LCS-71909 SampType: LCS TestCode: EPA Method 8021B: Volatiles tient ID: LCSS Batch ID: 71909 RunNo: 93131 rep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3354823 Units: mg/Kg nagene 0.97 0.025 1.000 0 96.7 80 120 nzene 0.97 0.050 1.000 0 97.2 80 120 uene 0.96 0.050 1.000 0 95.7 80 120 ybbenzene 0.96 0.050 1.000 0 95.3 80 120	Benzene												
ND 0.10 Surr: 4-Bromofluorobenzene 0.89 1.000 89.4 70 130 ample ID: LCS-71909 SampType: LCS TestCode: EPA Method 8021B: Volatiles lient ID: LCSS Batch ID: 71909 RunNo: 93131 rep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3354823 Units: mg/Kg nalyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual nzene 0.97 0.025 1.000 0 96.7 80 120 vulne 0.97 0.050 1.000 0 95.7 80 120 vylbenzene 0.96 0.050 1.000 0 95.3 80 120 enes, Total 2.9 0.10 3.000 0 95.3 80 120	Toluene												
Sur: 4-Bromofluorobenzene 0.89 1.000 89.4 70 130 ample ID: LCS-71909 SampType: LCS TestCode: EPA Method 8021B: Volatiles lient ID: LCSS Batch ID: 71909 RunNo: 93131 rep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3354823 Units: mg/Kg nalyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual nzene 0.97 0.025 1.000 0 96.7 80 120 uene 0.97 0.050 1.000 0 95.7 80 120 uglenzene 0.96 0.050 1.000 0 95.7 80 120	Ethylbenzene												
ample ID: LCS-71909 SampType: LCS TestCode: EPA Method 8021B: Volatiles lient ID: LCSS Batch ID: 71909 RunNo: 93131 rep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3354823 Units: mg/Kg nalyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual nzene 0.97 0.025 1.000 0 96.7 80 120 uene 0.97 0.050 1.000 0 95.7 80 120 uylbenzene 0.96 0.050 1.000 0 95.7 80 120 enes, Total 2.9 0.10 3.000 0 95.3 80 120				0.10									
LCSS Batch ID: 71909 RunNo: 93131 rep Date: 12/7/2022 Analysis Date: 12/9/2022 SeqNo: 3354823 Units: mg/Kg nalyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual nalyte 0.97 0.025 1.000 0 96.7 80 120 uene 0.97 0.050 1.000 0 97.2 80 120 ylbenzene 0.96 0.050 1.000 0 95.7 80 120 enes, Total 2.9 0.10 3.000 0 95.3 80 120	Surr: 4-Bron	nofluorobenzene	0.89		1.000		89.4	70	130				
Paper Date: 12/7/2022 SeqNo: 3354823 Units: mg/Kg nalyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual nzene 0.97 0.025 1.000 0 96.7 80 120 100 <td>Sample ID:</td> <td colspan="3">LCS-71909 SampType: LCS</td> <td>Tes</td> <td></td> <td></td>	Sample ID:	LCS-71909 SampType: LCS			Tes								
nalyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual nzene 0.97 0.025 1.000 0 96.7 80 120 uene 0.97 0.050 1.000 0 97.2 80 120 ylbenzene 0.96 0.050 1.000 0 95.7 80 120 enes, Total 2.9 0.10 3.000 0 95.3 80 120	Client ID:	LCSS	Batch ID: 71909			RunNo: 93131							
nzene0.970.0251.000096.780120uene0.970.0501.000097.280120ylbenzene0.960.0501.000095.780120enes, Total2.90.103.000095.380120	Prep Date:	12/7/2022	Analysis Date: 12/9/2022			:	SeqNo: 3	854823	Units: mg/Kg				
uene0.970.0501.000097.280120ylbenzene0.960.0501.000095.780120enes, Total2.90.103.000095.380120	Analyte					SPK Ref Val			-	%RPD	RPDLimit	Qual	
vlbenzene0.960.0501.000095.780120enes, Total2.90.103.000095.380120	Benzene					0							
enes, Total 2.9 0.10 3.000 0 95.3 80 120	Toluene					0							
	Ethylbenzene		0.96	0.050	1.000	0	95.7	80	120				
Surr: 4-Bromofluorobenzene 0.93 1.000 93.0 70 130	Xylenes, Total		2.9	0.10	3.000	0	95.3	80	120				
	Surr: 4-Bron	nofluorobenzene	0.93		1.000		93.0	70	130				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of 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

2212211

15-Dec-22

Client: Project:	Vertex Resource SDE 31 Federal		s, Inc.							
Sample ID: Ics-718	195 Sa	mpType: L	cs	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: LCSS	E	Batch ID: 71	895	F	RunNo: 93	3141				
Prep Date: 12/6/2	Analy	sis Date: 1	2/8/2022	S	SeqNo: 33	355469	Units: mg/K	g		
Analyte	Resu	ılt PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1	.0 0.025	1.000	0	101	80	120			
Toluene	1	0 0.050	1.000	0	101	80	120			
Ethylbenzene	1	0 0.050	1.000	0	100	80	120			
Xylenes, Total	3	.0 0.10	3.000	0	100	80	120			
Surr: 4-Bromofluorobe	enzene 1	.1	1.000		106	70	130			
Sample ID: mb-718	mb-71895 SampType: MBLK			Tes	tCode: EF					
Client ID: PBS	E	Batch ID: 71	895	F	RunNo: 9 3					
Prep Date: 12/6/2	Analy	sis Date: 1	2/8/2022	S	SeqNo: 3355470 Units: mg/Kg					
Analyte	Resu	ılt PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	Ν	D 0.025								
Toluene	N	D 0.050								
Ethylbenzene	N	D 0.050								
Xylenes, Total	N	D 0.10								
Surr: 4-Bromofluorobe	nzene 1	.0	1.000		104	70	130			
Sample ID: 221221	1-076AMS Sa	mpType: M	s	Tes	tCode: EF					
		Batch ID: 71895		F	RunNo: 93					
Client ID: BS22-6	6 0 4' E									
Client ID: BS22-6 Prep Date: 12/6/2		sis Date: 1			SeqNo: 33	355473	Units: mg/K	g		
		sis Date: 1	2/8/2022		SeqNo: 33 %REC	355473 LowLimit	Units: mg/K HighLimit	g %RPD	RPDLimit	Qual
Prep Date: 12/6/2	2022 Analy Resu	sis Date: 1 Ilt PQL 18 0.025	2/8/2022 SPK value 0.9833	S	%REC 100	LowLimit 68.8	HighLimit 120	-	RPDLimit	Qual
Prep Date: 12/6/2 Analyte	2022 Analy Resu	sis Date: 1 ılt PQL	2/8/2022 SPK value 0.9833	SPK Ref Val	%REC	LowLimit 68.8 73.6	HighLimit	-	RPDLimit	Qual
Prep Date: 12/6/2 Analyte Benzene Toluene Ethylbenzene	2022 Analy Resu 0.5 1 1	sis Date: 1 Ilt PQL 18 0.025 0 0.049 0 0.049	2/8/2022 SPK value 0.9833 0.9833 0.9833	SPK Ref Val 0 0 0	%REC 100 101 102	LowLimit 68.8 73.6 72.7	HighLimit 120 124 129	-	RPDLimit	Qual
Prep Date: 12/6/2 Analyte Benzene Toluene	2022 Analy Resu 0.5 1 1 3	sis Date: 1 <u>It PQL</u> 8 0.025 0 0.049 0 0.049 0 0.098	2/8/2022 SPK value 0.9833 0.9833 0.9833 2.950	SPK Ref Val 0 0	%REC 100 101 102 102	LowLimit 68.8 73.6 72.7 75.7	HighLimit 120 124 129 126	-	RPDLimit	Qual
Prep Date: 12/6/2 Analyte Benzene Toluene Ethylbenzene	2022 Analy Resu 0.9 1 1 3	sis Date: 1 <u>It PQL</u> 8 0.025 0 0.049 0 0.049 0 0.098	2/8/2022 SPK value 0.9833 0.9833 0.9833	SPK Ref Val 0 0 0	%REC 100 101 102	LowLimit 68.8 73.6 72.7	HighLimit 120 124 129	-	RPDLimit	Qual
Prep Date: 12/6/2 Analyte Benzene Toluene Ethylbenzene Xylenes, Total	2022 Analy Resu 0.5 1 1 3 enzene 1	sis Date: 1 <u>It PQL</u> 8 0.025 0 0.049 0 0.049 0 0.098	2/8/2022 SPK value 0.9833 0.9833 0.9833 2.950 0.9833	SPK Ref Val 0 0 0 0	%REC 100 101 102 102 104	LowLimit 68.8 73.6 72.7 75.7 70	HighLimit 120 124 129 126	%RPD	RPDLimit	Qual
Prep Date: 12/6/2 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobe	2022 Analy Resu 0.9 1 1 3 anzene 1 1-076AMSD Sa	sis Date: 1 11 PQL 18 0.025 0 0.049 0 0.049 0 0.098 0	2/8/2022 SPK value 0.9833 0.9833 0.9833 2.950 0.9833 SD	SPK Ref Val 0 0 0 0 0 Tes	%REC 100 101 102 102 104	LowLimit 68.8 73.6 72.7 75.7 70 PA Method	HighLimit 120 124 129 126 130	%RPD	RPDLimit	Qual
Prep Date: 12/6/2 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobe Sample ID: 221221	2022 Analy Resu 0.5 1 1 3 anzene 1 1-076AMSD Sa 50 4' E	sis Date: 1 ult PQL 18 0.025 0 0.049 0 0.049 0 0.098 0 mpType: M	2/8/2022 SPK value 0.9833 0.9833 2.950 0.9833 SD 895	SPK Ref Val 0 0 0 0 0 Tes F	%REC 100 101 102 102 104 tCode: EF	LowLimit 68.8 73.6 72.7 75.7 70 PA Method 8141	HighLimit 120 124 129 126 130	%RPD	RPDLimit	Qual
Prep Date: 12/6/2 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobe Sample ID: 221221 Client ID: BS22-6	2022 Analy Resu 0.5 1 1 1 1 1-076AMSD Sa 50 4' E 2022 Analy Resu	sis Date: 1 ult PQL 18 0.025 0 0.049 0 0.098 0 mpType: M 3atch ID: 71 sis Date: 1 ult PQL	2/8/2022 SPK value 0.9833 0.9833 2.950 0.9833 SD 895 2/8/2022 SPK value	SPK Ref Val 0 0 0 0 0 Tes F SPK Ref Val	%REC 100 101 102 102 104 tCode: EF RunNo: 93 SeqNo: 33 %REC	LowLimit 68.8 73.6 72.7 75.7 70 PA Method 3141 355474 LowLimit	HighLimit 120 124 129 126 130 8021B: Volati Units: mg/K HighLimit	%RPD	RPDLimit	Qual
Prep Date: 12/6/2 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobe Sample ID: 221221 Client ID: BS22-6 Prep Date: 12/6/2	2022 Analy Resu 0.5 1 1 2022 Analy 2022 Analy Resu 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	sis Date: 1 11 PQL 18 0.025 0 0.049 0 0.098 0 mpType: M 3atch ID: 71 sis Date: 1 11 PQL 18 0.025	2/8/2022 SPK value 0.9833 0.9833 2.950 0.9833 SD 895 2/8/2022 SPK value 0.9823	SPK Ref Val 0 0 0 0 0 Tes F	%REC 100 101 102 102 104 tCode: EF RunNo: 93 SeqNo: 33 %REC 99.4	LowLimit 68.8 73.6 72.7 75.7 70 PA Method 3141 355474 LowLimit 68.8	HighLimit 120 124 129 126 130 8021B: Volati	%RPD iles %RPD 0.820	RPDLimit 20	
Prep Date: 12/6/2 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobe Sample ID: 221221 Client ID: BS22-6 Prep Date: 12/6/2 Analyte	2022 Analy Resu 0.5 1 1 1 1 1 1 1 1 1 1 1 1 1	sis Date: 1 ult PQL 18 0.025 0 0.049 0 0.098 0 mpType: M Batch ID: 71 sis Date: 1 ult PQL 18 0.025 19 0.049	2/8/2022 SPK value 0.9833 0.9833 2.950 0.9833 SD 895 2/8/2022 SPK value 0.9823 0.9823 0.9823	SPK Ref Val 0 0 0 0 0 Tes F SPK Ref Val	%REC 100 101 102 102 104 tCode: EF RunNo: 93 SeqNo: 33 %REC	LowLimit 68.8 73.6 72.7 75.7 70 24 Method 3141 355474 LowLimit 68.8 73.6	HighLimit 120 124 129 126 130 8021B: Volati Units: mg/K HighLimit	%RPD //es //g %RPD 0.820 0.879	RPDLimit 20 20	
Prep Date: 12/6/2 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobe Sample ID: 221221 Client ID: BS22-6 Prep Date: 12/6/2 Analyte Benzene	2022 Analy Resu 0.5 1 1 1 1 1 1 1 1 1 1 1 1 1	sis Date: 1 ult PQL 18 0.025 0 0.049 0 0.098 0 0 mpType: M Batch ID: 71 sis Date: 1 ult PQL 18 0.025 19 0.049 19 0.049 19 0.049	2/8/2022 SPK value 0.9833 0.9833 2.950 0.9833 SD 895 2/8/2022 SPK value 0.9823 0.9823 0.9823 0.9823	SPK Ref Val 0 0 0 0 Tes F SPK Ref Val 0	%REC 100 101 102 102 104 tCode: EF RunNo: 93 SeqNo: 33 %REC 99.4	LowLimit 68.8 73.6 72.7 75.7 70 PA Method 3141 355474 LowLimit 68.8 73.6 72.7	HighLimit 120 124 129 126 130 8021B: Volati Units: mg/K HighLimit 120	%RPD //es //g /%RPD 0.820 0.879 1.26	RPDLimit 20 20 20	
Prep Date: 12/6/2 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobe Sample ID: 221221 Client ID: BS22-6 Prep Date: 12/6/2 Analyte Benzene Toluene	2022 Analy Resu 0.5 1 1 1 1 1 1 1 1 1 1 1 1 1	sis Date: 1 ult PQL 18 0.025 0 0.049 0 0.098 0 0 mpType: M Batch ID: 71 sis Date: 1 ult PQL 18 0.025 19 0.049 19 0.049 19 0.049	2/8/2022 SPK value 0.9833 0.9833 2.950 0.9833 SD 895 2/8/2022 SPK value 0.9823 0.9823 0.9823 0.9823	SPK Ref Val 0 0 0 0 0 Tes F SPK Ref Val 0 0	%REC 100 101 102 102 104 tCode: EF RunNo: 93 SeqNo: 33 %REC 99.4 101	LowLimit 68.8 73.6 72.7 75.7 70 24 Method 3141 355474 LowLimit 68.8 73.6	HighLimit 120 124 129 126 130 8021B: Volati Units: mg/K HighLimit 120 124	%RPD //es //g %RPD 0.820 0.879	RPDLimit 20 20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of 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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15-Dec-22

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

	x Resources S 31 Federal 00		Inc.							
Sample ID: Ics-71906	Samp	Type: LC	s	Tes	tCode: EF	A Method	8021B: Volat	iles		
Client ID: LCSS	Batc	h ID: 719	906	F	RunNo: 9 3	8141				
Prep Date: 12/7/2022	Analysis [Date: 12	/9/2022	S	SeqNo: 33	855493	Units: mg/K	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.2	80	120			
Toluene	0.98	0.050	1.000	0	98.4	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.7	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.1	80	120			
Surr: 4-Bromofluorobenzene	0.98		1.000		97.5	70	130			
Sample ID: mb-71906	Samp	Туре: МВ	BLK	Tes	tCode: EF	A Method	8021B: Volat	iles		
Client ID: PBS	Batc	h ID: 719	906	F	RunNo: 93	3141				
Prep Date: 12/7/2022	Analysis [Date: 12	/9/2022	S	SeqNo: 33	855494	Units: mg/K	ζg		
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		96.3	70	130			
Sample ID: 2212211-116am	ns Samp ⁻	Type: MS	;	Tes	tCode: EF	A Method	8021B: Volat	iles		
Sample ID: 2212211-116an Client ID: BS22-100 4'		Type: MS h ID: 719			tCode: EF RunNo: 93		8021B: Volat	iles		
		h ID: 719	906	F		8141	8021B: Volat Units: mg/K			
Client ID: BS22-100 4'	Batc	h ID: 719	906 /9/2022	F	RunNo: 93	8141			RPDLimit	Qual
Client ID: BS22-100 4' Prep Date: 12/7/2022	Batc Analysis I Result 0.91	h ID: 719 Date: 12 PQL 0.025	906 /9/2022 SPK value 0.9843	F	RunNo: 93 SeqNo: 33 %REC 92.6	8141 855497 LowLimit 68.8	Units: mg/K HighLimit 120	(g	RPDLimit	Qual
Client ID: BS22-100 4' Prep Date: 12/7/2022 Analyte	Batc Analysis I Result	h ID: 719 Date: 12 PQL	906 /9/2022 SPK value	F S SPK Ref Val	RunNo: 93 SeqNo: 33 %REC	8141 855497 LowLimit 68.8 73.6	Units: mg/K HighLimit	(g	RPDLimit	Qual
Client ID: BS22-100 4' Prep Date: 12/7/2022 Analyte Benzene Toluene Ethylbenzene	Batc Analysis I Result 0.91 0.94 0.94	h ID: 719 Date: 12 PQL 0.025 0.049 0.049	006 /9/2022 SPK value 0.9843 0.9843 0.9843	F SPK Ref Val 0 0 0	RunNo: 93 SeqNo: 33 %REC 92.6 95.9 96.0	555497 LowLimit 68.8 73.6 72.7	Units: mg/K HighLimit 120 124 129	(g	RPDLimit	Qual
Client ID: BS22-100 4' Prep Date: 12/7/2022 Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Batc Analysis I Result 0.91 0.94 0.94 2.8	h ID: 719 Date: 12 PQL 0.025 0.049	2006 /9/2022 SPK value 0.9843 0.9843 0.9843 2.953	F SPK Ref Val 0 0	RunNo: 93 SeqNo: 33 %REC 92.6 95.9 96.0 95.5	3141 55497 LowLimit 68.8 73.6 72.7 75.7	Units: mg/K HighLimit 120 124 129 126	(g	RPDLimit	Qual
Client ID: BS22-100 4' Prep Date: 12/7/2022 Analyte Benzene Toluene Ethylbenzene	Batc Analysis I Result 0.91 0.94 0.94	h ID: 719 Date: 12 PQL 0.025 0.049 0.049	006 /9/2022 SPK value 0.9843 0.9843 0.9843	F SPK Ref Val 0 0 0	RunNo: 93 SeqNo: 33 %REC 92.6 95.9 96.0	555497 LowLimit 68.8 73.6 72.7	Units: mg/K HighLimit 120 124 129	(g	RPDLimit	Qual
Client ID: BS22-100 4' Prep Date: 12/7/2022 Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Batc Analysis I 0.91 0.94 0.94 2.8 0.97	h ID: 719 Date: 12 PQL 0.025 0.049 0.049	2006 /9/2022 SPK value 0.9843 0.9843 0.9843 2.953 0.9843	F SPK Ref Val 0 0 0 0	RunNo: 93 SeqNo: 33 %REC 92.6 95.9 96.0 95.5 98.7	3141 255497 LowLimit 68.8 73.6 72.7 75.7 70	Units: mg/K HighLimit 120 124 129 126	(g %RPD	RPDLimit	Qual
Client ID: BS22-100 4' Prep Date: 12/7/2022 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene	Batc Analysis I 0.91 0.94 0.94 2.8 0.97 nsd Samp	h ID: 719 Date: 12 PQL 0.025 0.049 0.049 0.098	006 /9/2022 SPK value 0.9843 0.9843 0.9843 2.953 0.9843 3.0.9843 0.9845 0.9855 0.9855 0.98	F SPK Ref Val 0 0 0 0 0 Tes	RunNo: 93 SeqNo: 33 %REC 92.6 95.9 96.0 95.5 98.7	255497 LowLimit 68.8 73.6 72.7 75.7 70 24 Method	Units: mg/K HighLimit 120 124 129 126 130	(g %RPD	RPDLimit	Qual
Client ID: BS22-100 4' Prep Date: 12/7/2022 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID: 2212211-116an	Batc Analysis I 0.91 0.94 0.94 2.8 0.97 nsd Samp	h ID: 719 Date: 12 PQL 0.025 0.049 0.049 0.098 Type: MS h ID: 719	2006 /9/2022 SPK value 0.9843 0.9843 0.9843 2.953 0.9843 3.09843 0.9843 0.9843 0.9843 0.9843	F SPK Ref Val 0 0 0 0 Tes F	RunNo: 93 SeqNo: 33 %REC 92.6 95.9 96.0 95.5 98.7 tCode: EF	255497 LowLimit 68.8 73.6 72.7 75.7 70 PA Method 8141	Units: mg/K HighLimit 120 124 129 126 130	Sg %RPD iles	RPDLimit	Qual
Client ID: BS22-100 4' Prep Date: 12/7/2022 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID: 2212211-116an Client ID: BS22-100 4'	Batc Analysis I 0.91 0.94 0.94 2.8 0.97 nsd Samp Batc Analysis I Result	h ID: 719 Date: 12 PQL 0.025 0.049 0.049 0.098 Type: MS h ID: 719 Date: 12 PQL	2006 /9/2022 SPK value 0.9843 0.9843 2.953 0.9843 3.0.9843 5.0 906 /9/2022 SPK value	F SPK Ref Val 0 0 0 0 Tes F	RunNo: 93 SeqNo: 33 %REC 92.6 95.9 96.0 95.5 98.7 tCode: EF RunNo: 93 SeqNo: 33 %REC	255497 LowLimit 68.8 73.6 72.7 75.7 70 24 Method 3141 355498 LowLimit	Units: mg/K HighLimit 120 124 129 126 130 8021B: Volat Units: mg/K HighLimit	Sg %RPD iles Sg %RPD	RPDLimit	Qual
Client ID: BS22-100 4' Prep Date: 12/7/2022 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID: 2212211-116an Client ID: BS22-100 4' Prep Date: 12/7/2022	Batc Analysis I 0.91 0.94 0.94 2.8 0.97 nsd Samp Batc Analysis I Result 0.88	h ID: 719 Date: 12 PQL 0.025 0.049 0.049 0.098 Type: MS h ID: 719 Date: 12 PQL 0.025	2006 /9/2022 SPK value 0.9843 0.9843 2.953 0.9843 0.9843 50 60 60 60 60 60 60 60 60 60 6	F SPK Ref Val 0 0 0 0 Tes F	RunNo: 93 SeqNo: 33 %REC 92.6 95.9 96.0 95.5 98.7 tCode: EF RunNo: 93 SeqNo: 33 %REC 89.4	3141 255497 LowLimit 68.8 73.6 72.7 75.7 70 24 Method 3141 355498 LowLimit 68.8	Units: mg/K HighLimit 120 124 129 126 130 8021B: Volat Units: mg/K	5g %RPD iles 5g %RPD 3.71		
Client ID: BS22-100 4' Prep Date: 12/7/2022 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID: 2212211-116an Client ID: BS22-100 4' Prep Date: 12/7/2022 Analyte	Batc Analysis I 0.91 0.94 0.94 2.8 0.97 nsd Samp Batc Analysis I Result 0.88 0.91	h ID: 719 Date: 12 PQL 0.025 0.049 0.049 0.098 Type: MS h ID: 719 Date: 12 PQL 0.025 0.049	006 /9/2022 SPK value 0.9843 0.9843 2.953 0.9843 0.9843 3.0.9843 0.9843 0.9843 0.9833 0.9833 0.9833 0.9833	F SPK Ref Val 0 0 0 0 Tes F SPK Ref Val	RunNo: 93 SeqNo: 33 %REC 92.6 95.9 96.0 95.5 98.7 tCode: EF RunNo: 93 SeqNo: 33 %REC 89.4 92.3	3141 255497 LowLimit 68.8 73.6 72.7 75.7 70 24 Method 3141 355498 LowLimit 68.8 73.6	Units: mg/K HighLimit 120 124 129 126 130 8021B: Volat Units: mg/K HighLimit	Sg %RPD iles Sg %RPD	RPDLimit 20 20	
Client ID: BS22-100 4' Prep Date: 12/7/2022 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID: 2212211-116an Client ID: BS22-100 4' Prep Date: 12/7/2022 Analyte Benzene	Batc Analysis I 0.91 0.94 0.94 2.8 0.97 Mad Samp Batc Analysis I Result 0.88 0.91 0.91	h ID: 719 Date: 12 PQL 0.025 0.049 0.049 0.098 Type: MS h ID: 719 Date: 12 PQL 0.025 0.049 0.049	006 /9/2022 SPK value 0.9843 0.9843 2.953 0.9843 3.0.9843 5.0 006 /9/2022 SPK value 0.9833 0.9833 0.9833 0.9833	F SPK Ref Val 0 0 0 0 Tes F SPK Ref Val 0	RunNo: 93 SeqNo: 33 %REC 92.6 95.9 96.0 95.5 98.7 tCode: EF RunNo: 93 SeqNo: 33 %REC 89.4 92.3 92.4	3141 255497 LowLimit 68.8 73.6 72.7 75.7 70 24 Method 3141 355498 LowLimit 68.8 73.6 73.6 72.7	Units: mg/K HighLimit 120 124 129 126 130 8021B: Volat Units: mg/K HighLimit 120	5g %RPD iles 5g %RPD 3.71 3.94 3.92	RPDLimit 20 20 20	
Client ID: BS22-100 4' Prep Date: 12/7/2022 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID: 2212211-116an Client ID: BS22-100 4' Prep Date: 12/7/2022 Analyte Benzene Toluene	Batc Analysis I 0.91 0.94 0.94 2.8 0.97 nsd Samp Batc Analysis I Result 0.88 0.91	h ID: 719 Date: 12 PQL 0.025 0.049 0.049 0.098 Type: MS h ID: 719 Date: 12 PQL 0.025 0.049	006 /9/2022 SPK value 0.9843 0.9843 2.953 0.9843 0.9843 3.0.9843 0.9843 0.9843 0.9833 0.9833 0.9833 0.9833	F SPK Ref Val 0 0 0 0 Tes 5 SPK Ref Val 0 0	RunNo: 93 SeqNo: 33 %REC 92.6 95.9 96.0 95.5 98.7 tCode: EF RunNo: 93 SeqNo: 33 %REC 89.4 92.3	3141 255497 LowLimit 68.8 73.6 72.7 75.7 70 24 Method 3141 355498 LowLimit 68.8 73.6	Units: mg/K HighLimit 120 124 129 126 130 8021B: Volat Units: mg/K HighLimit 120 124	5g %RPD iles 5g %RPD 3.71 3.94	RPDLimit 20 20	

Qualifiers:

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

WO#: 2212211 15-Dec-22

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

	Resources S Federal 00	,	Inc.							
Sample ID: 2212211-136ams	Samp	Туре: МS	;	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: BS22-120 4'	Bato	h ID: 719	909	F	RunNo: 93	3146				
Prep Date: 12/7/2022	Analysis	Date: 12	/9/2022	S	SeqNo: 3	357312	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	0.9940	0	95.0	68.8	120			
Toluene	0.99	0.050	0.9940	0	100	73.6	124			
Ethylbenzene	1.0	0.050	0.9940	0	102	72.7	129			
Xylenes, Total	3.0	0.099	2.982	0.01925	101	75.7	126			
Surr: 4-Bromofluorobenzene	0.95		0.9940		95.7	70	130			
Sample ID: 2212211-136ams	d Samp	Туре: МS	D	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: BS22-120 4'	Bato	ch ID: 719	909	F	RunNo: 9 3	8146				
Prep Date: 12/7/2022	Analysis	Date: 12	/9/2022	S	SeqNo: 3	357313	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	0.9901	0	98.5	68.8	120	3.23	20	
Toluene	1.0	0.050	0.9901	0	104	73.6	124	3.33	20	
Ethylbenzene	1.0	0.050	0.9901	0	105	72.7	129	2.89	20	
Kylenes, Total	3.1	0.099	2.970	0.01925	105	75.7	126	3.51	20	
Surr: 4-Bromofluorobenzene	0.96		0.9901		97.2	70	130	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 Quanitative 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 167 of 167

WO#: 2212211

15-Dec-22

EI Al	NALYS	NMENT/ BIS ATORY	AL	TE	l Environmenta Alt L: 505-345-397 Vebsite: www.h	49(buquero 5 FAX:)1 Hawkins que, NM 87 505-345-4	s NE 7109 4107	Sar	mple Log-In (Check List
Client Nar		/ertex Res Services, Ir		Work	Order Numbe	r: 221	2211			RcptNo	: 1
Received	•	Sean Liviı	ngston	12/6/20	22 7:30:00 AN	/		S,	-L	not	
Completed Reviewed		Sean Livir 17 -	-	12/6/20	22 8:03:32 AN	Λ		S,	_L	njot	
<u>Chain of</u>	Custo	ody							_		
1. Is Chair	n of Cus	tody comp	lete?			Yes	\checkmark	No		Not Present	
2. How wa	as the sa	mple deliv	ered?			<u>Cou</u>	rier				
<u>Log In</u>										_	
3. Was an	attempt	made to c	ool the sample	es?		Yes		No		NA 🗌	
4. Were all	l sample	s received	at a temperat	ure of >0° C t	to 6.0°C	Yes		No		NA 🗌	
5. Sample	(s) in pro	oper contai	ner(s)?			Yes		No			
6. Sufficien	nt sampl	e volume fo	or indicated te	st(s)?		Yes		No			
7. Are sam	nples (ex	cept VOA	and ONG) pro	perly preserve	ed?	Yes		No			
8. Was pre	eservativ	e added to	bottles?			Yes		No		NA 🗌	
9. Received	d at leas	t 1 vial witl	n headspace <	<1/4" for AQ V	OA?	Yes		No		NA 🗹	
10. Were ar	ny samp	le containe	rs received br	oken?		Yes		No	\checkmark	# of preserved bottles checked	
11. Does pa (Note dis			tle labels? iin of custody)			Yes		No		for pH:	r >12 upless noted)
12. Are matr	rices cor	rectly iden	tified on Chain	of Custody?		Yes		No		Adjusted?	
13. Is it clea	ir what a	nalyses we	re requested?	•		Yes		No			
14. Were all (If no, no	-		to be met? uthorization.)			Yes		No	□.	Checked by:	m relate
Special H	andlin	g (if app	licable)								
15. Was clie	ent notif	ied of all di	screpancies w	ith this order?		Yes		No		NA 🗹	-
Pe	erson No	otified:			Date:			the state of the later			
By	y Whom	:]		and the second	Via:	eMa	ail 🗌 Pl	hone 🗌] Fax	In Person	
Re	egarding	r				-					
CI	lient Inst	ructions:								en rekalin maraka karakaran p	
16. Addition	nal rema	arks:									
17. <u>Cooler</u>	1										
	ler No	Temp °C	Condition	Seal Intact	Seal No	Seal D	ate	Signed	Ву		
1 2		5.2).9	Good Good						727		
3		1.7	Good								
4	(0.3	Good								

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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

RcptNo: 1

	Vertex Reso Services, In		Work	Order Num	ber: 2212211	
Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
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12/02/22	7:05	Soil	WS22-01 0-4'	1, 4oz jar		100	×	×				×								
12/02/22	7:05	Soil	WS22-02 0-4'	1, 4oz jar		200	×	×				×								
12/02/22	7:10	Soil	WS22-03 0-4'	1, 4oz jar		500	×	×				×								
12/02/22	7:10	Soil	WS22-04 0-4'	1, 4oz jar		てつ	×	X				×								
12/02/22	7:15	Soil	WS22-05 0-4'	1, 4oz jar		5 00	×	×				×								
12/02/22	7:15	Soil	WS22-06 0-4'	1, 4oz jar		124	×	×				×								
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12/02/22	7:20	Soil	WS22-08 0-4'	1, 4oz jar		700	×	×				×								
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12/02/22	7:25	Soil	WS22-10 0-4'	1, 4oz jar		0(0	×	×				×							_	_
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12/02/22	8:15	Soil	BS22-12 4'	1, 4oz jar		02%	×	×				×							
12/02/22	8:20	Soil	BS22-13 4'	1, 4oz jar		226	×	×				×							
12/02/22	8:20	Soil	BS22-14 4'	1, 4oz jar		320	×	×				×							
12/02/22	8:25	Soil	BS22-15 4'	1, 4oz jar		03(×	×				×							
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12/02/22	8:30	Soil	BS22-17 4'	1, 4oz jar		033	×	×				×							
12/02/22	8:30	Soil	BS22-18 4'	1, 4oz jar		520	×	×				×							
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12/02/22 8:	8:55 S	Soil	BS22-23 4'	1, 4oz jar		034	×	×				×						
12/02/22 8:	8:55 S	Soil	BS22-24 4'	1, 4oz jar		540	×	×				X						
12/02/22 9:	9:00 S	Soil	BS22-25 4'	1, 4oz jar		04-	×	×				×						
12/02/22 9:	9:00 S	Soil	BS22-26 4'	1, 4oz jar		242	×	X				×						
12/02/22 9:	9:05 S	Soil	BS22-27 4'	1, 4oz jar		243	×	X				X						
12/02/22 9:	9:05 S	Soil	BS22-28 4'	1, 4oz jar		544	×	X				X						
12/02/22 9:	9:10 S	Soil	BS22-29 4'	1, 4oz jar		045	×	X				X						
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Date Time	ne Matrix	rrix Sample Name	Container Preservative Type and # Type	HEAL No.	\ XЭТ8 08:Н9Т	99 1808 M) 803 d 2HA9	RCRA 8 СІ, F, E	V) 0728 2) 0728	D letoT	1
12/02/22 9:5	9:20 Soil	oil BS22-33 4'	1, 4oz jar	649	X X		×			
12/02/22 9:2	9:20 Soil	oil BS22-34 4'	1, 4oz jar	250	××		×			
12/02/22 9:2	9:25 Soil	oil BS22-35 4'	1, 4oz jar	251	X X		X			
12/02/22 9:2	9:25 Soil	oil BS22-36 4'	1, 4oz jar	250	X X		X			
12/02/22 9:5	9:30 Soil	oil BS22-37 4'	1, 4oz jar	053	X X		×			
12/02/22 9:3	9:30 Soil	oil BS22-38 4'	1, 4oz jar	254	X X		X			
12/02/22 9:0	9:35 Soil	oil BS22-39 4'	1, 4oz jar	055	X X		×			
12/02/22 9:0	9:35 Soil	oil BS22-40 4'	1, 4oz jar	250	X X		×			
12/02/22 9:4	9:40 Soil	oii BS22-41 4'	1, 4oz jar	t 20	××		×			
12/02/22 9:4	9:40 Soil	oil BS22-42 4'	1, 4oz jar	051	×		×			
12/02/22 9:4	9:45 Soil	oil BS22-43 4'	1, 4oz jar	92C	X X		×			
/22	9:45 Soil	oil BS22-44 4'		<i><i>CNC</i></i>	X X		×			
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Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX /	08:H9T	9081 Pe	d sHAq	3 АЯЭЯ	CI' E' B	V) 0928	S) 0728	D letoT				
12/02/22	10:00	Soil	BS22-45 4'	1, 4oz jar		0061	×	×				×							
12/02/22	10:00	Soil	BS22-46 4'	1, 4oz jar		0602	×	×				×							
12/02/22	10:05	Soil	BS22-47 4'	1, 4oz jar		063	×	×				×							
12/02/22	10:05	Soil	BS22-48 4'	1, 4oz jar	_	064	×	×				×						_	
12/02/22	10:10	Soil	BS22-49 4'	1, 4oz jar		065	×	×				×							-
12/02/22	10:10	Soil	BS22-50 4'	1, 4oz jar		064	×	×				×							
12/02/22	10:15	Soil	BS22-51 4'	1, 4oz jar		420	×	×				×							
12/02/22	10:15	Soil	BS22-52 4'	1, 4oz jar		Out	×	×				×							
12/02/22	10:20	Soil	BS22-53 4'	1, 4oz jar		069	×	×				×							
12/02/22	10:20	Soil	BS22-54 4'	1, 4oz jar		040	×	×				×							
12/02/22	10:25	Soil	BS22-55 4'	1, 4oz jar		50	×	×				×							
/22	10:25	Soil	BS22-56 4'	1, 4oz jar		しそし	×	×				×							
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12/02/22	10:30	Soil	BS22-57 4'	1, 4oz jar		Sto	X X				X						
12/02/22	10:30	Soil	BS22-58 4'	1, 4oz jar		540	XX				X						
12/02/22	10:35	Soil	BS22-59 4'	1, 4oz jar		075	X X				×						
12/02/22	10:35	Soil	BS22-60 4'	1, 4oz jar		240	XX				×						
12/02/22	10:40	Soil	BS22-61 4'	1, 4oz jar		t-t-C	XX				×						
12/02/22	10:40	Soil	BS22-62 4'	1, 4oz jar		8-4-0	XX				Х						
12/02/22	10:45	Soil	BS22-63 4'	1, 4oz jar		074	X X				×						
12/02/22	10:45	Soil	BS22-64 4'	1, 4oz jar		0%0	X X				×						
12/02/22	10:50	Soil	BS22-65 4'	1, 4oz jar		081	×				×						
12/02/22	10:50	Soil	BS22-66 4'	1, 4oz jar		220	X X				×						
12/02/22	11:00	Soil	BS22-67 4'	1, 4oz jar		080	××				×						
12/02/22	11:00	Soil	BS22-68 4'	1, 4oz jar		ò	XX	C			×						
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12/02/22	11:05	Soil	BS22-69 4'	1, 4oz jar		580	×	×				×						
12/02/22	11:05	Soil	BS22-70 4'	1, 4oz jar		540	×	×				×						
12/02/22	11:10	Soil	BS22-71 4'	1, 4oz jar		£%0	×	×				×						
12/02/22	11:10	Soil	BS22-72 4'	1, 4oz jar		08%	×	×				X						
12/02/22	11:15	Soil	BS22-73 4'	1, 4oz jar		089	Х	×				×						
12/02/22	11:15	Soil	BS22-74 4'	1, 4oz jar		040	×	×				×						
12/02/22	11:20	Soil	BS22-75 4'	1, 4oz jar		190	×	×				×						
12/02/22	11:20	Soil	BS22-76 4'	1, 4oz jar		760	х	×				×						
12/02/22	12:30	Soil	BS22-77 4'	1, 4oz jar		043	×	×				×						
12/02/22	12:30	Soil	BS22-78 4'	1, 4oz jar		094	х	×				×						
12/02/22	12:35	Soil	BS22-79 4'	1, 4oz jar		095	×	×				X						
12/02/22	12:35		BS22-80 4'	1, 4oz jar		096	Х	×				Х						
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12/02/22	12:40	Soil	BS22-82 4'	1, 4oz jar		640	×	×				×					
12/02/22	12:45	Soil	BS22-83 4'	1, 4oz jar		099	×	×				×					
12/02/22	12:45	Soil	BS22-84 4'	1, 4oz jar		001	X	×				×					
12/02/22	12:50	Soil	BS22-85 4'	1, 4oz jar		101	×	X				×					
12/02/22	12:50	Soil	BS22-86 4'	1, 4oz jar		102	×	×				×					
12/02/22	12:55	Soil	BS22-87 4'	1, 4oz jar		103	×	×				×					
12/02/22	12:55	Soil	BS22-88 4'	1, 4oz jar		104	x	X				×					
12/02/22	13:00	Soil	BS22-89 4'	1, 4oz jar		105	×	×				×					
12/02/22	13:00	Soil	BS22-90 4'	1, 4oz jar		50,	X	X				×					
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State of New Mexico Energy, Minerals and Natural Resources **Oil Conservation Division** 1220 S. St Francis Dr. Santa Fe, NM 87505

QUESTIONS

Action 325683

QUESTION	NS
Operator: DEVON ENERGY PRODUCTION COMPANY, LP	OGRID: 6137
333 West Sheridan Ave. Oklahoma City, OK 73102	Action Number: 325683
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nPRS0531129171
Incident Name	NPRS0531129171 SDE 31 FEDERAL #009 @ 30-025-32868
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received
Incident Well	[30-025-32868] SDE 31 FEDERAL #009

Location of Release Source

Please answer all the questions in this group.	
Site Name	SDE 31 FEDERAL #009
Date Release Discovered	10/31/2005
Surface Owner	Federal

Incident Details

Please answer all the questions in this group.		
Incident Type	Produced Water 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	Νο	
Has this release endangered or does it have a reasonable probability of endangering public health	Νο	
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

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	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Other (Specify) Produced Water Released: 0 BBL (Unknown Released Amount) Recovered: 0 BBL Lost: 0 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)	Injection line leak (corrosion) shut well in

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

QUESTIONS, Page 2

Action 325683

QUESTIONS (continued)		
Operator:	OGRID:	
DEVON ENERGY PRODUCTION COMPANY, LP	6137	
333 West Sheridan Ave.	Action Number:	
Oklahoma City, OK 73102	325683	
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

QUESTIONS

Initial Response

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	Yes	
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.	
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.		

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	
	Not answered. liation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative o	
	ted or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of	
to report and/or file certain release notifications and perform corrective actions for rele the OCD does not relieve the operator of liability should their operations have failed to	knowledge and understand that pursuant to OCD rules and regulations all operators are required ases which may endanger public health or the environment. The acceptance of a C-141 report by adequately investigate and remediate contamination that pose a threat to groundwater, surface rt does not relieve the operator of responsibility for compliance with any other federal, state, or	
I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dvn.com	

Date: 03/21/2024

District I

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

QUESTIONS, Page 3

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Action 325683

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Operator:	OGRID:	
DEVON ENERGY PRODUCTION COMPANY, LP	6137	
333 West Sheridan Ave.	Action Number:	
Oklahoma City, OK 73102	325683	
	Action Type:	
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

OUESTIONS (continued)

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 ar	nd the following surface areas:
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 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 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 ½ and 1 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
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 CI B) 17000 TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M) 8335 GRO+DRO (EPA SW-846 Method 8015M) 5435 BTEX (EPA SW-846 Method 8021B or 8260B) 0 (EPA SW-846 Method 8021B or 8260B) Benzene 0 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 11/10/2022 On what date will (or did) the final sampling or liner inspection occur 11/29/2022 On what date will (or was) the remediation complete(d) 11/22/2022 What is the estimated surface area (in square feet) that will be reclaimed 24676 What is the estimated volume (in cubic yards) that will be reclaimed 3656 What is the estimated surface area (in square feet) that will be remediated 24676 What is the estimated volume (in cubic yards) that will be remediated 3656 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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District IV cis Dr. Santa Fe. NM 87505

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

QUESTIONS, Page 4

Action 325683

	ONS (continued)	
Operator: DEVON ENERGY PRODUCTION COMPANY, LP	OGRID: 6137	
333 West Sheridan Ave.	Action Number:	
Oklahoma City, OK 73102	325683	
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)	
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	e / 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 ex which includes the anticipated timelines for beginning and completing the remediation.	fforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC	
to report and/or file certain release notifications and perform corrective actions for releated to a construction of the OCD does not relieve the operator of liability should their operations have failed to a	knowledge and understand that pursuant to OCD rules and regulations all operators are required ases which may endanger public health or the environment. The acceptance of a C-141 report by adequately investigate and remediate contamination that pose a threat to groundwater, surface t does not relieve the operator of responsibility for compliance with any other federal, state, or	
I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dvn.com Date: 03/21/2024	

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District III 1000 Rio

Oklahoma City, OK 73102

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division

325683

[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

Action Type:

Action 325683

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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	1220 S. St Francis Dr. Santa Fe, NM 87505
	QUESTIONS (continued)
Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:

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	No	

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

QUESTIONS, Page 6

Action 325683

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QUESTIONS (continued)		
Operator:	OGRID:	
DEVON ENERGY PRODUCTION COMPANY, LP	6137	
333 West Sheridan Ave.	Action Number:	
Oklahoma City, OK 73102	325683	
	Action Type:	
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

QUESTIONS

Sampling Event Information		
Last sampling notification (C-141N) recorded	325663	
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	12/02/2022	
What was the (estimated) number of samples that were to be gathered	143	
What was the sampling surface area in square feet	25000	

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		
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes		
What was the total surface area (in square feet) remediated	24676		
What was the total volume (cubic yards) remediated	3656		
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		
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 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.			
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		
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

I hereby agree and sign off to the above statement	Name: Dale Woodall
	Title: EHS Professional
	Email: Dale.Woodall@dvn.com
	Date: 03/21/2024

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Action 325683

QUESTIONS (continued)		
Operator: DEVON ENERGY PRODUCTION COMPANY, LP	OGRID: 6137	
333 West Sheridan Ave. Oklahoma City, OK 73102	Action Number: 325683	
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)	
QUESTIONS		
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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CONDITIONS

Action 325683

CONDITIONS

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	325683
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
crystal.walker	The reclamation report will need to include: Executive Summary of the reclamation activities; Scaled Site Map including sampling locations; Analytical results including, but not limited to, results showing that any remaining impacts meet the reclamation standards and results to prove the backfill is non-waste containing; At least one (1) representative 5-point composite sample will need to be collected from the backfill material that will be used for the reclamation of the top four feet of the excavation. OCD reserves the right to request additional sampling if needed; pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use and maintain those areas to control dust and minimize erosion to the extent practical; pictures of the top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater; and a revegetation plan.	4/4/2024
crystal.walker	Remediation Closure Report Approved	4/4/2024