

Incident Number: nRM1933052987

## **Remediation Closure**

Thistle Unit 10 Battery Section 27, Township 23 South, Range 33 East Facility: fAPP2130647365 County: Lea Vertex File Number: 23E-04784

Prepared for: Devon Energy Production Compny, LP

Prepared by: Vertex Resource Services Inc.

Date: June 2025 **Devon Energy Production Company, LP** Thistle Unit 10 Battery

Release Assessment and Closure Thistle Unit 10 Battery Section 27, Township 23 South, Range 33 East Facility: fAPP2130647365 County: Lea

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

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June 3, 2025

Date

Remediation Closure June 2025 **Devon Energy Production Company, LP** Thistle Unit 10 Battery

### Remediation Closure June 2025

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### **Devon Energy Production Company, LP** Thistle Unit 10 Battery

Remediation Closure June 2025

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## **1.0 Introduction**

Devon Energy Production Company, LP (Devon) retained Vertex Resource Services Inc. (Vertex) to conduct a Remediation Closure for a produced water release that occurred on August 30, 2019, at Thistle Unit 10 Battery (hereafter referred to as the "site"). Devon submitted an initial C-141 Release Notification (Appendix A) to New Mexico Oil Conservation Division (NMOCD) District 1 on October 23, 2019. Incident ID number nRM1933052987 was assigned to this incident.

This report provides a description of the release assessment and remediation activities associated with the site. The information presented demonstrates that closure criteria established in Table I of 19.15.29.12 of the *New Mexico Administrative Code* (NMAC; New Mexico Oil Conservation Division, 2018) related to NMOCD has been met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from NMOCD for closure of this release, with the understanding that restoration of the release site will be completed following remediation activities as per NMAC 19.15.29.13.

## 2.0 Incident Description

The release occurred on August 30, 2019, due to lightning striking the water tanks. The incident was reported on October 23, 2019, and involved the release of approximately 402 barrels (bbl) of produced water into the lined containment. Approximately 402 bbl of free fluid was removed during the initial clean-up. Additional details relevant to the release are presented in the C-141 Report. Daily Field Report (DFRs) and site photographs are included in Appendix C.

## **3.0 Site Characteristics**

The site is located approximately 23 miles west-northwest of Jal, New Mexico. The legal location for the site is Section 27, Township 23 South and Range 33 East in Lea County, New Mexico. The release area is located on State property. An aerial photograph and site schematic are presented on Figure 1.

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

*The Geological Map of New Mexico* (New Mexico Bureau of Geology and Mineral Resources, 2025) indicates the site's surface geology primarily comprises Qep – eolian and piedmont deposits (Holocene to middle Pleistocene) and the soil at the site is characterized as fine sands (United States Department of Agriculture, Natural Resources Conservation Service, 2025). Additional soil characteristics include a drainage class of well drained with a runoff class of low. The karst geology potential for the site is low (United States Department of the Interior, Bureau of Land Management, 2018).

The surrounding landscape is associated with plains with elevations ranging between 3,000 to 3,900 feet. The climate is semiarid with average annual precipitation ranging between 10 and 12 inches. Using information from the United States Department of Agriculture, the dominant vegetation was determined to be grasses with shrubs and half shrubs

(United States Department of Agriculture, Natural Resources Conservation Service, 2025). Limited to no vegetation is allowed to grow on the compacted production pad, right-of-way and access road.

### 4.0 Closure Criteria Determination

The depth to groundwater was determined by drilling a borehole permitted by the New Mexico Office of the State Engineer (NMOSE) within a 0.5-mile radius of the site. The borehole was advanced to a depth of 55 feet. The borehole was left to recover per the requirements on the WR-07 Application for Permit to Drill a Well with No Water Rights, and an interface probe was utilized to determine whether groundwater was present at the conclusion of the 72-hour recovery period. No water was found to be present at that time. The borehole was plugged and abandoned according to the WR-08 permit, Well Plugging Plan of Operations, filed with NMOSE. Documentation related to the exploratory borehole is included in Appendix B.

The nearest active well to the site is a commercial well 0.55 miles to the west. There is no surface water present at the site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is an intermittent stream located approximately 1.9 miles north of the site (United States Fish and Wildlife Service, 2025). At the site, there are no continuously flowing watercourses or significant watercourses, lakebeds, sinkholes, playa lakes or other critical water or community features as outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC

ill Coo	e: Thistle Unit 10 Battery rdinates: 32.270765,-103.562696	X: 635367	Y: 3571355
	ific Conditions	Value	Unit
	Depth to Groundwater (nearest reference)	>55	feet
1	Distance between release and nearest DTGW reference	153	feet
T	Distance between release and nearest DTGW relefence	0.03	miles
	Date of nearest DTGW reference measurement	Decembe	er 16, 2024
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	10,076	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	22,615	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	6,314	feet
5	<ul> <li>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</li> </ul>	2,916	feet
	ii) Within 1000 feet of any fresh water well or spring	2,916	feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	10,191	feet
	Within the area overlying a subsurface mine	No	(Y/N)
8	Distance between release and nearest registered mine	104,310	feet
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
	Distance between release and nearest high or critical karst zone	97,680	feet
	Within a 100-year Floodplain	Undetermined	year
10	Distance between release and nearest FEMA Zone A (100- year Floodplain)	83,391	feet
11	Soil Type	Fine sand, fir	ne sandy loam
12	Ecological Classification	Loam	iy Sand
13	Geology		dmont deposits
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	51-100'	<50' 51-100' >100'

•

Table 2. Closure Criteria for Soils Impacted by a Release					
Minimum depth below any point within the horizontal boundary of the release to groundwater					
less than 10,000 mg/l TDS	Constituent	Limit			
	Chloride	10,000 mg/kg			
	TPH (GRO+DRO+MRO)	2,500 mg/kg			
51 feet - 100 feet	GRO+DRO	1,000 mg/kg			
	BTEX	50 mg/kg			
	Benzene	10 mg/kg			

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

TDS – total dissolved solids

TPH – total petroleum hydrocarbons, GRO – gas range organics, DRO – diesel range organics, MRO – motor oil range organics BTEX – benzene, toluene, ethylbenzene and xylenes

### 5.0 Remedial Actions Taken

Characterization of the impacted area adjacent to the tank battery containment was completed by Vertex between October 19, 2023, and April 7, 2025, including vertical and horizontal delineation. The total impacted area was determined to be 11,204 square feet. The Daily Field Reports (DFRs) associated with the site visits are included in Appendix C. Characterization sample locations and approximate release areas are presented on Figure 1. Characterization field screening and laboratory results are summarized in Table 3.

Notification that a liner inspection was scheduled to be completed was provided to the NMOCD on August 26, 2020. Visual observation of the liner was completed on all sides and the base of the containment, around equipment, and of all seams in the liner. As evidenced in the DFR (Appendix C), liner integrity was confirmed, and the Liner Inspection Notification email is presented in Appendix D.

Remediation efforts began on April 7, 2025, and were finalized on April 10, 2025. Vertex personnel supervised the excavation of impacted soils to closure criteria. Field screening was completed on a total of four sample points. It consisted of analysis using a Photo Ionization Detector (volatile hydrocarbons), Dexsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons) and Silver Nitrate Titration (chlorides). Field screening results were used to identify areas requiring further remediation. Soils were removed to a depth of 1 feet below ground surface (bgs). Impacted soil was transported by a licensed waste hauler and disposed of at an approved waste management facility. Daily Field Reports documenting various phases of the remediation are presented in Appendix C.

Notifications that confirmatory samples were being collected were provided to the NMOCD and are included in Appendix D. Confirmatory composite samples were collected from the base and walls of the excavation in increments no greater than 200 square feet. A total of four base and wall samples were collected from the excavation for laboratory analysis following NMOCD soil sampling procedures. A composite sample of the backfill material was collected on May 14, 2025. Excavation extent and confirmation sample locations are shown on Figure 2. Laboratory results are presented

in Table 4, and the laboratory data reports are included in Appendix E.

On May 19,2025, Vertex requested a variance for confirmation samples to represent increments of 400 square feet over the impacted area. The variance was approved on May 19, 2025 and is included in Appendix D. Confirmation samples BS25-03 through BS25-30 were collected between May 22 and 23, 2025, in increments no greater than 400 square feet per the approved variance. The additional samples were collected from the pad surface within the area of impact outside the previously excavated remediation area. The greater impact area was below closure criteria and did not undergo remediation. Samples were submitted to the Eurofins Environment Testing 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). Confirmation sample locations are shown on Figure 2. Laboratory results are presented in Table 4, and the laboratory data reports are included in Appendix E. All confirmation samples collected and analyzed were below closure criteria for the site.

Upon completion of remedial actions, approximately 396 square feet and 15 cubic yards of the pad surface was remediated to closure criteria. Approximately 11,204 square feet and 1,480 cubic yards of material on the active facility pad currently meet closure criteria but will require reclamation of upon cessation of oilfield activities.

### 6.0 Closure Request

Vertex recommends no additional remediation action to address the release at Thistle Unit 10 Battery. Laboratory analyses of the final confirmatory samples showed constituent of concern concentration levels below NMOCD reclamation closure criteria for areas where depth to groundwater is between 51 and 100 feet bgs as shown in Table 2. There are no anticipated risks to human, ecological or hydrological receptors associated with the release sites.

Devon Energy Production Company, LP, requests that this incident (nRM1933052987) 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 August 30, 2019, release at Thistle Unit 10 Battery.

Should you have any questions or concerns, please do not hesitate to contact the Project Manager Sally Carttar at 575.361.3561 or Scarttar@vertexresource.com.

### 7.0 References

Google Inc. (2025). Google Earth Pro (Version 7.3.3) [Software]. Retrieved from https://earth.google.com

- New Mexico Bureau of Geology and Mineral Resources. (2025). *Interactive Geologic Map*. Retrieved from https://maps.nmt.edu/
- New Mexico Office of the State Engineer. (2025). New Mexico Water Rights Reporting System. Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/wellSurfaceDiversion.html
- New Mexico Oil Conservation Division. (2018). *New Mexico Administrative Code Natural Resources and Wildlife Oil and Gas Releases*. Santa Fe, New Mexico.
- United States Department of Agriculture, Natural Resources Conservation Service. (2025). *Web Soil Survey*. Retrieved from https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx
- United States Department of Homeland Security, Federal Emergency Management Agency. (2025). FEMA Flood Map Service: Search by Address. Retrieved from https://msc.fema.gov/portal/search?AddressQuery=malaga% 20new%20mexico#searchresultsanchor
- United States Department of the Interior, Bureau of Land Management. (2018). *New Mexico Cave/Karst*. Retrieved from https://www.nm.blm.gov/shapeFiles/cfo/carlsbad\_spatial\_data.html
- United States Fish and Wildlife Service. (2025). *National Wetland Inventory Surface Waters and Wetlands*. Retrieved from https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/
- United States Geological Survey. (2025). National Water Information System: Web Interface. Retrieved from https://waterdata.usgs.gov/nwis

### 8.0 Limitations

This report has been prepared for the sole benefit of Devon Energy Production Company, LP. This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation Division and the New Mexico State Land Office, 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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## **FIGURES**





## TABLES

Client Name: Devon Energy Production Company, LP Site Name: Thistle Unit 10 Battery NMOCD Tracking #: nRM1933052987 Project #: 23E-04784 Lab Reports: 2310A65, 2310B06, 2311452, 2311556, and 885-22848-1

	Table 3.	Characterization Sam	tory Resu	sults - Depth to Groundwater 51-100 feet bgs						
Sample Description					Petrole	eum Hydrod				
			Vola	atile			Extractable	2	1	Inorganic
Sample ID	Depth (ft)	Sample Date	eue Beuzeue (mg/kg)	ଁଷ୍ମ ଅନୁ (ସ୍ଥି	ଞ୍ଚି Gasoline Range Organics କ୍ନ (GRO)	ଅ Diesel Range Organics ଅନ୍ଧି (DRO)	없 Motor Oil Range Organics (여 (MRO)	(680 + DKO) (mg/kg)	Band Total Petroleum 서서 Hydrocarbons (TPH)	) (gay and concentration (gay and concentration
	0	October 19, 2023	ND	ND	ND	ND	ND	ND	ND	74
BH23-01	2	October 19, 2023	ND	ND	ND	ND	ND	ND	ND	ND
	0	October 19, 2023	ND	ND	ND	12	ND	12	12	740
BH23-02	2	October 19, 2023	ND	ND	ND	ND	ND	ND	ND	450
BH23-03	0	October 19, 2023	ND	ND	ND	20	ND	20	20	1600
BH23-03	2	October 19, 2023	ND	ND	ND	ND	ND	ND	ND	790
	0	October 19, 2023	ND	ND	ND	ND	ND	ND	ND	ND
BH23-04	2	October 19, 2023	ND	ND	ND	ND	ND	ND	ND	ND
BH23-05	0	October 19, 2023	ND	ND	ND	ND	ND	ND	ND	84
	2	October 19, 2023	ND	ND	ND	ND	ND	ND	ND	99
BH23-06	0	October 19, 2023	ND	ND	ND	ND	ND	ND	ND	120
	2	October 19, 2023	ND	ND	ND	ND	ND	ND	ND	ND
BH23-07	0	October 19, 2023	ND	ND	ND	ND	ND	ND	ND	190
BH23-07	2	October 19, 2023	ND	ND	ND	ND	ND	ND	ND	ND
	0	October 19, 2023	ND	ND	ND	ND	ND	ND	ND	1100
BH23-08	2	October 19, 2023	ND	ND	ND	ND	ND	ND	ND	220
BH23-09	0	October 19, 2023	ND	ND	ND	ND	ND	ND	ND	170
BH25-09	2	October 19, 2023	ND	ND	ND	ND	ND	ND	ND	150
BH23-10	0	October 19, 2023	ND	ND	ND	ND	ND	ND	ND	64
BH25-10	2	October 19, 2023	ND	ND	ND	ND	ND	ND	ND	130
	0	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	390
BH23-11	2	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	330
	3	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	340
	0	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	1400
BH23-12	2	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	510
	3	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	950
	0	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	6900
BH23-13	2	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	890
	3	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	2300
BH23-14	0	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	310
	2	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	390
BH23-15	0	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	69
	2	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	81
BH23-16	0	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	76
	2	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	ND
BH23-17	0	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	170
BH23-18	0	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	1500
	2	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	510



Client Name: Devon Energy Production Company, LP Site Name: Thistle Unit 10 Battery NMOCD Tracking #: nRM1933052987 Project #: 23E-04784 Lab Reports: 2310A65, 2310B06, 2311452, 2311556, and 885-22848-1

	Table 3. Characterization Sample Laboratory Results - Depth to Groundwater 51-100 feet bgs         Sample Description       Petroleum Hydrocarbons									
Sample Description					Petrole					
			Vola	atile			Extractable	9		Inorganic
Sample ID	Depth (ft)	Sample Date	eus Beuzeue (mg/kg)	ୁଷ୍ମ ଅନୁ ଅନୁ (ସିଥି	ଞ୍ଚ Gasoline Range Organics ଜ୍ଞ (GRO)	월 Diesel Range Organics (b) (DRO)	없 Motor Oil Range Organics (MRO)	(GRO + DRO) (mg/kg)	ଅପ୍ତ୍ର Total Petroleum ଅନୁ Hydrocarbons (TPH)	) Chloride Concentration (ay
	0	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	820
BH23-19	2	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	200
	0	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	97
BH23-20	1	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	ND
	0	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	100
BH23-21	2	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	74
-	3	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	150
	0	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	550
BH23-22	2	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	970
	3	October 20, 2023	ND	ND	ND	ND	ND	ND	ND	190
BH23-23	0	November 7, 2023	ND	ND	ND	ND	ND	ND	ND	100
	2	November 7, 2023	ND	ND	ND	ND	ND	ND	ND	ND
	4	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	360
	0	November 7, 2023	ND	ND	ND	ND	ND	ND	ND	94
BH23-24	2	November 7, 2023	ND	ND	ND	ND	ND	ND	ND	ND
BU122 25	0	November 7, 2023	ND	ND	ND	ND	ND	ND	ND	120
BH23-25	2	November 7, 2023	ND	ND	ND	ND	ND	ND	ND	75
BH23-26	0	November 7, 2023	ND	ND	ND	ND	ND	ND	ND	1300
BH25-20	2	November 7, 2023	ND	ND	ND	ND	ND	ND	ND	520
BH23-27	0	November 7, 2023	ND	ND	ND	ND	ND	ND	ND	ND
51125 27	2	November 7, 2023	ND	ND	ND	ND	ND	ND	ND	170
BH23-28	0	November 7, 2023	ND	ND	ND	ND	ND	ND	ND	340
	2	November 7, 2023	ND	ND	ND	ND	ND	ND	ND	150
BH23-29	0	November 7, 2023	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	1300 870
	0	November 7, 2023 November 7, 2023	ND	ND	ND	ND	ND	ND	ND	1800
BH23-30	2	November 7, 2023	ND	ND	ND	ND	ND	ND	ND	200
	0	November 7, 2023	ND	ND	ND	ND	ND	ND	ND	1300
BH23-31	2	November 7, 2023	ND	ND	ND	ND	ND	ND	ND	660
DU122 22	0	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	ND
BH23-32	2	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	80
BH23-33	0	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	190
61125-55	2	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	300
	0	November 8, 2023	ND	ND	ND	1800	1600	1800	3400	4100
	2	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	300
BH23-34	3	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	1400
	4 F	April 7, 2025	ND	ND	ND	ND	ND	ND	ND	1100 620
	5	April 7, 2025	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	630 150
	0	April 7, 2025 November 8, 2023	ND	ND	ND	ND	ND	ND	ND	880
BH23-35	2	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	1500
	2	1000cmber 0, 2025								1300



Client Name: Devon Energy Production Company, LP Site Name: Thistle Unit 10 Battery NMOCD Tracking #: nRM1933052987 Project #: 23E-04784 Lab Reports: 2310A65, 2310B06, 2311452, 2311556, and 885-22848-1

	Table 3. Characterization Sample Laboratory Results - Depth to Groundwater 51-100 feet bgs         Sample Description       Petroleum Hydrocarbons									
				Petroleum Hydrocarbons						
			Vola	atile		Extractable				Inorganic
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
	0	N 1 0 2022	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH23-36	0	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	1600
	2	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	1800
BH23-37	0	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	ND 120
	2	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	130
BH23-38	0	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	560
	2	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	1100
BH23-39	0	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	430
	2	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	1000
BH23-40	0	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	ND
	2	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	710
BH23-41	0	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	2000
	2	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	2400
BH23-42	0	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	3100
5202	2	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	2400
BH23-43	0	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	900
BH25-45	2	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	750
BH23-44	0	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	ND
51125 44	2	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	150
BH23-45	0	November 8, 2023	ND	ND	ND	ND	ND	ND	ND	ND
01123-43	2	November 8, 2023	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 NMOCD Remediation Closure Criteria Bold and green shaded indicates exceedance outside of NMOCD Reclamation Closure Criteria



Client Name: Devon Energy Production Company, LP Site Name: Thistle Unit 10 Battery NMOCD Tracking #: nRM1933052987 Project #: 23E-04784 Lab Report: 885-23112-1, 885-25053, 885-25492-1, and 885-25565-1

Sample ID         Depth (ft)         Sample Date         Image of the second s	Table 4. Confirmation Sample Laboratory Results										
Sample ID         Depth (ft)         Sample Date         image of the second s		Sample Des	cription			Petrole	oleum Hydrocarbons				
Image: mage interpretation         (mg/kg)         (mg/				Vola	atile			Extractable			Inorganic
Bits         Depth to Groundwater 51-100 feet bgs           Bits         1         April 10, 2025         ND	Sample ID	Depth (ft)	Sample Date	Benzene	ndddd	Gasoline Range Organics (GRO)	Diesel (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
BS25-01         1         April 10, 2025         ND				(mg/kg)	(mg/kg)					(mg/kg)	(mg/kg)
BS25-02         1         April 10, 2025         ND						Depth t	o Groundw	vater 51-10	0 feet bgs		
B\$25-03         0         May 22, 2025         ND				ND	ND	ND	ND	ND	ND	ND	870
B\$25-04         0         May 22, 2025         ND											
BS25-05         0         May 22, 2025         ND			•								
BS25-06         0         May 22, 2025         ND				ND	ND	ND	ND	ND	ND	ND	870
B\$25-07         0         May 22, 2025         ND				ND	ND	ND	ND	ND	ND	ND	-
BS25-08         0         May 22, 2025         ND				ND	ND	ND	ND	ND	ND	ND	2,400
BS25-09         0         May 22, 2025         ND			May 22, 2025	ND	ND	ND	ND	ND	ND	ND	210
BS25-10         0         May 22, 2025         ND			May 22, 2025	ND	ND	ND	ND	ND	ND	ND	1,000
BS25-11         0         May 22, 2025         ND			May 22, 2025	ND	ND	ND	ND	ND	ND	ND	320
BS25-12         0         May 22, 2025         ND			May 22, 2025	ND	ND	ND	ND	ND	ND	ND	1,200
BS25-13         0         May 22, 2025         ND		0	May 22, 2025	ND	ND	ND	ND	ND	ND	ND	62
BS25-14         0         May 22, 2025         ND	BS25-12	0	May 22, 2025	ND	ND	ND	ND	ND	ND	ND	1,300
BS25-15         0         May 22, 2025         ND	BS25-13	0	May 22, 2025	ND	ND	ND	ND	ND	ND	ND	860
BS25-16         0         May 22, 2025         ND	BS25-14	0	May 22, 2025	ND	ND	ND	ND	ND	ND	ND	790
BS25-17         0         May 22, 2025         ND	BS25-15	0	May 22, 2025	ND	ND	ND	ND	ND	ND	ND	380
BS25-18         0         May 22, 2025         ND	BS25-16	0	May 22, 2025	ND	ND	ND	ND	ND	ND	ND	1,900
BS25-19         0         May 22, 2025         ND         2,000           BS25-20         0         May 22, 2025         ND         ND         ND         ND         11         ND         11         11         1,300           BS25-21         0         May 23, 2025         ND         11         11         1,300           BS25-22         0         May 23, 2025         ND         ND         ND         ND         ND         ND         ND         ND         1,400           BS25-23         0         May 23, 2025         ND         ND         ND         ND         ND         ND         ND         1,400           BS25-24         0         May 23, 2025         ND         ND         ND         ND         ND         ND         ND         1,400           BS25-24         0         May 23, 2025         ND         ND         ND         ND         ND         ND         1,800           BS25-26         0	BS25-17	0	May 22, 2025	ND	ND	ND	ND	ND	ND	ND	2,400
BS25-20         0         May 22, 2025         ND         ND         ND         ND         11         ND         11         11         1,300           BS25-21         0         May 23, 2025         ND	BS25-18	0	May 22, 2025	ND	ND	ND	ND	ND	ND	ND	520
BS25-21         0         May 23, 2025         ND	BS25-19	0	May 22, 2025	ND	ND	ND	ND	ND	ND	ND	2,000
BS25-22         0         May 23, 2025         ND	BS25-20	0	May 22, 2025	ND	ND	ND	11	ND	11	11	1,300
BS25-23         0         May 23, 2025         ND	BS25-21	0	May 23, 2025	ND	ND	ND	ND	ND	ND	ND	1,200
BS25-24         0         May 23, 2025         ND	BS25-22	0	May 23, 2025	ND	ND	ND	ND	ND	ND	ND	1,400
BS25-25         0         May 23, 2025         ND	BS25-23	0	May 23, 2025	ND	ND	ND	ND	ND	ND	ND	1,400
BS25-26         0         May 23, 2025         ND	BS25-24	0	May 23, 2025	ND	ND	ND	ND	ND	ND	ND	1,800
BS25-27         0         May 23, 2025         ND	BS25-25	0	May 23, 2025	ND	ND	ND	ND	ND	ND	ND	1,900
BS25-28         0         May 23, 2025         ND         1,500           BS25-29         0         May 23, 2025         ND         ND         ND         ND         ND         ND         ND         2,000           BS25-30         0         May 23, 2025         ND         ND         ND         ND         ND         ND         ND         1,700           WS25-01         0-1         April 10, 2025         ND         ND         ND         ND         ND         ND         140           WS25-02         0-1         April 10, 2025         ND         ND         ND         ND         ND         ND         140	BS25-26	0	May 23, 2025	ND	ND	ND	ND	ND	ND	ND	910
BS25-29         0         May 23, 2025         ND         ND         ND         ND         ND         ND         ND         2,000           BS25-30         0         May 23, 2025         ND         ND         ND         ND         ND         ND         ND         ND         1,700           WS25-01         0-1         April 10, 2025         ND         ND         ND         ND         ND         ND         140           WS25-02         0-1         April 10, 2025         ND         ND         ND         ND         ND         ND         140	BS25-27	0	May 23, 2025	ND	ND	ND	ND	ND	ND	ND	1,200
BS25-30         0         May 23, 2025         ND         ND         ND         ND         ND         ND         ND         ND         1,700           WS25-01         0-1         April 10, 2025         ND         ND         ND         ND         ND         ND         ND         140           WS25-02         0-1         April 10, 2025         ND         ND         ND         ND         ND         ND         140	BS25-28	0	May 23, 2025	ND	ND	ND	ND	ND	ND	ND	1,500
WS25-01         O-1         April 10, 2025         ND         ND         ND         ND         ND         ND         ND         140           WS25-02         O-1         April 10, 2025         ND         ND         ND         ND         ND         ND         140	BS25-29	0	May 23, 2025	ND	ND	ND	ND	ND	ND	ND	2,000
WS25-02         0-1         April 10, 2025         ND         ND         ND         ND         ND         ND         140	BS25-30	0	May 23, 2025	ND	ND	ND	ND	ND	ND	ND	1,700
	WS25-01	0-1	April 10, 2025	ND	ND	ND	ND	ND	ND	ND	140
Backfill Sample	WS25-02	0-1	April 10, 2025				ND	ND	ND	ND	140
				B	Backfill Sam	ple					
Backfill         1         May 14, 2025         ND         ND         ND         ND         ND         ND         ND         ND         76	Backfill	1	May 14, 2025	ND	ND	ND	ND	ND	ND	ND	76

"ND" Not Detected at the Reporting Limit

"-" indicates not analyzed/assessed

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



.

**APPENDIX A - NMOCD C-141 Report** 

Received by OCD: 10/23/2019 3-32-04 PM Received by OCD: 6/6/2025 11:13:25 AM

> 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	NRM1933052987
District RP	1RP-5786
Facility ID	
Application ID	pRM1933053059

## **Release Notification**

## 3EKP2-191023-C-1410

## **Responsible Party**

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

## **Location of Release Source**

I	Latit	nde	
L	Jan	uuv	

(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

## 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)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) 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		

Page 22 of 374

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?	
🗌 Yes 🗌 No	
If YES, was immediate no	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

## **Initial Response**

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

The source of the release has been stopped.

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

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

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

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

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

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

Printed Name:	Title:
Signature: <u>Kendra DeHoyos</u>	Date:
email:	Telephone:
OCD Only	
Received by: Ramona Marcus	Date: <u>11/26/2019</u>

## **APPENDIX B – Closure Criteria Research Documentation**

# OSE POD 0.5 miles



## 3/12/2025, 8:44:56 AM

GIS WATERS PODs

• Active

\_\_\_\_

Water Right Regulations

OSE District Boundary

Closure Area

• Pending

Artesian Planning Area



Esri, HERE, iPC, Esri, HERE, Garmin, iPC, Maxar

# **OSE POD Location Map**



## 2/20/2025, 10:44:58 AM GIS WATERS PODs

• Pending

OSE District Boundary



Maxar, Microsoft, Esri, HERE, iPC, Esri, HERE, Garmin, iPC

Online web user This is an unofficial map from the OSE's online application.

## Water Column/Average Depth to Water

suffix indicates the POD has been replaced & no longer serves a water right file.)	(R=POD has been replaced, O=orphaned, C=the file is closed)				ers are est to lar	gest)				(NAD83 UTN	A in meters)			(In feet)	(In feet)	(In fee
POD Number	Code	Sub basin	County	Q64	Q16	Q4	Sec	Tws	Range	x	Y	Мар	Distance	Well Depth	Depth Water	Water Columr
<u>04895 POD1</u>		CUB	LE	NW	SE	SW	27	235	33E	635374.0	3571309.0		46	55		
02281		CUB	LE	SW	SE	SE	28	235	33E	634495.0	3571183.0 *	0	888	545	400	145
<u>C 02280</u>		CUB	LE	SW	NE	SE	28	235	33E	634489.0	3571586.0 *	8	907	650	400	250
<u>C 02278</u>		CUB	LE	SW	SE	NE	28	235	33E	634484.0	3571989.0 *	0	1087	650	400	250
<u>   02279</u>		CUB	LE	SW	SE	SW	28	235	33E	633691.0	3571173.0 *	8	1685	650	400	250
<u>C 04595 POD1</u>		CUB	LE	SE	SW	SW	34	235	33E	635149.5	3569564.9	8	1803	55		
														Average [	Depth to Wa	ter: <b>400 f</b>
														Minimum	Depth: <b>400</b>	feet
														Maximum	Depth: <b>400</b>	) feet
ecord Count: (	5															
M Filters (in																
sting: 635367 orthing: 3571																

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.

#### 3/12/25 8:16 AM MST

Water Column/Average Depth to Water

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### Received by OCD: 6/6/2025 11:13:25 AM

			•	are 1=NW 2=NB ers are smallest		SE			NAD83 UTM	in meters	
Well Tag	POD	Nbr	Q64	Q16	Q4	Sec	Tws	Rng	x	Y	Мар
NA	C 048	95 POD1	NW	SE	SW	27	23S	33E	635374.0	3571309.0	8
UTM locatio	on was de	erived from F	PLSS - see H	lelp							
Driller Lice	ense:	1833	Dri	ller Compar	ıy:	VISION RI	ESOURC	es, Inc			
Driller Nar	ne:	JASON N	IALEY								
Drill Start	Date:	2024-12-	-16 <b>Dr</b> i	ll Finish Dat	:e:	2024-12-1	16		Plug Dat	e: 20	24-12-19
Log File Da	ate:	2025-01-	-02 <b>PC</b>	W Rcv Date:	•				Source:		
Pump Type	e:		Pip	e Discharge	e Size:				Estimate	d Yield:	
Casing Size	e:		De	pth Well:		55			Depth W	ater:	

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.

3/12/25 8:25 AM MST

Point of Diversion Summary

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## Water Right Summary

	WR Fi	le Numb	<b>er:</b> C 04	4895				Sui	bbasin:	CUB	Cross Refere	nce:		
<u>get image</u> list	Prima	ry Purpo	ose: EXP	EXPLC	RATION	١								
<u>1151</u>	Prima	ry Statu	s: PM	T Permi	it									
	Total	Acres:						Sul	bfile:		Header:			
	Total	Diversio	<b>n:</b> 0.00	00				Cau	use/Case:					
	Owne	r:	DE	ON EN	IERGY			Ow	ner Class:	User				
	Conta	ct:	JIM	RALEY										
ocuments or	n File													
Transaction	Trn #	Doc	File/Act	Si 1	tatus	Status 2		nsactior	1 Desc.		From/To	Acres	(acre-fee Diversion	et per annum) Consumptiv
Ocuments or Transaction Images		<b>Doc</b> EXPL	<b>File/Act</b> 2024-10-3	1			Trai	nsactior 895 POE			From/To T	<b>Acres</b> 0.000		et per annum) Consumptiv
Transaction Images	<b>Trn #</b>	EXPL	•	1		2	Trai				-		Diversion	
Transaction Images	<b>Trn #</b>	EXPL	2024-10-3	1		2	Trai			Y	-	0.000	Diversion	Consumpti
Transaction Images get images	Trn # 769743	EXPL	2024-10-3	<b>1</b> 30 Pl	MT	2 APR	Tran C-4	895 POD	01	<b>Y</b> 3571305	Т	0.000	<b>Diversion</b> 0.000	Consumpti

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.

#### 3/12/25 8:27 AM MST

Water Rights Summary

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THISTLE UNIT 10 BATTERY





# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

z	OSE POD NO. (W C-4895-POD		.)	WELL TA	AG ID NO		OSE FILE NO( C-4895-PO)			
CATIO	WELL OWNER M Devon Energy						PHONE (OPTI	ONAL)		
VELL LO	WELL OWNER M 5315 Buena V	IAILING	ADDRESS		1		CITY Carlsbad	1	STATE NM 88220	ZIP
GENERAL AND WELL LOCATION	WELL LOCATION (FROM GPS)		TITUDE	GREES MINU 32 16 -103 33	5 13.3	2564 N 453 W		REQUIRED: ONE TEN	TH OF A SECOND	
1. GENE		-	NGITUDE	STREET ADDRESS AND			S (SECTION, TO	WNSHJIP, RANGE) WH	ERE AVAILABLE	
	LICENSE NO. 1833		NAME OF LICENSED	DRILLER Jason I	Maley			NAME OF WELL DRI	ILLING COMPANY ision Resources	
	DRILLING STAR 12-16-24		DRILLING ENDED 12-16-24	DEPTH OF COMPLETED 55'	WELL (FT)	the second second second	LE DEPTH (FT) 55'	DEPTH WATER FIRS	ST ENCOUNTERED (FT) N/A	)
z	COMPLETED W	ELL IS:	ARTESIAN *add Centralizer info bel	DRY HOLE	SHALLOW (UNC	I ONFINED)		I WATER LEVEL PLETED WELL (	)' DATE STATIC 12-1	
TIO	DRILLING FLUI	D:	✓ AIR	MUD	ADDITIVES – SPI	ECIFY:				
RMA	DRILLING METI	IOD: 🔽	ROTARY HAMM	AER 🔲 CABLE TOOL	OTHER - SPI	ECIFY:		CHECK INSTAL	HERE IF PITLESS ADA LED	PTER IS
NFO	DEPTH (fee	t bgl)	BORE HOLE	CASING MATERI			ASING	CASING	CASING WALL	SLOT
ASING I	FROM	то	DIAM (inches)	GRAD (include each casin note sections of	ng string, and	CONN	NECTION YPE ling diameter)	INSIDE DIAM. (inches)	THICKNESS (inches)	SIZE (inches)
& C	0	45	6"	PVC 2" SC			hread	2"	SCH40	N/A
2. DRILLING & CASING INFORMATION	45	55	6"	PVC 2" SC	CH40		hread	2 <sup>u</sup>	SCH40	.02
				LIST ANNULAR SEA	L MATERIAL A	ND GRAVEL	PACK SIZE-			
2	DEPTH (fee	_	BORE HOLE DIAM. (inches)	F	ANGE BY INTER	RVAL		AMOUNT (cubic feet)	METHO PLACEM	
MATERIA	FROM	то		*(if using Centralizers No	for Artesian wells one pulled and p		spacing below)			
3. ANNULAR MATERIAL										
								WELL PROOPS		2/20223
-	E OSE INTERNA E NO.	L USE			POD NO.		WR-2 TRN I		& LOG (Version 09/2	2/2022)
	CATION				and surgering V		WELL TAG I	and a second	PAGE	1 OF 2

	DEPTH (	feet bgl)	THICKNESS		YPE OF MATERIAL E				TER	ESTIMATED YIELD FOR
	FROM	то	(feet)		EARING CAVITIES O nental sheets to fully de			1.111.11	RING? /NO)	WATER- BEARING ZONES (gpm)
	0	10	10'		Brown sand with calich	e		Y	√ N	
	10	30	20'	Та	n fine sand with small r	ock		Y	√N	
	30	55	25'		Tan fine sand			Y	√ N	
		-						Y	N	
								Y	N	
Ţ								Y	N	
WEL		17.01		11 Carson 17 anno 18 anno 18				Y	N	
OF.								Y	N	
500								Y	N	
								Y	N	
4. HYDROGEOLOGIC LOG OF WELL						_		Y	N	
CEO								Y	N	
DKO								Y	N	
HYL	1							Y	N	
4.								Y	N	
								Y	N	
								Y	N	
								Y	N	
								Y	Ν	
-								Y	N	
								Y	N	
	METHOD U			OF WATER-BEARING ST BAILER OTHEF	RATA: R – SPECIFY:Dry hole			AL ESTII	MATED D (gpm):	0
z	WELL TES			ACH A COPY OF DATA C IE, AND A TABLE SHOW						
TEST; RIG SUPERVISION	MISCELLA	I NEOUS IN	FORMATION:							
EST;	PRINT NAM	1E(S) OF D	DRILL RIG SUPER	VISOR(S) THAT PROVID	ED ONSITE SUPERVI	SION O	F WELL CONSTRU	JCTION C	THER TH	AN LICENSE
5. T	Jason Maley									
6. SIGNATURE	CORRECT I	RECORD	OF THE ABOVE D	IES THAT, TO THE BEST ESCRIBED HOLE AND T DAYS AFTER COMPLE Jaso	HAT HE OR SHE WIL	L FILE				
•		SIGNA	TURE OF DRILLE	R / PRINT SIGNEE NAM	1E			1 1	DATE	
FOI	R OSE INTER	NAL USE					WR-20 WELL RE	ECORD &	LOG (Ver	sion 09/22/202
	E NO.			PC	DD NO.		TRN NO.			
LO	CATION					WELL	TAG ID NO.			PAGE 2 OF



# PLUGGING RECORD



NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

### I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-4895			
Well owner: Devon Energy Resources		Phone No.:	
Mailing address: 205 E. Bender Road			
City: Hobbs	State:	NM	Zip code: 88240

### **II. WELL PLUGGING INFORMATION:**

19-24 c c, WGS 84
not, please desc onal pages as needed

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interva	l plugged,	describe	within	the	following	columns:
------------------	------------	----------	--------	-----	-----------	----------

0 	oming Bentonite	77.50	77.50	Tremie Pipe Open hole	
		MULTIPLY	BY AND OBTAIN 4805 = gallons		

### III. SIGNATURE:

I, <u>Jason Maley</u>, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Signature of Well Driller

Date

Version: September 8, 2009 Page 2 of 2

025 11.12.25 Recei ved by OCD

### U.S. Fish and Wildlife Service

# National Wetlands Inventory



### January 2, 2024

### Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Forested/Shrub Wetland

Freshwater Emergent 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.

Released to Imaging: 6/25/2025 2:43:17 PM

### U.S. Fish and Wildlife Service

# National Wetlands Inventory

## Thistle Unit 10 Battery Pond 22,615 ft.



### January 2, 2024

### Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

Released to Imaging: 6/25/2025 2:43:17 PM

- 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 & Inactive Points of Diversion**

(with Ownership Information)

			(acre ft per annum)					(R=POD has been replaced and no longer serves this file, C=the file is closed)			(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)						(NAD83 UTM in meters)			(meters)
WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q64	q16	q4	Sec	Tws	Range	x	Y	Мар	Distance
<u>C 04895</u>	CUB	EXP	0.000	DEVON ENERGY	LE	<u>C 04895 POD1</u>	NA				NW	SE	SW	27	23S	33E	635374.0	3571309.0		46.5
<u>C 02281</u>	CUB	СОМ	11.300	BRININSTOOL XL RANCH LLC	LE	<u>C 02281</u>				Shallow	SW	SE	SE	28	235	33E	634495.0	3571183.0 *		888.8
<u>C 02280</u>	CUB	СОМ	64.500	BRININSTOOL XL RANCH LLC	LE	<u>C 02280</u>				Shallow	SW	NE	SE	28	235	33E	634489.0	3571586.0 *		907.9
<u>C 02278</u>	CUB	COM	64.500	BRININSTOOL XL RANCH LLC	LE	<u>C 02278</u>				Shallow	SW	SE	NE	28	23S	33E	634484.0	3571989.0 *		1,087.0
<u>C 02279</u>	CUB	СОМ	64.500	BRININSTOOL XL RANCH LLC	LE	<u>C 02279</u>				Shallow	SW	SE	SW	28	235	33E	633691.0	3571173.0 *		1,685.9
<u>C 04595</u>	CUB	MON	0.000	DEVON ENERGY	LE	<u>C 04595 POD1</u>	NA				SE	SW	SW	34	235	33E	635149.5	3569564.9		1,803.3
<u>C 04929</u>	CUB	MON	0.000	DEVON ENERGY PRODUCTION CO. LP	LE	<u>C 04929 POD1</u>	NA				SE	SW	SW	23	235	33E	636685.4	3572738.9		1,911.4

#### Record Count: 7

Filters Applied:

UTM Filters (in meters): Easting: 635367 Northing: 3571355 Radius: 002000

Sorted By: Distance

\* UTM location was derived from PLSS - see Help

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

3/12/25 8:20 AM MST

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Active & Inactive Points of Diversion
Page	37	of	374
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quarters are 1=NW 2=NE 3=SW 4=SE         quarters are smallest to largest         NAD83 UTM in meters											
Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tws	Rng	х		Y	Мар
	C 02281	SW	SE	SE	28	23S	33E	63449	95.0	3571183.0 *	•
* UTM locatic	on was derived	from PLSS -	- see Help								
Driller Lice	ense:	Drille	r Company:								
Driller Nai	me: YAN	IK BRININ	ISTOOL								
Drill Start	Date:	Drill I	Finish Date:	1944	1-12-31	Plug	Date:				
Log File D	ate:	PCW	Rcv Date:			Sour	rce:		Shall	low	
Pump Typ	e:	Pipe	Discharge Siz	e:		Estin	nated Y	'ield:	7		
Casing Siz	<b>e:</b> 6.50	Dept	h Well:	545		Dep	th Wate	er:	400		

#### Meter Information

Meter Number:	520	Meter Make:	MASTER METER
Meter Serial Number:	1540157	Meter Multiplier:	10.0000
Number of Dials:	6	Meter Type:	Diversion
Unit of Measure:	Gallons	Reading Frequency:	Monthly (No Reading Expected)

#### Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
1999-02-27	1999	9.000	А	ms		0.000	
1999-04-15	1999	9.000	А	ms		0.000	
1999-07-18	1999	9.000	А	ms		0.000	
1999-11-28	1999	9.000	А	ms		0.000	
2000-04-06	2000	85.000	А	mb		0.002	
2000-08-16	2000	85.000	А	mb		0.000	
2000-09-15	2000	85.000	А	RPT		0.000	
2001-01-19	2000	85.000	А	RPT		0.000	
2001-04-27	2001	85.000	А	RPT		0.000	

 Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
2001-07-16	2001	85.000	А	ms		0.000	
2002-01-12	2002	85.000	А	tg		0.000	
2002-04-13	2002	85.000	А	RPT		0.000	
2002-07-12	2002	85.000	А	rm		0.000	
2003-01-01	2002	85.000	А	ms		0.000	
2003-04-23	2003	85.000	А	ms		0.000	
2003-07-11	2003	85.000	А	ms		0.000	
2003-10-01	2003	106.790	А	ab		0.001	
2004-01-08	2003	106.790	А	ab		0.000	
2004-04-07	2004	10679.000	А	RPT		0.324	
2004-07-15	2004	12618.000	А	RPT		0.060	
2004-10-12	2004	14978.000	А	RPT		0.072	
2005-01-26	2004	15771.000	А	RPT		0.024	
2005-04-15	2005	15771.000	А	RPT		0.000	
2005-08-03	2005	15771.000	А	RPT		0.000	
2005-10-31	2005	15771.000	А	RPT		0.000	
2006-01-31	2005	15771.000	А	RPT		0.000	
2006-04-20	2006	15771.000	А	RPT		0.000	
2006-07-19	2006	15771.000	А	tw		0.000	
2006-11-27	2006	15771.000	А	RPT		0.000	
2007-04-16	2006	15771.000	А	tw		0.000	
2007-07-13	2007	15771.000	А	tw		0.000	
2007-11-03	2007	15771.000	А	tw		0.000	
2008-04-15	2008	15771.000	А	tw		0.000	
2008-07-11	2008	15771.000	А	RPT		0.000	
2009-01-12	2009	15771.000	А	RPT		0.000	
2009-05-07	2009	15771.000	А	RPT		0.000	
2009-07-06	2009	15771.000	А	RPT		0.000	
2009-11-12	2009	15771.000	А	tw		0.000	

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
2010-05-13	2010	15771.000	А	RPT		0.000	
2010-08-23	2010	15771.000	А	RPT		0.000	
2010-11-09	2010	15771.000	А	RPT		0.000	
2011-02-13	2011	15771.000	А	RPT		0.000	
2011-07-12	2011	15771.000	А	RPT		0.000	
2012-01-10	2012	15771.000	А	RPT		0.000	
2012-04-15	2012	15771.000	А	RPT		0.000	
2013-03-20	2012	15771.000	А	RPT		0.000	
2013-07-18	2013	15771.000	А	RPT		0.000	

#### **YTD Meter Amounts:**

Year	Amount
1999	0.000
2000	0.002
2001	0.000
2002	0.000
2003	0.001
2004	0.480
2005	0.000
2006	0.000
2007	0.000
2008	0.000
2009	0.000
2010	0.000
2011	0.000
2012	0.000
2013	0.000

<u>get image</u> <u>list</u>

# Water Right Summary

WR File Number:	C 02281	Subbasin:	CUB	Cross Reference:
Primary Purpose:	COM COMMERCIAL			
Primary Status:	PMT Permit			
Total Acres:	0.000	Subfile:		Header:
Total Diversion:	11.300	Cause/Case:		
Owner:	BRININSTOOL XL RANCH LLC	Owner Class:	Owner	
Contact:	CHRISTINE BRININSTOOL, MORTGAGEE			
Owner:	HUGHES PROPERTIES LLC	Owner Class:	Owner	
Contact:	TREY HUGHES			

#### **Documents on File**

(acre-feet per annum)

Transaction Images	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/To	Acres	Diversion	Consumptive
get images	<u>614463</u>	COWNF	2016-09-25	CHG	APR	C 02281	Т	0.000	0.000	
	<u>439872</u>	COWNF	2009-07-29	CHG	PRC	C 02281	т	0.000	0.000	
	<u>234012</u>	COWNF	2002-06-25	CHG	PRC	C 02281	Т	0.000	0.000	
	<u>169248</u>	ADM	1999-10-29	PMT	MTR	C 02281	Т	0.000	11.300	
	<u>198408</u>	DCL	1986-04-07	DCL	PRC	C 02281	Т	0.000	11.300	

#### **Current Points of Diversion**

POD Number	Well Tag	Source	Q64	Q16	Q4	Sec	Tws	Rng	х	Y	Мар	Other Location Desc
<u>C 02281</u>		Shallow	SW	SE	SE	28	235	33E	634495.0	3571183.0 *	•	
* UTM location wa	as derived from	n PLSS - see	Help									
Place of Use												
Place of Use												

0.000 11.30	COM DCL	NO PLACE OF USE GIVEN.
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#### Source

Acres	Diversion	cu	Use	Priority	Source	Description
0.000	11.300		COM		GW	

# U.S. Fish and Wildlife Service National Wetlands Inventory



#### January 2, 2024

#### 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.

Thistle Unit 10 Battery Mine 104,310ft





EMNRD MMD GIS Coordinator

Received by OCD: 6/6/2025 11:13:25 AM



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Released to Imaging: 6/25/2025 2:43:17 PM

X Karst Potential (23E-04784)ID17607.mxd

# National Flood Hazard Layer FIRMette



#### Legend

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Basemap Imagery Source: USGS National Map 2023





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







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#### Custom Soil Resource Report

Soil Map Unit Points       ▲       Other       misuñderstanding of the detail of mapping and accuracy of line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more de scale.         Image: Soil Map Unit Points       Special Point Features       Special Point Features       Special Point Features       Site ams and Canals         Image: Soil Map Unit Points       Site ams and Canals       Site ams and Canals       Please rely on the bar scale on each map sheet for map measurements.         Image: Closed Depression       Image:		MAP L	EGEND		MAP INFORMATION		
Gravel Pit       US Routes       Source of Map: Natural Resources Conservation Service Web Soil Survey URL:         Gravelly Spot       Major Roads       Coordinate System: Web Mercator (EPSG:3857)         Landfill       Local Roads       Maps from the Web Soil Survey are based on the Web Me projection, which preserves direction and shape but distort distance and area. A projection that preserves area, such a Abies equal-area conic projection, should be used if more accurate calculations of distance or area are required.         Mine or Quarry       Miscellaneous Water       This product is generated from the USDA-NRCS certified of the version date(s) listed below.         Perennial Water       Soil Survey Area: Lea County, New Mexico Survey Area Data: Version 20, Sep 6, 2023         Saline Spot       Soil map units are labeled (as space allows) for map scale 1:50,000 or larger.         Sinkhole       Date(s) aerial images were photographed: Feb 7, 2020–	Soils Soils Soil Soil Soil Special Point O Blow Sac Special Sp	t <b>(AOI)</b> a of Interest (AOI) I Map Unit Polygons I Map Unit Lines I Map Unit Points t <b>Features</b> wout row Pit y Spot	a a b b b b b c c c c c c c c c c c c c	Stony Spot Very Stony Spot Wet Spot Other Special Line Features res Streams and Canals on	1:20,000. Warning: Soil Map may not be valid at this scale. Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale. Please rely on the bar scale on each map sheet for map		
<ul> <li>Rock Outcrop</li> <li>Saline Spot</li> <li>Sandy Spot</li> <li>Severely Eroded Spot</li> <li>Sinkhole</li> <li>Sinkhole</li> <li>Soil Survey Area: Lea County, New Mexico Survey Area Data: Version 20, Sep 6, 2023</li> <li>Soil map units are labeled (as space allows) for map scale 1:50,000 or larger.</li> <li>Date(s) aerial images were photographed: Feb 7, 2020–</li> </ul>	Gra ∴ Gra ⊘ Lan ∧ Lav ↓ Mar ⊘ Min	avel Pit avelly Spot adfill ra Flow rsh or swamp ne or Quarry acellaneous Water	Rackground	JS Routes Major Roads Local Roads	Coordinate System: Web Mercator (EPSG:3857) Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data a		
and Social S	<ul> <li>✓ Roc</li> <li>+ Sali</li> <li>∴ Sar</li> <li>⇒ Sev</li> <li>◊ Sint</li> <li>◊ Slid</li> </ul>	ine Spot ndy Spot verely Eroded Spot khole de or Slip			Survey Area Data: Version 20, Sep 6, 2023 Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Date(s) aerial images were photographed: Feb 7, 2020—May		

# Map Unit Legend (Thistle Unit 10 Battery)

Map Unit Symbol Map Unit Name		Acres in AOI	Percent of AOI
BE	Berino-Cacique loamy fine sands association	0.2	3.4%
PU	Pyote and Maljamar fine sands	5.7	96.6%
Totals for Area of Interest		5.9	100.0%

# Map Unit Descriptions (Thistle Unit 10 Battery)

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

#### 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
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

#### Custom Soil Resource Report

*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 Conservation Service

USDA Natural Resources

## Ecological site R070BD003NM Loamy Sand

Accessed: 01/02/2024

#### **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	<b>Sandy</b> Sandy
R070BD005NM	<b>Deep Sand</b> 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	<ul><li>(1) Fan piedmont</li><li>(2) Alluvial fan</li><li>(3) Dune</li></ul>
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 gravely 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	<ul><li>(1) Fine sand</li><li>(2) Fine sandy loam</li><li>(3) Loamy fine sand</li></ul>
Family particle size	(1) Sandy
Drainage class	Well drained to somewhat excessively drained
Permeability class	Moderate to moderately rapid

#### Released to Imaging: 6/25/2025 2:43:17 PM

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" (Depth not specified)	0%

#### **Ecological dynamics**

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 grassland-dominated 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.

#### 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, 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)	High (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	28%
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 5. 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	Мау	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 grame/Mesquits community, with some dropseeds, threesoms, and scattered and shimery oak
 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

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			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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<i>by</i> OCD: 0/0/2023 11:15:23 AM				rage 02 0j
sand sagebrush	ARFI2	Artemisia filifolia	61–123	_
Havard oak	QUHA3	Quercus havardii	61–123	_
Shrub			34–61	
fourwing saltbush	ATCA2	Atriplex canescens	37–61	_
featherplume	DAFO	Dalea formosa	37–61	_
Shrub			37–61	
jointfir	EPHED	Ephedra	37–61	_
littleleaf ratany	KRER	Krameria erecta	37–61	_
Other Shrubs			37–61	
Shrub (>.5m)	2SHRUB	Shrub (>.5m)	37–61	_
Forb			61–123	
leatherweed	CRPOP	Croton pottsii var. pottsii	61–123	_
Indian blanket	GAPU	Gaillardia pulchella	61–123	_
globemallow	SPHAE	Sphaeralcea	61–123	_
Forb		12–37		
woolly groundsel	PACA15	Packera cana	12–37	_
Forb			61–123	
touristplant	DIWI2	Dimorphocarpa wislizeni	61–123	_
woolly plantain	PLPA2	Plantago patagonica	61–123	_
Other Forbs	•		37–61	
Forb (herbaceous, not grass nor grass-like)	2FORB	Forb (herbaceous, not grass nor grass-like)	37–61	_
	sand sagebrushHavard oakShrubfourwing saltbushfeatherplumeShrubjointfirlittleleaf ratanyOther ShrubsShrub (>.5m)ForbleatherweedIndian blanketglobemallowForbForbwoolly groundselForbtouristplantwoolly plantainOther ForbsForb (herbaceous, not grass nor	sand sagebrushARFI2Havard oakQUHA3ShrubATCA2fourwing saltbushATCA2featherplumeDAFOShrubjointfirjointfirEPHEDlittleeaf ratanyKREROther ShrubsShrub (>.5m)Shrub (>.5m)2SHRUBForbleatherweedCRPOPIndian blanketGAPUglobemallowSPHAEForbVariation (SPHAE)ForbIturistplantVoolly groundselPACA15ForbDIWI2woolly plantainPLPA2Other ForbsSPGRB	sand sagebrushARF12Artemisia filifoliaHavard oakQUHA3Quercus havardiiShrubQUHA3Quercus havardiifourwing saltbushATCA2Atriplex canescensfeatherplumeDAFODalea formosaShrubjointfirEPHEDEphedrajittleleaf ratanyKRERKrameria erectaOther ShrubsShrub (>.5m)2SHRUBShrub (>.5m)2SHRUBShrub (>.5m)ForbleatherweedCRPOPCroton pottsii var. pottsiiIndian blanketGAPUGaillardia pulchellaglobemallowSPHAESphaeralceaForbForbEncenawoolly groundselPACA15Packera canaForbUuristplantDIWI2Dimorphocarpa wislizeniwoolly plantainPLPA2Plantago patagonicaOther ForbsForb (herbaceous, not grass nor2FORBForb (herbaceous, not grass nor	sand sagebrushARFI2Artemisia filifolia61–123Havard oakQUHA3Quercus havardii61–123Shrub34–61fourwing saltbushATCA2Atriplex canescens37–61featherplumeDAFODalea formosa37–61ShrubShrub37–6137–61jointfirEPHEDEphedra37–61jointfirEPHEDEphedra37–61littleleaf ratanyKRERKrameria erecta37–61Other Shrubs37–6137–61Shrub (>.5m)2SHRUBShrub (>.5m)37–61Forb61–123leatherweedCRPOPCroton pottsii var. pottsii61–123Indian blanketGAPUGaillardia pulchella61–123globemallowSPHAESphaeralcea61–123Forb12–37woolly groundselPACA15Packera cana12–37Forb01/22Dimorphocarpa wislizeni61–12361–123touristplantDIWI2Dimorphocarpa wislizeni61–123woolly plantainPLPA2Plantago patagonica61–123Other Forbs37–6157–6157–61Forb (herbaceous, not grass nor2FORBForb (herbaceous, not grass nor37–61

#### **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**

Literature Cited:

Ansley, R. J.; Jacoby, P. W. 1998. Manipulation of fire intensity to achieve mesquite management goals in north Texas. In: Pruden, Teresa L.; Brennan, Leonard A., eds. Fire in ecosystem management: shifting the paradigm from suppression to prescription: Proceedings, Tall Timbers fire ecology conference; 1996 May 7-10; Boise, ID. No. 20. Tallahassee, FL: Tall Timbers Research Station: 195-204.

Ansley, R. J.; Jones, D. L.; Tunnell, T. R.; [and others]. 1998. Honey mesquite canopy responses to single winter fires: relation to herbaceous fuel, weather and fire temperature. International Journal of Wildland Fire 8(4):241-252.

Britton, Carlton M.; Wright, Henry A. 1971. Correlation of weather and fuel variables to mesquite damage by fire. Journal of Range Management 24:136-141.

Davis, Joseph H., III and Bonham, Charles D. 1979. Interference of sand sagebrush canopy with needleandthread. Journal of Range Management 32(5):384-386.

Herbel, C. H, Steger, R, Gould, W. L. 1974. Managing semidesert ranges of the Southwest Circular 456. Las Cruces, NM: New Mexico State University, Cooperative Extension Service. 48 p.

McDaniel, Kirk C.; Pieper, Rex D.; Loomis, Lyn E.; Osman, Abdelgader A. 1984. Taxonomy and ecology of perennial snakeweeds in New Mexico. Bulletin 711. Las Cruces, NM: New Mexico State University, Agricultural Experiment Station. 34 p. McPherson, Guy R. 1995. The role of fire in the desert grasslands. In: McClaran, Mitchel P.; Van Devender, Thomas R., eds. The desert grassland. Tucson, AZ: The University of Arizona Press: 130-151.

Pettit, Russell D. 1986. Sand shinnery oak: control and management. Management Note 8. Lubbock, TX: Texas Tech University, College of Agricultural Sciences, Department of Range and Wildlife Management. 5 p.

#### 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:

# Thistle Unit 10 Battery Geology



#### Lithologic Units

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

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

2

3

0

0

1

1.5

4 mi

6 km

**APPENDIX C – Daily Field Reports** 



Client:	Devon Energy Corporation	Inspection Date:	8/31/2020	
Site Location Name:	Thistle Unit 10 CTB	Report Run Date:	9/4/2020 4:14 PM	
Client Contact Name:	Amanda Davis	API #:		
Client Contact Phone #:	(575) 748-0176			
Unique Project ID	-Thistle Unit 10 CTB	Project Owner:	Amanda Davis	
Project Reference #	08/30/2019 - 402bbl PW Release	Project Manager:	Natalie Gordon	
Summary of Times				
Arrived at Site	8/31/2020 10:13 AM			
Departed Site	8/31/2020 12:21 PM			
Field Notes				

**16:51** Complete liner inspection

#### **Next Steps & Recommendations**

**1** No cracks, tears or deficiencies were identified in the liner. The integrity of the liner was consistent across entire containment. No visual evidence was found that would support liquids escaping liner.



Site	Photos
Viewing Direction: South	Viewing Direction: North
	Brassoffathas Pilotes - 2 Maxettar (Diffuentions: North Exceeding (Diffuentions: North) Exceeding (Diffuentions
Liner inspection	Liner inspection
Viewing Direction: North	Viewing Direction: West
Envertered Envertered and and a second and a	
Liner inspection	Liner inspection

•



Viewing Direction: East	Viewing Direction: Southwest
Destriction Moder Land	Cuestratory Photo-6 Weating Diseastory Budde-6 Weating Diseastory Budde-6
Liner inspection	Liner inspection
Viewing Direction: North	Viewing Direction: North
A Construction of the cons	
Area adjacent to containment	Area adjacent to containment

•



**Daily Site Visit Signature** 

Inspector: Kevin Smith

Signature: June Dom

Run on 9/4/2020 4:14 PM UTC

•



Client:	Devon Energy Corporation	Inspection Date:	4/7/2025		
Site Location Name:	Thistle Unit 10 CTB	Report Run Date:	4/7/2025 11:55 PM		
Client Contact Name:	Dale Woodall	API #:			
Client Contact Phone #:	405-318-4697				
Unique Project ID		Project Owner:			
Project Reference #		Project Manager:			
Summary of Times					
Arrived at Site	4/7/2025 7:14 AM				
Departed Site	4/7/2025 2:57 PM				

#### **Field Notes**

- 8:12 Completed JSA on arrival. Conducted safety meeting with Devon and Kelley Oilfield Services. On site to execute remediation with excavation.
- 8:19 Swept planned excavation with magnetic locator prior to ground disturbance. Identified anchor and stainless steel line on west edge of excavation. Work crew exposed stainless steel line with hand tools.
- 14:44 Original characterization depths with hand tools did not extend beyond 3 feet bgs due to refusal. Work crew used backhoe to "pothole" BH23-34 to complete vertical delineation. Final pot hole depth was 6 feet bgs. Collected samples at 4, 5, and 6 feet bgs. Field screening results for sample collected at 6 feet bgs were below NMOCD strictest criteria for chloride and TPH.
- 14:48 Work crew excavated planned area to 1 feet bgs. Field screening results for preliminary base and wall samples were below closure criteria.
- **14:51** Excavation tentatively completed. Work crew installed temporary fence. Confirmation sampling will be completed when notification clears in approximately 2 days.

#### **Next Steps & Recommendations**

1 Collect confirmation samples.

Run on 4/7/2025 11:55 PM UTC


# **Site Photos** Viewing Direction: Northwest Viewing Direction: South ALC ALCONTRACT North of wellhead facing south. Stainless steel Southeast of wellhead facing northwest. line running north from wellhead to treater. Viewing Direction: North Viewing Direction: South North of wellhead facing north. Stainless steel North of wellhead facing south. Stainless steel line running north from wellhead to treater. line running north from wellhead to treater.

Run on 4/7/2025 11:55 PM UTC





Northwest of wellhead facing east. Backhoe increased depth of BH23-34 to complete vertical delineation.

#### Viewing Direction: Northwest



Northeast of wellhead facing northwest. Excavation to 1 feet bgs.



Northwest of wellhead facing northeast. Excavation to 1 feet bgs.



Northeast of wellhead facing southwest. Excavation to 1 feet bgs.





Northwest of wellhead facing southeast. Excavation to 1 feet bgs.



Northeast of wellhead facing west.



#### **Daily Site Visit Signature**

Inspector: Lakin Pullman Signature:

Run on 4/7/2025 11:55 PM UTC

•



Client:	Devon Energy Corporation	Inspection Date:	4/10/2025
Site Location Name:	Thistle Unit 10 CTB	Report Run Date:	4/10/2025 9:26 PM
Client Contact Name:	Jim Raley	API #:	
Client Contact Phone #:	575-748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
Summary of Times			
Arrived at Site	4/10/2025 7:50 AM		
Departed Site	4/10/2025 12:11 PM		

#### **Field Notes**

8:14 Completed JSA on arrival. On site to collect confirmation samples from excavation to 1 feet bgs.

**8:15** Swept excavation base and walls with magnetic locator prior to sample collection.

**8:52** Mapped excavation and confirmation sampling locations in ArcGIS.

**10:53** Collected confirmation samples from surfaces of excavation to 1 feet bgs. Confirmation samples collected from the excavation base and walls were 5-point composites representing areas no greater than 200 square feet.

- **11:51** Collected excavation wall confirmation samples WS25-01 and WS25-02 from 0 to 1 feet bgs. Field screening results were below NMOCD strictest criteria for chloride and TPH.
- **11:53** Collected excavation base confirmation samples BS25-01 and BS25-02 at 1 feet bgs. Field screening results for chloride and TPH were below closure criteria for DTGW between 51 and 100 feet bgs.

#### **Next Steps & Recommendations**

1 Submit confirmation samples to laboratory for analyses.



# **Site Photos** Viewing Direction: Northwest Viewing Direction: Southeast à 🔳 📕 Northwest corner of excavation to 1 feet bgs Southeast of wellhead facing northwest. facing southeast. Viewing Direction: East Viewing Direction: Northeast West edge of excavation to 1 feet bgs facing Southwest corner of excavation to 1 feet bgs facing northeast. east.

Run on 4/10/2025 9:26 PM UTC









North of excavation to 1 feet bgs facing south.



#### **Daily Site Visit Signature**

Inspector: Lakin Pullman

Signature:



•



Client:	Devon Energy Corporation	Incident ID #:	nRM1933052987	
Site Location Name:	Thistle Unit 10 CTB			
Inspection Date:	5/22/2025	_		
		Summary o	f Times	
Arrived at Site	5/22/2025 6:54 AM			
Departed Site	5/22/2025 4:54 PM			

#### **Field Notes**

- 7:11 Completed JSA on arrival. On site to collect confirmation samples from undisturbed area of impact.
- **7:28** Swept mapped area of impact with magnetic locator prior to sample collection. Samples samples will be collected from the pad surface.
- **15:38** Blue dye present on portions of pad and sampling area. Possibly marking herbicide treatment. Sample grabs from these areas were collected after scraping dyed surface away.
- **15:34** Collected confirmation samples BS25-03 through BS25-20 from surface of pad (0 feet bgs). Confirmation samples collected from the surface were 5-point composites representing areas no greater than 400 square feet per variance approved by NMOCD.
- **16:28** Field screening results for all samples below NMOCD closure criteria for depth to groundwater between 51 and 100 feet bgs.

#### **Next Steps & Recommendations**

**1** Submit samples to laboratory for analyses.

2 Collect remaining 8 confirmation samples.



# **Site Photos** Viewing Direction: Northwest Viewing Direction: North Southeast of wellhead facing northwest. Southwest of wellhead facing north. Scraped dyed soil away before collecting sample grabs. Viewing Direction: South Viewing Direction: West North of containment facing south. Collected North of containment facing west. Collected BS25-03 and BS25-04 north of containment. BS25-03 and BS25-04 north of containment.

Run on 5/23/2025 1:35 AM UTC





Northwest of containment facing south. Collected BS25-05, BS25-06, and BS25-07 northwest of containment.



West of containment facing northwest. Collected BS25-08 through BS25-12 west of containment.



West of containment facing northeast. Collected BS25-06 west of containment.



Southwest of wellhead facing southeast. Collected BS25-08 through BS25-12 west of containment.





Run on 5/23/2025 1:35 AM UTC



#### **Daily Site Visit Signature**

Inspector: Lakin Pullman

Signature:

•



Client:	Devon Energy Corporation	Incident ID #:	NRM1933052987	
Site Location Name:	Thistle Unit 10 CTB	API #:		
Inspection Date:	5/23/2025	_		
Summary of Times				
Arrived at Site	5/23/2025 7:03 AM			
Departed Site	5/23/2025 11:36 AM			

#### **Field Notes**

7:12 Completed JSA on arrival. On site to collect remaining confirmation samples from historical impact area on pad surface.

**7:33** Swept sampling area with magnetic locator prior to sample collection.

**11:08** Collected confirmation samples BS25-21 through BS25-30 from surface of pad (0 feet bgs). Confirmation samples collected from the surface were 5-point composites representing areas no greater than 400 square feet per variance approved by NMOCD.

**11:19** Field screening results for all confirmation samples were below NMOCD closure criteria for depth to groundwater between 51 and 100 feet bgs.

**11:32** Confirmation sampling completed pending laboratory results.

#### Next Steps & Recommendations

**1** Send confirmation samples to laboratory for analyses.



# Site Photos Viewing Direction: Northwest Viewing Direction: Northwest Viewing Direction: Northwest Southeast of wellhead facing northwest. Southeast of wellhead facing north. Collected

Run on 5/23/2025 8:40 PM UTC

confirmation samples from impact area on

north side of pad.





confirmation samples from impact area on north side of pad.

Run on 5/23/2025 8:40 PM UTC

north side of pad.





North side of pad facing south. Collected confirmation samples from impact area on north side of pad.

#### Viewing Direction: Southeast



North side of pad facing southeast. Collected confirmation samples from impact area on north side of pad.



North side of pad facing east. Collected confirmation samples from impact area on north side of pad.



#### **Daily Site Visit Signature**

Inspector: Lakin Pullman

Signature: Signature

•

### **APPENDIX D – Notifications**

From:	<u>Dhugal Hanton</u>
То:	Enviro, OCD, EMNRD; tom.bynum@dvn.com; wesley.mathews@dvn.com; Lupe.Carrasco@dvn.com;
	amanda.davis@dvn.com
Subject:	[EXT] NRM1933052987: Thistle Unit 10 CTB Confirmatory Sampling and Liner Inspection
Date:	Wednesday, August 26, 2020 7:34:12 PM

All,

Please accept this email as 48-hr notification that Vertex Resource Services has scheduled final confirmatory sampling and a liner inspection to be conducted at Thistle Unit 10 CTB for the release that occurred on August 30, 2019, incident #NRM1933052987 (1RP-5786).

This work will be completed on behalf of Devon Energy Production Company.

On Monday, August 31, 2020 at approximately 9:00 a.m., Kevin Smith of Vertex will be onsite to conduct the liner inspection and final confirmatory sampling. He can be reached at 575-988-0871. 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 505-506-0040.

Thank you, Natalie

#### Natalie Gordon

Project Manager

Vertex Resource Group Ltd. 213 S. Mesa Street Carlsbad, NM 88220

P 575.725.5001 ext 709 C 505.506.0040

#### www.vertex.ca

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General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

Page 94eof 374 QUESTIONS

Action 449435

QUESTIONS		
	OGRID:	
DUCTION COMPANY, LP	6137	
	Action Number:	

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	449435
	Action Type:
	[NOTIFY] Notification Of Sampling (C-141N)

#### QUESTIONS

Location of Release Source

Prerequisites	
Incident ID (n#)	nRM1933052987
Incident Name	NRM1933052987 THISTLE UNIT 10 CTB @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved
Incident Facility	[fAPP2130647365] THISTLE UNIT 10 BATTERY

Site Name	THISTLE UNIT 10 CTB
Date Release Discovered	08/30/2019
Surface Owner	State

#### Sampling Event General Information Please answer all the questions in this group. What is the sampling surface area in square feet 325 What is the estimated number of samples that will be gathered 4 Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 04/10/2025 19.15.29.12 NMAC Time sampling will commence 09:00 AM Please provide any information necessary for observers to contact samplers Lakin Pullman 701-495-1722, Kent Stallings 346-814-1413 FROM 128 AND BRENEN STOOL RD HEAD N 4.2MI TURN R ON CR2A E 1.1MI TURN L/N Please provide any information necessary for navigation to sampling site .1MI TURN L/W .2MI TO GPS

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	449435
	Action Type:
	[NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS		
Created By	Condition	Condition Date
jraley	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	4/8/2025

CONDITIONS

Action 449435

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

QUESTIONS

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	464773
	Action Type:
	[NOTIEY] Notification Of Sampling (C-141N)

#### QUESTIONS

Location of Release Source

Prerequisites	
Incident ID (n#)	nRM1933052987
Incident Name	NRM1933052987 THISTLE UNIT 10 CTB @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved
Incident Facility	[fAPP2130647365] THISTLE UNIT 10 BATTERY

Site Name	THISTLE UNIT 10 CTB				
Date Release Discovered	08/30/2019				
Surface Owner	State				

#### Sampling Event General Information Please answer all the questions in this group. What is the sampling surface area in square feet 10,808 What is the estimated number of samples that will be gathered 20 Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 05/22/2025 19.15.29.12 NMAC Time sampling will commence 08:00 AM Please provide any information necessary for observers to contact samplers Sally Carttar (scarttar@vertexresource.com, 575.361.3561) From the intersection of NM128 and Brininstool Rd, head North on Brininstool Rd for 4.2 Please provide any information necessary for navigation to sampling site miles. Turn right on CR 2-A and proceed East for 1.1 miles. Turn left and proceed North for .1 miles. Turn left and procees west for .2 miles and arrive.

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	464773
	Action Type:
	[NOTIFY] Notification Of Sampling (C-141N)

CONDIT	ONS	
Created By	Condition	Condition Date
jraley	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	5/19/2025

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Action 464773

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

QUESTIONS

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Action 464776

QUESTIONS

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	464776
	Action Type:
	[NOTIFY] Notification Of Sampling (C-141N)

#### QUESTIONS

Location of Release Source

Prerequisites	
Incident ID (n#)	nRM1933052987
Incident Name	NRM1933052987 THISTLE UNIT 10 CTB @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved
Incident Facility	[fAPP2130647365] THISTLE UNIT 10 BATTERY

Site Name	THISTLE UNIT 10 CTB				
Date Release Discovered	08/30/2019				
Surface Owner	State				

#### Sampling Event General Information Please answer all the questions in this group. What is the sampling surface area in square feet 10,808 What is the estimated number of samples that will be gathered 20 Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 05/23/2025 19.15.29.12 NMAC Time sampling will commence 08:00 AM Please provide any information necessary for observers to contact samplers Sally Carttar (scarttar@vertexresource.com, 575.361.3561) From the intersection of NM128 and Brininstool Rd, head North on Brininstool Rd for 4.2 Please provide any information necessary for navigation to sampling site miles. Turn right on CR 2-A and proceed East for 1.1 miles. Turn left and proceed North for .1 miles. Turn left and procees west for .2 miles and arrive.

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	464776
	Action Type:
	[NOTIFY] Notification Of Sampling (C-141N)

CONDITI	ONS	
Created By	Condition	Condition Date
jraley	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	5/19/2025

CONDITIONS

Action 464776

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#### RE: [EXTERNAL] nRM1933052987 Sampling Variance Request

From Buchanan, Michael, EMNRD < Michael.Buchanan@emnrd.nm.gov>

Date Mon 5/19/2025 9:18 AM

- To Sally Carttar <SCarttar@vertexresource.com>
- Cc Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Raley, Jim <jim.raley@dvn.com>; Kent Stallings <kstallings@vertexresource.com>

**Caution:** This email is from an external sender. Please take care when clicking links or opening attachments. When in doubt, contact your IT Department

Good morning, Ms. Carttar

The request to collect surface samples every 400 sq. ft. at the Thistle Unit 10 Battery, incident ID nRM1933052987 is approved. The incident file has been updated to reflect this for the record.

Thank you,

Mike Buchanan • Environmental Specialist Environmental Bureau EMNRD - Oil Conservation Division 5200 Oakland Ave NE, Suite B | Albuquerque, NM 87113 505.490.0798 | michael.buchanan@emnrd.nm.gov http://www.emnrd.nm.gov/ocd\_



From: Sally Carttar <<u>SCarttar@vertexresource.com</u>>
Sent: Monday, May 19, 2025 7:52 AM
To: Enviro, OCD, EMNRD <<u>OCD.Enviro@emnrd.nm.gov</u>>
Cc: Raley, Jim <<u>Jim.Raley@dvn.com</u>>; Kent Stallings <<u>kstallings@vertexresource.com</u>>
Subject: [EXTERNAL] nRM1933052987 Sampling Variance Request

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

Good morning,

Devon is requesting a 400 sq.ft. sampling variance for surface samples at the Thistle Unit 10 Battery, incident ID nRM1933052987. The remaining sampling area is approximately 10,808 square feet, all of which is on-pad and was shown during delineation to meet on-pad criteria. Samples of all excavation areas have already been collected, and are each representative of no more than 200 sq.ft.

All samples will be analyzed at an accredited laboratory to ensure that all samples are below NMOCD closure criteria for a release 51-100 feet depth to groundwater.

I have attached the remediation plan for the release.

Best regards,

#### Sally Carttar

Project Manager

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

#### C 575.361.3561

#### <u>www.vertex.ca</u> [webpage]Connect with LinkedIn

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# **APPENDIX E – Laboratory Data Reports and Chain of Custody Forms**



November 02, 2023

Kent Stallings Devon Energy 6488 Seven Rivers Highway Artesia, NM 88210 TEL: (505) 350-1336 FAX:

RE: Thistle Unit 10 Battery

OrderNo.: 2310A65

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 20 sample(s) on 10/21/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310A65

Date Reported: 11/2/2023

#### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-01 0' Collection Date: 10/19/2023 9:35:00 AM **Received Date:** 10/21/2023 8:00:00 AM

Lab ID: 2310A65-001	Matrix: SOIL	Received Date: 10/21/2023 8:00:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: PRD	
Diesel Range Organics (DRO)	ND	8.8	mg/Kg	1	10/24/2023 7:34:17 PM	
Motor Oil Range Organics (MRO)	ND	44	mg/Kg	1	10/24/2023 7:34:17 PM	
Surr: DNOP	87.8	69-147	%Rec	1	10/24/2023 7:34:17 PM	
EPA METHOD 8015D: GASOLINE RA	ANGE				Analyst: KMN	
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/24/2023 6:06:00 PM	
Surr: BFB	100	15-244	%Rec	1	10/24/2023 6:06:00 PM	
EPA METHOD 8021B: VOLATILES					Analyst: KMN	
Benzene	ND	0.023	mg/Kg	1	10/24/2023 6:06:00 PM	
Toluene	ND	0.047	mg/Kg	1	10/24/2023 6:06:00 PM	
Ethylbenzene	ND	0.047	mg/Kg	1	10/24/2023 6:06:00 PM	
Xylenes, Total	ND	0.094	mg/Kg	1	10/24/2023 6:06:00 PM	
Surr: 4-Bromofluorobenzene	88.2	39.1-146	%Rec	1	10/24/2023 6:06:00 PM	
EPA METHOD 300.0: ANIONS					Analyst: SNS	
Chloride	74	60	mg/Kg	20	10/25/2023 9:07:05 PM	

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

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. 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

\*

Thistle Unit 10 Battery

**Project:** 

Analytical Report Lab Order 2310A65

Date Reported: 11/2/2023

#### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-01 2' Collection Date: 10/19/2023 9:40:00 AM Received Date: 10/21/2023 8:00:00 AM

Lab ID: 2310A65-002	Matrix: SOIL	Received Date: 10/21/2023 8:00:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: PRD	
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	10/24/2023 7:44:57 PM	
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	10/24/2023 7:44:57 PM	
Surr: DNOP	98.7	69-147	%Rec	1	10/24/2023 7:44:57 PM	
EPA METHOD 8015D: GASOLINE RA	ANGE				Analyst: <b>KMN</b>	
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/24/2023 6:28:00 PM	
Surr: BFB	103	15-244	%Rec	1	10/24/2023 6:28:00 PM	
EPA METHOD 8021B: VOLATILES					Analyst: <b>KMN</b>	
Benzene	ND	0.024	mg/Kg	1	10/24/2023 6:28:00 PM	
Toluene	ND	0.048	mg/Kg	1	10/24/2023 6:28:00 PM	
Ethylbenzene	ND	0.048	mg/Kg	1	10/24/2023 6:28:00 PM	
Xylenes, Total	ND	0.096	mg/Kg	1	10/24/2023 6:28:00 PM	
Surr: 4-Bromofluorobenzene	90.2	39.1-146	%Rec	1	10/24/2023 6:28:00 PM	
EPA METHOD 300.0: ANIONS					Analyst: SNS	
Chloride	ND	60	mg/Kg	20	10/25/2023 9:19:30 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

D Sample Diluted Due to Matrix
 H Holding times for preparation or analysis exceeds

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

\*

Thistle Unit 10 Battery

2310A65-003

**Project:** 

Lab ID:

**Analytical Report** Lab Order 2310A65

Date Reported: 11/2/2023

#### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-02 0' Collection Date: 10/19/2023 9:45:00 AM

Received Date: 10/21/2023 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	RGANICS				Analyst: PRD
Diesel Range Organics (DRO)	12	9.4	mg/Kg	1	10/24/2023 7:55:42 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	10/24/2023 7:55:42 PM
Surr: DNOP	95.5	69-147	%Rec	1	10/24/2023 7:55:42 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/24/2023 6:49:00 PM
Surr: BFB	106	15-244	%Rec	1	10/24/2023 6:49:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	10/24/2023 6:49:00 PM
Toluene	ND	0.047	mg/Kg	1	10/24/2023 6:49:00 PM
Ethylbenzene	ND	0.047	mg/Kg	1	10/24/2023 6:49:00 PM
Xylenes, Total	ND	0.094	mg/Kg	1	10/24/2023 6:49:00 PM
Surr: 4-Bromofluorobenzene	88.7	39.1-146	%Rec	1	10/24/2023 6:49:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	740	60	mg/Kg	20	10/25/2023 9:31:54 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
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

\*

Thistle Unit 10 Battery

2310A65-004

**Project:** 

Lab ID:

**Analytical Report** Lab Order 2310A65

#### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/2/2023

Client Sample ID: BH23-02 2' Collection Date: 10/19/2023 9:50:00 AM Received Date: 10/21/2023 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANGE C	RGANICS				Analyst: PRD	
Diesel Range Organics (DRO)	ND	9.0	mg/Kg	1	10/24/2023 8:06:24 PM	
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	10/24/2023 8:06:24 PM	
Surr: DNOP	97.1	69-147	%Rec	1	10/24/2023 8:06:24 PM	
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN	
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/24/2023 7:11:00 PM	
Surr: BFB	104	15-244	%Rec	1	10/24/2023 7:11:00 PM	
EPA METHOD 8021B: VOLATILES					Analyst: KMN	
Benzene	ND	0.023	mg/Kg	1	10/24/2023 7:11:00 PM	
Toluene	ND	0.047	mg/Kg	1	10/24/2023 7:11:00 PM	
Ethylbenzene	ND	0.047	mg/Kg	1	10/24/2023 7:11:00 PM	
Xylenes, Total	ND	0.094	mg/Kg	1	10/24/2023 7:11:00 PM	
Surr: 4-Bromofluorobenzene	89.2	39.1-146	%Rec	1	10/24/2023 7:11:00 PM	
EPA METHOD 300.0: ANIONS					Analyst: SNS	
Chloride	450	60	mg/Kg	20	10/25/2023 10:33:55 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
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

\*

Thistle Unit 10 Battery

2310A65-005

**Project:** 

Lab ID:

**Analytical Report** Lab Order 2310A65

Date Reported: 11/2/2023

#### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-03 0' Collection Date: 10/19/2023 9:55:00 AM

Received Date: 10/21/2023 8:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS				Analyst: PRD	
Diesel Range Organics (DRO)	20	9.1	mg/Kg	1	10/24/2023 8:17:06 PM
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	10/24/2023 8:17:06 PM
Surr: DNOP	87.0	69-147	%Rec	1	10/24/2023 8:17:06 PM
EPA METHOD 8015D: GASOLINE RANGE				Analyst: KMN	
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	10/24/2023 7:33:00 PM
Surr: BFB	106	15-244	%Rec	1	10/24/2023 7:33:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.025	mg/Kg	1	10/24/2023 7:33:00 PM
Toluene	ND	0.049	mg/Kg	1	10/24/2023 7:33:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	10/24/2023 7:33:00 PM
Xylenes, Total	ND	0.099	mg/Kg	1	10/24/2023 7:33:00 PM
Surr: 4-Bromofluorobenzene	91.1	39.1-146	%Rec	1	10/24/2023 7:33:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	1600	60	mg/Kg	20	10/25/2023 11:11:09 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
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

\*
Thistle Unit 10 Battery

2310A65-006

**Project:** 

Lab ID:

**Analytical Report** Lab Order 2310A65

Date Reported: 11/2/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-03 2' Collection Date: 10/19/2023 10:00:00 AM

Received Date: 10/21/2023 8:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	RGANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	10/24/2023 8:27:47 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	10/24/2023 8:27:47 PM
Surr: DNOP	98.6	69-147	%Rec	1	10/24/2023 8:27:47 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>KMN</b>
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/24/2023 7:54:00 PM
Surr: BFB	106	15-244	%Rec	1	10/24/2023 7:54:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: <b>KMN</b>
Benzene	ND	0.024	mg/Kg	1	10/24/2023 7:54:00 PM
Toluene	ND	0.047	mg/Kg	1	10/24/2023 7:54:00 PM
Ethylbenzene	ND	0.047	mg/Kg	1	10/24/2023 7:54:00 PM
Xylenes, Total	ND	0.094	mg/Kg	1	10/24/2023 7:54:00 PM
Surr: 4-Bromofluorobenzene	91.0	39.1-146	%Rec	1	10/24/2023 7:54:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	790	60	mg/Kg	20	10/25/2023 11:23:34 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
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

\*

Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310A65

Date Reported: 11/2/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-04 0' Collection Date: 10/19/2023 10:05:00 AM **Received Date:** 10/21/2023 8:00:00 AM

Lab ID: 2310A65-007	Matrix: SOIL	Matrix: SOIL         Received Date: 10/21/2023 8:0				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: PRD	
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	10/24/2023 9:06:47 AM	
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	10/24/2023 9:06:47 AM	
Surr: DNOP	97.0	69-147	%Rec	1	10/24/2023 9:06:47 AM	
EPA METHOD 8015D: GASOLINE RA	ANGE				Analyst: JJP	
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	10/24/2023 11:32:40 AM	
Surr: BFB	96.5	15-244	%Rec	1	10/24/2023 11:32:40 AM	
EPA METHOD 8021B: VOLATILES					Analyst: JJP	
Benzene	ND	0.025	mg/Kg	1	10/24/2023 11:32:40 AM	
Toluene	ND	0.049	mg/Kg	1	10/24/2023 11:32:40 AM	
Ethylbenzene	ND	0.049	mg/Kg	1	10/24/2023 11:32:40 AM	
Xylenes, Total	ND	0.099	mg/Kg	1	10/24/2023 11:32:40 AM	
Surr: 4-Bromofluorobenzene	103	39.1-146	%Rec	1	10/24/2023 11:32:40 AM	
EPA METHOD 300.0: ANIONS					Analyst: SNS	
Chloride	ND	60	mg/Kg	20	10/25/2023 11:35:59 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
- 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

\*

Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310A65

Date Reported: 11/2/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-04 2' Collection Date: 10/19/2023 10:10:00 AM Received Date: 10/21/2023 8:00:00 AM

Lab ID: 2310A65-008	Matrix: SOIL	Rece	2023 8:00:00 AM		
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	ANGE ORGANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	10/24/2023 9:38:34 AM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	10/24/2023 9:38:34 AM
Surr: DNOP	110	69-147	%Rec	1	10/24/2023 9:38:34 AM
EPA METHOD 8015D: GASOLINE R	ANGE				Analyst: <b>JJP</b>
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	10/24/2023 11:55:58 AM
Surr: BFB	96.4	15-244	%Rec	1	10/24/2023 11:55:58 AM
EPA METHOD 8021B: VOLATILES					Analyst: <b>JJP</b>
Benzene	ND	0.025	mg/Kg	1	10/24/2023 11:55:58 AM
Toluene	ND	0.050	mg/Kg	1	10/24/2023 11:55:58 AM
Ethylbenzene	ND	0.050	mg/Kg	1	10/24/2023 11:55:58 AM
Xylenes, Total	ND	0.10	mg/Kg	1	10/24/2023 11:55:58 AM
Surr: 4-Bromofluorobenzene	103	39.1-146	%Rec	1	10/24/2023 11:55:58 AM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	ND	60	mg/Kg	20	10/25/2023 11:48:23 PM

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

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level. 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
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

\*

Thistle Unit 10 Battery

2310A65-009

**Project:** 

Lab ID:

**Analytical Report** Lab Order 2310A65

Date Reported: 11/2/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-05 0' Collection Date: 10/19/2023 10:15:00 AM

Received Date: 10/21/2023 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	10/24/2023 9:50:23 AM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	10/24/2023 9:50:23 AM
Surr: DNOP	117	69-147	%Rec	1	10/24/2023 9:50:23 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/24/2023 12:19:21 PM
Surr: BFB	95.0	15-244	%Rec	1	10/24/2023 12:19:21 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	10/24/2023 12:19:21 PM
Toluene	ND	0.048	mg/Kg	1	10/24/2023 12:19:21 PM
Ethylbenzene	ND	0.048	mg/Kg	1	10/24/2023 12:19:21 PM
Xylenes, Total	ND	0.097	mg/Kg	1	10/24/2023 12:19:21 PM
Surr: 4-Bromofluorobenzene	102	39.1-146	%Rec	1	10/24/2023 12:19:21 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	84	60	mg/Kg	20	10/26/2023 12:00:47 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. 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

\*

Thistle Unit 10 Battery

2310A65-010

**Project:** 

Lab ID:

**Analytical Report** Lab Order 2310A65

Date Reported: 11/2/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-05 2' Collection Date: 10/19/2023 10:20:00 AM Received Date: 10/21/2023 8:00:00 AM

Analyses	Result	RL (	Qual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	Analyst: PRD				
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	10/24/2023 10:01:00 AM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	10/24/2023 10:01:00 AM
Surr: DNOP	91.2	69-147	%Rec	1	10/24/2023 10:01:00 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/24/2023 12:42:46 PM
Surr: BFB	95.9	15-244	%Rec	1	10/24/2023 12:42:46 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	10/24/2023 12:42:46 PM
Toluene	ND	0.048	mg/Kg	1	10/24/2023 12:42:46 PM
Ethylbenzene	ND	0.048	mg/Kg	1	10/24/2023 12:42:46 PM
Xylenes, Total	ND	0.097	mg/Kg	1	10/24/2023 12:42:46 PM
Surr: 4-Bromofluorobenzene	103	39.1-146	%Rec	1	10/24/2023 12:42:46 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	99	60	mg/Kg	20	10/26/2023 12:38:00 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. 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

\*

Thistle Unit 10 Battery

Project:

**Analytical Report** Lab Order 2310A65

Date Reported: 11/2/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-06 0' Collection Date: 10/19/2023 10:25:00 AM **Deceived Deter** 10/21/2022 8:00:00 AM

Lab ID: 2310A65-011	Matrix: SOIL	Rece	<b>Received Date:</b> 10/21/2023 8:00:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed		
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: PRD		
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	10/24/2023 10:11:39 AM		
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	10/24/2023 10:11:39 AM		
Surr: DNOP	101	69-147	%Rec	1	10/24/2023 10:11:39 AM		
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst: JJP		
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/24/2023 1:06:06 PM		
Surr: BFB	95.9	15-244	%Rec	1	10/24/2023 1:06:06 PM		
EPA METHOD 8021B: VOLATILES					Analyst: JJP		
Benzene	ND	0.024	mg/Kg	1	10/24/2023 1:06:06 PM		
Toluene	ND	0.048	mg/Kg	1	10/24/2023 1:06:06 PM		
Ethylbenzene	ND	0.048	mg/Kg	1	10/24/2023 1:06:06 PM		
Xylenes, Total	ND	0.096	mg/Kg	1	10/24/2023 1:06:06 PM		
Surr: 4-Bromofluorobenzene	102	39.1-146	%Rec	1	10/24/2023 1:06:06 PM		
EPA METHOD 300.0: ANIONS					Analyst: SNS		
Chloride	120	60	mg/Kg	20	10/26/2023 12:50:25 AM		

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

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level. 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
- Е Above Quantitation Range/Estimated Value J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Thistle Unit 10 Battery

2310A65-012

**Project:** 

Lab ID:

**Analytical Report** Lab Order 2310A65

Date Reported: 11/2/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-06 2' Collection Date: 10/19/2023 10:30:00 AM Received Date: 10/21/2023 8:00:00 AM

Analyses	Result	RL Qua	l Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	10/24/2023 10:22:18 AM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	10/24/2023 10:22:18 AM
Surr: DNOP	126	69-147	%Rec	1	10/24/2023 10:22:18 AM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/24/2023 1:29:33 PM
Surr: BFB	96.8	15-244	%Rec	1	10/24/2023 1:29:33 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.023	mg/Kg	1	10/24/2023 1:29:33 PM
Toluene	ND	0.047	mg/Kg	1	10/24/2023 1:29:33 PM
Ethylbenzene	ND	0.047	mg/Kg	1	10/24/2023 1:29:33 PM
Xylenes, Total	ND	0.094	mg/Kg	1	10/24/2023 1:29:33 PM
Surr: 4-Bromofluorobenzene	104	39.1-146	%Rec	1	10/24/2023 1:29:33 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	ND	60	mg/Kg	20	10/26/2023 1:02:50 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. 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

\*

Thistle Unit 10 Battery

2310A65-013

**Project:** 

Lab ID:

**Analytical Report** Lab Order 2310A65

Date Reported: 11/2/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-07 0' Collection Date: 10/19/2023 10:35:00 AM Received Date: 10/21/2023 8:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: PRD	
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	10/24/2023 10:32:58 AM	
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	10/24/2023 10:32:58 AM	
Surr: DNOP	76.8	69-147	%Rec	1	10/24/2023 10:32:58 AM	
EPA METHOD 8015D: GASOLINE RANGE	i i				Analyst: JJP	
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/24/2023 1:52:54 PM	
Surr: BFB	94.1	15-244	%Rec	1	10/24/2023 1:52:54 PM	
EPA METHOD 8021B: VOLATILES					Analyst: JJP	
Benzene	ND	0.024	mg/Kg	1	10/24/2023 1:52:54 PM	
Toluene	ND	0.047	mg/Kg	1	10/24/2023 1:52:54 PM	
Ethylbenzene	ND	0.047	mg/Kg	1	10/24/2023 1:52:54 PM	
Xylenes, Total	ND	0.094	mg/Kg	1	10/24/2023 1:52:54 PM	
Surr: 4-Bromofluorobenzene	102	39.1-146	%Rec	1	10/24/2023 1:52:54 PM	
EPA METHOD 300.0: ANIONS					Analyst: SNS	
Chloride	190	60	mg/Kg	20	10/26/2023 1:15:16 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. 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

\*

Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310A65

Date Reported: 11/2/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-07 2' Collection Date: 10/19/2023 10:40:00 AM **Received Date:** 10/21/2023 8:00:00 AM

Lab ID: 2310A65-014	Matrix: SOIL	Rec	<b>Received Date:</b> 10/21/2023 8:00:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed		
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: PRD		
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	10/24/2023 10:54:19 AM		
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	10/24/2023 10:54:19 AM		
Surr: DNOP	120	69-147	%Rec	1	10/24/2023 10:54:19 AM		
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: <b>JJP</b>		
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	10/24/2023 2:16:18 PM		
Surr: BFB	96.7	15-244	%Rec	1	10/24/2023 2:16:18 PM		
EPA METHOD 8021B: VOLATILES					Analyst: <b>JJP</b>		
Benzene	ND	0.025	mg/Kg	1	10/24/2023 2:16:18 PM		
Toluene	ND	0.049	mg/Kg	1	10/24/2023 2:16:18 PM		
Ethylbenzene	ND	0.049	mg/Kg	1	10/24/2023 2:16:18 PM		
Xylenes, Total	ND	0.098	mg/Kg	1	10/24/2023 2:16:18 PM		
Surr: 4-Bromofluorobenzene	104	39.1-146	%Rec	1	10/24/2023 2:16:18 PM		
EPA METHOD 300.0: ANIONS					Analyst: SNS		
Chloride	ND	60	mg/Kg	20	10/26/2023 1:27:40 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
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

\*

Thistle Unit 10 Battery

2310A65-015

**Project:** 

Lab ID:

**Analytical Report** Lab Order 2310A65

Date Reported: 11/2/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-08 0' Collection Date: 10/19/2023 10:45:00 AM

Received Date: 10/21/2023 8:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	RGANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	10/24/2023 11:05:01 AM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	10/24/2023 11:05:01 AM
Surr: DNOP	85.5	69-147	%Rec	1	10/24/2023 11:05:01 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>JJP</b>
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/24/2023 2:39:47 PM
Surr: BFB	95.1	15-244	%Rec	1	10/24/2023 2:39:47 PM
EPA METHOD 8021B: VOLATILES					Analyst: <b>JJP</b>
Benzene	ND	0.024	mg/Kg	1	10/24/2023 2:39:47 PM
Toluene	ND	0.048	mg/Kg	1	10/24/2023 2:39:47 PM
Ethylbenzene	ND	0.048	mg/Kg	1	10/24/2023 2:39:47 PM
Xylenes, Total	ND	0.096	mg/Kg	1	10/24/2023 2:39:47 PM
Surr: 4-Bromofluorobenzene	101	39.1-146	%Rec	1	10/24/2023 2:39:47 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	1100	60	mg/Kg	20	10/26/2023 1:40:05 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. 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

\*

**Project:** Thistle Unit 10 Battery

Analytical Report Lab Order 2310A65

Date Reported: 11/2/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-08 2' Collection Date: 10/19/2023 10:50:00 AM

Lab ID: 2310A65-016	Matrix: SOIL	Matrix: SOIL         Received Date: 10/21/2023 8:00:0			
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	10/24/2023 11:15:44 AM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	10/24/2023 11:15:44 AM
Surr: DNOP	100	69-147	%Rec	1	10/24/2023 11:15:44 AM
EPA METHOD 8015D: GASOLINE R	ANGE				Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	10/24/2023 3:03:11 PM
Surr: BFB	94.6	15-244	%Rec	1	10/24/2023 3:03:11 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	10/24/2023 3:03:11 PM
Toluene	ND	0.049	mg/Kg	1	10/24/2023 3:03:11 PM
Ethylbenzene	ND	0.049	mg/Kg	1	10/24/2023 3:03:11 PM
Xylenes, Total	ND	0.098	mg/Kg	1	10/24/2023 3:03:11 PM
Surr: 4-Bromofluorobenzene	102	39.1-146	%Rec	1	10/24/2023 3:03:11 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	220	60	mg/Kg	20	10/26/2023 1:52:29 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
- 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

Thistle Unit 10 Battery

2310A65-017

**Project:** 

Lab ID:

**Analytical Report** Lab Order 2310A65

Date Reported: 11/2/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-09 0' Collection Date: 10/19/2023 10:55:00 AM Received Date: 10/21/2023 8:00:00 AM

23101103 017	Matrix: 5012	nect					
Analyses	Result	RL Qu	al Units	DF	Date Analyzed		
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS				Analyst: PRD		
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	10/24/2023 11:26:27 AM		
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	10/24/2023 11:26:27 AM		
Surr: DNOP	87.8	69-147	%Rec	1	10/24/2023 11:26:27 AM		
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst: JJP		
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	10/24/2023 3:49:54 PM		
Surr: BFB	93.9	15-244	%Rec	1	10/24/2023 3:49:54 PM		
EPA METHOD 8021B: VOLATILES					Analyst: JJP		
Benzene	ND	0.025	mg/Kg	1	10/24/2023 3:49:54 PM		
Toluene	ND	0.049	mg/Kg	1	10/24/2023 3:49:54 PM		
Ethylbenzene	ND	0.049	mg/Kg	1	10/24/2023 3:49:54 PM		
Xylenes, Total	ND	0.098	mg/Kg	1	10/24/2023 3:49:54 PM		
Surr: 4-Bromofluorobenzene	101	39.1-146	%Rec	1	10/24/2023 3:49:54 PM		
EPA METHOD 300.0: ANIONS					Analyst: SNS		
Chloride	170	60	mg/Kg	20	10/26/2023 2:04:54 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. 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

\*

Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310A65

Date Reported: 11/2/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-09 2' Collection Date: 10/19/2023 11:00:00 AM Received Date: 10/21/2023 8:00:00 AM

Lab ID: 2310A65-018	Matrix: SOIL	Rece	eived Date:	10/21/	/2023 8:00:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	10/24/2023 11:37:13 AM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	10/24/2023 11:37:13 AM
Surr: DNOP	77.5	69-147	%Rec	1	10/24/2023 11:37:13 AM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	10/24/2023 4:13:22 PM
Surr: BFB	96.2	15-244	%Rec	1	10/24/2023 4:13:22 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	10/24/2023 4:13:22 PM
Toluene	ND	0.049	mg/Kg	1	10/24/2023 4:13:22 PM
Ethylbenzene	ND	0.049	mg/Kg	1	10/24/2023 4:13:22 PM
Xylenes, Total	ND	0.097	mg/Kg	1	10/24/2023 4:13:22 PM
Surr: 4-Bromofluorobenzene	103	39.1-146	%Rec	1	10/24/2023 4:13:22 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	150	60	mg/Kg	20	10/26/2023 2:17:18 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
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

\*

Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310A65

Date Reported: 11/2/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-10 0' Collection Date: 10/19/2023 11:05:00 AM Received Date: 10/21/2023 8:00:00 AM

Lab ID: 2310A65-019	Matrix: SOIL	<b>Received Date:</b> 10/21/2023 8:00:00 AM						
Analyses	Result	RL Qu	ual Units	DF	Date Analyzed			
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: PRD			
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	10/24/2023 11:47:58 AM			
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	10/24/2023 11:47:58 AM			
Surr: DNOP	102	69-147	%Rec	1	10/24/2023 11:47:58 AM			
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: <b>JJP</b>			
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/24/2023 4:36:45 PM			
Surr: BFB	98.8	15-244	%Rec	1	10/24/2023 4:36:45 PM			
EPA METHOD 8021B: VOLATILES					Analyst: <b>JJP</b>			
Benzene	ND	0.024	mg/Kg	1	10/24/2023 4:36:45 PM			
Toluene	ND	0.048	mg/Kg	1	10/24/2023 4:36:45 PM			
Ethylbenzene	ND	0.048	mg/Kg	1	10/24/2023 4:36:45 PM			
Xylenes, Total	ND	0.096	mg/Kg	1	10/24/2023 4:36:45 PM			
Surr: 4-Bromofluorobenzene	103	39.1-146	%Rec	1	10/24/2023 4:36:45 PM			
EPA METHOD 300.0: ANIONS					Analyst: SNS			
Chloride	64	60	mg/Kg	20	10/26/2023 2:29:43 AM			

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

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level. 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

\*

Thistle Unit 10 Battery

2310A65-020

**Project:** 

Lab ID:

**Analytical Report** Lab Order 2310A65

Date Reported: 11/2/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-10 2' Collection Date: 10/19/2023 11:10:00 AM Received Date: 10/21/2023 8:00:00 AM

	Soll							
Analyses	Result	RL Qu	al Units	DF	Date Analyzed			
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: PRD			
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	10/24/2023 11:58:45 AM			
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	10/24/2023 11:58:45 AM			
Surr: DNOP	101	69-147	%Rec	1	10/24/2023 11:58:45 AM			
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: JJP			
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	10/24/2023 5:00:05 PM			
Surr: BFB	101	15-244	%Rec	1	10/24/2023 5:00:05 PM			
EPA METHOD 8021B: VOLATILES					Analyst: JJP			
Benzene	ND	0.024	mg/Kg	1	10/24/2023 5:00:05 PM			
Toluene	ND	0.049	mg/Kg	1	10/24/2023 5:00:05 PM			
Ethylbenzene	ND	0.049	mg/Kg	1	10/24/2023 5:00:05 PM			
Xylenes, Total	ND	0.097	mg/Kg	1	10/24/2023 5:00:05 PM			
Surr: 4-Bromofluorobenzene	105	39.1-146	%Rec	1	10/24/2023 5:00:05 PM			
EPA METHOD 300.0: ANIONS					Analyst: SNS			
Chloride	130	60	mg/Kg	20	10/26/2023 3:06:57 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. 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

\*

Client: Project:		n Energy e Unit 10 Battery							
Sample ID:	MB-78374	SampType: MBLK	TestCode: EPA Method	TestCode: EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID: 78374	RunNo: 100717	RunNo: 100717					
Prep Date:	10/25/2023	Analysis Date: 10/25/2023	SeqNo: 3695042	Units: mg/Kg	lg/Kg				
Analyte		Result PQL SPK val	ue SPK Ref Val %REC LowLimit	t HighLimit %RPD	RPDLimit	Qual			
Chloride		ND 1.5							
Sample ID:	LCS-78374	SampType: LCS	TestCode: EPA Method	d 300.0: Anions					
Client ID:	LCSS	Batch ID: 78374	RunNo: 100717						
Prep Date:	10/25/2023	Analysis Date: 10/25/2023	SeqNo: 3695043	Units: <b>mg/Kg</b>					
Analyte		Result PQL SPK val	ue SPK Ref Val %REC LowLimit	t HighLimit %RPD	RPDLimit	Qual			
Chloride		14 1.5 15.	0 0 91.3 90	110					

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of 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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WO#:	2310A65
	02 Mar. 22

02-Nov-23

Client: Project:	Devon En Thistle Ur		tery									
Sample ID:	2310A65-007AMS	Samp	Туре: <b>МS</b>	;	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID:	BH23-04 0'	Batc	h ID: 783	819	F	RunNo: <b>100704</b>						
Prep Date:	10/23/2023	Analysis [	Date: 10	/24/2023	S	SeqNo: 36	693042	Units: mg/K	(g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range C	)rganics (DRO)	41	9.5	47.35	0	86.3	54.2	135				
Surr: DNOP		4.8		4.735		101	69	147				
Sample ID:	2310A65-007AMSD	007AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organic:										
Client ID:	BH23-04 0'	Batc	h ID: 783	319	F	RunNo: <b>1(</b>	00704					
Prep Date:	10/23/2023	Analysis [	Date: 10	/24/2023	S	SeqNo: 36	693043	Units: <b>mg/K</b>	(g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range C	Organics (DRO)	48	9.1	45.70	0	105	54.2	135	15.9	29.2		
Surr: DNOP		5.9		4.570		129	69	147	0	0		
Sample ID:	LCS-78318	Samp	Туре: <b>LC</b>	s	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID:	LCSS	Batc	h ID: 783	318	RunNo: 100704							
Prep Date:	10/23/2023	Analysis [	Date: 10	/24/2023	SeqNo: 3693070 Units: mg/Kg							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range C	)rganics (DRO)	53	10	50.00	0	105	61.9	130				
Surr: DNOP		4.8		5.000		95.8	69	147				
Sample ID:	LCS-78319	Samp <sup>-</sup>	Туре: <b>LC</b>	s	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	Organics		
Client ID:	LCSS	Batc	h ID: 783	819	F	RunNo: 10	00704					
Prep Date:	10/23/2023	Analysis [	Date: 10	/24/2023	S	SeqNo: 36	693071	Units: mg/K	(g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range C	)rganics (DRO)	52	10	50.00	0	105	61.9	130				
Surr: DNOP		5.4		5.000		107	69	147				
Sample ID:	MB-78318	Samp <sup>-</sup>	Туре: <b>МЕ</b>	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	Organics		
Client ID:	PBS	Batc	h ID: 783	318	F	RunNo: <b>1(</b>	00704					
Prep Date:	10/23/2023	Analysis [	Date: 10	/24/2023	5	SeqNo: 36	693072	Units: mg/K	(g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range C	Organics (DRO)	ND	10									
-	e Organics (MRO)	ND	50									
Surr: DNOP		8.9		10.00		89.4	69	147				

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical 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#:	2310A65
, Inc.		02-Nov-23

Client: Project:	Devon E Thistle U	nergy Jnit 10 Bat	tery									
Sample ID:	MB-78319	Samp	Гуре: МЕ	BLK	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID:	PBS	Batc	h ID: <b>78</b> :	319	F	RunNo: <b>1(</b>	00704					
Prep Date:	10/23/2023	Analysis [	Date: 10	/24/2023	S	SeqNo: 36	693073	Units: mg/Kg	g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range (	Organics (DRO)	ND	10					0				
Motor Oil Rang	e Organics (MRO)	ND	50									
Surr: DNOP		13		10.00		133	69	147				
Sample ID:	LCS-78400	Гуре: <b>LC</b>	S	Tes	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID:	LCSS	.CSS Batch ID: 78400				RunNo: 100779						
Prep Date:	10/26/2023	Analysis [	Date: 10	/27/2023	S	697663						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP		7.3		5.000		146	69	147				
Sample ID:	MB-78400	Samp	Гуре: МЕ	BLK	Tes	tCode: EF	PA Method	8015M/D: Dies	sel Range	Organics		
Client ID:	PBS	Batc	h ID: <b>78</b> 4	400	F	RunNo: 10	00779					
Prep Date:	10/26/2023	Analysis [	Date: 10	/27/2023	S	SeqNo: 36	697665	Units: %Rec				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP		12		10.00		120	69	147				
Sample ID:	MB-78394	Samp	Гуре: МЕ	BLK	Tes	tCode: EF	PA Method	8015M/D: Dies	sel Range	Organics		
Client ID:	PBS	Batc	h ID: <b>78</b> :	394	F	RunNo: <b>1(</b>	00812					
Prep Date:	10/26/2023	Analysis [	Date: 10	/30/2023	S	SeqNo: 36	698206	Units: %Rec				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP		11		10.00		108	69	147				

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical 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#:	2310A65
	02-Nov-23

Client:	Devon E										
Project:	Thistle U	Jnit 10 Batt	ery								
Sample ID:	lcs-78308	SampT	ype: LC	S	TestCode: EPA Method 8015D: Gasoline Range						
Client ID:	LCSS	Batch	ID: 783	308	F	RunNo: 100705					
Prep Date:	10/23/2023	Analysis D	ate: 10	/24/2023	\$	SeqNo: <b>36</b>	692721	Units: mg/Kg			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Surr: BFB	e Organics (GRO)	26 2200	5.0	25.00 1000	0	103 223	70 15	130 244			
Sample ID:	mb-78308	SampT	ype: ME	BLK	TestCode: EPA Method 8015D: Gasoline Range						
Client ID:	PBS	Batch ID: 78308			F	RunNo: <b>10</b>	00705				
Prep Date:	10/23/2023	Analysis D	ate: 10	/24/2023		SeqNo: 36	692723	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		104	15	244			
Sample ID:	lcs-78310	SampT	ype: LC	s	TestCode: EPA Method 8015D: Gasoline Range						
Client ID:	LCSS	Batch	ID: 783	310	RunNo: 100707						
Prep Date:	10/23/2023	Analysis D	ate: 10	/24/2023	\$	SeqNo: 36	693006	Units: <b>mg/Kg</b>			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Surr: BFB	e Organics (GRO)	23 2000	5.0	25.00 1000	0	91.6 199	70 15	130 244			
Sample ID:	lcs-78320	SampT	ype: LC	S	TestCode: EPA Method 8015D: Gasoline Range						
Client ID:	LCSS	Batch	ID: 783	320	RunNo: 100707						
Prep Date:	10/23/2023	Analysis D	ate: 10	/24/2023	Ş	SeqNo: 36	693007	Units: %Rec	:		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		2000		1000		199	15	244			
Sample ID:	mb-78310	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	8015D: Gasol	ine Range		
Client ID:	PBS	Batch	ID: 783	310	F	RunNo: <b>1(</b>	00707				
Prep Date:	10/23/2023	Analysis D	ate: 10	/24/2023	\$	SeqNo: 36	693008	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 950	5.0	1000		95.1	15	244			
Sample ID:	mb-78320	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8015D: Gasol	ine Range		
Client ID:	PBS	Batch	ID: 783	320	F	RunNo: <b>1(</b>	00707				
Prep Date:	10/23/2023	Analysis D	ate: 10	/24/2023	\$	SeqNo: 36	693009	Units: %Rec	;		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		960		1000		96.1	15	244			

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical 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: Project:	Devon En Thistle Ui	ergy it 10 Battery									
Sample ID:	2310a65-007ams	Samp	Гуре: М	6	TestCode: EPA Method 8015D: Gasoline Range						
Client ID:	BH23-04 0'	Batc	h ID: <b>78</b>	310	F	RunNo: <b>1(</b>	00707				
Prep Date:	10/23/2023	Analysis [	Date: 10	)/24/2023	S	SeqNo: 36	693081	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	je Organics (GRO)	26	4.9	24.70	0	104	70	130			
Surr: BFB		2100		988.1		212	15	244			
Sample ID:	2310a65-007amsd	Samp	Гуре: М	SD	Tes	tCode: EF	PA Method	8015D: Gasol	ine Range		
Client ID:	BH23-04 0'	Batc	h ID: <b>78</b>	310	F	RunNo: 10	00707				
Prep Date:	10/23/2023	Analysis [	Date: 10	)/24/2023	S	SeqNo: 36	693082	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	je Organics (GRO)	23	4.9	24.61	0	95.1	70	130	8.97	20	
Surr: BFB		2000		984.3		203	15	244	0	0	

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical 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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WO#: 2310A65 02-Nov-23

WO#:	2310A65
	02 Nov. 22

02-Nov-23

Client: Devon E Project: Thistle U	nergy Jnit 10 Batt	tery								
Sample ID: LCS-78310	SampT	ype: LC	s	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: LCSS	Batch	n ID: 783	310	F	RunNo: <b>1(</b>	00707				
Prep Date: 10/23/2023	Analysis D	ate: 10	/24/2023	S	SeqNo: 36	693018	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	100	70	130			
Toluene	1.0	0.050	1.000	0	100	70	130			
Ethylbenzene	1.0	0.050	1.000	0	100	70	130			
Xylenes, Total	3.0	0.10	3.000	0	101	70	130			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	39.1	146			
Sample ID: LCS-78320	SampT	ype: LC	s	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: LCSS	Batch	n ID: 783	320	F	RunNo: <b>1(</b>	00707				
Prep Date: 10/23/2023	Analysis D	ate: 10	/24/2023	S	SeqNo: 36	693019	Units: %Rec	:		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		103	39.1	146			
Sample ID: mb-78310	SampT	ype: <b>MB</b>	BLK	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: PBS	Batch	n ID: 783	310	F	RunNo: <b>1(</b>	00707				
Prep Date: 10/23/2023	Analysis D		-		SeqNo: 36		Units: mg/K	q		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025					5			
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	39.1	146			
Sample ID: mb-78320	SampT	уре: МВ	BLK	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: PBS	Batch	n ID: 783	320	F	RunNo: 10	00707				
Prep Date: 10/23/2023	Analysis D	ate: 10	/24/2023	S	SeqNo: 36	693021	Units: %Rec	:		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		102	39.1	146			
Sample ID: 2310a65-008ams	SampT	уре: <b>МS</b>	;	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: BH23-04 2'	Batch	n ID: 783	310	F	RunNo: <b>1(</b>	00707				
Prep Date: 10/23/2023	Analysis D				SeqNo: 36		Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	0.9990	0	112	70	130			
Toluene	1.1	0.050	0.9990	0	112	70	130			
Ethylbenzene	1.1	0.050	0.9990	0	113	70	130			
Xylenes, Total	3.4	0.10	2.997	0	113	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

Devon Energy

**Client:** 

Analyte

Ethylbenzene

Xylenes, Total

Benzene Toluene

## **QC SUMMARY REPORT** Hall Environmental Analysis Laboratory, Inc.

Result

ND

ND

ND

ND

0.90

PQL

0.025

0.050 0.050

0.10

SPK value SPK Ref Val

1.000

Project:	Thistle Ur	nit 10 Bat	tery								
Sample ID: 2310a	65-008ams	Samp⊺	Туре: <b>МЅ</b>	5	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: BH23-	-04 2'	Batcl	h ID: 783	310	F	RunNo: <b>1(</b>	00707				
Prep Date: 10/2	3/2023	Analysis E	Date: 10	/24/2023	S	SeqNo: 36	693114	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorob	oenzene	1.1		0.9990		109	39.1	146			
Sample ID: 2310a	65-008amsd	SampT	Туре: <b>МЅ</b>	D	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: BH23-	-04 2'	Batcl	h ID: 783	310	F	RunNo: <b>1(</b>	00707				
Prep Date: 10/2	3/2023	Analysis D	Date: 10	/24/2023	S	SeqNo: 36	693115	Units: <b>mg/K</b>	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.1	0.025	0.9950	0	107	70	130	4.68	20	
Foluene		1.1	0.050	0.9950	0	109	70	130	3.06	20	
Ethylbenzene		1.1	0.050	0.9950	0	109	70	130	4.32	20	
(ylenes, Total		3.3	0.10	2.985	0	110	70	130	3.52	20	
Surr: 4-Bromofluorob	benzene	1.0		0.9950		103	39.1	146	0	0	
Sample ID: Ics-78	3308	Samp1	Type: LC	S	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: LCSS	i	Batcl	h ID: 783	308	F	RunNo: <b>1(</b>	00705				
Prep Date: 10/2:	3/2023	Analysis E	Date: 10	/24/2023	5	SeqNo: 36	693265	Units: <b>mg/K</b>	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.86	0.025	1.000	0	86.4	70	130			
Foluene		0.88	0.050	1.000	0	87.6	70	130			
Ethylbenzene		0.88	0.050	1.000	0	88.1	70	130			
Kylenes, Total		2.7	0.10	3.000	0	88.7	70	130			
Surr: 4-Bromofluorob	benzene	0.91		1.000		90.6	39.1	146			
Sample ID: mb-78308 SampType: MBLK TestCode: EPA Method 8021B: Volatiles											
Sample ID: mb-78	5308	Samp	Type. WE		103		Amethou	0021D. Volat	103		
Sample ID: mb-78 Client ID: PBS	8308		h ID: <b>783</b>			RunNo: 10			105		

### **Qualifiers:**

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

Surr: 4-Bromofluorobenzene

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

%REC

90.3

LowLimit

39.1

HighLimit

146

- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

RPDLimit

Qual

%RPD

WO#: 2310A65 02-Nov-23

HALL ENVIRONMENTAL ANALYSIS LABORATORY	TEL: 505-345-3	ntal Analysis Labora 4901 Hawkins Albuquerque. NM 87 975 FAX: 505-345-4 v.hallenvironmental.	s NE 7109 San 4107	Sample Log-In Check Lis						
Client Name: Devon Energy	Work Order Num	ber: 2310A65		RcptNo: 1						
Received By: Tracy Casarrubias Completed By: Tracy Casarrubias	10/21/2023 8:00:00 10/21/2023 9:11:58									
Reviewed By: 7110/23/23										
Chain of Custody										
1. Is Chain of Custody complete?		Yes	No 🗹	Not Present						
2. How was the sample delivered?		Courier								
Log In 3. Was an attempt made to cool the samples?		Yes 🔽	No 🗌							
4. Were all samples received at a temperature	of >0° C to 6.0°C	Yes 🗹	No 🗌	NA 🗌						
5. Sample(s) in proper container(s)?		Yes 🔽	No 🗌							
6. Sufficient sample volume for indicated test(s	)?	Yes 🗹	No 🗌							
$7_{\cdot}$ Are samples (except VOA and ONG) proper	y 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	n?	Yes	No 🗹	# of preserved bottles checked	/					
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	No 🗌	for pH:	unless noted)					
12. Are matrices correctly identified on Chain of	Custody?	Yes 🗌	No 🗹	Adjusted?						
13. Is it clear what analyses were requested?		Yes 🗹	No 🗌							
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗹	No 🗋	Checked by: TMC	10/21/23					
<u>Special Handling (if applicable)</u>			/							
15. Was client notified of all discrepancies with t	his order?	Yes 🗍	No 🗌	NA 🗹						
Person Notified:	Date:		and the same rate productor							
By Whom:	Via:	eMail P	hone 🗌 Fax	In Person						
Regarding:										
Client Instructions: Sample collection	times, mailing addres	ss,phone number a	and Email/Fax	are missing on C						
16. Additional remarks:										
17. <u>Cooler Information</u> Cooler No Temp °C Condition Se 1 2.4 Good Yes	eal Intact Seal No s Yogi	Seal Date	Signed By							

Page 131 of 374

Received by OCD: 6/6/2025 11:13:25 AM		Page 132 of 374
Chain-of-Custody Record	Turn-Around Time:	HALL ENVIRONMENTAL
Client: Devon	Standard Rush 5000	ANALYSIS LABORATORY
V	Project Name:	www.hallenvironmental.com
Mailing Address: On file	Thistle Unit 10 Battery	4901 Hawkins NE - Albuquerque, NM 87109
	Project #: - 33E - 04784	Tel. 505-345-3975 Fax 505-345-4107
Phone #:	- <u>23E-04784</u>	Analysis Request
email or Fax#:	Project Manager:	(8021) / MRO) CB's CB's SIMS (Absent)
QA/QC Package:	Kent Stallings	IMB's (8021) / DRO / MRO 082 PCB's (1) 8270SIMS 8270SIMS ) ) resent/Absen
□ Standard □ Level 4 (Full Validation)	1. 10	TMB's ( 1/DRO 8082 PC 8082 PC 8082 PC 8082 PC 8270S 7 8270S
Accreditation:  Az Compliance	Sampler: Bryce Mortimer	- 1 1 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1
□ NELAC □ Other □ EDD (Type)	# of Coolers:	BTEX/ MTBE / TMB's (8021) PH:8015D(GRO / DRO / MRO) 8081 Pesticides/8082 PCB's EDB (Method 504.1) PAHs by 8310 or 8270SIMS RCRA 8 Metals C) F, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> S260 (VOA) 8260 (VOA) 8260 (VOA) Total Coliform (Present/Absent)
	Cooler Temp(including CF): 2.4 - Ø = 2.4 (°C)	BTEX/ MTE       BTEX/ MTE       FPH:8015D(       8081 Pestici       810 Pite       8260 (VOA)       8260 (VOA)       8260 (VOA)       8270 (Semi-       Total Colifor
	Container Preservative HEAL No.	81 F PAHS 8081 F 8081 F 8081 F 8081 F 8081 F 701
Date Time Matrix Sample Name	Type and # Type 2310AUS	
10,19,33 9:35 KOIL BH23-01 0	Hozjan Ice 001	
1 9:40 BH23-01 2		
9:45 BH23-02 0	003	
950 BM23-02 2	004	
9:55 B-23-03 0		
10:00 BH23-03 2		
10:05 BH23-04 0	007	
10:10 BH23-04 2		
10:15 BH23-05 0	009	
10:20 BH23-05 2		
10:25 BH23-06 D		
V 10:50 million BH23-06 2	1 1 012	NV V
Date: Time: Relinquished by:	Received by: Via: Date Time	Remarks: W0:21206611
0.9.73	Alumno 10/2013 930	
Date: Time: Relinquished by:	Received by: Via: Countr Date Time	o Please cc Bryce Mortimer at BMortimer@vortex.c
hors an amunn	10/21/63 0.0	The second secon

Released to Imaging: 0/25/2025 2:43:17 PM

Received by OCD: 6/6/2025 11:13:25 AM

С	hain	of-Cu	stody Recor	d	Turn-Around	Time:					НА	LL	E	vv	IR	201	NM	EN	ΓΑΙ	
Client:	Devo	n			Standard Rush 5 M				ANALYSIS LABORATORY											
					Project Name		A D II				ww	w.ha	llenv	ironn	nent	al.co	m			
Mailing	Address	On f	ile		lhistle	Unit 11	) Pattery		490	)1 Ha	wkins	NE -	Alb	uque	erque	e, NN	/ 871	09		
		/			Project #:	KI1-7	1311		Те	I. 50	5-345-3	3975	F	ax :	505-	345-	4107			
Phone :	<b>#</b> :				1 det	-04/	84				_	A		sis I	Req	uest				
email o	r Fax#:	V			Project Mana	iger:		<del>.</del>	Ô				SO4			ent)				
QA/QC I □ Stan	Package: dard		□ Level 4 (Full Valio	dation)	Kent	Stallir	95	TMB's (8021)	RO / M	2 PCB	SMISO		P04,			ent/Abs				
Accredi	tation:	🗆 Az Co	mpliance			re Mort		Į.		808	(1,1) r 82		NO <sub>2</sub> ,		2	rese				
		Other	•		On Ice: # of Coolers:	Ves	No yaqi	3E /	GRC	des/	d 50 10 ol	tals	03,		07	m (F				
	) (Type) <u>-</u> 	1				1-0=2.4 (°C)	MTBE	2D	stici	etho / 83	Met	Br, NO <sub>3</sub> ,	(¥	emi-	olifor					
Data	T:	Matrix	Sample Name		Container Type and #	Preservative Type		ETEX)	UPH:8015DJGRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1) PAHs bv 8310 or 8270SIMS	RCRA 8 Metals	CDF, B	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)				
Date		Matrix Soll	BH13-07	0'	Hozjar	Ice	013	1	1				II			1				
10, 1, 10	10:40	30	BH13-07	2	10000			++-												
	10.45		BH 23-08	A			014	+		-+										
	10:50		RH 27 - 00				015	++	H	$\rightarrow$			H							
	10:55		BH23 AU	2'			016	+		-+					_					
- -	10.33		BH 2309	2				┼┼─												
	11:05		RU 13 - 10	0			018	++		$\neg$		1	++							
	11:16		BH23-10	2		1	020		$\vdash$			+	1+							
	11.10	Time 7		0-		V	0.00													
		10/201	·					++	$\vdash$			1	$\uparrow \uparrow$							
								+	++		-		$\uparrow \uparrow$							
									t				V					_		
Date:	Time:	Relinquis	l ned/by:		Received by:	Via:	Date Time	Rei	nark	s:\//	0:0	42		STE						
10.9.7	3		ISIV		PAPALA	uin	10/20/23 980													
Date:	Time:	Relinquis	hed by:		Received by:	Via: COUL	Date Time	DI			D		44	1.		1	DAA	h		
Mappar 2	1900	aan	mm				10/21/27 0-0	The	ase	. ((	<u>c</u> Dr	yce	140	rtir	ver	at	DIVI	ortim	enan	erex



Environment Testing

Eurofins Environment Testing South Central, LLC 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

November 03, 2023

Kent Stallings Devon Energy 6488 Seven Rivers Highway Artesia, NM 88210 TEL: (505) 350-1336 FAX:

RE: Thistle Unit 10 Battery

OrderNo.: 2310B06

Dear Kent Stallings:

Eurofins Environment Testing South Central, LLC received 28 sample(s) on 10/24/2023 for the analyses presented in the following report.

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

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

**Project:** Thistle Unit 10 Battery

**Analytical Report** 

## Hall Environmental Analysis Laboratory, Inc.

Lab Order 2310B06

Date Reported: 11/3/2023

Client Sample ID: BH23-11 0'
Collection Date: 10/20/2023 9:00:00 AM
Received Date: 10/24/2023 7:50:00 AM

Matrix: SOIL	<b>Received Date:</b> 10/24/2023 7:50:00 AM						
Result	RL Qu	al Units	DF	Date Analyzed			
GE ORGANICS				Analyst: DGH			
ND	9.1	mg/Kg	1	10/25/2023 11:02:25 AM			
ND	45	mg/Kg	1	10/25/2023 11:02:25 AM			
89.4	69-147	%Rec	1	10/25/2023 11:02:25 AM			
IGE				Analyst: KMN			
ND	4.7	mg/Kg	1	10/25/2023 11:27:00 AM			
106	15-244	%Rec	1	10/25/2023 11:27:00 AM			
				Analyst: KMN			
ND	0.024	mg/Kg	1	10/25/2023 11:27:00 AM			
ND	0.047	mg/Kg	1	10/25/2023 11:27:00 AM			
ND	0.047	mg/Kg	1	10/25/2023 11:27:00 AM			
ND	0.095	mg/Kg	1	10/25/2023 11:27:00 AM			
92.7	39.1-146	%Rec	1	10/25/2023 11:27:00 AM			
				Analyst: SNS			
390	60	mg/Kg	20	10/28/2023 1:13:51 PM			
	Result GE ORGANICS ND 89.4 IGE ND 106 ND ND ND ND ND 92.7	Result         RL         Qu           GE ORGANICS         ND         9.1           ND         45         89.4         69-147           IGE         ND         4.7           ND         15-244           ND         0.024           ND         0.047           ND         0.047           ND         0.095           92.7         39.1-146	Result         RL         Qual         Units           GE ORGANICS         ND         9.1         mg/Kg           ND         45         mg/Kg           89.4         69-147         %Rec           IGE         ND         4.7         mg/Kg           ND         15-244         %Rec           ND         0.024         mg/Kg           ND         0.047         mg/Kg           ND         0.047         mg/Kg           ND         0.095         mg/Kg           92.7         39.1-146         %Rec	Result         RL         Qual         Units         DF           GE ORGANICS         ND         9.1         mg/Kg         1           ND         45         mg/Kg         1           89.4         69-147         %Rec         1           IGE         ND         4.7         mg/Kg         1           ND         15-244         %Rec         1           ND         0.024         mg/Kg         1           ND         0.047         mg/Kg         1           ND         0.047         mg/Kg         1           ND         0.095         mg/Kg         1           92.7         39.1-146         %Rec         1			

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
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 1 of 37

Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-11 2' Collection Date: 10/20/2023 9:10:00 AM **Bassived Deter** 10/24/2022 7:50:00 AM

Lab ID: 2310B06-002	Matrix: SOIL	Received Date: 10/24/2023 7:50:00 AM						
Analyses	Result	RL Qu	al Units	DF	Date Analyzed			
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANICS				Analyst: DGH			
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	10/25/2023 11:48:20 AM			
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	10/25/2023 11:48:20 AM			
Surr: DNOP	118	69-147	%Rec	1	10/25/2023 11:48:20 AM			
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst: KMN			
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	10/25/2023 11:49:00 AM			
Surr: BFB	107	15-244	%Rec	1	10/25/2023 11:49:00 AM			
EPA METHOD 8021B: VOLATILES					Analyst: <b>KMN</b>			
Benzene	ND	0.025	mg/Kg	1	10/25/2023 11:49:00 AM			
Toluene	ND	0.049	mg/Kg	1	10/25/2023 11:49:00 AM			
Ethylbenzene	ND	0.049	mg/Kg	1	10/25/2023 11:49:00 AM			
Xylenes, Total	ND	0.098	mg/Kg	1	10/25/2023 11:49:00 AM			
Surr: 4-Bromofluorobenzene	91.0	39.1-146	%Rec	1	10/25/2023 11:49:00 AM			
EPA METHOD 300.0: ANIONS					Analyst: SNS			
Chloride	330	60	mg/Kg	20	10/28/2023 1:51:05 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
- 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
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 2 of 37

Thistle Unit 10 Battery

2310B06-003

**Project:** 

Lab ID:

**Analytical Report** Lab Order 2310B06

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/3/2023

Client Sample ID: BH23-11 3' Collection Date: 10/20/2023 9:20:00 AM Received Date: 10/24/2023 7:50:00 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	9.4	mg/Kg	1	10/25/2023 11:59:00 AM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	10/25/2023 11:59:00 AM
Surr: DNOP	122	69-147	%Rec	1	10/25/2023 11:59:00 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/25/2023 12:11:00 PM
Surr: BFB	99.7	15-244	%Rec	1	10/25/2023 12:11:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	10/25/2023 12:11:00 PM
Toluene	ND	0.048	mg/Kg	1	10/25/2023 12:11:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	10/25/2023 12:11:00 PM
Xylenes, Total	ND	0.096	mg/Kg	1	10/25/2023 12:11:00 PM
Surr: 4-Bromofluorobenzene	87.3	39.1-146	%Rec	1	10/25/2023 12:11:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	340	60	mg/Kg	20	10/28/2023 2:28:18 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
- 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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**Project:** Lab ID: Thistle Unit 10 Battery

2310B06-004

**Analytical Report** 

## Hall Environmental Analysis Laboratory, Inc.

Lab Order 2310B06

Date Reported: 11/3/2023

Client Sample ID: BH23-12 0'									
Collection Date: 10/20/2023 9:30:00 AM									
Received Date: 10/24/2023 7:50:00 AM									

<b>Lub ID:</b> 2510D00 001	Muu IX. Soll	neet						
Analyses	Result	RL Qu	al Units	DF	Date Analyzed			
EPA METHOD 8015M/D: DIESEL RANG	<b>BE ORGANICS</b>				Analyst: DGH			
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	10/25/2023 12:09:42 PM			
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	10/25/2023 12:09:42 PM			
Surr: DNOP	109	69-147	%Rec	1	10/25/2023 12:09:42 PM			
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst: KMN			
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	10/25/2023 12:32:00 PM			
Surr: BFB	98.2	15-244	%Rec	1	10/25/2023 12:32:00 PM			
EPA METHOD 8021B: VOLATILES					Analyst: KMN			
Benzene	ND	0.024	mg/Kg	1	10/25/2023 12:32:00 PM			
Toluene	ND	0.049	mg/Kg	1	10/25/2023 12:32:00 PM			
Ethylbenzene	ND	0.049	mg/Kg	1	10/25/2023 12:32:00 PM			
Xylenes, Total	ND	0.098	mg/Kg	1	10/25/2023 12:32:00 PM			
Surr: 4-Bromofluorobenzene	87.2	39.1-146	%Rec	1	10/25/2023 12:32:00 PM			
EPA METHOD 300.0: ANIONS					Analyst: SNS			
Chloride	1400	60	mg/Kg	20	10/28/2023 3:05:31 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
- 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 Reporting Limit
- RL

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Thistle Unit 10 Battery

2310B06-005

**Project:** 

Lab ID:

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-12 2' Collection Date: 10/20/2023 9:40:00 AM

Received Date: 10/24/2023 7:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS					Analyst: DGH
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	10/25/2023 12:31:09 PM
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	10/25/2023 12:31:09 PM
Surr: DNOP	105	69-147	%Rec	1	10/25/2023 12:31:09 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	10/25/2023 12:54:00 PM
Surr: BFB	103	15-244	%Rec	1	10/25/2023 12:54:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	10/25/2023 12:54:00 PM
Toluene	ND	0.049	mg/Kg	1	10/25/2023 12:54:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	10/25/2023 12:54:00 PM
Xylenes, Total	ND	0.098	mg/Kg	1	10/25/2023 12:54:00 PM
Surr: 4-Bromofluorobenzene	88.5	39.1-146	%Rec	1	10/25/2023 12:54:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	510	60	mg/Kg	20	10/28/2023 3:17:56 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

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 Reporting Limit

RL

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Thistle Unit 10 Battery

2310B06-006

**Project:** 

Lab ID:

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-12 3' Collection Date: 10/20/2023 9:50:00 AM

Received Date: 10/24/2023 7:50:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS					Analyst: DGH
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	10/25/2023 12:41:52 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	10/25/2023 12:41:52 PM
Surr: DNOP	108	69-147	%Rec	1	10/25/2023 12:41:52 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/25/2023 1:16:00 PM
Surr: BFB	101	15-244	%Rec	1	10/25/2023 1:16:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	10/25/2023 1:16:00 PM
Toluene	ND	0.048	mg/Kg	1	10/25/2023 1:16:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	10/25/2023 1:16:00 PM
Xylenes, Total	ND	0.096	mg/Kg	1	10/25/2023 1:16:00 PM
Surr: 4-Bromofluorobenzene	88.9	39.1-146	%Rec	1	10/25/2023 1:16:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	950	60	mg/Kg	20	10/28/2023 3:30:21 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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Thistle Unit 10 Battery

2310B06-007

**Project:** 

Lab ID:

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-13 0' Collection Date: 10/20/2023 10:00:00 AM

Received Date: 10/24/2023 7:50:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS					Analyst: DGH
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	10/25/2023 12:52:37 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	10/25/2023 12:52:37 PM
Surr: DNOP	118	69-147	%Rec	1	10/25/2023 12:52:37 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/25/2023 1:37:00 PM
Surr: BFB	103	15-244	%Rec	1	10/25/2023 1:37:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	10/25/2023 1:37:00 PM
Toluene	ND	0.047	mg/Kg	1	10/25/2023 1:37:00 PM
Ethylbenzene	ND	0.047	mg/Kg	1	10/25/2023 1:37:00 PM
Xylenes, Total	ND	0.094	mg/Kg	1	10/25/2023 1:37:00 PM
Surr: 4-Bromofluorobenzene	89.2	39.1-146	%Rec	1	10/25/2023 1:37:00 PM
EPA METHOD 300.0: ANIONS					Analyst: RBC
Chloride	6900	300	mg/Kg	100	10/31/2023 12:10:56 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 7 of 37

**Project:** Thistle Unit 10 Battery

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-13 2' Collection Date: 10/20/2023 10:10:00 AM wed Data, 10/24/2022 7.50.00 AM ъ

Lab ID: 2310B06-008	Matrix: SOIL	Received Date: 10/24/2023 7:50:00 AM				
Analyses	Result	RL Qual Units		DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RAI	NGE ORGANICS				Analyst: DGH	
Diesel Range Organics (DRO)	ND	8.5	mg/Kg	1	10/25/2023 1:14:05 PM	
Motor Oil Range Organics (MRO)	ND	43	mg/Kg	1	10/25/2023 1:14:05 PM	
Surr: DNOP	118	69-147	%Rec	1	10/25/2023 1:14:05 PM	
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst: <b>KMN</b>	
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/25/2023 1:59:00 PM	
Surr: BFB	103	15-244	%Rec	1	10/25/2023 1:59:00 PM	
EPA METHOD 8021B: VOLATILES					Analyst: <b>KMN</b>	
Benzene	ND	0.024	mg/Kg	1	10/25/2023 1:59:00 PM	
Toluene	ND	0.048	mg/Kg	1	10/25/2023 1:59:00 PM	
Ethylbenzene	ND	0.048	mg/Kg	1	10/25/2023 1:59:00 PM	
Xylenes, Total	ND	0.097	mg/Kg	1	10/25/2023 1:59:00 PM	
Surr: 4-Bromofluorobenzene	89.9	39.1-146	%Rec	1	10/25/2023 1:59:00 PM	
EPA METHOD 300.0: ANIONS					Analyst: SNS	
Chloride	890	60	mg/Kg	20	10/28/2023 3:55:10 PM	

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

**Qualifiers:** 

- \* Value exceeds Maximum Contaminant Level. 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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Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-13 3' Collection Date: 10/20/2023 10:20:00 AM Received Date: 10/24/2023 7:50:00 AM

Lab ID: 2310B06-009	Matrix: SOIL	<b>Received Date:</b> 10/24/2023 7:50:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst: DGH	
Diesel Range Organics (DRO)	11	9.4	mg/Kg	1	10/25/2023 1:24:53 PM	
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	10/25/2023 1:24:53 PM	
Surr: DNOP	104	69-147	%Rec	1	10/25/2023 1:24:53 PM	
EPA METHOD 8015D: GASOLINE RAM	NGE				Analyst: KMN	
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/25/2023 2:21:00 PM	
Surr: BFB	103	15-244	%Rec	1	10/25/2023 2:21:00 PM	
EPA METHOD 8021B: VOLATILES					Analyst: KMN	
Benzene	ND	0.024	mg/Kg	1	10/25/2023 2:21:00 PM	
Toluene	ND	0.047	mg/Kg	1	10/25/2023 2:21:00 PM	
Ethylbenzene	ND	0.047	mg/Kg	1	10/25/2023 2:21:00 PM	
Xylenes, Total	ND	0.095	mg/Kg	1	10/25/2023 2:21:00 PM	
Surr: 4-Bromofluorobenzene	89.8	39.1-146	%Rec	1	10/25/2023 2:21:00 PM	
EPA METHOD 300.0: ANIONS					Analyst: SNS	
Chloride	2300	60	mg/Kg	20	10/28/2023 4:07:35 PM	

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

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. 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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Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-14 0' Collection Date: 10/20/2023 10:30:00 AM **Deceived Dete:** 10/24/2022 7:50:00 AM

Lab ID: 2310B06-010	Matrix: SOIL	Received Date: 10/24/2023 7:50:00 AM				
Analyses	Result	RL Qual Units		DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANICS				Analyst: DGH	
Diesel Range Organics (DRO)	ND	8.4	mg/Kg	1	10/25/2023 1:35:40 PM	
Motor Oil Range Organics (MRO)	ND	42	mg/Kg	1	10/25/2023 1:35:40 PM	
Surr: DNOP	86.0	69-147	%Rec	1	10/25/2023 1:35:40 PM	
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst: KMN	
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	10/25/2023 2:43:00 PM	
Surr: BFB	102	15-244	%Rec	1	10/25/2023 2:43:00 PM	
EPA METHOD 8021B: VOLATILES					Analyst: KMN	
Benzene	ND	0.025	mg/Kg	1	10/25/2023 2:43:00 PM	
Toluene	ND	0.050	mg/Kg	1	10/25/2023 2:43:00 PM	
Ethylbenzene	ND	0.050	mg/Kg	1	10/25/2023 2:43:00 PM	
Xylenes, Total	ND	0.099	mg/Kg	1	10/25/2023 2:43:00 PM	
Surr: 4-Bromofluorobenzene	86.7	39.1-146	%Rec	1	10/25/2023 2:43:00 PM	
EPA METHOD 300.0: ANIONS					Analyst: SNS	
Chloride	310	60	mg/Kg	20	10/28/2023 4:20:00 PM	

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

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. 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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Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-14 2' Collection Date: 10/20/2023 10:40:00 AM Received Date: 10/24/2023 7:50:00 AM

Lab ID: 2310B06-011	Matrix: SOIL         Received Date: 10/24/2023 7:50:00 At				2023 7:50:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	10/25/2023 1:46:29 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	10/25/2023 1:46:29 PM
Surr: DNOP	111	69-147	%Rec	1	10/25/2023 1:46:29 PM
EPA METHOD 8015D: GASOLINE RANG	GE				Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/25/2023 3:26:00 PM
Surr: BFB	106	15-244	%Rec	1	10/25/2023 3:26:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	10/26/2023 5:01:00 PM
Toluene	ND	0.048	mg/Kg	1	10/26/2023 5:01:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	10/26/2023 5:01:00 PM
Xylenes, Total	ND	0.096	mg/Kg	1	10/26/2023 5:01:00 PM
Surr: 4-Bromofluorobenzene	90.2	39.1-146	%Rec	1	10/26/2023 5:01:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	390	60	mg/Kg	20	10/28/2023 4:32:25 PM

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

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. 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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Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-15 0' Collection Date: 10/20/2023 10:50:00 AM **Received Date:** 10/24/2023 7:50:00 AM

Lab ID: 2310B06-012	Matrix: SOIL Received Dat				Date: 10/24/2023 7:50:00 AM		
Analyses	Result	RL Qu	al Units	DF	Date Analyzed		
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANICS				Analyst: DGH		
Diesel Range Organics (DRO)	ND	8.9	mg/Kg	1	10/25/2023 1:57:19 PM		
Motor Oil Range Organics (MRO)	ND	44	mg/Kg	1	10/25/2023 1:57:19 PM		
Surr: DNOP	83.9	69-147	%Rec	1	10/25/2023 1:57:19 PM		
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst: <b>KMN</b>		
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/25/2023 3:48:00 PM		
Surr: BFB	104	15-244	%Rec	1	10/25/2023 3:48:00 PM		
EPA METHOD 8021B: VOLATILES					Analyst: <b>KMN</b>		
Benzene	ND	0.024	mg/Kg	1	10/26/2023 5:22:00 PM		
Toluene	ND	0.048	mg/Kg	1	10/26/2023 5:22:00 PM		
Ethylbenzene	ND	0.048	mg/Kg	1	10/26/2023 5:22:00 PM		
Xylenes, Total	ND	0.097	mg/Kg	1	10/26/2023 5:22:00 PM		
Surr: 4-Bromofluorobenzene	87.6	39.1-146	%Rec	1	10/26/2023 5:22:00 PM		
EPA METHOD 300.0: ANIONS					Analyst: SNS		
Chloride	69	60	mg/Kg	20	10/28/2023 4:44:49 PM		

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

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level. 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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Thistle Unit 10 Battery

2310B06-013

**Project:** 

Lab ID:

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-15 2' Collection Date: 10/20/2023 11:00:00 AM Received Date: 10/24/2023 7:50:00 AM

2310000 015	Muuliki Boll	10001104 Dutor 10/2 //2025 7.50.00 7114				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst: DGH	
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	10/25/2023 2:08:17 PM	
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	10/25/2023 2:08:17 PM	
Surr: DNOP	113	69-147	%Rec	1	10/25/2023 2:08:17 PM	
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst: KMN	
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	10/25/2023 4:10:00 PM	
Surr: BFB	102	15-244	%Rec	1	10/25/2023 4:10:00 PM	
EPA METHOD 8021B: VOLATILES					Analyst: KMN	
Benzene	ND	0.024	mg/Kg	1	10/26/2023 5:44:00 PM	
Toluene	ND	0.049	mg/Kg	1	10/26/2023 5:44:00 PM	
Ethylbenzene	ND	0.049	mg/Kg	1	10/26/2023 5:44:00 PM	
Xylenes, Total	ND	0.097	mg/Kg	1	10/26/2023 5:44:00 PM	
Surr: 4-Bromofluorobenzene	90.2	39.1-146	%Rec	1	10/26/2023 5:44:00 PM	
EPA METHOD 300.0: ANIONS					Analyst: SNS	
Chloride	81	60	mg/Kg	20	10/28/2023 11:03:44 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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Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-16 0' Collection Date: 10/20/2023 11:10:00 AM **Deceived Deter** 10/24/2022 7:50:00 AM

Lab ID: 2310B06-014	Matrix: SOIL	Rece	Received Date: 10/24/2023 7:50:00 AM			
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANICS				Analyst: DGH	
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	10/25/2023 2:19:16 PM	
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	10/25/2023 2:19:16 PM	
Surr: DNOP	83.7	69-147	%Rec	1	10/25/2023 2:19:16 PM	
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst: KMN	
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/25/2023 4:31:00 PM	
Surr: BFB	104	15-244	%Rec	1	10/25/2023 4:31:00 PM	
EPA METHOD 8021B: VOLATILES					Analyst: KMN	
Benzene	ND	0.023	mg/Kg	1	10/26/2023 6:06:00 PM	
Toluene	ND	0.047	mg/Kg	1	10/26/2023 6:06:00 PM	
Ethylbenzene	ND	0.047	mg/Kg	1	10/26/2023 6:06:00 PM	
Xylenes, Total	ND	0.094	mg/Kg	1	10/26/2023 6:06:00 PM	
Surr: 4-Bromofluorobenzene	88.5	39.1-146	%Rec	1	10/26/2023 6:06:00 PM	
EPA METHOD 300.0: ANIONS					Analyst: SNS	
Chloride	76	60	mg/Kg	20	10/28/2023 11:16:09 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 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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Released to Imaging: 6/25/2025 2:43:17 PM

Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-16 2' Collection Date: 10/20/2023 11:20:00 AM Received Date: 10/24/2023 7:50:00 AM

Lab ID: 2310B06-015	Matrix: SOIL	Rece	2023 7:50:00 AM		
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	10/25/2023 2:30:11 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	10/25/2023 2:30:11 PM
Surr: DNOP	101	69-147	%Rec	1	10/25/2023 2:30:11 PM
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	10/25/2023 4:53:00 PM
Surr: BFB	99.7	15-244	%Rec	1	10/25/2023 4:53:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.023	mg/Kg	1	10/26/2023 6:27:00 PM
Toluene	ND	0.046	mg/Kg	1	10/26/2023 6:27:00 PM
Ethylbenzene	ND	0.046	mg/Kg	1	10/26/2023 6:27:00 PM
Xylenes, Total	ND	0.093	mg/Kg	1	10/26/2023 6:27:00 PM
Surr: 4-Bromofluorobenzene	87.0	39.1-146	%Rec	1	10/26/2023 6:27:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	ND	60	mg/Kg	20	10/28/2023 11:28:33 AM

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

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level. 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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Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-17 0' Collection Date: 10/20/2023 11:30:00 AM Received Date: 10/24/2023 7:50:00 AM

Lab ID: 2310B06-016	Matrix: SOIL	Rece	eived Date:	10/24/	2023 7:50:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	10/25/2023 2:41:05 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	10/25/2023 2:41:05 PM
Surr: DNOP	103	69-147	%Rec	1	10/25/2023 2:41:05 PM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/25/2023 5:15:00 PM
Surr: BFB	99.8	15-244	%Rec	1	10/25/2023 5:15:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	10/26/2023 6:49:00 PM
Toluene	ND	0.048	mg/Kg	1	10/26/2023 6:49:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	10/26/2023 6:49:00 PM
Xylenes, Total	ND	0.095	mg/Kg	1	10/26/2023 6:49:00 PM
Surr: 4-Bromofluorobenzene	90.2	39.1-146	%Rec	1	10/26/2023 6:49:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	170	60	mg/Kg	20	10/28/2023 11:40:57 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

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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Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310B06

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/3/2023

Client Sample ID: BH23-18 0' Collection Date: 10/20/2023 11:40:00 AM Received Date: 10/24/2023 7:50:00 AM

Lab ID: 2310B06-017	Matrix: SOIL	/2023 7:50:00 AM			
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	10/25/2023 5:58:06 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	10/25/2023 5:58:06 PM
Surr: DNOP	104	69-147	%Rec	1	10/25/2023 5:58:06 PM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/26/2023 3:45:00 AM
Surr: BFB	103	15-244	%Rec	1	10/26/2023 3:45:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	10/26/2023 11:10:00 PM
Toluene	ND	0.048	mg/Kg	1	10/26/2023 11:10:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	10/26/2023 11:10:00 PM
Xylenes, Total	ND	0.096	mg/Kg	1	10/26/2023 11:10:00 PM
Surr: 4-Bromofluorobenzene	88.7	39.1-146	%Rec	1	10/26/2023 11:10:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	1500	61	mg/Kg	20	10/28/2023 11:53:22 AM

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

**Qualifiers:** 

\* Value exceeds Maximum Contaminant Level. 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 17 of 37

Thistle Unit 10 Battery

2310B06-018

**Project:** 

Lab ID:

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-18 2' Collection Date: 10/20/2023 11:50:00 AM

Received Date: 10/24/2023 7:50:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	Analyst: DGH				
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	10/25/2023 6:21:51 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	10/25/2023 6:21:51 PM
Surr: DNOP	102	69-147	%Rec	1	10/25/2023 6:21:51 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/26/2023 4:06:00 AM
Surr: BFB	106	15-244	%Rec	1	10/26/2023 4:06:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	10/26/2023 11:32:00 PM
Toluene	ND	0.048	mg/Kg	1	10/26/2023 11:32:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	10/26/2023 11:32:00 PM
Xylenes, Total	ND	0.096	mg/Kg	1	10/26/2023 11:32:00 PM
Surr: 4-Bromofluorobenzene	90.9	39.1-146	%Rec	1	10/26/2023 11:32:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	510	61	mg/Kg	20	10/28/2023 12:05:46 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

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 Page 18 of 37

Thistle Unit 10 Battery

2310B06-019

**Project:** 

Lab ID:

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

#### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-19 0' Collection Date: 10/20/2023 12:00:00 PM

Received Date: 10/24/2023 7:50:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	Analyst: DGH				
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	10/25/2023 6:45:36 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	10/25/2023 6:45:36 PM
Surr: DNOP	102	69-147	%Rec	1	10/25/2023 6:45:36 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	10/26/2023 4:28:00 AM
Surr: BFB	101	15-244	%Rec	1	10/26/2023 4:28:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	10/26/2023 11:53:00 PM
Toluene	ND	0.049	mg/Kg	1	10/26/2023 11:53:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	10/26/2023 11:53:00 PM
Xylenes, Total	ND	0.097	mg/Kg	1	10/26/2023 11:53:00 PM
Surr: 4-Bromofluorobenzene	89.7	39.1-146	%Rec	1	10/26/2023 11:53:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	820	60	mg/Kg	20	10/28/2023 12:42:59 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

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 19 of 37

Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-19 2' Collection Date: 10/20/2023 12:10:00 PM **Received Date:** 10/24/2023 7:50:00 AM

Lab ID: 2310B06-020	Matrix: SOIL Received Date: 10				10/24/2023 7:50:00 AM		
Analyses	Result	RL Qu	al Units	DF	Date Analyzed		
EPA METHOD 8015M/D: DIESEL RAM	IGE ORGANICS				Analyst: DGH		
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	10/25/2023 7:09:26 PM		
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	10/25/2023 7:09:26 PM		
Surr: DNOP	105	69-147	%Rec	1	10/25/2023 7:09:26 PM		
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst: KMN		
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/26/2023 4:50:00 AM		
Surr: BFB	104	15-244	%Rec	1	10/26/2023 4:50:00 AM		
EPA METHOD 8021B: VOLATILES					Analyst: KMN		
Benzene	ND	0.024	mg/Kg	1	10/27/2023 12:15:00 AM		
Toluene	ND	0.048	mg/Kg	1	10/27/2023 12:15:00 AM		
Ethylbenzene	ND	0.048	mg/Kg	1	10/27/2023 12:15:00 AM		
Xylenes, Total	ND	0.096	mg/Kg	1	10/27/2023 12:15:00 AM		
Surr: 4-Bromofluorobenzene	91.4	39.1-146	%Rec	1	10/27/2023 12:15:00 AM		
EPA METHOD 300.0: ANIONS					Analyst: SNS		
Chloride	200	59	mg/Kg	20	10/28/2023 12:55:24 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

- 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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**Project:** Thistle Unit 10 Battery

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

#### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-20 0' Collection Date: 10/20/2023 12:20:00 PM · 1D to. 10/24/2022 7.50.00 AM

Lab ID: 2310B06-021	Matrix: SOIL	Rece	eived Date:	ved Date: 10/24/2023 7:50:00 AM		
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst: DGH	
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	10/27/2023 11:34:42 AM	
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	10/27/2023 11:34:42 AM	
Surr: DNOP	96.9	69-147	%Rec	1	10/27/2023 11:34:42 AM	
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst: KMN	
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/27/2023 12:50:00 PM	
Surr: BFB	102	15-244	%Rec	1	10/27/2023 12:50:00 PM	
EPA METHOD 8021B: VOLATILES					Analyst: <b>KMN</b>	
Benzene	ND	0.024	mg/Kg	1	10/27/2023 12:50:00 PM	
Toluene	ND	0.047	mg/Kg	1	10/27/2023 12:50:00 PM	
Ethylbenzene	ND	0.047	mg/Kg	1	10/27/2023 12:50:00 PM	
Xylenes, Total	ND	0.095	mg/Kg	1	10/27/2023 12:50:00 PM	
Surr: 4-Bromofluorobenzene	88.5	39.1-146	%Rec	1	10/27/2023 12:50:00 PM	
EPA METHOD 300.0: ANIONS					Analyst: SNS	
Chloride	97	60	mg/Kg	20	10/28/2023 1:07:48 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 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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Released to Imaging: 6/25/2025 2:43:17 PM

Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-20 1' Collection Date: 10/20/2023 12:30:00 PM Received Date: 10/24/2023 7:50:00 AM

Lab ID: 2310B06-022	Matrix: SOIL         Received Date: 10/24/2023 7:50:00				2023 7:50:00 AM
Analyses	Result	RL Qu	ual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGI	E ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	10/27/2023 12:46:13 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	10/27/2023 12:46:13 PM
Surr: DNOP	113	69-147	%Rec	1	10/27/2023 12:46:13 PM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/27/2023 1:55:00 PM
Surr: BFB	99.7	15-244	%Rec	1	10/27/2023 1:55:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	10/27/2023 1:55:00 PM
Toluene	ND	0.047	mg/Kg	1	10/27/2023 1:55:00 PM
Ethylbenzene	ND	0.047	mg/Kg	1	10/27/2023 1:55:00 PM
Xylenes, Total	ND	0.095	mg/Kg	1	10/27/2023 1:55:00 PM
Surr: 4-Bromofluorobenzene	90.0	39.1-146	%Rec	1	10/27/2023 1:55:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	ND	60	mg/Kg	20	10/28/2023 1:20:12 PM

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

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. 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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Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-21 0' Collection Date: 10/20/2023 12:40:00 PM **Deceived Dete:** 10/24/2022 7:50:00 AM

Lab ID: 2310B06-023	Matrix: SOIL	Received Date: 10/24/2023 7:50:00 AM							
Analyses	Result	RL Qu	al Units	DF	Date Analyzed				
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst: DGH				
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	10/27/2023 1:10:01 PM				
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	10/27/2023 1:10:01 PM				
Surr: DNOP	118	69-147	%Rec	1	10/27/2023 1:10:01 PM				
EPA METHOD 8015D: GASOLINE RANG	GE				Analyst: KMN				
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/27/2023 4:27:00 PM				
Surr: BFB	103	15-244	%Rec	1	10/27/2023 4:27:00 PM				
EPA METHOD 8021B: VOLATILES					Analyst: KMN				
Benzene	ND	0.024	mg/Kg	1	10/27/2023 4:27:00 PM				
Toluene	ND	0.048	mg/Kg	1	10/27/2023 4:27:00 PM				
Ethylbenzene	ND	0.048	mg/Kg	1	10/27/2023 4:27:00 PM				
Xylenes, Total	ND	0.096	mg/Kg	1	10/27/2023 4:27:00 PM				
Surr: 4-Bromofluorobenzene	90.5	39.1-146	%Rec	1	10/27/2023 4:27:00 PM				
EPA METHOD 300.0: ANIONS					Analyst: SNS				
Chloride	100	60	mg/Kg	20	10/28/2023 1:32:37 PM				

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

**Qualifiers:** 

Value exceeds Maximum Contaminant Level. 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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Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-21 2' Collection Date: 10/20/2023 12:50:00 PM Received Date: 10/24/2023 7:50:00 AM

Lab ID: 2310B06-024	Matrix: SOIL	Rece	eived Date:	10/24/	2023 7:50:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	10/27/2023 1:33:55 PM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	10/27/2023 1:33:55 PM
Surr: DNOP	108	69-147	%Rec	1	10/27/2023 1:33:55 PM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/27/2023 4:49:00 PM
Surr: BFB	100	15-244	%Rec	1	10/27/2023 4:49:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	10/27/2023 4:49:00 PM
Toluene	ND	0.048	mg/Kg	1	10/27/2023 4:49:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	10/27/2023 4:49:00 PM
Xylenes, Total	ND	0.095	mg/Kg	1	10/27/2023 4:49:00 PM
Surr: 4-Bromofluorobenzene	90.1	39.1-146	%Rec	1	10/27/2023 4:49:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	74	59	mg/Kg	20	10/28/2023 1:45:01 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

- 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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Thistle Unit 10 Battery

2310B06-025

**Project:** 

Lab ID:

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-21 3' Collection Date: 10/20/2023 1:00:00 PM Received Date: 10/24/2023 7:50:00 AM

<b>Lub ID:</b> 2310D00 025	Muu M. SOIL	<b>Received Dute:</b> 10/2 //2025 //.50.00 / 10/						
Analyses	Result	RL Qu	al Units	DF	Date Analyzed			
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst: DGH			
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	10/27/2023 1:57:45 PM			
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	10/27/2023 1:57:45 PM			
Surr: DNOP	109	69-147	%Rec	1	10/27/2023 1:57:45 PM			
EPA METHOD 8015D: GASOLINE RANG	<b>BE</b>				Analyst: KMN			
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/27/2023 5:10:00 PM			
Surr: BFB	104	15-244	%Rec	1	10/27/2023 5:10:00 PM			
EPA METHOD 8021B: VOLATILES					Analyst: KMN			
Benzene	ND	0.024	mg/Kg	1	10/27/2023 5:10:00 PM			
Toluene	ND	0.047	mg/Kg	1	10/27/2023 5:10:00 PM			
Ethylbenzene	ND	0.047	mg/Kg	1	10/27/2023 5:10:00 PM			
Xylenes, Total	ND	0.095	mg/Kg	1	10/27/2023 5:10:00 PM			
Surr: 4-Bromofluorobenzene	91.7	39.1-146	%Rec	1	10/27/2023 5:10:00 PM			
EPA METHOD 300.0: ANIONS					Analyst: SNS			
Chloride	150	60	mg/Kg	20	10/28/2023 1:57:26 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
- 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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Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-22 0' Collection Date: 10/20/2023 1:10:00 PM **Received Date:** 10/24/2023 7:50:00 AM

Lab ID: 2310B06-026	Matrix: SOIL	Rece	eived Date:	10/24/	2023 7:50:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGI	E ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	10/27/2023 2:21:38 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	10/27/2023 2:21:38 PM
Surr: DNOP	83.4	69-147	%Rec	1	10/27/2023 2:21:38 PM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	10/27/2023 5:32:00 PM
Surr: BFB	104	15-244	%Rec	1	10/27/2023 5:32:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	10/27/2023 5:32:00 PM
Toluene	ND	0.049	mg/Kg	1	10/27/2023 5:32:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	10/27/2023 5:32:00 PM
Xylenes, Total	ND	0.097	mg/Kg	1	10/27/2023 5:32:00 PM
Surr: 4-Bromofluorobenzene	88.8	39.1-146	%Rec	1	10/27/2023 5:32:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	550	60	mg/Kg	20	10/28/2023 2:09:51 PM

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

**Qualifiers:** 

- Value exceeds Maximum Contaminant Level. 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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**Project:** Thistle Unit 10 Battery

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-22 2' Collection Date: 10/20/2023 1:20:00 PM wed Data, 10/24/2022 7.50.00 AM ъ

Lab ID: 2310B06-027	Matrix: SOIL	Rece	eived Date:	10/24/	2023 7:50:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RAM	IGE ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	10/27/2023 2:45:29 PM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	10/27/2023 2:45:29 PM
Surr: DNOP	111	69-147	%Rec	1	10/27/2023 2:45:29 PM
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/27/2023 5:53:00 PM
Surr: BFB	104	15-244	%Rec	1	10/27/2023 5:53:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	10/27/2023 5:53:00 PM
Toluene	ND	0.047	mg/Kg	1	10/27/2023 5:53:00 PM
Ethylbenzene	ND	0.047	mg/Kg	1	10/27/2023 5:53:00 PM
Xylenes, Total	ND	0.094	mg/Kg	1	10/27/2023 5:53:00 PM
Surr: 4-Bromofluorobenzene	88.6	39.1-146	%Rec	1	10/27/2023 5:53:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	970	60	mg/Kg	20	10/28/2023 2:22:16 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

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 27 of 37

Thistle Unit 10 Battery

**Project:** 

**Analytical Report** Lab Order 2310B06

Date Reported: 11/3/2023

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-22 3' Collection Date: 10/20/2023 1:30:00 PM **Deceived Dete:** 10/24/2022 7:50:00 AM

Lab ID: 2310B06-028	Matrix: SOIL	Rece	eived Date:	10/24/	/2023 7:50:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	10/27/2023 3:09:20 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	10/27/2023 3:09:20 PM
Surr: DNOP	118	69-147	%Rec	1	10/27/2023 3:09:20 PM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: KMN
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	10/27/2023 6:15:00 PM
Surr: BFB	101	15-244	%Rec	1	10/27/2023 6:15:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.025	mg/Kg	1	10/27/2023 6:15:00 PM
Toluene	ND	0.050	mg/Kg	1	10/27/2023 6:15:00 PM
Ethylbenzene	ND	0.050	mg/Kg	1	10/27/2023 6:15:00 PM
Xylenes, Total	ND	0.099	mg/Kg	1	10/27/2023 6:15:00 PM
Surr: 4-Bromofluorobenzene	88.6	39.1-146	%Rec	1	10/27/2023 6:15:00 PM
EPA METHOD 300.0: ANIONS					Analyst: SNS
Chloride	190	60	mg/Kg	20	10/28/2023 2:34:41 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
- 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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Released to Imaging: 6/25/2025 2:43:17 PM

Client:	Devon Er	nergy								
Project:	Thistle U	Init 10 Battery								
Sample ID:	MB-78426	SampType: N	/IBLK	Tes	tCode: EP	A Method	300.0: Anions			
Client ID:	PBS	Batch ID: 7	8426	F	RunNo: <b>10</b>	0786				
Prep Date:	10/27/2023	Analysis Date:	10/27/2023	S	SeqNo: 36	97349	Units: mq/K	a		
Analyte		Result PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND 1.		SPK Rei vai	%REC	LOWLIMIL	nignLimit	%RPD	RPDLIMI	Qual
			0							
Sample ID:	LCS-78426	SampType: L	CS	Tes	tCode: EP	A Method	300.0: Anions			
Client ID:	LCSS	Batch ID: 7	8426	F	RunNo: <b>10</b>	0786				
Prep Date:	10/27/2023	Analysis Date:	10/27/2023	5	SeqNo: <b>36</b>	97350	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	91.3	90	110			
Sample ID:	MB-78427	SampType: N	/IBLK	Tes	tCode: EP	A Method	300.0: Anions			
Client ID:	PBS	Batch ID: 7	8427	F	RunNo: <b>10</b>	0819				
Prep Date:	10/28/2023	Analysis Date:	10/28/2023	S	SeqNo: 36	98683	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-78427	SampType: L	CS	Tes	tCode: EP	A Method	300.0: Anions			
Client ID:	LCSS	Batch ID: 7	8427	F	RunNo: <b>10</b>	0819				
Prep Date:	10/28/2023	Analysis Date:	10/28/2023	S	SeqNo: <b>36</b>	98684	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	91.4	90	110			

14 1.5 15.00 0 91.4 90

**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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2310B06

03-Nov-23

WO#:

	WO#:	2310B06	
oratory, Inc.		03-Nov-23	

Client:Devon ErProject:Thistle U	nergy nit 10 Battery									
Sample ID: MB-78364	SampType:	IBLK	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics		
Client ID: PBS	Batch ID: 7	8364	F	RunNo: <b>10</b>	0744					
Prep Date: 10/25/2023	Analysis Date:	10/25/2023	S	SeqNo: <b>36</b>	95174	Units: mg/K	g			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND 1	0								
Motor Oil Range Organics (MRO) Surr: DNOP	ND 5 9.9	0 10.00		99.2	69	147				
	9.9	10.00		99.2	09	147				
Sample ID: LCS-78364	SampType: L		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 7	8364	RunNo: 100744							
Prep Date: 10/25/2023	Analysis Date:	10/25/2023	3 SeqNo: 3695175 Units: mg/Kg							
Analyte	Result PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO) Surr: DNOP	51 1		0	102	61.9	130				
	5.1	5.000		103	69	147				
Sample ID: 2310B06-001AMS	SampType:		Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics		
Client ID: BH23-11 0'	Batch ID: 7	Batch ID: <b>78354</b> RunNo: <b>100748</b>								
Prep Date: 10/24/2023	Analysis Date:	10/25/2023	S	SeqNo: 36	95332	Units: mg/K	g			
Analyte	Result PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO) Surr: DNOP	49 9. 5.3	2 45.87 4.587	0	108 115	54.2 69	135 147				
	0.0	4.007		110	05	177				
Sample ID: 2310B06-001AMSE						8015M/D: Die	sel Range	Organics		
Client ID: BH23-11 0'	Batch ID: 7			RunNo: <b>10</b>						
Prep Date: 10/24/2023	Analysis Date:	10/25/2023	ç	SeqNo: 36	95333	Units: mg/K	g			
Analyte	Result PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO) Surr: DNOP	45 8. 4.9	9 44.56 4.456	0	102 109	54.2 69	135 147	8.98 0	29.2 0		
			<del>_</del>							
Sample ID: LCS-78336	SampType:					8015M/D: Die	sel Range	Organics		
Client ID: LCSS	Batch ID: 7			RunNo: 10						
Prep Date: 10/24/2023	Analysis Date:	10/25/2023	3	SeqNo: 36	695349	Units: %Red	;			
	Result PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	6.1	5.000		122	69	147				
Sample ID: LCS-78354	SampType: L	.CS	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics		
Client ID: LCSS	Batch ID: 7	8354	F	RunNo: <b>1(</b>	0748					
Prep Date: 10/24/2023	Analysis Date:	10/25/2023	Ş	SeqNo: 36	695350	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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2310B06	WO#:	
03-Nov-23		

Client: Project:	Devon En Thistle Un		ery									
Sample ID:	LCS-78354 LCSS	SampTy Batch	pe: <b>LC</b>			tCode: EF		8015M/D: Die	sel Range	Organics		
Prep Date:	10/24/2023	Analysis Da				SeqNo: 36		Units: mg/K	a			
Analyte		Result	PQL		SPK Ref Val	•	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Or	rganics (DRO)	64	10	50.00	0	128	61.9	130			Quui	
Surr: DNOP		6.9		5.000		137	69	147				
Sample ID:	MB-78336	SampTy	pe: <b>ME</b>	BLK TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID:	PBS	Batch	ID: 783	336	F	RunNo: <b>1(</b>	00748					
Prep Date:	10/24/2023	Analysis Da	ate: 10	/25/2023	S	SeqNo: <b>36</b>	695351	Units: %Rec				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP		11		10.00		107	69	147				
Sample ID:	MB-78354	SampTy	/pe: <b>ME</b>	BLK	Tes	tCode: EF	PA Method	8015M/D: Die:	sel Range	Organics		
Client ID:	PBS	Batch	ID: 783	354	RunNo: 100748							
Prep Date:	10/24/2023	Analysis Da	ate: 10	/25/2023	S	SeqNo: <b>36</b>	695352	Units: mg/K	g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range O	•	ND	10									
Motor Oil Range Surr: DNOP	Organics (MRO)	ND 13	50	10.00		126	69	147				
					_							
Sample ID:		SampTy						8015M/D: Die	sel Range	Organics		
			ID: 783			RunNo: 1(						
Prep Date:	10/26/2023	Analysis Da				SeqNo: 36		Units: mg/K	•			
Analyte Diesel Range Or	manics (DRO)	Result 59	PQL 10	SPK value 50.00	SPK Ref Val	%REC 118	LowLimit 61.9	HighLimit 130	%RPD	RPDLimit	Qual	
Surr: DNOP	games (Brto)	5.9	10	5.000	0	117	69	147				
Sample ID:	2310B06-021AMS	SampTy	no. <b>MS</b>		Tee	tCode: EE	A Mothod	8015M/D: Die	ol Panga	Organias		
	BH23-20 0'		ID: 783			RunNo: 1(			sei Kaliye	Organics		
Prep Date:	10/26/2023	Analysis Da				SeqNo: 36		Units: mg/K	a			
Analyte		Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Or	rganics (DRO)	59	10	49.80	0	118	54.2	135	7011 D		Quai	
Surr: DNOP	_ 、 /	5.8		4.980		117	69	147				
Sample ID:	2310B06-021AMSD	SampTy	/pe: <b>MS</b>	D	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics		
Client ID:	BH23-20 0'		ID: <b>78</b> 3			RunNo: <b>1(</b>			5	-		
Prep Date:	10/26/2023	Analysis Da			S	SeqNo: 36	697483	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: Devon En Project: Thistle U	nergy Init 10 Bat	tery								
Sample ID: 2310B06-021AMS	•	Гуре: <b>МS</b>					8015M/D: Die	esel Range	Organics	
Client ID: BH23-20 0'	Batcl	h ID: 78:	394	F	RunNo: 10	00806				
Prep Date: 10/26/2023	Analysis E	Date: 10	/27/2023	S	SeqNo: 36	697483	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.4	47.04	0	103	54.2	135	18.6	29.2	
Surr: DNOP	4.7		4.704		99.2	69	147	0	0	
Sample ID: MB-78394	Samp	Гуре: МЕ	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	Organics	
Client ID: PBS	Batcl	h ID: <b>78</b> :	394	F	RunNo: <b>1(</b>	00812				
Prep Date: 10/26/2023	Analysis [	Date: 10	/30/2023	Ś	SeqNo: 36	698206	Units: <b>mg/k</b>	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		108	69	147			

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical 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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2310B06

03-Nov-23

WO#:

WO#:	2310B06
	03-Nov-23

03-Nov-2	23
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Client: Devon E	0.	
Project: Thistle U	Jnit 10 Battery	
Sample ID: Ics-78340	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range
Client ID: LCSS	Batch ID: 78340	RunNo: 100731
Prep Date: 10/24/2023	Analysis Date: 10/25/2023	SeqNo: 3694360 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO) Surr: BFB	245.025.0022001000	0 94.3 70 130 219 15 244
Sample ID: mb-78340	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range
Client ID: PBS	Batch ID: 78340	RunNo: 100731
Prep Date: 10/24/2023	Analysis Date: 10/25/2023	SeqNo: 3694361 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO) Surr: BFB	ND 5.0 1100 1000	109 15 244
Sample ID: Ics-78352	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range
Client ID: LCSS	Batch ID: 78352	RunNo: 100731
Prep Date: 10/24/2023	Analysis Date: 10/25/2023	SeqNo: 3694380 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	24 5.0 25.00	0 95.5 70 130
Surr: BFB	2200 1000	219 15 244
Sample ID: mb-78352	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range
Client ID: PBS	Batch ID: 78352	RunNo: 100731
Prep Date: 10/24/2023	Analysis Date: 10/25/2023	SeqNo: 3694381 Units: mg/Kg
Analyte		SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO) Surr: BFB	ND 5.0 990 1000	99.1 15 244
Sample ID: Ics-78365	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range
Client ID: LCSS	Batch ID: 78365	RunNo: 100788
Prep Date: 10/25/2023	Analysis Date: 10/27/2023	SeqNo: 3696966 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	26 5.0 25.00	0 104 70 130
Surr: BFB	2300 1000	229 15 244
Sample ID: mb-78365	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range
Client ID: PBS	Batch ID: 78365	RunNo: 100788
Prep Date: 10/25/2023	Analysis Date: 10/27/2023	SeqNo: 3698542 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

**Qualifiers:** 

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

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

Sample pH Not In Range

Р Reporting Limit RL

Page 33 of 37

Devon Energy

**Client:** 

# **QC SUMMARY REPORT** Hall Environmental Analysis Laboratory, Inc.

<b>0</b> 110	lifia	
Oua	innei	rs:

- \* 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
- Released to Imaging: 6/25/2025 2:43:17 PM

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

Page 34 of 37

Project:	Thistle Ur	nit 10 Bat	tery								
Sample ID:	mb-78365	SampType: <b>MBLK</b>			Tes	TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID: 78365			F	RunNo: <b>1(</b>	00788				
Prep Date:	10/25/2023	Analysis Date: 10/27/2023			S	SeqNo: 36	698542	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	ND	5.0								
Surr: BFB		1100		1000		105	15	244			
Sample ID:	2310B06-021ams	SampType: MS			Tes	TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	BH23-20 0'	Batcl	h ID: <b>78</b> :	365	RunNo: 100788						
Prep Date:	10/25/2023	Analysis [	Date: 10	/27/2023	SeqNo: 3698544			Units: <b>mg/Kg</b>			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	25	4.7	23.63	0	107	70	130			
Surr: BFB		2100		945.2		227	15	244			
Sample ID:	2310B06-021amsd	SampT	Гуре: МS	SD	Tes	tCode: EF	PA Method	8015D: Gaso	line Range	•	
		Batch ID: 78365			RunNo: <b>100788</b>						
Client ID:	BH23-20 0'	Datci	n ID: 78.	365	F		JU/88				
Client ID: Prep Date:	10/25/2023	Analysis E				SeqNo: 36		Units: <b>mg/K</b>	g		
				)/27/2023				Units: <b>mg/K</b> HighLimit	<b>g</b> %RPD	RPDLimit	Qual
Prep Date: Analyte		Analysis [	Date: 10	)/27/2023	S	SeqNo: 36	698545	•	•	RPDLimit 20	Qual

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WO#:	2310B06
	03-Nov-23

WO#:	2310B06
	02 Nov. 22

03-Nov-23

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Client: Devon En Project: Thistle U	nergy Init 10 Bat	terv								
Thoject. Thistic C	int 10 Dat	uci y								
Sample ID: Ics-78340	SampT	Гуре: <b>LC</b>	S	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: LCSS	Batcl	h ID: 783	340	F	RunNo: <b>1(</b>	00731				
Prep Date: 10/24/2023	Analysis E	Date: 10	/25/2023	5	SeqNo: 36	694404	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.025	1.000	0	84.7	70	130			
Toluene	0.87	0.050	1.000	0	86.6	70	130			
Ethylbenzene	0.87	0.050	1.000	0	87.4	70	130			
Xylenes, Total	2.6	0.10	3.000	0	86.9	70	130			
Surr: 4-Bromofluorobenzene	0.91		1.000		91.5	39.1	146			
Sample ID: mb-78340	SampType: MBLK			Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: PBS	Batch ID: 78340		F	RunNo: <b>1(</b>	00731					
Prep Date: 10/24/2023	Analysis Date: 10/25/2023			S	SeqNo: 36	694405	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	0.93		1.000		93.4	39.1	146			
Sample ID: Ics-78352	SampT	Гуре: <b>LC</b>	S	TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batc	h ID: 783	352	RunNo: 100731						
Prep Date: 10/24/2023	Analysis [	Date: 10	/25/2023	SeqNo: 3694424 Units: mg/Kg				g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	87.7	70	130			
Toluene	0.89	0.050	1.000	0	89.2	70	130			
Ethylbenzene	0.90	0.050	1.000	0	89.6	70	130			
Xylenes, Total	2.7	0.10	3.000	0	89.1	70	130			
Surr: 4-Bromofluorobenzene	0.90		1.000		89.5	39.1	146			
Sample ID: mb-78352	Samp	Гуре: <b>МЕ</b>	BLK	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: PBS	Batcl	h ID: 783	352	F	RunNo: <b>1(</b>	00731				
Prep Date: 10/24/2023	Analysis [	Date: 10	/25/2023	S	SeqNo: 36	694425	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	0.88		1.000		88.5	39.1	146			

#### **Qualifiers:**

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

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

PQL Practical 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 35 of 37

.

Devon Energy

Thistle Unit 10 Battery

**Client:** 

**Project:** 

Client ID:

Prep Date:

Analvte

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Client ID:

Prep Date:

Analyte

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Client ID:

Prep Date:

Analyte

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Sample ID: Ics-78340

LCSS

Surr: 4-Bromofluorobenzene

PBS

Surr: 4-Bromofluorobenzene

LCSS

10/24/2023

Sample ID: Ics-78352

10/24/2023

Sample ID: mb-78340

10/24/2023

## **QC SUMMARY REPORT** Hall Environmental Analysis Laboratory, Inc.

Result

0.85

0.86

0.88

2.6

0.89

Result

ND

ND

ND

ND

0.87

Result

0.92

0.92

0.93

2.8

SampType: LCS

Batch ID: 78340

Analysis Date: 10/26/2023

PQL

0.025

0.050

0.050

0 10

SampType: MBLK

Batch ID: 78340

Analysis Date: 10/26/2023

PQL

0.025

0.050 0.050

0.10

SampType: LCS

Batch ID: 78352

Analysis Date: 10/26/2023

PQL

0.025

0.050

0.050

0.10

SPK value

1.000

1.000

1.000

3.000

1.000

1.000

SPK value

1.000

1.000

1.000

3.000

SPK value SPK Ref Val

SPK Ref Val

0

0

0

0

Surr: 4-Bromofluorobenzene	0.92		1.000		92.2	39.1	146			
Sample ID: mb-78352	SampT	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volati	les		
Client ID: PBS	Batcl	h ID: 783	352	F	RunNo: 10	00755				
Prep Date: 10/24/2023	Analysis [	Date: 10	/26/2023	Ş	SeqNo: 3	696791	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		91.6	39.1	146			

SPK Ref Val

O

0

0

0

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded Н

ND Not Detected at the Reporting Limit

POL Practical Quanitative Limit

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

Е Above Quantitation Range/Estimated Value

Analyte detected below quantitation limits J

Р Sample pH Not In Range

RL Reporting Limit Qual

Qual

Qual

WO#:

RPDLimit

RPDLimit

RPDLimit

TestCode: EPA Method 8021B: Volatiles

LowLimit

70

70

70

70

39.1

TestCode: EPA Method 8021B: Volatiles

LowLimit

39.1

TestCode: EPA Method 8021B: Volatiles

LowLimit

70

70

70

70

Units: mg/Kg

130

130

130

130

146

Units: mg/Kg

146

Units: mg/Kg

130

130

130

130

HighLimit

HighLimit

%RPD

%RPD

%RPD

HighLimit

RunNo: 100755

SeqNo: 3696781

%REC

84.9

85.7

87.6

86.9

89.1

RunNo: 100755

SeqNo: 3696782

%REC

87.3

RunNo: 100755

SeqNo: 3696790

%REC

91.9

92.1

93.4

93.0

WO#:	2	310	B06
	0.2		

03-Nov-23

Client: Project:	Devon Ene Thistle Uni		tery								
Sample ID: Ics-78	365	SampT	ype: LC	s	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: LCSS		Batch	n ID: <b>78</b> 3	365	F	RunNo: 1	00788				
Prep Date: 10/25	5/2023	Analysis D	Date: 10	/27/2023	S	SeqNo: 3	696961	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.89	0.025	1.000	0	88.5	70	130			
Toluene		0.89	0.050	1.000	0	88.6	70	130			
Ethylbenzene		0.91	0.050	1.000	0	90.7	70	130			
Xylenes, Total		2.7	0.10	3.000	0	90.7	70	130			
Surr: 4-Bromofluorob	enzene	0.92		1.000		91.7	39.1	146			
Sample ID: mb-78	365	SampType: MBLK			Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: PBS		Batch ID: 78365			F	RunNo: 10	00788				
Prep Date: 10/25	5/2023	Analysis Date: 10/27/2023			S	SeqNo: 30	698602	Units: mg/k	٢g		
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-Bromofluorob	enzene	0.92		1.000		92.1	39.1	146			
Sample ID: 2310B	06-022ams	SampT	уре: <b>МS</b>	;	TestCode: EPA Method 8021B: Volatiles						
Client ID: BH23-	20 1'	Batcl	n ID: <b>783</b>	365	RunNo: 100788						
Prep Date: 10/25	5/2023	Analysis D	Date: 10	/27/2023	SeqNo: 3698605 Units: mg/Kg						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.83	0.024	0.9497	0	87.4	70	130			
Toluene		0.84	0.047	0.9497	0	88.2	70	130			
Ethylbenzene		0.87	0.047	0.9497	0	91.2	70	130			
Xylenes, Total		2.6	0.095	2.849	0	91.1	70	130			
Surr: 4-Bromofluorob	enzene	0.85		0.9497		89.4	39.1	146			
Sample ID: 2310B	06-022amsd	SampT	ype: MS	D	Tes	tCode: E	PA Method	8021B: Volat	iles		
	20 1'	Batch ID: <b>78365</b>			RunNo: 100788						
Client ID: BH23-	201	Analysis Date: 10/27/2023			SeqNo: 3698606 Units: mg/Kg						
					\$	SeqNo: 3	698606	Units: mg/k	٢g		
				/27/2023	SPK Ref Val	SeqNo: <b>3</b> 6 %REC	6 <b>98606</b> LowLimit	Units: <b>mg/k</b> HighLimit	<b>(g</b> %RPD	RPDLimit	Qual
Prep Date: 10/25		Analysis E	Date: 10	/27/2023				-	-	RPDLimit 20	Qual
Prep Date: 10/25 Analyte Benzene Toluene		Analysis E Result	Date: 10 PQL	/27/2023 SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD		Qual
Prep Date: <b>10/25</b> Analyte Benzene		Analysis E Result 0.83	Date: <b>10</b> PQL 0.024	<b>SPK value</b> 0.9452	SPK Ref Val 0	%REC 88.1	LowLimit 70	HighLimit 130	%RPD 0.272	20	Qual
Prep Date: 10/25 Analyte Benzene Toluene		Analysis E Result 0.83 0.84	Date: <b>10</b> PQL 0.024 0.047	V27/2023 SPK value 0.9452 0.9452	SPK Ref Val 0 0	%REC 88.1 89.0	LowLimit 70 70	HighLimit 130 130	%RPD 0.272 0.339	20 20	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

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Albi TEL: 505-345-3975 Website: www.ha	4901 Ha uquerque. N FAX: 505-	wkins NE M 87109 345-4107	Sar	nple Log-In (	Check List
Client Name: Devon Energy	Work Order Number:	2310B06	i		RcptNo	: 1
Received By: Tracy Casarrubias Completed By: Tracy Casarrubias Reviewed By: Sc.M 10/24/2	10/24/2023 7:50:00 AN 10/24/2023 8:11:16 AN					
<u>Chain of Custody</u>						
1. Is Chain of Custody complete?		Yes 🗌	Ν	lo 🔽	Not Present	
2. How was the sample delivered?		Client				
Log In						
3. Was an attempt made to cool the samples?		Yes 🔽	N	lo 🗌	NA 🗌	
4. Were all samples received at a temperature of	of >0° C to 6.0°C	Yes 🗹	N	io 🗌		
5. Sample(s) in proper container(s)?		Yes 🗹	N	lo 🗌		
6. Sufficient sample volume for indicated test(s)	?	Yes 🗹	N	•		
7. Are samples (except VOA and ONG) properly	preserved?	Yes 🗹	N	•		
8. Was preservative added to bottles?		Yes 🗌	N	• 🔽	NA 🗌	
9. Received at least 1 vial with headspace <1/4"	for AQ VOA?	Yes 🗌	N	•	NA 🗹	
10. Were any sample containers received broker	1?	Yes □	N	• 🗸		
11.Does paperwork match bottle labels?		Yes 🗹	N	•	# of preserved bottles checked for pH:	r 12 usloss notes
(Note discrepancies on chain of custody)	Lucto du O	Vaa 🗌	NL	o 🔽	o 2 م) Adjusted?	r >12 unless neted)
12. Are matrices correctly identified on Chain of C 13. Is it clear what analyses were requested?	sustody?	Yes 🗌				
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗹		•	Checked by:	7~ 10/24/23
Special Handling (if applicable)						
15. Was client notified of all discrepancies with the	nis order?	Yes 🗌	N	lo 🗌	NA 🔽	
Person Notified:	Date:					
By Whom:	Via:	eMail (	Phone [	Fax	In Person	
Regarding:		and a definition of the				
Client Instructions: Mailing address.p	hone number, Email/Fax	, time of re	linquishme	nt, and	times of collection	
16. Additional remarks:						
17. <u>Cooler Information</u> Cooler No Temp <sup>o</sup> C Condition Se 1 5.4 Good Yes		eal Date	Signe	d By		

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Received	by	OCD:	6/6/2025	11:13:25 AM
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Received	by OCD.	: 6/6/2025	5 11:13:25 AM				31											1	Page 1	73 of 374
С	hain-	of-Cu	stody Record		Turn-Around	Time:					Н	AL	LE	EN۱	/IF	20	NM	EN	ITA	L
Client: Devon				Standard		5 Day				A	NA	LY	SI	S L	AB	OF	2A7	TOF	RY	
	1999 A.				Project Name		+ 10 Bitton	0.000						nviron						
Mailing	Address	On	file		I NIS	the Uni	14 10 Battery 784	4901 Hawkins NE - Albuquerque, NM 87109												
					Project #:	-04-	784	Tel. 505-345-3975 Fax 505-345-4107 Analysis Request												
Phone #	ŧ:						01													
email or	Fax#:	V			Project Mana	-		21)	/ MRO)	S		S			12	sen	22	30		
QA/QC F				iam)	Kent	Stallin	95	TMB's (8021)	2/0	PCB's		8270SIMS				(Present/Absent)	1.00			
□ Stan		= 4- 0-	Level 4 (Full Validat			ryce Mor		MB	DRO		<del>,</del>	3270				eser			1	
Accredi		□ Az Co □ Othe	ompliance		On Ice:	V Yes	DNo morty		log log	es/8(	504	or			(Yo	ď				
					# of Coolers:			MTBE /	R	licide	poq	8310	<u>Aeta</u>			form				
				ŀ	Cooler Temp	O(including CF): 5.5	5-01-54 (°C)	line and the	3015	Pesticides/8082	(Met	ĥ	8 4	ř S	(Sei	Coli				
		Ч <sub>к</sub>	1		Container	Preservative	HEAL No.	RTEX	TPH:8015D GRO	8081	EDB (Method 504.1)	PAHs by 8310 or	RCRA 8 Metals	8260 (VOA)	8270 (Semi-VOA)	Total Coliform				
		Matrix	Sample Name		Type and #	Туре	2310806	190	V	<u> </u>	Ш				0	F			-	
10.207	9:00	Soil	BH23-11	0	toz jar	Ice	001	++			$\rightarrow$	_						+	1.00	+ + - +
	9:10	2.2	BH23-11	ð,	1		002	++				-	_	-		_		+		+ + - + - +
	9:20	1. 5	BH23-11	3			003	11				-			—					+ - + - +
	9:30		8423-12	0'			004	$\downarrow$		<u> </u>	_	_	_	++-	-	1			_	
	9:40		BH23-12	2	* ( D== )		005	$\downarrow$					_	11-	-			$\rightarrow$		
	9:50		BH23-12	3'		1	006	$\downarrow$	-			-	-		1		$\vdash$	-+-		
	90:00		BH23-13	0			007	++		<u> </u>			_	+	-			-+-		+-+-
	10:10		BH23-13	2			300	++				$\rightarrow$			-	-		-		
	10:20		DH23-13	3			009	++					-		-	-		+		┥─┼─┤
	10:30		BH23-14	0'			010	_ _		<u> </u>		-	_	$\left  \right $	_					
	10:40		BH23-14	2			011						_		-	-		-		┼╌┼╌┥
V	10.50	mic miculty	BH23-15	0'			Date Time		//	(8.)	101	2	12	V	1	1				
Date: Time: Relinquished by:		Received by: Via: Date Time				Remarks: W0;21706611														
10,207		Polinguis	had by:		Received by:	Via:Count	10/13/23 1100 Date Time	-								0 29-0	5 (4) (4) (1) (4)			
Date: Time: Relinquished by:				Received by: Via. Cult. 4 Date Time				Please oc Bryce Mortimer at BMortimen Provertexic							vertex ici					
IME	1900	IW	mmp			- Charata	This serves as notice of t	his po												26

Released to maging: 6/25/2025 2:43:17 PM

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Received	' by	OCD:	6/6/2025	11:13	3:25 AM
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Received	by OCD:	6/6/2025	5 11:13:25 AM	1						_											P	age 1	74 of 374
Chain-or-Custody Record				Turn-Around Time:							н		LL	EN	11	IR	0	NM	IEN	ITA	L		
Client: Devon				Star	ndard	Rush	<u>5 Day</u> ) Battery 184		ANALYSIS LABORATORY								RY						
				<u></u>		The		11 0 1 10	R Hanny										al.co				
Mailing	Address	On.	file				TR	Unit IC	Daitery	4901 Hawkins NE - Albuquerque, NM 87109													
	199	/				Project	#: 2 c	- 047	184	Tel. 505-345-3975 Fax 505-345-4107 Analysis Request													
Phone		/_							0.1														
email o	r Fax#:	V				Project				21)	R0	<u>_</u> 0		S		, SO4			sen				
	Package:			(Full Validati	on)	Ken	+	Stalling	5	TMB's (8021)	/ DRO / MRO)	PCB's		8270SIMS		NO <sub>2</sub> , PO <sub>4</sub> ,			Total Coliform (Present/Absent)				
□ Stan			ompliance		<u>()</u>	100		yce Morti		Į₿	DR		<del>,</del>	827(		<sup>2</sup> ,			esel				
			•			On Ice:		Ves	DNo morty	-	RO /	es/8	504.1)	5	S	3, 2		(Yo	P.				
	(Type)		-T			# of Co		1	5 0.1= 5.4 (°C)	Ē	8	ticid	poq	831(	Aeta	2	A	-in-	form				
						Cooler	Temp	(Including CF):55	5 0.1= 5.4 (°C)	BTEX/ MTBE	TPH:8015D/GRO	8081 Pesticides/8082	EDB (Method	PAHs by 8310	RCRA 8 Metals	CINF, Br, NO <sub>3</sub> ,	8260 (VOA)	8270 (Semi-VOA)	Coli			2	
	2.2.0					Contain		Preservative	HEAL No.	μ	PH:8	081	DB	AHS	SCR	ц.	260	270	otal				
Date		Matrix	Sample N			Type ar		Туре	2310 BOL	N		8	<u> </u>	<u> </u>			<u></u>	<u></u>					╏─┤━┤
10,20,23	11:00	Soil	BH23-	12		402 3	ar	Ice	013	++	++					+					+		$\left  - \right  - \left  - \right $
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Chain-of-Custody Record	Turn-Around Time:													
Client: Devon	■ Standard & Rush 5 Day Project Name: Thistle Unit 10 Battery Project #: 23 E + 04784	HALL ENVIRONMENTAL ANALYSIS LABORATORY												
Mailing Address: On File	Thistle Drit 10 Battory	www.hallenvironmental.com												
<u>Un File</u>	Project #:	4901 Hawkins NE - Albuquerque, NM 87109												
Phone #:	- 23E-04784	Tel. 505-345-3975 Fax 505-345-4107 Analysis Request												
email or Fax#:	Project Manager:													
QA/QC Package: □ Standard □ Level 4 (Full Validation)	Kent Stallings	<ul> <li>7 TMB's (8021)</li> <li>7 TMB's (8021)</li> <li>8 (8082 PCB's</li> <li>504.1)</li> <li>or 8270SIMS</li> <li>s</li> <li>0 8270SIMS</li> <li>s</li> <li>n NO2, PO4, SO4</li> <li>A)</li> <li>(Present/Absent)</li> </ul>												
Accreditation:  Accreditation:	Sampler: Brice Martimen On Ice: Yes D No	TMB's 7 / DRO 7 / DRO 7 8270S 8 / NO <sub>2</sub> , P( 9												
□ EDD (Type)	# of Coolers:	MTBE / 50/GR0 ethod 50 Metals Metals OA) OA) emi-VO, emi-VO,												
	Cooler Temp(including CF): 55 (°C)	X MTBE / 7 3015D/GRO Pesticides/8 (Method 504 (Method 504 by 8310 or by 8310 or A 8 Metals Br, NO <sub>3</sub> , N (VOA) (VOA) (Semi-VOA) (Semi-VOA)												
Date Time Matrix Sample Name	Container Preservative HEAL No. Type and # Type 2310B0 6	BTEXY MTBE / TMB's (802         FPH:8015D(GRO / DRO / MF         8081 Pesticides/8082 PCB's         BDB (Method 504.1)         PAHs by 8310 or 8270SIMS         RCRA 8 Metals         C) F, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , \$         8260 (VOA)         8270 (Semi-VOA)         70tal Coliform (Present/Absec)												
10.20,7 13:00 Soil, BH23-21 3'	tajor Ice 025													
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If necessary, samples submitted to Hall Environmental may be exponentiated to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Environment Testing

Eurofins Environment Testing South Central, LLC 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

November 22, 2023 Kent Stallings Vertex Resources Services, Inc.

3101 Boyd Drive Carlsbad, NM 88220 TEL: FAX:

RE: Thistle Unit 10 CTB

OrderNo.: 2311452

Dear Kent Stallings:

Eurofins Environment Testing South Central, LLC received 18 sample(s) on 11/9/2023 for the analyses presented in the following report.

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

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Date Reported: 11/22/2023

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-23 0' **Project:** Thistle Unit 10 CTB Collection Date: 11/7/2023 9:00:00 AM Lab ID: 2311452-001 Matrix: SOIL Received Date: 11/9/2023 7:40:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) ND 11/15/2023 7:40:48 AM 9.8 mg/Kg 1 Motor Oil Range Organics (MRO) 1 11/15/2023 7:40:48 AM ND 49 mg/Kg Surr: DNOP 79.5 69-147 %Rec 1 11/15/2023 7:40:48 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.6 mg/Kg 1 11/15/2023 2:06:13 PM Surr: BFB 11/15/2023 2:06:13 PM 100 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.023 mg/Kg 1 11/15/2023 2:06:13 PM Toluene ND 0.046 mg/Kg 1 11/15/2023 2:06:13 PM Ethylbenzene 11/15/2023 2:06:13 PM ND 0.046 mg/Kg 1 Xylenes, Total ND 0.093 mg/Kg 1 11/15/2023 2:06:13 PM Surr: 4-Bromofluorobenzene 95.8 39.1-146 %Rec 1 11/15/2023 2:06:13 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 11/15/2023 7:05:45 PM 100 61 mg/Kg 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

Date Reported: 11/22/2023

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-23 2' **Project:** Thistle Unit 10 CTB Collection Date: 11/7/2023 9:10:00 AM Lab ID: 2311452-002 Matrix: SOIL Received Date: 11/9/2023 7:40:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) ND 9.6 11/15/2023 7:51:28 AM mg/Kg 1 Motor Oil Range Organics (MRO) 1 11/15/2023 7:51:28 AM ND 48 mg/Kg Surr: DNOP 93.8 %Rec 1 11/15/2023 7:51:28 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.7 mg/Kg 1 11/15/2023 1:19:23 PM Surr: BFB 11/15/2023 1:19:23 PM 102 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.024 mg/Kg 1 11/15/2023 1:19:23 PM Toluene ND 0.047 mg/Kg 1 11/15/2023 1:19:23 PM Ethylbenzene 11/15/2023 1:19:23 PM ND 0.047 mg/Kg 1 Xylenes, Total ND 0.094 mg/Kg 1 11/15/2023 1:19:23 PM Surr: 4-Bromofluorobenzene 93.0 39.1-146 %Rec 1 11/15/2023 1:19:23 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride ND 11/15/2023 8:07:48 PM 60 mg/Kg 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
- POL 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
- J Analyte detected below quantitation limit
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/22/2023

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-24 0' **Project:** Thistle Unit 10 CTB Collection Date: 11/7/2023 9:20:00 AM Lab ID: 2311452-003 Matrix: SOIL Received Date: 11/9/2023 7:40:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) ND 9.2 11/15/2023 8:02:03 AM mg/Kg 1 Motor Oil Range Organics (MRO) 1 11/15/2023 8:02:03 AM ND 46 mg/Kg Surr: DNOP 91.8 %Rec 1 11/15/2023 8:02:03 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.9 mg/Kg 1 11/15/2023 2:29:39 PM Surr: BFB 11/15/2023 2:29:39 PM 93.5 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.025 mg/Kg 1 11/15/2023 2:29:39 PM Toluene ND 0.049 mg/Kg 1 11/15/2023 2:29:39 PM Ethylbenzene 11/15/2023 2:29:39 PM ND 0.049 mg/Kg 1 Xylenes, Total ND 0.098 mg/Kg 1 11/15/2023 2:29:39 PM Surr: 4-Bromofluorobenzene 93.0 39.1-146 %Rec 1 11/15/2023 2:29:39 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 11/15/2023 8:20:12 PM 94 60 mg/Kg 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

Date Reported: 11/22/2023

#### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-24 2' **Project:** Thistle Unit 10 CTB Collection Date: 11/7/2023 9:30:00 AM Lab ID: 2311452-004 Matrix: SOIL Received Date: 11/9/2023 7:40:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) ND 9.5 11/15/2023 8:12:42 AM mg/Kg 1 Motor Oil Range Organics (MRO) 1 11/15/2023 8:12:42 AM ND 47 mg/Kg Surr: DNOP 96.0 %Rec 1 11/15/2023 8:12:42 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.6 mg/Kg 1 11/15/2023 2:52:59 PM Surr: BFB 11/15/2023 2:52:59 PM 93.3 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.023 mg/Kg 1 11/15/2023 2:52:59 PM Toluene ND 0.046 mg/Kg 1 11/15/2023 2:52:59 PM Ethylbenzene 11/15/2023 2:52:59 PM ND 0.046 mg/Kg 1 Xylenes, Total ND 0.092 mg/Kg 1 11/15/2023 2:52:59 PM Surr: 4-Bromofluorobenzene 95.2 39.1-146 %Rec 1 11/15/2023 2:52:59 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride ND 11/15/2023 8:32:37 PM 59 mg/Kg 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
Date Reported: 11/22/2023

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-25 0' **Project:** Thistle Unit 10 CTB Collection Date: 11/7/2023 9:40:00 AM Lab ID: 2311452-005 Matrix: SOIL Received Date: 11/9/2023 7:40:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) ND 9.5 11/15/2023 8:23:30 AM mg/Kg 1 Motor Oil Range Organics (MRO) 1 11/15/2023 8:23:30 AM ND 47 mg/Kg Surr: DNOP 95.2 %Rec 1 11/15/2023 8:23:30 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.8 mg/Kg 1 11/15/2023 3:16:24 PM Surr: BFB 11/15/2023 3:16:24 PM 94.4 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.024 mg/Kg 1 11/15/2023 3:16:24 PM Toluene ND 0.048 mg/Kg 1 11/15/2023 3:16:24 PM Ethylbenzene 11/15/2023 3:16:24 PM ND 0.048 mg/Kg 1 Xylenes, Total ND 0.096 mg/Kg 1 11/15/2023 3:16:24 PM Surr: 4-Bromofluorobenzene 95.5 39.1-146 %Rec 1 11/15/2023 3:16:24 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 11/15/2023 8:45:02 PM 120 60 mg/Kg 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

Date Reported: 11/22/2023

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-25 2' **Project:** Thistle Unit 10 CTB Collection Date: 11/7/2023 9:50:00 AM Lab ID: 2311452-006 Matrix: SOIL Received Date: 11/9/2023 7:40:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) ND 9.5 11/15/2023 8:34:18 AM mg/Kg 1 Motor Oil Range Organics (MRO) 1 11/15/2023 8:34:18 AM ND 48 mg/Kg Surr: DNOP 87.6 %Rec 1 11/15/2023 8:34:18 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.8 mg/Kg 1 11/15/2023 3:39:49 PM Surr: BFB 11/15/2023 3:39:49 PM 92.6 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.024 mg/Kg 1 11/15/2023 3:39:49 PM Toluene ND 0.048 mg/Kg 1 11/15/2023 3:39:49 PM Ethylbenzene 11/15/2023 3:39:49 PM ND 0.048 mg/Kg 1 Xylenes, Total ND 0.095 mg/Kg 1 11/15/2023 3:39:49 PM Surr: 4-Bromofluorobenzene 95.5 39.1-146 %Rec 1 11/15/2023 3:39:49 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 75 11/15/2023 8:57:26 PM 61 mg/Kg 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

Date Reported: 11/22/2023

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-26 0' **Project:** Thistle Unit 10 CTB Collection Date: 11/7/2023 10:00:00 AM Lab ID: 2311452-007 Matrix: SOIL Received Date: 11/9/2023 7:40:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) ND 9.6 mg/Kg 1 11/15/2023 8:45:06 AM Motor Oil Range Organics (MRO) 1 11/15/2023 8:45:06 AM ND 48 mg/Kg Surr: DNOP 76.7 %Rec 1 11/15/2023 8:45:06 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.8 mg/Kg 1 11/15/2023 4:26:31 PM Surr: BFB 11/15/2023 4:26:31 PM 94.2 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.024 mg/Kg 1 11/15/2023 4:26:31 PM Toluene ND 0.048 mg/Kg 1 11/15/2023 4:26:31 PM Ethylbenzene ND 0.048 mg/Kg 1 11/15/2023 4:26:31 PM Xylenes, Total ND 0.096 mg/Kg 1 11/15/2023 4:26:31 PM Surr: 4-Bromofluorobenzene 95.8 39.1-146 %Rec 1 11/15/2023 4:26:31 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 11/15/2023 9:09:51 PM 1300 60 mg/Kg 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 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

Date Reported: 11/22/2023

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-26 2' **Project:** Thistle Unit 10 CTB Collection Date: 11/7/2023 10:10:00 AM Lab ID: 2311452-008 Matrix: SOIL Received Date: 11/9/2023 7:40:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) ND 9.7 11/15/2023 8:55:54 AM mg/Kg 1 Motor Oil Range Organics (MRO) 1 11/15/2023 8:55:54 AM ND 48 mg/Kg Surr: DNOP %Rec 1 11/15/2023 8:55:54 AM 84.4 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.6 mg/Kg 1 11/15/2023 4:49:47 PM Surr: BFB 11/15/2023 4:49:47 PM 93.5 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.023 mg/Kg 1 11/15/2023 4:49:47 PM Toluene ND 0.046 mg/Kg 1 11/15/2023 4:49:47 PM Ethylbenzene 11/15/2023 4:49:47 PM ND 0.046 mg/Kg 1 Xylenes, Total ND 0.093 mg/Kg 1 11/15/2023 4:49:47 PM Surr: 4-Bromofluorobenzene 95.9 39.1-146 %Rec 1 11/15/2023 4:49:47 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 11/15/2023 9:22:15 PM 520 60 mg/Kg 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

Date Reported: 11/22/2023

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-27 0' **Project:** Thistle Unit 10 CTB Collection Date: 11/7/2023 10:20:00 AM Lab ID: 2311452-009 Matrix: SOIL Received Date: 11/9/2023 7:40:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 9.9 11/15/2023 4:01:39 PM mg/Kg 1 Motor Oil Range Organics (MRO) 1 11/15/2023 4:01:39 PM ND 49 mg/Kg Surr: DNOP 77.6 %Rec 1 11/15/2023 4:01:39 PM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.9 mg/Kg 1 11/15/2023 5:13:00 PM Surr: BFB 11/15/2023 5:13:00 PM 94.1 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.024 mg/Kg 1 11/15/2023 5:13:00 PM Toluene ND 0.049 mg/Kg 1 11/15/2023 5:13:00 PM Ethylbenzene ND 0.049 mg/Kg 1 11/15/2023 5:13:00 PM Xylenes, Total ND 0.098 mg/Kg 1 11/15/2023 5:13:00 PM Surr: 4-Bromofluorobenzene 96.2 39.1-146 %Rec 1 11/15/2023 5:13:00 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride ND 11/15/2023 9:34:40 PM 60 mg/Kg 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

Date Reported: 11/22/2023

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-27 2' **Project:** Thistle Unit 10 CTB Collection Date: 11/7/2023 10:30:00 AM Lab ID: 2311452-010 Matrix: SOIL Received Date: 11/9/2023 7:40:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 11/16/2023 12:22:08 AM 9.8 mg/Kg 1 Motor Oil Range Organics (MRO) 1 11/16/2023 12:22:08 AM ND 49 mg/Kg Surr: DNOP 104 %Rec 1 11/16/2023 12:22:08 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.7 mg/Kg 1 11/15/2023 12:51:00 PM Surr: BFB 11/15/2023 12:51:00 PM 103 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.023 mg/Kg 1 11/15/2023 12:51:00 PM Toluene ND 0.047 mg/Kg 1 11/15/2023 12:51:00 PM Ethylbenzene 11/15/2023 12:51:00 PM ND 0.047 mg/Kg 1 Xylenes, Total ND 0.094 mg/Kg 1 11/15/2023 12:51:00 PM Surr: 4-Bromofluorobenzene 99.8 39.1-146 %Rec 1 11/15/2023 12:51:00 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 11/15/2023 10:11:53 PM 170 60 mg/Kg 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

Date Reported: 11/22/2023

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-28 0' **Project:** Thistle Unit 10 CTB Collection Date: 11/7/2023 10:40:00 AM Lab ID: 2311452-011 Matrix: SOIL Received Date: 11/9/2023 7:40:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 10 11/16/2023 12:45:46 AM mg/Kg 1 Motor Oil Range Organics (MRO) 50 1 11/16/2023 12:45:46 AM ND mg/Kg Surr: DNOP 101 %Rec 1 11/16/2023 12:45:46 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.7 mg/Kg 1 11/15/2023 1:56:00 PM Surr: BFB 11/15/2023 1:56:00 PM 99.9 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.023 mg/Kg 1 11/15/2023 1:56:00 PM Toluene ND 0.047 mg/Kg 1 11/15/2023 1:56:00 PM Ethylbenzene 11/15/2023 1:56:00 PM ND 0.047 mg/Kg 1 Xylenes, Total ND 0.094 mg/Kg 1 11/15/2023 1:56:00 PM Surr: 4-Bromofluorobenzene 99.3 39.1-146 %Rec 1 11/15/2023 1:56:00 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 11/15/2023 10:24:18 PM 340 60 mg/Kg 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 Limi

Date Reported: 11/22/2023

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-28 2' **Project:** Thistle Unit 10 CTB Collection Date: 11/7/2023 10:50:00 AM Lab ID: 2311452-012 Matrix: SOIL Received Date: 11/9/2023 7:40:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 11/16/2023 1:09:23 AM 9.8 mg/Kg 1 Motor Oil Range Organics (MRO) ND 1 11/16/2023 1:09:23 AM 49 mg/Kg Surr: DNOP 102 %Rec 1 11/16/2023 1:09:23 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.9 mg/Kg 1 11/15/2023 3:01:00 PM Surr: BFB 11/15/2023 3:01:00 PM 104 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.025 mg/Kg 1 11/15/2023 3:01:00 PM Toluene ND 0.049 mg/Kg 1 11/15/2023 3:01:00 PM Ethylbenzene 11/15/2023 3:01:00 PM ND 0.049 mg/Kg 1 Xylenes, Total ND 0.099 mg/Kg 1 11/15/2023 3:01:00 PM Surr: 4-Bromofluorobenzene 98.2 39.1-146 %Rec 1 11/15/2023 3:01:00 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 11/15/2023 10:36:43 PM 150 59 mg/Kg 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
- POL 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

Date Reported: 11/22/2023

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-29 0' **Project:** Thistle Unit 10 CTB Collection Date: 11/7/2023 11:00:00 AM Lab ID: 2311452-013 Matrix: SOIL Received Date: 11/9/2023 7:40:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 9.5 11/16/2023 1:33:00 AM mg/Kg 1 Motor Oil Range Organics (MRO) 1 11/16/2023 1:33:00 AM ND 47 mg/Kg Surr: DNOP 106 %Rec 1 11/16/2023 1:33:00 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.7 mg/Kg 1 11/15/2023 3:23:00 PM Surr: BFB 103 15-244 %Rec 1 11/15/2023 3:23:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.024 mg/Kg 1 11/15/2023 3:23:00 PM Toluene ND 0.047 mg/Kg 1 11/15/2023 3:23:00 PM Ethylbenzene ND 0.047 mg/Kg 1 11/15/2023 3:23:00 PM Xylenes, Total ND 0.094 mg/Kg 1 11/15/2023 3:23:00 PM Surr: 4-Bromofluorobenzene 97.5 39.1-146 %Rec 1 11/15/2023 3:23:00 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 11/15/2023 10:49:07 PM 1300 60 mg/Kg 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 Limi

Date Reported: 11/22/2023

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-29 1' **Project:** Thistle Unit 10 CTB Collection Date: 11/7/2023 11:10:00 AM Lab ID: 2311452-014 Matrix: SOIL Received Date: 11/9/2023 7:40:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 9.5 11/16/2023 1:56:38 AM mg/Kg 1 Motor Oil Range Organics (MRO) 1 11/16/2023 1:56:38 AM ND 48 mg/Kg Surr: DNOP 105 %Rec 1 11/16/2023 1:56:38 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.9 mg/Kg 1 11/15/2023 3:44:00 PM Surr: BFB 101 15-244 %Rec 1 11/15/2023 3:44:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.024 mg/Kg 1 11/15/2023 3:44:00 PM Toluene ND 0.049 mg/Kg 1 11/15/2023 3:44:00 PM Ethylbenzene 11/15/2023 3:44:00 PM ND 0.049 mg/Kg 1 Xylenes, Total ND 0.098 mg/Kg 1 11/15/2023 3:44:00 PM Surr: 4-Bromofluorobenzene 97.7 39.1-146 %Rec 1 11/15/2023 3:44:00 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 870 11/15/2023 11:01:32 PM 60 mg/Kg 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

Date Reported: 11/22/2023

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-30 0' **Project:** Thistle Unit 10 CTB Collection Date: 11/7/2023 11:20:00 AM Lab ID: 2311452-015 Matrix: SOIL Received Date: 11/9/2023 7:40:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 9.5 11/16/2023 2:20:14 AM mg/Kg 1 Motor Oil Range Organics (MRO) 1 11/16/2023 2:20:14 AM ND 48 mg/Kg Surr: DNOP 107 %Rec 1 11/16/2023 2:20:14 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.6 mg/Kg 1 11/15/2023 4:06:00 PM Surr: BFB 11/15/2023 4:06:00 PM 101 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.023 mg/Kg 1 11/15/2023 4:06:00 PM Toluene ND 0.046 mg/Kg 1 11/15/2023 4:06:00 PM Ethylbenzene 11/15/2023 4:06:00 PM ND 0.046 mg/Kg 1 Xylenes, Total ND 0.093 mg/Kg 1 11/15/2023 4:06:00 PM Surr: 4-Bromofluorobenzene 94.9 39.1-146 %Rec 1 11/15/2023 4:06:00 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 11/15/2023 11:13:57 PM 1800 60 mg/Kg 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

Date Reported: 11/22/2023

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-30 2' **Project:** Thistle Unit 10 CTB Collection Date: 11/7/2023 11:30:00 AM Lab ID: 2311452-016 Matrix: SOIL Received Date: 11/9/2023 7:40:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 9.9 11/16/2023 2:43:49 AM mg/Kg 1 Motor Oil Range Organics (MRO) 1 11/16/2023 2:43:49 AM ND 49 mg/Kg Surr: DNOP 105 %Rec 1 11/16/2023 2:43:49 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.9 mg/Kg 1 11/15/2023 4:28:00 PM Surr: BFB 11/15/2023 4:28:00 PM 104 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.024 mg/Kg 1 11/15/2023 4:28:00 PM Toluene ND 0.049 mg/Kg 1 11/15/2023 4:28:00 PM Ethylbenzene 11/15/2023 4:28:00 PM ND 0.049 mg/Kg 1 Xylenes, Total ND 0.097 mg/Kg 1 11/15/2023 4:28:00 PM Surr: 4-Bromofluorobenzene 98.0 39.1-146 %Rec 1 11/15/2023 4:28:00 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 200 11/15/2023 11:26:21 PM 60 mg/Kg 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 Limi

Date Reported: 11/22/2023

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-31 0' **Project:** Thistle Unit 10 CTB Collection Date: 11/7/2023 11:40:00 AM Lab ID: 2311452-017 Matrix: SOIL Received Date: 11/9/2023 7:40:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 9.5 11/16/2023 3:07:25 AM mg/Kg 1 Motor Oil Range Organics (MRO) 1 11/16/2023 3:07:25 AM ND 48 mg/Kg Surr: DNOP 107 %Rec 1 11/16/2023 3:07:25 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.8 mg/Kg 1 11/15/2023 4:50:00 PM Surr: BFB 11/15/2023 4:50:00 PM 98.0 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.024 mg/Kg 1 11/15/2023 4:50:00 PM Toluene ND 0.048 mg/Kg 1 11/15/2023 4:50:00 PM Ethylbenzene 11/15/2023 4:50:00 PM ND 0.048 mg/Kg 1 Xylenes, Total ND 0.096 mg/Kg 1 11/15/2023 4:50:00 PM Surr: 4-Bromofluorobenzene 95.4 39.1-146 %Rec 1 11/15/2023 4:50:00 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 11/15/2023 11:38:46 PM 1300 61 mg/Kg 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
- POL 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
- J Analyte detected below quantitation limit
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/22/2023

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-31 2' **Project:** Thistle Unit 10 CTB Collection Date: 11/7/2023 11:50:00 AM Lab ID: 2311452-018 Matrix: SOIL Received Date: 11/9/2023 7:40:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 9.9 11/16/2023 3:30:57 AM mg/Kg 1 Motor Oil Range Organics (MRO) 1 11/16/2023 3:30:57 AM ND 50 mg/Kg Surr: DNOP 107 %Rec 1 11/16/2023 3:30:57 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.7 mg/Kg 1 11/15/2023 5:11:00 PM Surr: BFB 99.9 15-244 %Rec 1 11/15/2023 5:11:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.023 mg/Kg 1 11/15/2023 5:11:00 PM Toluene ND 0.047 mg/Kg 1 11/15/2023 5:11:00 PM Ethylbenzene 11/15/2023 5:11:00 PM ND 0.047 mg/Kg 1 Xylenes, Total ND 0.093 mg/Kg 1 11/15/2023 5:11:00 PM Surr: 4-Bromofluorobenzene 93.4 39.1-146 %Rec 1 11/15/2023 5:11:00 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 660 11/15/2023 11:51:10 PM 61 mg/Kg 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 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: Project:		Resources Services, Inc. 9 Unit 10 CTB	
Sample ID:	MB-78811	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID:	PBS	Batch ID: 78811	RunNo: 101219
Prep Date:	11/15/2023	Analysis Date: 11/15/2023	SeqNo: 3720672 Units: mg/Kg
Analyte		Result PQL SPK va	lue SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride		ND 1.5	
Sample ID:	LCS-78811	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID:	LCSS	Batch ID: 78811	RunNo: 101219
Prep Date:	11/15/2023	Analysis Date: 11/15/2023	SeqNo: 3720673 Units: mg/Kg
Analyte		Result PQL SPK va	lue SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride		14 1.5 15.	00 0 92.7 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 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#: 2311452 22-Nov-23

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# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Project:		Resources S Unit 10 CT	,	Inc.							
Sample ID:	LCS-78757	SampT	Гуре: <b>LC</b>	S	Tes	tCode: EF	A Method	8015M/D: Die	esel Range	Organics	
Client ID:	LCSS	Batch	h ID: 787	757	RunNo: 101145						
Prep Date:	11/13/2023	Analysis D	Date: 11	/15/2023	S	SeqNo: 37	17324	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (	Organics (DRO)	41	10	50.00	0	82.9	61.9	130			
Surr: DNOP	)	4.2		5.000		84.9	69	147			
Sample ID:	MB-78757	SampT	Type: ME	BLK	Tes	tCode: EF	A Method	8015M/D: Die	esel Range	Organics	
Client ID:	PBS	Batch	h ID: 787	757	F	RunNo: <b>1(</b>	01145				
Prep Date:	11/13/2023	Analysis D	Date: 11	/15/2023	S	SeqNo: 37	17326	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (	Organics (DRO)	ND	10								
Motor Oil Rang	ge Organics (MRO)	ND	50								
Surr: DNOP	)	9.1		10.00		90.5	69	147			
	MB-78774		Гуре: МЕ		Tes			147 8015M/D: Die	esel Range	Organics	
		SampT	Гуре: <b>МЕ</b> h ID: <b>78</b>	BLK			PA Method		esel Range	Organics	
Sample ID:	MB-78774	SampT	h ID: 78	BLK 774	F	tCode: EF	PA Method 01201		-	Organics	
Sample ID: Client ID:	MB-78774 PBS	SampT Batch	h ID: 78	BLK 774 /15/2023	F	atCode: EF RunNo: 10 SeqNo: 37	PA Method 01201	8015M/D: Die	-	Organics RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Diesel Range (	MB-78774 PBS 11/14/2023 Organics (DRO)	SampT Batch Analysis D	h ID: <b>78</b> Date: <b>11</b>	BLK 774 /15/2023	F	atCode: EF RunNo: 10 SeqNo: 37	PA Method 01201 719857	8015M/D: Die Units: mg/K	ſg	-	Qual
Sample ID: Client ID: Prep Date: Analyte Diesel Range ( Motor Oil Range	MB-78774 PBS 11/14/2023 Organics (DRO) ge Organics (MRO)	SampT Batch Analysis E Result ND ND	h ID: <b>78</b> Date: <b>11</b> PQL	3LK 774 /15/2023 SPK value	F	tCode: EF RunNo: 10 SeqNo: 37 %REC	PA Method 01201 719857 LowLimit	8015M/D: Die Units: mg/K HighLimit	ſg	-	Qual
Sample ID: Client ID: Prep Date: Analyte Diesel Range (	MB-78774 PBS 11/14/2023 Organics (DRO) ge Organics (MRO)	SampT Batch Analysis D Result ND	h ID: <b>78</b> Date: <b>11</b> PQL 10	BLK 774 /15/2023	F	atCode: EF RunNo: 10 SeqNo: 37	PA Method 01201 719857	8015M/D: Die Units: mg/K	ſg	-	Qual
Sample ID: Client ID: Prep Date: Analyte Diesel Range ( Motor Oil Rang Surr: DNOP	MB-78774 PBS 11/14/2023 Organics (DRO) ge Organics (MRO)	SampT Batch Analysis D Result ND ND 11	h ID: <b>78</b> Date: <b>11</b> PQL 10	BLK 774 /15/2023 SPK value 10.00	F SPK Ref Val	tCode: EF RunNo: 1( SeqNo: 37 %REC 106	<b>PA Method</b> 01201 719857 LowLimit 69	8015M/D: Die Units: mg/K HighLimit	Sg %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Diesel Range ( Motor Oil Rang Surr: DNOP	MB-78774 PBS 11/14/2023 Organics (DRO) ge Organics (MRO)	SampT Batch Analysis D Result ND ND 11 SampT	h ID: <b>78</b> Date: <b>11</b> PQL 10 50	BLK 774 /15/2023 SPK value 10.00	F SPK Ref Val Tes	tCode: EF RunNo: 1( SeqNo: 37 %REC 106	24 Method 21201 219857 LowLimit 69 24 Method	8015M/D: Die Units: mg/K HighLimit 147	Sg %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Diesel Range ( Motor Oil Rang Surr: DNOP Sample ID:	MB-78774 PBS 11/14/2023 Organics (DRO) ge Organics (MRO)	SampT Batch Analysis D Result ND ND 11 SampT	Date: <b>11</b> PQL 10 50	BLK 774 /15/2023 SPK value 10.00 S 774	F SPK Ref Val Tes F	ttCode: EF RunNo: 10 SeqNo: 37 %REC 106	PA Method 01201 719857 LowLimit 69 PA Method 01201	8015M/D: Die Units: mg/K HighLimit 147	Sg %RPD esel Range	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Diesel Range ( Motor Oil Rang Surr: DNOP Sample ID: Client ID:	MB-78774 PBS 11/14/2023 Organics (DRO) ge Organics (MRO)	SampT Batch Analysis D Result ND ND 11 SampT Batch	Date: <b>11</b> PQL 10 50	3LK 774 /15/2023 SPK value 10.00 S 774 /15/2023	F SPK Ref Val Tes F	tCode: EF RunNo: 1( SeqNo: 37 %REC 106 tCode: EF RunNo: 1(	PA Method 01201 719857 LowLimit 69 PA Method 01201	8015M/D: Die Units: mg/K HighLimit 147 8015M/D: Die	Sg %RPD esel Range	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Diesel Range ( Motor Oil Rang Surr: DNOP Sample ID: Client ID: Prep Date: Analyte	MB-78774 PBS 11/14/2023 Organics (DRO) ge Organics (MRO)	SampT Batch Analysis D Result ND ND 11 SampT Batch Analysis D	Date: 11 PQL 10 50 Type: LC Date: 11	3LK 774 /15/2023 SPK value 10.00 S 774 /15/2023	F SPK Ref Val Tes F	ttCode: EF RunNo: 10 SeqNo: 37 %REC 106 ttCode: EF RunNo: 10 SeqNo: 37	PA Method 01201 719857 LowLimit 69 PA Method 01201 719858	8015M/D: Die Units: mg/K HighLimit 147 8015M/D: Die Units: mg/K	Sg %RPD esel Range	RPDLimit Organics	

#### 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#: 2311452

22-Nov-23

# **QC SUMMARY REPORT** Hall Environmental Analysis Laboratory, Inc.

Client:	Vertex Re	esources S	ervices,	Inc.							
Project:	Thistle U	nit 10 CT	В								
Sample ID:	lcs-78754	Samp	Гуре: <b>LC</b>	9	Tes	tCode: FI	PA Method	8015D: Gaso	line Range		
Client ID:	LCSS		h ID: <b>78</b> 7			RunNo: 1		00150. 0030	ine Range		
Prep Date:	11/13/2023	Analysis E				SeqNo: 3		Units: mg/K	a		
Analyte	11/10/2020	Result	PQL		SPK Ref Val		LowLimit	•	%RPD	RPDLimit	Qual
,	ge Organics (GRO)	23	FQL 5.0	25.00	OFR Rei Vai	%REC 90.9	20wLimit 70	HighLimit 130	%RFD	KFDLIIIII	Quai
Surr: BFB	, , , , , , , , , , , , , , , , , , ,	1900		1000		190	15	244			
Sample ID:	mb-78754	SampT	Гуре: <b>МЕ</b>	BLK	Tes	TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batcl	h ID: <b>78</b> 7	754	F	RunNo: 1	01194				
Prep Date:	11/13/2023	Analysis E	Date: 11	/15/2023	S	SeqNo: 3	718683	Units: <b>mg/K</b>	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
-	ge Organics (GRO)	ND	5.0								
Surr: BFB		940		1000		94.0	15	244			
Sample ID:	lcs-78756	SampT	Гуре: <b>LC</b>	S	TestCode: EPA Method 8015D: Gasoline Range						
Client ID:	LCSS	Batcl	h ID: 787	756	F	RunNo: 1	01220				
Prep Date:	11/13/2023	Analysis E	Date: 11	/15/2023	Ś	SeqNo: 3	720827	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	ge Organics (GRO)	25	5.0	25.00	0	99.1	70	130			
Surr: BFB		2200		1000		223	15	244			
Sample ID:	mb-78756	SampT	Гуре: <b>МЕ</b>	BLK	TestCode: EPA Method 8015D: Gasoline Range						
Client ID:	PBS	Batcl	h ID: 787	756	F	RunNo: 1	01220				
Prep Date:	11/13/2023	Analysis E	)ate: 11	/15/2023	S	SeqNo: 3	720828	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	ge Organics (GRO)	ND 1000	5.0	1000		103	15	244			
Sample ID:	2311452-010ams	SampT	Гуре: <b>МS</b>	3	Tes	tCode: El	PA Method	8015D: Gaso	line Range		
Client ID:	BH23-27 2'	Batc	h ID: <b>78</b> 7	756	F	RunNo: 1	01220				
Prep Date:	11/13/2023	Analysis [	Date: 11	/15/2023	S	SeqNo: 3	720830	Units: mg/K	(g		
Prep Date: Analyte			Date: <b>11</b> PQL		SPK Ref Val	SeqNo: 3 %REC	720830 LowLimit	Units: <b>mg/K</b> HighLimit	<b>(g</b> %RPD	RPDLimit	Qual
Analyte Gasoline Rang		Analysis E Result 24		SPK value 23.58		%REC 102	LowLimit 70	HighLimit 130		RPDLimit	Qual
Analyte	11/13/2023	Analysis I Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit		RPDLimit	Qual
Analyte Gasoline Rang Surr: BFB	11/13/2023	Analysis I Result 24 2200	PQL	SPK value 23.58 943.4	SPK Ref Val 0	%REC 102 233	LowLimit 70 15	HighLimit 130	%RPD		Qual
Analyte Gasoline Rang Surr: BFB	<b>11/13/2023</b> ge Organics (GRO)	Analysis I Result 24 2200 Samp <sup>1</sup>	PQL 4.7	SPK value 23.58 943.4	SPK Ref Val 0 Tes	%REC 102 233	LowLimit 70 15 PA Method	HighLimit 130 244	%RPD		Qual
Analyte Gasoline Rang Surr: BFB Sample ID:	11/13/2023 ge Organics (GRO) 2311452-010amsd	Analysis I Result 24 2200 Samp <sup>1</sup>	PQL 4.7 Type: <b>MS</b> h ID: <b>78</b> 7	SPK value 23.58 943.4 6D 756	SPK Ref Val 0 Tes	%REC 102 233 tCode: EI	LowLimit 70 15 PA Method 01220	HighLimit 130 244	%RPD		Qual
Analyte Gasoline Rang Surr: BFB Sample ID: Client ID:	11/13/2023 ge Organics (GRO) 2311452-010amsd BH23-27 2'	Analysis I Result 24 2200 Samp Batch	PQL 4.7 Type: <b>MS</b> h ID: <b>78</b> 7	SPK value 23.58 943.4 5D 756 /15/2023	SPK Ref Val 0 Tes	%REC 102 233 tCode: <b>EI</b> RunNo: 10	LowLimit 70 15 PA Method 01220	HighLimit 130 244 8015D: Gaso	%RPD		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 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#: 2311452

22-Nov-23

Client: Project:	Vertex Resources Services, Inc. Thistle Unit 10 CTB										
Sample ID:	2311452-010amsd	SampType: MSD TestCode: EPA Method 80					8015D: Gaso	line Range	l		
Client ID:	BH23-27 2'	Batch	h ID: <b>787</b>	/56	F	RunNo: <b>1(</b>	01220				
Prep Date:	11/13/2023	Analysis E	Date: 11	/15/2023	5	SeqNo: 37	720831	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	24	4.7	23.43	0	101	70	130	1.72	20	
Surr: BFB		2100		937.2		224	15	244	0	0	

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical 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
- 5 % Recovery outside of standard minits. If anonated results may be estimated.

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- WO#: 2311452 22-Nov-23

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

	Vertex Resources S Thistle Unit 10 CT		Inc.							
Sample ID: LCS-7875	54 Samp	Туре: <b>LC</b>	S	Tes	tCode: EF	A Method	8021B: Volati	les		
Client ID: LCSS	Bate	ch ID: 787	754	F	RunNo: 10	)1194				
Prep Date: 11/13/20	23 Analysis	Date: 11	/15/2023	S	SeqNo: 37	18687	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.7	70	130			
Toluene	0.94	0.050	1.000	0	94.2	70	130			
Ethylbenzene	0.94	0.050	1.000	0	93.8	70	130			
Xylenes, Total	2.8	0.10	3.000	0	93.8	70	130			
Surr: 4-Bromofluorobenze	ene 0.98		1.000		98.5	39.1	146			
Sample ID: mb-78754	l Samp	Туре: МЕ	BLK	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: PBS	Bate	ch ID: 787	754	F	RunNo: <b>10</b>	01194				
Prep Date: 11/13/20	23 Analysis	Date: 11	/15/2023	S	SeqNo: 37	18688	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-Bromofluorobenze	ene 0.97		1.000		97.2	39.1	146			
		SampType: LCS TestCode: EPA Method 8021B: Volatiles								
Sample ID: Ics-78756	Samp	Type: LC	S	Tes	tCode: EF	PA Method	8021B: Volati	les		
Sample ID: Ics-78756 Client ID: LCSS		Type: LC			tCode: EF RunNo: 10		8021B: Volati	les		
-	Bate		756	F		01220	8021B: Volati Units: mg/K			
Client ID: LCSS	Bate	ch ID: 787	756 /15/2023 SPK value	F	RunNo: <b>1(</b>	01220			RPDLimit	Qual
Client ID: LCSS Prep Date: 11/13/20	23 Analysis Result 0.96	ch ID: <b>787</b> Date: <b>11</b> PQL 0.025	756 /15/2023 SPK value 1.000	F SPK Ref Val 0	RunNo: 10 SeqNo: 37 %REC 96.2	20712 20712 LowLimit 70	Units: <b>mg/K</b> HighLimit 130	g	RPDLimit	Qual
Client ID: LCSS Prep Date: 11/13/20 Analyte Benzene Toluene	23 Analysis Result 0.96 0.99	ch ID: <b>787</b> Date: <b>11</b> <u>PQL</u> 0.025 0.050	756 /15/2023 SPK value 1.000 1.000	F SPK Ref Val 0 0	RunNo: 10 SeqNo: 37 %REC 96.2 98.7	20712 20712 LowLimit 70 70	Units: <b>mg/K</b> HighLimit 130 130	g	RPDLimit	Qual
Client ID: LCSS Prep Date: 11/13/20 Analyte Benzene Toluene Ethylbenzene	Bate 23 Analysis Result 0.96 0.99 1.0	ch ID: <b>787</b> Date: <b>11</b> <u>PQL</u> 0.025 0.050 0.050	756 /15/2023 SPK value 1.000 1.000 1.000	F SPK Ref Val 0 0 0	RunNo: 10 SeqNo: 37 %REC 96.2 98.7 99.8	<b>11220</b> <b>220712</b> LowLimit 70 70 70 70	Units: <b>mg/K</b> HighLimit 130 130 130	g	RPDLimit	Qual
Client ID: LCSS Prep Date: 11/13/20 Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Bate 23 Analysis Result 0.96 0.99 1.0 3.0	ch ID: <b>787</b> Date: <b>11</b> <u>PQL</u> 0.025 0.050	756 /15/2023 SPK value 1.000 1.000 1.000 3.000	F SPK Ref Val 0 0	RunNo: 10 SeqNo: 37 %REC 96.2 98.7 99.8 99.1	20712 20712 LowLimit 70 70 70 70 70	Units: <b>mg/K</b> HighLimit 130 130 130 130	g	RPDLimit	Qual
Client ID: LCSS Prep Date: 11/13/20 Analyte Benzene Toluene Ethylbenzene	Bate 23 Analysis Result 0.96 0.99 1.0 3.0	ch ID: <b>787</b> Date: <b>11</b> <u>PQL</u> 0.025 0.050 0.050	756 /15/2023 SPK value 1.000 1.000 1.000	F SPK Ref Val 0 0 0	RunNo: 10 SeqNo: 37 %REC 96.2 98.7 99.8	<b>11220</b> <b>220712</b> LowLimit 70 70 70 70	Units: <b>mg/K</b> HighLimit 130 130 130	g	RPDLimit	Qual
Client ID: LCSS Prep Date: 11/13/20 Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Bate 23 Analysis Result 0.96 0.99 1.0 3.0 ene 0.98	ch ID: <b>787</b> Date: <b>11</b> <u>PQL</u> 0.025 0.050 0.050	756 /15/2023 SPK value 1.000 1.000 3.000 1.000	F SPK Ref Val 0 0 0 0	RunNo: 10 SeqNo: 37 %REC 96.2 98.7 99.8 99.1 98.3	20712 20712 LowLimit 70 70 70 70 39.1	Units: <b>mg/K</b> HighLimit 130 130 130 130	g %RPD	RPDLimit	Qual
Client ID: LCSS Prep Date: 11/13/20 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenze	Bate 23 Analysis Result 0.96 0.99 1.0 3.0 0.98 5 Samp	ch ID: <b>787</b> Date: <b>11</b> <u>PQL</u> 0.025 0.050 0.050 0.10	756 /15/2023 SPK value 1.000 1.000 3.000 1.000 3.000 3.000	F SPK Ref Val 0 0 0 0 0 Tes	RunNo: 10 SeqNo: 37 %REC 96.2 98.7 99.8 99.1 98.3	20712 20712 20712 70 70 70 70 70 39.1	Units: <b>mg/K</b> HighLimit 130 130 130 130 146	g %RPD	RPDLimit	Qual
Client ID: LCSS Prep Date: 11/13/20 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenze	Bate 23 Analysis Result 0.96 0.99 1.0 3.0 ene 0.98 5 Samp Bate	ch ID: <b>787</b> Date: <b>11</b> <u>PQL</u> 0.025 0.050 0.050 0.10	756 /15/2023 SPK value 1.000 1.000 3.000 1.000 SLK 756	F SPK Ref Val 0 0 0 0 Tes F	RunNo: 10 SeqNo: 37 %REC 96.2 98.7 99.8 99.1 98.3 tCode: EF	220712 LowLimit 70 70 70 70 39.1 24 Method 11220	Units: <b>mg/K</b> HighLimit 130 130 130 130 146	g %RPD	RPDLimit	Qual
Client ID: LCSS Prep Date: 11/13/20 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenze Sample ID: mb-78756 Client ID: PBS	Bate 23 Analysis Result 0.96 0.99 1.0 3.0 ene 0.98 5 Samp Bate	ch ID: <b>787</b> Date: <b>11</b> <u>PQL</u> 0.025 0.050 0.050 0.10 Type: <b>ME</b> ch ID: <b>787</b>	756 /15/2023 SPK value 1.000 1.000 3.000 1.000 3.000 1.000 3LK 756 /15/2023	F SPK Ref Val 0 0 0 0 Tes F	RunNo: 10 SeqNo: 37 %REC 96.2 98.7 99.8 99.1 98.3 tCode: EF RunNo: 10	220712 LowLimit 70 70 70 70 39.1 24 Method 11220	Units: <b>mg/K</b> HighLimit 130 130 130 130 146 <b>8021B: Volati</b>	g %RPD	RPDLimit	Qual
Client ID: LCSS Prep Date: 11/13/20 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenze Sample ID: mb-78756 Client ID: PBS Prep Date: 11/13/20	Bate 23 Analysis Result 0.96 0.99 1.0 3.0 0.98 5 Samp Bate 23 Analysis	ch ID: 787 Date: 11 PQL 0.025 0.050 0.050 0.10 Type: ME ch ID: 787 Date: 11	756 /15/2023 SPK value 1.000 1.000 3.000 1.000 3.000 1.000 3LK 756 /15/2023	F SPK Ref Val 0 0 0 0 0 Tes F	RunNo: 10 SeqNo: 37 %REC 96.2 98.7 99.8 99.1 98.3 tCode: EF RunNo: 10 SeqNo: 37	220712 LowLimit 70 70 70 70 39.1 24 Method 220715	Units: mg/K HighLimit 130 130 130 130 146 8021B: Volati Units: mg/K	g %RPD iles		
Client ID: LCSS Prep Date: 11/13/20 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenze Sample ID: mb-78756 Client ID: PBS Prep Date: 11/13/20 Analyte	Bate 23 Analysis Result 0.96 0.99 1.0 3.0 0.98 5 Samp Bate 23 Analysis Result	ch ID: <b>787</b> Date: <b>11</b> PQL 0.025 0.050 0.050 0.10 Type: <b>ME</b> ch ID: <b>787</b> Date: <b>11</b> PQL	756 /15/2023 SPK value 1.000 1.000 3.000 1.000 3.000 1.000 3LK 756 /15/2023	F SPK Ref Val 0 0 0 0 0 Tes F	RunNo: 10 SeqNo: 37 %REC 96.2 98.7 99.8 99.1 98.3 tCode: EF RunNo: 10 SeqNo: 37	220712 LowLimit 70 70 70 70 39.1 24 Method 220715	Units: mg/K HighLimit 130 130 130 130 146 8021B: Volati Units: mg/K	g %RPD iles		
Client ID: LCSS Prep Date: 11/13/20 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenze Sample ID: mb-78756 Client ID: PBS Prep Date: 11/13/20 Analyte Benzene	Bate 23 Analysis Result 0.96 0.99 1.0 3.0 0.98 5 Samp Bate 23 Analysis Result ND	ch ID: 787 Date: 11 PQL 0.025 0.050 0.050 0.10 Type: ME ch ID: 787 Date: 11 PQL 0.025	756 /15/2023 SPK value 1.000 1.000 3.000 1.000 3.000 1.000 3LK 756 /15/2023	F SPK Ref Val 0 0 0 0 0 Tes F	RunNo: 10 SeqNo: 37 %REC 96.2 98.7 99.8 99.1 98.3 tCode: EF RunNo: 10 SeqNo: 37	220712 LowLimit 70 70 70 70 39.1 24 Method 220715	Units: mg/K HighLimit 130 130 130 130 146 8021B: Volati Units: mg/K	g %RPD iles		
Client ID: LCSS Prep Date: 11/13/20 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenze Sample ID: mb-78756 Client ID: PBS Prep Date: 11/13/20 Analyte Benzene Toluene	Bate 23 Analysis Result 0.96 0.99 1.0 3.0 0.98 5 Samp Bate 23 Analysis Result ND ND	ch ID: 787 Date: 11 PQL 0.025 0.050 0.050 0.10 Type: ME ch ID: 787 Date: 11 PQL 0.025 0.050	756 /15/2023 SPK value 1.000 1.000 3.000 1.000 3.000 1.000 3LK 756 /15/2023	F SPK Ref Val 0 0 0 0 0 Tes F	RunNo: 10 SeqNo: 37 %REC 96.2 98.7 99.8 99.1 98.3 tCode: EF RunNo: 10 SeqNo: 37	220712 LowLimit 70 70 70 70 39.1 24 Method 220715	Units: mg/K HighLimit 130 130 130 130 146 8021B: Volati Units: mg/K	g %RPD iles		

#### 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
- 5 % Recovery outside of standard limits. If undifined results may be estimated.

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WO#: 2311452

22-Nov-23

# QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:		Vertex Resources Services, Inc. Thistle Unit 10 CTB									
Project:	I fistie Ui		5								
Sample ID:	2311452-011ams	SampT	ype: MS	5	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID:	BH23-28 0'	Batch	ID: 787	756	F	RunNo: <b>1(</b>	01220				
Prep Date:	11/13/2023	Analysis D	ate: 11	/15/2023	5	SeqNo: 37	720721	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.91	0.023	0.9363	0	97.1	70	130			
Toluene		0.93	0.047	0.9363	0	99.2	70	130			
Ethylbenzene		0.96	0.047	0.9363	0	102	70	130			
Xylenes, Total		2.9	0.094	2.809	0	102	70	130			
Surr: 4-Bromo	ofluorobenzene	0.93		0.9363		98.9	39.1	146			
Sample ID:	2311452-011amsd	SampT	ype: <b>MS</b>	D	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID:	BH23-28 0'	Batch	ID: 787	756	F	RunNo: <b>1(</b>	01220				
Prep Date:	11/13/2023	Analysis D	ate: 11	/15/2023	S	SeqNo: 37	720723	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.90	0.023	0.9328	0	96.5	70	130	0.999	20	
Toluene		0.92	0.047	0.9328	0	98.3	70	130	1.28	20	
Ethylbenzene		0.94	0.047	0.9328	0	101	70	130	1.74	20	
Xylenes, Total		2.8	0.093	2.799	0	100	70	130	1.79	20	
Surr: 4-Bromo	ofluorobenzene	0.92		0.9328		98.2	39.1	146	0	0	

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical 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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WO#: 2311452 22-Nov-23

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🔅 eurofin		ronment Te	estin <i>TEL</i> :	urofins Environ Albu 505-345-3975 ebsite: www.ha	Central 4901 Hawkin iquerque, NM & FAX: 505-345	l, LLC ns NE 87109 -4107	Sam	iple Log-In C	Check Li	st
Client Name: V	ertex Reso	urces	Work C	order Number:	2311452			RcptNo	: 1	
Received By:	Tracy Casa	rrubias	11/9/202	3 7:40:00 AM						
Completed By:	Tracy Casa	rrubias	11/9/202	3 8:20:05 AM						
Reviewed By:	74 1	19/23	3							
Chain of Custo	ody									
1. Is Chain of Cust	tody comple	ete?			Yes 🗌	I	No 🗹	Not Present		
2. How was the sa	mple delive	red?			<u>Courier</u>					
Log In 3. Was an attempt	made to co	ool the sample	s?		Yes 🗹	1	No 🗌	NA 🗌		
4. Were all sample	s received	at a temperatu	ure of >0° C to	o 6.0°C	Yes 🗹	1	No 🗌	NA 🗌		
5. Sample(s) in pro	oper contair	ner(s)?			Yes 🗹	I	No 🗌			
6. Sufficient sampl	e volume fo	r indicated tes	st(s)?		Yes 🗹	٢	No 🗌			
7. Are samples (ex	cept VOA a	ind ONG) prop	perly preserve	d?	Yes 🗹	١	No 🗌			
8. Was preservativ	e added to	bottles?			Yes 🗌	٢	No 🔽	NA 🗌		
9. Received at leas	st 1 vial with	headspace <	1/4" for AQ V	OA?	Yes 🗌	٢	No 🗌	NA 🗹		
10. Were any samp	ole containe	rs received br	oken?		Yes ∐	I	No 🗹	# of preserved		
11. Does paperwork (Note discrepan					Yes 🗹	1	No 🗌	bottles checked for pH: (<2 c	or >12 unless r	noted)
12. Are matrices co		• •			Yes 🗹	1	No 🗌	Adjusted?		- 1
13. Is it clear what a	analyses we	re requested?	,		Yes 🗹	1	No 🗌		Sim 1	1972
14. Were all holding (If no, notify cus					Yes 🗹	1	No 🗌	Checked by:	2011	$\Pi(a)$
Special Handlir	na (if ann	licable)								
15. Was client noti	100 - 100 March 100 100 March 100		ith this order?		Yes 🗌		No 🗌	NA 🗹		
Person N	lotified:			Date:						
By Whon	n:			Via:	eMail	Phone	Fax	In Person		
Regardin										
Client Ins	structions:	Mailing addre	ss, phone nun	nber, and Ema	ail/Fax are mis	ssing or	n COC- T	MC 11/9/23		
16. Additional rem Client dio		ish chain of c	ustody							
17. Cooler Inform										
Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Sign	ned By			
1	2.9	Good	Yes	Yogi		_				

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#### Received by OCD: 6/6/2025 11:13:25 AM

Chain-of-Custody Record	Turn-Around Time:	HALL ENVIRONMENTAL					
Client: Vertex (Deron)	Standard ZRush 5 Day	ANALYSIS LABORATORY					
	Project Name:	www.hallenvironmental.com					
Mailing Address: on file	Thistle Unit 10 CTB	4901 Hawkins NE - Albuquerque, NM 87109					
	Project #:	Tel. 505-345-3975 Fax 505-345-4107					
Phone #:	23E-04784	Analysis Request					
email or Fax#:	Project Manager:	solution (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)					
QA/QC Package: □ Standard □ Level 4 (Full Validation)	Kent Stallings	TMB's (8021) 1/ DRO / MRO 8082 PCB's 4.1) 1. 8270SIMS NO <sub>2</sub> , PO <sub>4</sub> , SC NO <sub>2</sub> , PO <sub>4</sub> , SC					
Accreditation:   Az Compliance	Sampler: Zach Englebert						
NELAC     Other	On Ice: Yes INO 400	→ (P					
EDD (Type)	# of Coolers: Cooler Temp(Including CF): 2.8+0.1=2.9 (°C)	NMTBE / 015D(GRO esticides/6 by 8310 or 8 Metals Br, NO <sub>3</sub> , VOA) Semi-VOA Semi-VOA					
	Container Preservative HEAL No.	BTEX       MTBE / TMB's (8021)         TPH:s015D(GRO / DRO / MRO)         8081 Pesticides/8082 PCB's         BDB (Method 504.1)         PAHs by 8310 or 8270SIMS         RCRA 8 Metals         CJ)F, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> 8260 (VOA)         8270 (Semi-VOA)         Total Coliform (Present/Absent)					
Date Time Matrix Sample Name							
11-7-23 9:00 soil BH23-23 0	jar lice 001						
9:10 BHZ3-23 2	jar 1 002						
9:20 BH23-24 0	jar 1 003						
9:30 BH23-24 2'	jur 004						
9:40 BH23.25 0'	005						
9:50 BH23-25 2	006						
10:00 BH27-26 0	007						
10:10 BH23-26 2	008						
10:20 BH23-27 0'	009						
10:30 BH23-27 2	010						
10:40 BH23- 28 0	011						
V 10:50 V BH23.28 2	V V ol						
Date: Time: Relinquished by: Date: Time: Relinquished by:	Received by: Via: Date Time	Remarks: Direct Bill to Devon cc Kstallings Qvertex. Ca					
11/0/03 Vie 1.0	>11/9/23 7:40	[10] The second seco					

Released to Imaging: 0/25/2025 2:43:17 PM

Received by OCD: 6/6/2025 11:13:25 AM

Chain-of-Custody Record	Turn-Around Time:	HALL ENVIRONMENTAL							
Client: Vertex (Deron)	Standard Z Rush 6 DM	ANALYSIS LABORATORY							
	Project Name:	www.hallenvironmental.com							
Mailing Address: on file	Thistle Unit 10 CTB	4901 Hawkins NE - Albuquerque, NM 87109							
	Project #:	Tel. 505-345-3975 Fax 505-345-4107							
Phone #:	23E-04784	Analysis Request							
email or Fax#:	Project Manager:	sent) (SO4 (SO4 (SO							
QA/QC Package:	Kent Stallings	PCB's (802) PCB's PCB's It/Abse							
Standard Level 4 (Full Validation)	2 . 2 . 5 . 1 . 1	7 TMB's 8082 F 8082 F 8082 F 4.1) 102, F NO2, F							
Accreditation: Az Compliance	Sampler: Zech Englebert On Ice: Yes DNO	T1 V V V V V V V V V V V V V V V V V V V							
NELAC      Other      EDD (Type)	On Ice: Yes No yogi								
	Cooler Temp(Including CF): 2.8+0.1=29 (°C)	MT Aethory							
Date Time Matrix Sample Name	Container Preservative HEAL No. Type and # Type 2311452	BTEX       MTBE / TMB's (8021)         TPH%015D(GRO / DRO / MRO)       8081 Pesticides/8082 PCB's         BDB (Method 504.1)       PAHs by 8310 or 8270SIMS         RCRA 8 Metals       CD, F, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> S260 (VOA)       8270 (Semi-VOA)         Total Coliform (Present/Absent)       Total Coliform (Present/Absent)							
11-7-23 11:00 soil BH23-29 0	liar ice 013								
11:10   BH23-29 1	014	and the second							
N1:20 RH23-30 0-	015								
11:30 BH23-30 2	016								
11:40 BH23- 71 0-	6 017								
V 11:50 V B1+23-31 2	V V 018								
	10								
Date: Time: Relinquished by:	Received by: Via: Date Time	Remarks: Direct Bill to Devon cc Kstallings Qvertex. ca							
Date: Time: Relinquished by:	Received by: Via: Curaty Date Time								

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Released to Imaging: 6/25/2025 2:43:17 PM



Environment Testing

Eurofins Environment Testing South Central, LLC 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

November 29, 2023

Kent Stallings Vertex Resources Services, Inc. 3101 Boyd Drive Carlsbad, NM 88220 TEL: FAX:

RE: Thistle Unit 10 Battery

OrderNo.: 2311556

Dear Kent Stallings:

Eurofins Environment Testing South Central, LLC received 30 sample(s) on 11/10/2023 for the analyses presented in the following report.

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

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Date Reported: 11/29/2023

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-23 4' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 9:00:00 AM Lab ID: 2311556-001 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.7 mg/Kg 1 11/15/2023 9:51:33 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 11/15/2023 9:51:33 PM Surr: DNOP 99.7 69-147 %Rec 1 11/15/2023 9:51:33 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 11/16/2023 10:48:00 PM 4.9 mg/Kg 1 Surr: BFB 105 15-244 %Rec 1 11/16/2023 10:48:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 11/16/2023 10:48:00 PM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 11/16/2023 10:48:00 PM Ethylbenzene ND 0.049 mg/Kg 1 11/16/2023 10:48:00 PM Xylenes, Total ND 0.098 mg/Kg 11/16/2023 10:48:00 PM 1 Surr: 4-Bromofluorobenzene 100 39.1-146 %Rec 1 11/16/2023 10:48:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/16/2023 7:51:07 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 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

Page 1 of 38

Date Reported: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-32 0' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 9:10:00 AM Lab ID: 2311556-002 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.7 mg/Kg 1 11/15/2023 10:02:06 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 11/15/2023 10:02:06 PM Surr: DNOP 84.1 69-147 %Rec 1 11/15/2023 10:02:06 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 11/16/2023 11:53:00 PM 4.9 mg/Kg 1 Surr: BFB 102 15-244 %Rec 1 11/16/2023 11:53:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 11/16/2023 11:53:00 PM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 11/16/2023 11:53:00 PM Ethylbenzene ND 0.049 mg/Kg 1 11/16/2023 11:53:00 PM Xylenes, Total ND 0.098 mg/Kg 11/16/2023 11:53:00 PM 1 Surr: 4-Bromofluorobenzene 98.2 39.1-146 %Rec 1 11/16/2023 11:53:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/16/2023 8:03:32 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

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Date Reported: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-32 2' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 9:20:00 AM Lab ID: 2311556-003 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.7 mg/Kg 1 11/15/2023 10:12:39 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 11/15/2023 10:12:39 PM Surr: DNOP 86.6 69-147 %Rec 1 11/15/2023 10:12:39 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 11/17/2023 12:58:00 AM 4.9 mg/Kg 1 Surr: BFB 108 15-244 %Rec 1 11/17/2023 12:58:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 11/17/2023 12:58:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 11/17/2023 12:58:00 AM Ethylbenzene ND 0.049 mg/Kg 1 11/17/2023 12:58:00 AM Xylenes, Total ND 0.098 mg/Kg 11/17/2023 12:58:00 AM 1 Surr: 4-Bromofluorobenzene 100 39.1-146 %Rec 1 11/17/2023 12:58:00 AM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/16/2023 8:40:46 PM 80 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 3 of 38

Date Reported: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-33 0' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 9:30:00 AM Lab ID: 2311556-004 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.8 mg/Kg 1 11/15/2023 10:23:13 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 11/15/2023 10:23:13 PM Surr: DNOP 90.1 69-147 %Rec 1 11/15/2023 10:23:13 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 11/17/2023 1:20:00 AM 4.9 mg/Kg 1 Surr: BFB 107 15-244 %Rec 1 11/17/2023 1:20:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 11/17/2023 1:20:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 11/17/2023 1:20:00 AM Ethylbenzene ND 0.049 mg/Kg 1 11/17/2023 1:20:00 AM Xylenes, Total ND 0.098 mg/Kg 11/17/2023 1:20:00 AM 1 Surr: 4-Bromofluorobenzene 99.9 39.1-146 %Rec 1 11/17/2023 1:20:00 AM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/16/2023 8:53:11 PM 190 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.
 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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Date Reported: 11/29/2023

# Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Vertex Resources Services, Inc.		Client	Sample ID:	BH23	-33 2'				
Project:	Thistle Unit 10 Battery	Collection Date: 11/8/2023 9:40:00 AM								
Lab ID:	2311556-005	Matrix: SOIL	Rec	eived Date: 11/10/2023 7:50:00 AM						
Analyses		Result	RL Q	ual Units	DF	Date Analyzed				
EPA ME	THOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: PRD				
Diesel R	ange Organics (DRO)	ND	9.7	mg/Kg	1	11/15/2023 10:33:47 PM				
Motor Oi	l Range Organics (MRO)	ND	49	mg/Kg	1	11/15/2023 10:33:47 PM				
Surr: I	DNOP	89.8	69-147	%Rec	1	11/15/2023 10:33:47 PM				
EPA ME	THOD 8015D: GASOLINE RANG	E				Analyst: KMN				
Gasoline	Range Organics (GRO)	ND	4.8	mg/Kg	1	11/17/2023 1:42:00 AM				
Surr: I	BFB	104	15-244	%Rec	1	11/17/2023 1:42:00 AM				
EPA ME	THOD 8021B: VOLATILES					Analyst: KMN				
Benzene		ND	0.024	mg/Kg	1	11/17/2023 1:42:00 AM				
Toluene		ND	0.048	mg/Kg	1	11/17/2023 1:42:00 AM				
Ethylben	zene	ND	0.048	mg/Kg	1	11/17/2023 1:42:00 AM				
Xylenes,	Total	ND	0.096	mg/Kg	1	11/17/2023 1:42:00 AM				
Surr: 4	4-Bromofluorobenzene	98.1	39.1-146	%Rec	1	11/17/2023 1:42:00 AM				
EPA ME	THOD 300.0: ANIONS					Analyst: SNS				
Chloride		300	60	mg/Kg	20	11/16/2023 9:05:35 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

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
- 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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Date Reported: 11/29/2023

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-34 0' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 9:50:00 AM Lab ID: 2311556-006 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) 1800 93 mg/Kg 10 11/15/2023 10:44:23 PM Motor Oil Range Organics (MRO) 1600 460 mg/Kg 10 11/15/2023 10:44:23 PM Surr: DNOP 0 69-147 S %Rec 10 11/15/2023 10:44:23 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 11/17/2023 2:04:00 AM 4.9 mg/Kg 1 Surr: BFB 106 15-244 %Rec 1 11/17/2023 2:04:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 11/17/2023 2:04:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 11/17/2023 2:04:00 AM Ethylbenzene ND 0.049 mg/Kg 1 11/17/2023 2:04:00 AM Xylenes, Total ND 0.099 mg/Kg 11/17/2023 2:04:00 AM 1 Surr: 4-Bromofluorobenzene 102 39.1-146 %Rec 1 11/17/2023 2:04:00 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT mg/Kg Chloride 11/17/2023 6:16:40 PM 4100 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 6 of 38

Date Reported: 11/29/2023

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-34 2' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 10:00:00 AM Lab ID: 2311556-007 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.9 mg/Kg 1 11/15/2023 11:24:29 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 11/15/2023 11:24:29 PM Surr: DNOP 93.3 69-147 %Rec 1 11/15/2023 11:24:29 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 11/17/2023 2:26:00 AM 4.9 mg/Kg 1 Surr: BFB 101 15-244 %Rec 1 11/17/2023 2:26:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 11/17/2023 2:26:00 AM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 11/17/2023 2:26:00 AM Ethylbenzene ND 0.049 mg/Kg 1 11/17/2023 2:26:00 AM Xylenes, Total ND 0.098 mg/Kg 11/17/2023 2:26:00 AM 1 Surr: 4-Bromofluorobenzene 98.9 39.1-146 %Rec 1 11/17/2023 2:26:00 AM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/16/2023 9:30:25 PM 300 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 38

Date Reported: 11/29/2023

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-34 3' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 10:10:00 AM Lab ID: 2311556-008 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.4 mg/Kg 1 11/15/2023 11:35:08 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 11/15/2023 11:35:08 PM Surr: DNOP 91.1 69-147 %Rec 1 11/15/2023 11:35:08 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 11/17/2023 2:47:00 AM 4.7 mg/Kg 1 Surr: BFB 105 15-244 %Rec 1 11/17/2023 2:47:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 11/17/2023 2:47:00 AM 0.024 mg/Kg 1 Toluene ND 0.047 mg/Kg 1 11/17/2023 2:47:00 AM Ethylbenzene ND 0.047 mg/Kg 1 11/17/2023 2:47:00 AM Xylenes, Total ND 0.095 mg/Kg 11/17/2023 2:47:00 AM 1 Surr: 4-Bromofluorobenzene 101 39.1-146 %Rec 1 11/17/2023 2:47:00 AM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/17/2023 6:03:09 AM 1400 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: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-35 0' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 10:20:00 AM Lab ID: 2311556-009 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 10 mg/Kg 1 11/15/2023 11:45:56 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 11/15/2023 11:45:56 PM Surr: DNOP 80.2 69-147 %Rec 1 11/15/2023 11:45:56 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 11/17/2023 3:09:00 AM 4.8 mg/Kg 1 Surr: BFB 103 15-244 %Rec 1 11/17/2023 3:09:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 11/17/2023 3:09:00 AM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 11/17/2023 3:09:00 AM Ethylbenzene ND 0.048 mg/Kg 1 11/17/2023 3:09:00 AM Xylenes, Total ND 0.097 mg/Kg 11/17/2023 3:09:00 AM 1 Surr: 4-Bromofluorobenzene 99.0 39.1-146 %Rec 1 11/17/2023 3:09:00 AM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/17/2023 6:15:34 AM 880 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 38

Date Reported: 11/29/2023

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-35 2' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 10:30:00 AM Lab ID: 2311556-010 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.8 mg/Kg 1 11/16/2023 12:07:08 AM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 11/16/2023 12:07:08 AM Surr: DNOP 85.6 69-147 %Rec 1 11/16/2023 12:07:08 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 11/17/2023 3:31:00 AM 4.9 mg/Kg 1 Surr: BFB 105 15-244 %Rec 1 11/17/2023 3:31:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 11/17/2023 3:31:00 AM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 11/17/2023 3:31:00 AM Ethylbenzene ND 0.049 mg/Kg 1 11/17/2023 3:31:00 AM Xylenes, Total ND 0.098 mg/Kg 11/17/2023 3:31:00 AM 1 Surr: 4-Bromofluorobenzene 100 39.1-146 %Rec 1 11/17/2023 3:31:00 AM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/17/2023 6:27:58 AM 1500 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: 11/29/2023

11/17/2023 6:40:22 AM

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-36 0' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 10:40:00 AM Lab ID: 2311556-011 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.7 mg/Kg 1 11/16/2023 12:17:52 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 11/16/2023 12:17:52 AM Surr: DNOP 77.5 69-147 %Rec 1 11/16/2023 12:17:52 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 11/17/2023 4:15:00 AM 4.7 mg/Kg 1 Surr: BFB 103 15-244 %Rec 1 11/17/2023 4:15:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 11/17/2023 4:15:00 AM 0.023 mg/Kg 1 Toluene ND 0.047 mg/Kg 1 11/17/2023 4:15:00 AM Ethylbenzene ND 0.047 mg/Kg 1 11/17/2023 4:15:00 AM Xylenes, Total ND 0.093 mg/Kg 11/17/2023 4:15:00 AM 1 Surr: 4-Bromofluorobenzene 98.7 39.1-146 %Rec 1 11/17/2023 4:15:00 AM **EPA METHOD 300.0: ANIONS** Analyst: SNS

1600

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

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Date Reported: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-36 2' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 10:50:00 AM Lab ID: 2311556-012 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.9 mg/Kg 1 11/16/2023 12:28:37 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 11/16/2023 12:28:37 AM Surr: DNOP 84.9 69-147 %Rec 1 11/16/2023 12:28:37 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 11/17/2023 4:37:00 AM 4.9 mg/Kg 1 Surr: BFB 105 15-244 %Rec 1 11/17/2023 4:37:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 11/17/2023 4:37:00 AM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 11/17/2023 4:37:00 AM Ethylbenzene ND 0.049 mg/Kg 1 11/17/2023 4:37:00 AM Xylenes, Total ND 0.098 mg/Kg 11/17/2023 4:37:00 AM 1 Surr: 4-Bromofluorobenzene 99.5 39.1-146 %Rec 1 11/17/2023 4:37:00 AM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/17/2023 6:52:47 AM 1800 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 38

Released to Imaging: 6/25/2025 2:43:17 PM
Date Reported: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-37 0' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 11:00:00 AM Lab ID: 2311556-013 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.6 mg/Kg 1 11/16/2023 12:39:19 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 11/16/2023 12:39:19 AM Surr: DNOP 85.5 69-147 %Rec 1 11/16/2023 12:39:19 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 11/17/2023 4:58:00 AM 5.0 mg/Kg 1 Surr: BFB 104 15-244 %Rec 1 11/17/2023 4:58:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 11/17/2023 4:58:00 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 11/17/2023 4:58:00 AM Ethylbenzene ND 0.050 mg/Kg 1 11/17/2023 4:58:00 AM Xylenes, Total ND mg/Kg 11/17/2023 4:58:00 AM 0.099 1 Surr: 4-Bromofluorobenzene 93.7 39.1-146 %Rec 1 11/17/2023 4:58:00 AM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/17/2023 7:30:00 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.
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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Date Reported: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-37 2' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 11:10:00 AM Lab ID: 2311556-014 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.8 mg/Kg 1 11/16/2023 12:50:00 AM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 11/16/2023 12:50:00 AM Surr: DNOP 82.9 69-147 %Rec 1 11/16/2023 12:50:00 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 11/17/2023 5:20:00 AM 4.9 mg/Kg 1 Surr: BFB 106 15-244 %Rec 1 11/17/2023 5:20:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 11/17/2023 5:20:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 11/17/2023 5:20:00 AM Ethylbenzene ND 0.049 mg/Kg 1 11/17/2023 5:20:00 AM Xylenes, Total ND 0.098 mg/Kg 11/17/2023 5:20:00 AM 1 Surr: 4-Bromofluorobenzene 101 39.1-146 %Rec 1 11/17/2023 5:20:00 AM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/17/2023 7:42:25 AM 130 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: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-38 0' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 11:20:00 AM Lab ID: 2311556-015 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.5 mg/Kg 1 11/16/2023 1:00:40 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 11/16/2023 1:00:40 AM Surr: DNOP 80.0 69-147 %Rec 1 11/16/2023 1:00:40 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 11/17/2023 5:42:00 AM 4.7 mg/Kg 1 Surr: BFB 100 15-244 %Rec 1 11/17/2023 5:42:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 11/17/2023 5:42:00 AM 0.024 mg/Kg 1 Toluene ND 0.047 mg/Kg 1 11/17/2023 5:42:00 AM Ethylbenzene ND 0.047 mg/Kg 1 11/17/2023 5:42:00 AM Xylenes, Total ND 0.095 mg/Kg 11/17/2023 5:42:00 AM 1 Surr: 4-Bromofluorobenzene 98.8 39.1-146 %Rec 1 11/17/2023 5:42:00 AM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/16/2023 12:29:03 PM 560 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: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-38 2' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 11:30:00 AM Lab ID: 2311556-016 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.8 mg/Kg 1 11/16/2023 1:11:19 AM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 11/16/2023 1:11:19 AM Surr: DNOP 93.2 69-147 %Rec 1 11/16/2023 1:11:19 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 11/17/2023 6:04:00 AM 5.0 mg/Kg 1 Surr: BFB 107 15-244 %Rec 1 11/17/2023 6:04:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 11/17/2023 6:04:00 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 11/17/2023 6:04:00 AM Ethylbenzene ND 0.050 mg/Kg 1 11/17/2023 6:04:00 AM Xylenes, Total ND mg/Kg 11/17/2023 6:04:00 AM 0.099 1 Surr: 4-Bromofluorobenzene 101 39.1-146 %Rec 1 11/17/2023 6:04:00 AM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/16/2023 1:31:06 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

RL Re

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Date Reported: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-39 0' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 11:40:00 AM Lab ID: 2311556-017 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.8 mg/Kg 1 11/16/2023 1:21:58 AM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 11/16/2023 1:21:58 AM Surr: DNOP 88.8 69-147 %Rec 1 11/16/2023 1:21:58 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 11/17/2023 6:26:00 AM 5.0 mg/Kg 1 Surr: BFB 105 15-244 %Rec 1 11/17/2023 6:26:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 11/17/2023 6:26:00 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 11/17/2023 6:26:00 AM Ethylbenzene ND 0.050 mg/Kg 1 11/17/2023 6:26:00 AM Xylenes, Total ND mg/Kg 11/17/2023 6:26:00 AM 0.099 1 Surr: 4-Bromofluorobenzene 96.1 39.1-146 %Rec 1 11/17/2023 6:26:00 AM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/16/2023 1:43:31 PM 430 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

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Date Reported: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-39 2' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 11:50:00 AM Lab ID: 2311556-018 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.9 mg/Kg 1 11/16/2023 1:32:34 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 11/16/2023 1:32:34 AM Surr: DNOP 86.1 69-147 %Rec 1 11/16/2023 1:32:34 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 11/17/2023 6:48:00 AM 5.0 mg/Kg 1 Surr: BFB 106 15-244 %Rec 1 11/17/2023 6:48:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 11/17/2023 6:48:00 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 11/17/2023 6:48:00 AM Ethylbenzene ND 0.050 mg/Kg 1 11/17/2023 6:48:00 AM Xylenes, Total ND mg/Kg 11/17/2023 6:48:00 AM 0.10 1 Surr: 4-Bromofluorobenzene 101 39.1-146 %Rec 1 11/17/2023 6:48:00 AM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/16/2023 1:55:55 PM 1000 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: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-40 0' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 12:00:00 PM Lab ID: 2311556-019 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.9 mg/Kg 1 11/16/2023 1:43:11 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 11/16/2023 1:43:11 AM Surr: DNOP 92.1 69-147 %Rec 1 11/16/2023 1:43:11 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 11/17/2023 7:09:00 AM 4.8 mg/Kg 1 Surr: BFB 104 15-244 %Rec 1 11/17/2023 7:09:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 11/17/2023 7:09:00 AM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 11/17/2023 7:09:00 AM Ethylbenzene ND 0.048 mg/Kg 1 11/17/2023 7:09:00 AM Xylenes, Total ND 0.096 mg/Kg 11/17/2023 7:09:00 AM 1 Surr: 4-Bromofluorobenzene 98.3 39.1-146 %Rec 1 11/17/2023 7:09:00 AM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/16/2023 2:08:20 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

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**EPA METHOD 300.0: ANIONS** 

Chloride

**Analytical Report** Lab Order 2311556

Date Reported: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-40 2' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 12:10:00 PM Lab ID: 2311556-020 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.9 mg/Kg 1 11/16/2023 1:53:46 AM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 11/16/2023 1:53:46 AM Surr: DNOP 91.9 69-147 %Rec 1 11/16/2023 1:53:46 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 11/17/2023 7:31:00 AM 4.8 mg/Kg 1 Surr: BFB 102 15-244 %Rec 1 11/17/2023 7:31:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 11/17/2023 7:31:00 AM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 11/17/2023 7:31:00 AM Ethylbenzene ND 0.048 mg/Kg 1 11/17/2023 7:31:00 AM Xylenes, Total ND 0.097 mg/Kg 11/17/2023 7:31:00 AM 1 Surr: 4-Bromofluorobenzene 98.0 39.1-146 %Rec 1 11/17/2023 7:31:00 AM

710

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 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 20 of 38

Analyst: SNS

11/16/2023 2:20:44 PM

Date Reported: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-41 0' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 12:20:00 PM Lab ID: 2311556-021 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 9.8 mg/Kg 1 11/17/2023 2:25:51 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 11/17/2023 2:25:51 PM Surr: DNOP 94.0 69-147 %Rec 1 11/17/2023 2:25:51 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/17/2023 8:35:00 PM 4.7 mg/Kg 1 Surr: BFB 111 15-244 %Rec 1 11/17/2023 8:35:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/17/2023 8:35:00 PM 0.024 mg/Kg 1 Toluene ND 0.047 mg/Kg 1 11/17/2023 8:35:00 PM Ethylbenzene ND 0.047 mg/Kg 1 11/17/2023 8:35:00 PM Xylenes, Total ND 0.094 mg/Kg 11/17/2023 8:35:00 PM 1 Surr: 4-Bromofluorobenzene 106 39.1-146 %Rec 1 11/17/2023 8:35:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/16/2023 2:33:08 PM 2000 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: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-41 2' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 12:30:00 PM Lab ID: 2311556-022 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.3 mg/Kg 1 11/16/2023 5:46:24 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 11/16/2023 5:46:24 PM Surr: DNOP 99.7 69-147 %Rec 1 11/16/2023 5:46:24 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/17/2023 8:57:00 PM 4.9 mg/Kg 1 Surr: BFB 108 15-244 %Rec 1 11/17/2023 8:57:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/17/2023 8:57:00 PM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 11/17/2023 8:57:00 PM Ethylbenzene ND 0.049 mg/Kg 1 11/17/2023 8:57:00 PM Xylenes, Total ND 0.097 mg/Kg 11/17/2023 8:57:00 PM 1 Surr: 4-Bromofluorobenzene 106 39.1-146 %Rec 1 11/17/2023 8:57:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT mg/Kg Chloride 11/17/2023 4:49:50 PM 2400 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

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 38

Date Reported: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-42 0' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 12:40:00 PM Lab ID: 2311556-023 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.3 mg/Kg 1 11/16/2023 5:57:10 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 11/16/2023 5:57:10 PM Surr: DNOP 75.3 69-147 %Rec 1 11/16/2023 5:57:10 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/17/2023 9:19:00 PM 4.8 mg/Kg 1 Surr: BFB 109 15-244 %Rec 1 11/17/2023 9:19:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/17/2023 9:19:00 PM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 11/17/2023 9:19:00 PM Ethylbenzene ND 0.048 mg/Kg 1 11/17/2023 9:19:00 PM Xylenes, Total ND 0.096 mg/Kg 11/17/2023 9:19:00 PM 1 Surr: 4-Bromofluorobenzene 105 39.1-146 %Rec 1 11/17/2023 9:19:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT mg/Kg Chloride 11/17/2023 5:02:14 PM 3100 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 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: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-42 2' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 12:50:00 PM Lab ID: 2311556-024 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.3 mg/Kg 1 11/16/2023 6:07:56 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 11/16/2023 6:07:56 PM Surr: DNOP 104 69-147 %Rec 1 11/16/2023 6:07:56 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/17/2023 10:03:00 PM 4.8 mg/Kg 1 Surr: BFB 110 15-244 %Rec 1 11/17/2023 10:03:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/17/2023 10:03:00 PM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 11/17/2023 10:03:00 PM Ethylbenzene ND 0.048 mg/Kg 1 11/17/2023 10:03:00 PM Xylenes, Total ND 0.097 mg/Kg 11/17/2023 10:03:00 PM 1 Surr: 4-Bromofluorobenzene 104 39.1-146 %Rec 1 11/17/2023 10:03:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/16/2023 3:35:11 PM 2400 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: 11/29/2023

11/16/2023 3:47:36 PM

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-43 0' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 1:00:00 PM Lab ID: 2311556-025 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 9.5 mg/Kg 1 11/17/2023 11:39:57 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 11/17/2023 11:39:57 AM Surr: DNOP 70.1 69-147 %Rec 1 11/17/2023 11:39:57 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/17/2023 10:25:00 PM 4.8 mg/Kg 1 Surr: BFB 106 15-244 %Rec 1 11/17/2023 10:25:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/17/2023 10:25:00 PM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 11/17/2023 10:25:00 PM Ethylbenzene ND 0.048 mg/Kg 1 11/17/2023 10:25:00 PM Xylenes, Total ND 0.097 mg/Kg 11/17/2023 10:25:00 PM 1 Surr: 4-Bromofluorobenzene 103 39.1-146 %Rec 1 11/17/2023 10:25:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS

900

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 25 of 38

Date Reported: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Vertex Resources Services, Inc.		Client Sa	mple ID:	BH23	-43 2'			
Project:	Thistle Unit 10 Battery		Collect	ion Date:	11/8/2	023 1:10:00 PM			
Lab ID:	2311556-026	Matrix: SOIL	Receiv	Received Date: 11/10/2023 7:50:00 AM					
Analyses		Result	RL Qua	l Units	DF	Date Analyzed			
EPA ME	THOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: PRD			
Diesel Ra	ange Organics (DRO)	ND	9.9	mg/Kg	1	11/16/2023 6:29:26 PM			
Motor Oil	Range Organics (MRO)	ND	49	mg/Kg	1	11/16/2023 6:29:26 PM			
Surr: [	DNOP	108	69-147	%Rec	1	11/16/2023 6:29:26 PM			
EPA ME	THOD 8015D: GASOLINE RANG	E				Analyst: RAA			
Gasoline	Range Organics (GRO)	ND	4.8	mg/Kg	1	11/17/2023 10:47:00 PM			
Surr: E	3FB	109	15-244	%Rec	1	11/17/2023 10:47:00 PM			
EPA ME	THOD 8021B: VOLATILES					Analyst: RAA			
Benzene		ND	0.024	mg/Kg	1	11/17/2023 10:47:00 PM			
Toluene		ND	0.048	mg/Kg	1	11/17/2023 10:47:00 PM			
Ethylben	zene	ND	0.048	mg/Kg	1	11/17/2023 10:47:00 PM			
Xylenes,	Total	ND	0.096	mg/Kg	1	11/17/2023 10:47:00 PM			
Surr: 4	1-Bromofluorobenzene	103	39.1-146	%Rec	1	11/17/2023 10:47:00 PM			
EPA ME	THOD 300.0: ANIONS					Analyst: SNS			
Chloride		750	59	mg/Kg	20	11/16/2023 4:00:00 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 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 26 of 38

\*

Date Reported: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-44 0' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 1:20:00 PM Lab ID: 2311556-027 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.4 mg/Kg 1 11/16/2023 6:40:09 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 11/16/2023 6:40:09 PM Surr: DNOP 124 69-147 %Rec 1 11/16/2023 6:40:09 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/17/2023 11:09:00 PM 4.7 mg/Kg 1 Surr: BFB 108 15-244 %Rec 1 11/17/2023 11:09:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/17/2023 11:09:00 PM 0.023 mg/Kg 1 Toluene ND 0.047 mg/Kg 1 11/17/2023 11:09:00 PM Ethylbenzene ND 0.047 mg/Kg 1 11/17/2023 11:09:00 PM Xylenes, Total ND 0.094 mg/Kg 11/17/2023 11:09:00 PM 1 Surr: 4-Bromofluorobenzene 105 39.1-146 %Rec 1 11/17/2023 11:09:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/16/2023 4:12:25 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 27 of 38

Date Reported: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-44 2' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 1:30:00 PM Lab ID: 2311556-028 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.7 mg/Kg 1 11/16/2023 6:50:52 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 11/16/2023 6:50:52 PM Surr: DNOP 69-147 %Rec 1 11/16/2023 6:50:52 PM 116 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/17/2023 11:54:00 PM 4.7 mg/Kg 1 Surr: BFB 109 15-244 %Rec 1 11/17/2023 11:54:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/17/2023 11:54:00 PM 0.023 mg/Kg 1 Toluene ND 0.047 mg/Kg 1 11/17/2023 11:54:00 PM Ethylbenzene ND 0.047 mg/Kg 1 11/17/2023 11:54:00 PM Xylenes, Total ND 0.094 mg/Kg 11/17/2023 11:54:00 PM 1 Surr: 4-Bromofluorobenzene 104 39.1-146 %Rec 1 11/17/2023 11:54:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/16/2023 4:24:50 PM 150 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

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Date Reported: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-45 0' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 1:40:00 PM Lab ID: 2311556-029 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.4 mg/Kg 1 11/16/2023 7:12:10 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 11/16/2023 7:12:10 PM Surr: DNOP 124 69-147 %Rec 1 11/16/2023 7:12:10 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/18/2023 12:16:00 AM 4.8 mg/Kg 1 Surr: BFB 107 15-244 %Rec 1 11/18/2023 12:16:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/18/2023 12:16:00 AM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 11/18/2023 12:16:00 AM Ethylbenzene ND 0.048 mg/Kg 1 11/18/2023 12:16:00 AM Xylenes, Total ND 0.097 mg/Kg 11/18/2023 12:16:00 AM 1 Surr: 4-Bromofluorobenzene 102 39.1-146 %Rec 1 11/18/2023 12:16:00 AM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/16/2023 4:37:15 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

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Date Reported: 11/29/2023

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Vertex Resources Services, Inc. Client Sample ID: BH23-45 1' **Project:** Thistle Unit 10 Battery Collection Date: 11/8/2023 1:50:00 PM Lab ID: 2311556-030 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: PRD EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.4 mg/Kg 1 11/16/2023 12:52:00 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 11/16/2023 12:52:00 PM Surr: DNOP 86.1 69-147 %Rec 1 11/16/2023 12:52:00 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/17/2023 12:11:00 PM 4.9 mg/Kg 1 Surr: BFB 107 15-244 %Rec 1 11/17/2023 12:11:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/17/2023 12:11:00 PM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 11/17/2023 12:11:00 PM Ethylbenzene ND 0.049 mg/Kg 1 11/17/2023 12:11:00 PM Xylenes, Total ND 0.098 mg/Kg 11/17/2023 12:11:00 PM 1 Surr: 4-Bromofluorobenzene 101 39.1-146 %Rec 1 11/17/2023 12:11:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS mg/Kg Chloride 11/16/2023 4:49:40 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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Client:	Vertex	Resources Services, Inc.	
Project:	Thistle	Unit 10 Battery	
Sample ID:	MB-78839	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID:	PBS	Batch ID: 78839	RunNo: 101256
Prep Date:	11/16/2023	Analysis Date: 11/16/2023	SeqNo: 3722958 Units: mg/Kg
Analyte			SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride		ND 1.5	
Sample ID:	LCS-78839	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID:	LCSS	Batch ID: 78839	RunNo: 101256
Prep Date:	11/16/2023	Analysis Date: 11/16/2023	SeqNo: 3722959 Units: mg/Kg
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride		15 1.5 15.00	0 98.6 90 110
Sample ID:	MB-78843	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID:	PBS	Batch ID: 78843	RunNo: 101241
Prep Date:	11/16/2023	Analysis Date: 11/16/2023	SeqNo: 3723318 Units: mg/Kg
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride		ND 1.5	
Sample ID:	LCS-78843	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID:	LCSS	Batch ID: 78843	RunNo: 101241
Prep Date:	11/16/2023	Analysis Date: 11/16/2023	SeqNo: 3723319 Units: mg/Kg
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride		14 1.5 15.00	0 94.4 90 110

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical 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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### **QC SUMMARY REPORT** Hall Environmental Analysis Laboratory, Inc.

		J		us 01 ut 0	-						23-1107-2	
Client: Project:	Vertex Re Thistle Ur		,	Inc.								
Sample ID:	2311556-020AMS	SampT	Гуре: МS	6	Tes	tCode: El	PA Method	8015M/D: Die	sel Range	Organics		
Client ID:	BH23-40 2'	Batch	h ID: 788	304	F	RunNo: <b>101145</b>						
Prep Date:	11/15/2023	Analysis E	Date: 11	/16/2023	5	SeqNo: 3	719804	Units: mg/K	g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range C	Organics (DRO)	48	9.4	46.95	0	102	54.2	135				
Surr: DNOP		4.2		4.695		90.2	69	147				
Sample ID:	2311556-020AMSD	SampT	Гуре: <b>МS</b>	SD.	Tes							
Client ID:	BH23-40 2'	304	RunNo: <b>101145</b>									
Prep Date:	11/15/2023	Analysis D	Date: 11	/16/2023	S	SeqNo: 3	719805	Units: <b>mg/K</b>	g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range C	Organics (DRO)	44	9.8	48.97	0	90.6	54.2	135	7.15	29.2		
Surr: DNOP		4.2		4.897		85.7	69	147	0	0		
Sample ID:	LCS-78804	SampT	Гуре: <b>LC</b>	S	Tes	tCode: El	PA Method	8015M/D: Die	sel Range	Organics		
Client ID:	LCSS	Batch	h ID: 788	804	F	RunNo: 1	01145					
Prep Date:	11/15/2023	Analysis D	Date: 11	/15/2023	S	SeqNo: 3	719806	Units: <b>mg/K</b>	g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range C	Organics (DRO)	45	10	50.00	0	90.2	61.9	130				
Surr: DNOP		4.2		5.000		84.0	69	147				
Sample ID:	MB-78804	SampT	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8015M/D: Die	sel Range	Organics		
Client ID:	PBS	Batch	h ID: 788	304	F	RunNo: 1	01145					
Prep Date:	11/15/2023	Analysis E	Date: 11	/15/2023	S	SeqNo: 3	719808	Units: <b>mg/K</b>	g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range C	• • •	ND	10									
•	e Organics (MRO)	ND	50									
Surr: DNOP		8.5		10.00		84.7	69	147				

Sample ID: 2311556-021AMS SampType: MS			TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: BH23-41 0'	Batch ID: 78823			RunNo: <b>101250</b>						
Prep Date: 11/15/2023 Analysis Date: 11/16/2023			SeqNo: 3722263 Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.8	48.97	0	93.9	54.2	135			
Surr: DNOP	5.1		4.897		105	69	147			

#### **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

2311556

29-Nov-23

	esources Servio nit 10 Battery	ces, Inc.							
	_								
Sample ID: 2311556-021AMSE		-				8015M/D: Die	sel Range	Organics	
Client ID: BH23-41 0'	Batch ID:			RunNo: <b>10</b>					
Prep Date: 11/15/2023	Analysis Date:	11/16/2023	Ş	SeqNo: 37	22264	Units: mg/K	g		
Analyte	Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		9.8 49.16	0	89.7	54.2	135	4.24	29.2	
Surr: DNOP	5.0	4.916		102	69	147	0	0	
Sample ID: LCS-78823	SampType:	LCS	Tes	tCode: EP	A Method	8015M/D: Die	sel Range	Organics	
Client ID: LCSS	Batch ID:	78823	F	RunNo: <b>10</b>	1250				
Prep Date: 11/15/2023	Analysis Date:	11/16/2023	5	SeqNo: 37	22305	Units: mg/K	g		
Analyte	Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10 50.00	0	99.3	61.9	130			
Surr: DNOP	4.7	5.000		93.8	69	147			
Sample ID: MB-78823	SampType:	MBLK	Tes	tCode: EP	A Method	8015M/D: Die	sel Range	Organics	
Client ID: PBS	Batch ID:	78823	F	RunNo: <b>10</b>	1250				
Prep Date: 11/15/2023	Analysis Date:	11/16/2023	S	SeqNo: 37	22307	Units: mg/K	g		
Analyte	Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10							
Motor Oil Range Organics (MRO)		50				=			
Surr: DNOP	10	10.00		103	69	147			
Sample ID: MB-78826	SampType:	MBLK	Tes	tCode: EP	A Method	8015M/D: Die	sel Range	Organics	
Client ID: PBS	Batch ID:	78826	F	RunNo: <b>10</b>	1255				
Prep Date: 11/15/2023	Analysis Date:	11/16/2023	5	SeqNo: 37	22614	Units: mg/K	g		
Analyte	Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10							
Motor Oil Range Organics (MRO)		50							
Surr: DNOP	10	10.00		103	69	147			
Sample ID: LCS-78826	SampType:	LCS	Tes	tCode: EP	A Method	8015M/D: Die	sel Range	Organics	
Client ID: LCSS	Batch ID:	78826	F	RunNo: <b>10</b>	1255				
Prep Date: 11/15/2023	Analysis Date:	11/16/2023	S	SeqNo: 37	22615	Units: mg/K	g		
1100 Balo. 11/13/2023									
Analyte	Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
		QL     SPK value       10     50.00	SPK Ref Val 0	%REC 112	LowLimit 61.9	HighLimit 130	%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

2311556

29-Nov-23

	Resources S Unit 10 Bat	,	Inc.							
Sample ID: LCS-78879	SampT	Type: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID: LCSS	Batch	h ID: 788	379	RunNo: 101270						
Prep Date: 11/17/2023	Analysis D	Date: 11	/17/2023	S	SeqNo: 37	725652	Units: <b>mg/K</b>	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.8	61.9	130			
Surr: DNOP	4.3		5.000		85.3	69	147			
Sample ID: MB-78879	SampT	Гуре: <b>МЕ</b>	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID: PBS	Batch	h ID: 788	379	F	RunNo: <b>1(</b>	01270				
Prep Date: 11/17/2023	Analysis D	Date: 11	/17/2023	S	SeqNo: 37	725654	Units: <b>mg/K</b>	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		105	69	147			

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical 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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2311556

29-Nov-23

Client:	Vertex Re	sources S	ervices,	Inc.							
Project:	Thistle Ur	nit 10 Bat	tery								
Sample ID:	lcs-78796	SampT	ype: LC	s	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	LCSS	Batch	n ID: <b>787</b>	796	F	RunNo: <b>1(</b>	01268				
Prep Date:	11/14/2023	Analysis D	)ate: 11	/16/2023	S	SeqNo: 37	723596	Units: mg/K	íg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Surr: BFB	Organics (GRO)	22 2200	5.0	25.00 1000	0	88.8 217	70 15	130 244			
Sample ID: 1	mb-78796	SampT	уре: МВ	BLK	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	PBS	Batch	n ID: <b>787</b>	796	F	RunNo: <b>1(</b>	01268				
Prep Date:	11/14/2023	Analysis D	)ate: 11	/16/2023	S	SeqNo: 37	723597	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Surr: BFB	Organics (GRO)	ND 1100	5.0	1000		105	15	244			
Sample ID: 2	2311556-001ams	SampT	уре: <b>МS</b>	;	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	BH23-23 4'	Batch	n ID: <b>787</b>	796	F	RunNo: <b>1(</b>	01268				
Prep Date:	11/14/2023	Analysis D	)ate: 11	/16/2023	S	SeqNo: 37	723601	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Surr: BFB	Organics (GRO)	24 2200	4.9	24.56 982.3	0	95.8 224	70 15	130 244			
Sample ID: 2	2311556-001amsd	SampT	уре: МS	D	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	BH23-23 4'	Batch	n ID: <b>787</b>	796	F	RunNo: <b>1(</b>	01268				
Prep Date:	11/14/2023	Analysis D	)ate: 11	/16/2023	S	SeqNo: 37	723602	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Surr: BFB	Organics (GRO)	24 2100	4.9	24.46 978.5	0	96.8 215	70 15	130 244	0.688 0	20 0	
Sample ID: 1											
	lcs-78820	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	lcs-78820 LCSS		ype: <b>LC</b> : n ID: <b>788</b>			tCode: EF		8015D: Gaso	line Range		
Client ID: I Prep Date:	LCSS		n ID: 788	320	F		01297	8015D: Gaso Units: mg/K	_		
	LCSS	Batch	n ID: 788	320 /17/2023	F	RunNo: <b>1(</b>	01297		_	RPDLimit	Qual
Prep Date: Analyte	LCSS	Batch Analysis D	n ID: <b>788</b> Date: <b>11</b>	320 /17/2023	F	RunNo: 10 SeqNo: 37	01297 725415	Units: <b>mg/K</b>	ζg		Qual
Prep Date: Analyte Gasoline Range	LCSS 11/15/2023 Organics (GRO)	Batch Analysis D Result 24 2200	n ID: <b>788</b> Date: <b>11</b> PQL	320 /17/2023 SPK value 25.00 1000	F S SPK Ref Val 0	RunNo: 10 SeqNo: 37 %REC 96.5 220	01297 725415 LowLimit 70 15	Units: <b>mg/K</b> HighLimit 130	Sg %RPD	RPDLimit	Qual
Prep Date: Analyte Gasoline Range Surr: BFB Sample ID:	LCSS 11/15/2023 Organics (GRO)	Batch Analysis D Result 24 2200 SampT	Date: <b>11</b> PQL 5.0	320 /17/2023 SPK value 25.00 1000 BLK	F SPK Ref Val 0 Tes	RunNo: 10 SeqNo: 37 %REC 96.5 220	01297 725415 LowLimit 70 15 PA Method	Units: <b>mg/K</b> HighLimit 130 244	Sg %RPD	RPDLimit	Qual
Prep Date: Analyte Gasoline Range Surr: BFB Sample ID:	LCSS 11/15/2023 Organics (GRO) mb-78820	Batch Analysis D Result 24 2200 SampT	Date: 11 PQL 5.0 Type: MB n ID: 788	320 /17/2023 SPK value 25.00 1000 BLK 320	F SPK Ref Val 0 Tes F	RunNo: 10 SeqNo: 37 %REC 96.5 220 tCode: EF	01297 725415 LowLimit 70 15 PA Method	Units: <b>mg/K</b> HighLimit 130 244	kg %RPD line Range	RPDLimit	Qual

Qualifiers:

\* Value exceeds Maximum Contaminant Level.

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ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

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J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

2311556

29-Nov-23

# **QC SUMMARY REPORT** Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Vertex Re Thistle Ur			Inc.							
Sample ID:	mb-78820	SampT	Гуре: <b>МЕ</b>	BLK	Tes	tCode: EF	A Method	8015D: Gasol	ine Range	•	
Client ID:	PBS	Batch	h ID: 788	320	F	RunNo: <b>10</b>	1297				
Prep Date:	11/15/2023	Analysis D	Date: 11	/17/2023	Ş	SeqNo: 37	25416	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	je Organics (GRO)	ND 1000	5.0	1000		104	15	244			
Sample ID:	2311556-030ams	SampT	Гуре: <b>МS</b>	5	Tes	tCode: EF	A Method	8015D: Gasol	ine Range	9	
Client ID:	BH23-45 1'	Batch	h ID: <b>78</b> 8	320	F	RunNo: <b>1(</b>	1297				
Prep Date:	11/15/2023	Analysis E	Date: 11	/17/2023	S	SeqNo: 37	25418	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	e Organics (GRO)	24	4.9	24.56	0	96.7	70	130			
Surr: BFB		2200		982.3		222	15	244			
Sample ID:	2311556-030amsd	SampT	Гуре: <b>МS</b>	D	Tes	tCode: EF	A Method	8015D: Gasol	ine Range	•	
Client ID:	BH23-45 1'	Batch	Batch ID: 78820 RunNo: 101297								
Prep Date:	11/15/2023	Analysis E	Date: 11	/17/2023	S	SeqNo: 37	25419	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	e Organics (GRO)	22	4.9	24.49	0	90.9	70	130	6.48	20	
Surr: BFB		2100		979.4		216	15	244	0	0	
Sample ID:	lcs-78810	SampT	Гуре: <b>LC</b>	S	Tes	tCode: EF	A Method	8015D: Gasol	ine Range	•	
Client ID:	LCSS	Batch	h ID: <b>78</b> 8	310	F	RunNo: <b>10</b>	1297				
Prep Date:	11/15/2023	Analysis D	Date: 11	/17/2023	Ş	SeqNo: 37	25421	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
-	e Organics (GRO)	24	5.0	25.00	0	97.4	70	130			
Surr: BFB		2200		1000		219	15	244			
Sample ID:	mb-78810	SampT	Гуре: МЕ	BLK	Tes	tCode: EF	A Method	8015D: Gasol	ine Range	•	
Client ID:	PBS	Batch	h ID: <b>788</b>	310	F	RunNo: <b>1(</b>	1297				
Prep Date:	11/15/2023	Analysis E	Date: 11	/17/2023	Ş	SeqNo: 37	25422	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	ND 1000	5.0	1000		101	15	244			

#### **Qualifiers:**

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- 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

2311556

29-Nov-23

Client: Project:	Vertex Re Thistle Ur			Inc.							
Sample ID:	lcs-78796	Samp	Туре: <b>LC</b>	s	Tes	tCode: EF	A Method	8021B: Volat	iles		
Client ID:	LCSS	Batc	h ID: 787	796	F	RunNo: <b>10</b>	1268				
Prep Date:	11/14/2023	Analysis [	Date: 11	/16/2023	S	SeqNo: 37	23535	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.90	0.025	1.000	0	90.1	70	130			
Toluene		0.90	0.050	1.000	0	90.2	70	130			
Ethylbenzene		0.92	0.050	1.000	0	92.3	70	130			
Xylenes, Total		2.7	0.10	3.000	0	91.2	70	130			
Surr: 4-Brom	nofluorobenzene	0.96		1.000		96.5	39.1	146			
Sample ID:	mb-78796	Samp	Туре: <b>МЕ</b>	BLK	Tes	tCode: EF	A Method	8021B: Volat	iles		
Client ID:	PBS	Batc	h ID: 787	796	RunNo: <b>101268</b>						
Prep Date:	11/14/2023	Analysis [	Date: 11	/16/2023	S	SeqNo: 37	23536	Units: <b>mg/K</b>	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								
O	ofluorobenzene	0.00									
Surr: 4-Bron	IUIIUUIUDEIIZEIIE	0.99		1.000		99.2	39.1	146			
	2311556-002ams		Type: <b>MS</b>		Tes			146 8021B: Volat	iles		
		Samp	Type: <b>MS</b> h ID: <b>787</b>	;			PA Method		iles		
Sample ID:	2311556-002ams	Samp	h ID: 787	; 796	F	tCode: EF	PA Method 01268				
Sample ID: Client ID:	2311556-002ams BH23-32 0'	Samp <sup>-</sup> Batc	h ID: 787	; 796	F	tCode: EF RunNo: 10	PA Method 01268	8021B: Volat		RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene	2311556-002ams BH23-32 0'	Samp Batc Analysis I Result 0.90	h ID: <b>787</b> Date: <b>11</b> PQL 0.024	796 /17/2023 SPK value 0.9775	F SPK Ref Val 0	tCode: EF RunNo: 10 SeqNo: 37 %REC 92.1	PA Method 01268 723539 LowLimit 70	8021B: Volat Units: mg/k HighLimit 130	g	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene	2311556-002ams BH23-32 0'	Samp Batc Analysis I Result 0.90 0.93	h ID: <b>787</b> Date: <b>11</b> <u>PQL</u> 0.024 0.049	796 /17/2023 SPK value 0.9775 0.9775	F SPK Ref Val 0 0	tCode: EF RunNo: 10 SeqNo: 37 %REC 92.1 95.0	PA Method 01268 723539 LowLimit 70 70	8021B: Volat Units: mg/k HighLimit 130 130	g	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene	2311556-002ams BH23-32 0'	Samp Batc Analysis I Result 0.90 0.93 0.95	h ID: <b>787</b> Date: <b>11</b> <u>PQL</u> 0.024 0.049 0.049	796 /17/2023 SPK value 0.9775 0.9775 0.9775	F SPK Ref Val 0 0 0	tCode: EF RunNo: 10 SeqNo: 37 %REC 92.1 95.0 97.1	<b>PA Method</b> 01268 723539 LowLimit 70 70 70 70	8021B: Volat Units: mg/K HighLimit 130 130 130	g	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	2311556-002ams BH23-32 0' 11/14/2023	Samp Batc Analysis I Result 0.90 0.93 0.95 2.8	h ID: <b>787</b> Date: <b>11</b> <u>PQL</u> 0.024 0.049	796 /17/2023 SPK value 0.9775 0.9775 0.9775 2.933	F SPK Ref Val 0 0	tCode: EF RunNo: 10 SeqNo: 37 %REC 92.1 95.0 97.1 96.5	PA Method 01268 723539 LowLimit 70 70 70 70 70	8021B: Volat Units: mg/K HighLimit 130 130 130 130	g	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	2311556-002ams BH23-32 0'	Samp Batc Analysis I Result 0.90 0.93 0.95	h ID: <b>787</b> Date: <b>11</b> <u>PQL</u> 0.024 0.049 0.049	796 /17/2023 SPK value 0.9775 0.9775 0.9775	F SPK Ref Val 0 0 0	tCode: EF RunNo: 10 SeqNo: 37 %REC 92.1 95.0 97.1	<b>PA Method</b> 01268 723539 LowLimit 70 70 70 70	8021B: Volat Units: mg/K HighLimit 130 130 130	g	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron	2311556-002ams BH23-32 0' 11/14/2023	Samp Batc Analysis I Result 0.90 0.93 0.95 2.8 0.96	h ID: <b>787</b> Date: <b>11</b> <u>PQL</u> 0.024 0.049 0.049	796 /17/2023 SPK value 0.9775 0.9775 0.9775 2.933 0.9775	F SPK Ref Val 0 0 0 0	tCode: EF RunNo: 10 SeqNo: 37 %REC 92.1 95.0 97.1 96.5 98.7	PA Method 01268 723539 LowLimit 70 70 70 70 39.1	8021B: Volat Units: mg/K HighLimit 130 130 130 130	Sg %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron	2311556-002ams BH23-32 0' 11/14/2023	Samp <sup>T</sup> Batc Analysis I Result 0.90 0.93 0.95 2.8 0.96 Samp <sup>T</sup>	h ID: <b>787</b> Date: <b>11</b> <u>PQL</u> 0.024 0.049 0.049 0.098	796 /17/2023 SPK value 0.9775 0.9775 0.9775 2.933 0.9775	F SPK Ref Val 0 0 0 0 0 Tes	tCode: EF RunNo: 10 SeqNo: 37 %REC 92.1 95.0 97.1 96.5 98.7	24 Method 21268 223539 LowLimit 70 70 70 70 70 39.1	8021B: Volat Units: mg/K HighLimit 130 130 130 130 146	Sg %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID:	2311556-002ams BH23-32 0' 11/14/2023 nofluorobenzene 2311556-002amsd	Samp <sup>T</sup> Batc Analysis I Result 0.90 0.93 0.95 2.8 0.96 Samp <sup>T</sup>	h ID: <b>787</b> Date: <b>11</b> PQL 0.024 0.049 0.049 0.098 Type: <b>MS</b> h ID: <b>787</b>	796 /17/2023 SPK value 0.9775 0.9775 0.9775 2.933 0.9775 5D 796	F SPK Ref Val 0 0 0 0 Tes F	tCode: EF RunNo: 10 SeqNo: 37 %REC 92.1 95.0 97.1 96.5 98.7 tCode: EF	PA Method 11268 223539 LowLimit 70 70 70 39.1 PA Method 11268	8021B: Volat Units: mg/K HighLimit 130 130 130 130 146	Sg %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID: Client ID:	2311556-002ams BH23-32 0' 11/14/2023 nofluorobenzene 2311556-002amsd BH23-32 0'	Samp Batc Analysis I Result 0.90 0.93 0.95 2.8 0.96 Samp Batc Analysis I Result	h ID: <b>787</b> Date: <b>11</b> PQL 0.024 0.049 0.049 0.098 Type: <b>MS</b> h ID: <b>787</b> Date: <b>11</b> PQL	796 /17/2023 SPK value 0.9775 0.9775 2.933 0.9775 2.933 0.9775 5D 796 /17/2023 SPK value	F SPK Ref Val 0 0 0 0 Tes F	tCode: EF RunNo: 10 SeqNo: 37 %REC 92.1 95.0 97.1 96.5 98.7 tCode: EF RunNo: 10 SeqNo: 37 %REC	24 Method 1268 223539 LowLimit 70 70 70 39.1 24 Method 1268 223540 LowLimit	8021B: Volat Units: mg/K HighLimit 130 130 130 130 146 8021B: Volat	Sg %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID: Client ID: Prep Date: Analyte Benzene	2311556-002ams BH23-32 0' 11/14/2023 nofluorobenzene 2311556-002amsd BH23-32 0'	Samp Batc Analysis I Result 0.90 0.93 0.95 2.8 0.96 Samp Batc Analysis I Result 0.88	h ID: <b>787</b> Date: <b>11</b> PQL 0.024 0.049 0.049 0.098 Type: <b>MS</b> h ID: <b>787</b> Date: <b>11</b> PQL 0.024	796 /17/2023 SPK value 0.9775 0.9775 2.933 0.9775 2.933 0.9775 5D 796 /17/2023 SPK value 0.9737	SPK Ref Val 0 0 0 0 Tes F SPK Ref Val 0	tCode: EF RunNo: 10 SeqNo: 37 %REC 92.1 95.0 97.1 96.5 98.7 tCode: EF RunNo: 10 SeqNo: 37 %REC 90.8	PA Method 01268 723539 LowLimit 70 70 70 39.1 PA Method 01268 723540 LowLimit 70	8021B: Volat Units: mg/K HighLimit 130 130 130 146 8021B: Volat Units: mg/K HighLimit 130	5g %RPD iles 5g %RPD 1.79	RPDLimit 20	
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID: Client ID: Prep Date: Analyte Benzene	2311556-002ams BH23-32 0' 11/14/2023 nofluorobenzene 2311556-002amsd BH23-32 0'	Samp <sup>T</sup> Batc Analysis I Result 0.90 0.93 0.95 2.8 0.96 Samp <sup>T</sup> Batc Analysis I Result 0.88 0.91	h ID: 787 Date: 11 PQL 0.024 0.049 0.049 0.098 Type: MS h ID: 787 Date: 11 PQL 0.024 0.049	796 /17/2023 SPK value 0.9775 0.9775 0.9775 2.933 0.9775 50 796 /17/2023 SPK value 0.9737 0.9737	F SPK Ref Val 0 0 0 0 Tes F SPK Ref Val	tCode: EF RunNo: 10 SeqNo: 37 %REC 92.1 95.0 97.1 96.5 98.7 tCode: EF RunNo: 10 SeqNo: 37 %REC 90.8 93.6	PA Method 01268 723539 LowLimit 70 70 70 70 39.1 PA Method 01268 723540 LowLimit 70 70 70 70 70 70 70 70 70 70	8021B: Volat Units: mg/K HighLimit 130 130 130 130 146 8021B: Volat Units: mg/K HighLimit 130 130	5g %RPD iles 5g %RPD 1.79 1.82	RPDLimit 20 20	
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID: Client ID: Prep Date: Analyte Benzene Toluene	2311556-002ams BH23-32 0' 11/14/2023 nofluorobenzene 2311556-002amsd BH23-32 0'	Samp <sup>7</sup> Batc Analysis I Result 0.90 0.93 0.95 2.8 0.96 Samp <sup>7</sup> Batc Analysis I Result 0.88 0.91 0.92	h ID: 787 Date: 11 PQL 0.024 0.049 0.049 0.098 Type: MS h ID: 787 Date: 11 PQL 0.024 0.049 0.049 0.049	796 /17/2023 SPK value 0.9775 0.9775 2.933 0.9775 2.933 0.9775 5D 796 /17/2023 SPK value 0.9737 0.9737 0.9737	SPK Ref Val 0 0 0 0 Tes F SPK Ref Val 0	tCode: EF RunNo: 10 SeqNo: 37 %REC 92.1 95.0 97.1 96.5 98.7 tCode: EF RunNo: 10 SeqNo: 37 %REC 90.8 93.6 94.7	PA Method 01268 723539 LowLimit 70 70 70 70 39.1 PA Method 01268 723540 LowLimit 70 70 70 70 70 70 70 70 70 70	8021B: Volat Units: mg/K HighLimit 130 130 130 130 146 8021B: Volat Units: mg/K HighLimit 130 130 130	2g %RPD iles 2g %RPD 1.79 1.82 2.92	RPDLimit 20 20 20	
Sample ID: Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID: Client ID: Prep Date: Analyte	2311556-002ams BH23-32 0' 11/14/2023 nofluorobenzene 2311556-002amsd BH23-32 0'	Samp <sup>T</sup> Batc Analysis I Result 0.90 0.93 0.95 2.8 0.96 Samp <sup>T</sup> Batc Analysis I Result 0.88 0.91	h ID: 787 Date: 11 PQL 0.024 0.049 0.049 0.098 Type: MS h ID: 787 Date: 11 PQL 0.024 0.049	796 /17/2023 SPK value 0.9775 0.9775 0.9775 2.933 0.9775 50 796 /17/2023 SPK value 0.9737 0.9737	SPK Ref Val 0 0 0 0 0 Tes SPK Ref Val 0 0	tCode: EF RunNo: 10 SeqNo: 37 %REC 92.1 95.0 97.1 96.5 98.7 tCode: EF RunNo: 10 SeqNo: 37 %REC 90.8 93.6	PA Method 01268 723539 LowLimit 70 70 70 70 39.1 PA Method 01268 723540 LowLimit 70 70 70 70 70 70 70 70 70 70	8021B: Volat Units: mg/K HighLimit 130 130 130 130 146 8021B: Volat Units: mg/K HighLimit 130 130	5g %RPD iles 5g %RPD 1.79 1.82	RPDLimit 20 20	

#### **Qualifiers:**

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- 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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2311556

29-Nov-23

Client: Project:		Resources S Jnit 10 Bat	,	Inc.							
Sample ID:	lcs-78820	Samp <sup>-</sup>	Гуре: <b>LC</b>	S	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID:	LCSS	Batc	h ID: 78	320	F	RunNo: 10	01297				
Prep Date:	11/15/2023	Analysis [	Date: 11	/17/2023	S	SeqNo: 37	725925	Units: mg/k	٤g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.84	0.025	1.000	0	83.7	70	130			
Toluene		0.84	0.050	1.000	0	84.0	70	130			
Ethylbenzene		0.87	0.050	1.000	0	86.8	70	130			
Xylenes, Total		2.6	0.10	3.000	0	86.3	70	130			
Surr: 4-Brom	ofluorobenzene	0.98		1.000		97.7	39.1	146			
Sample ID:	mb-78820	Samp	Гуре: МЕ	BLK	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID:	PBS	Batc	h ID: <b>78</b>	320	F	RunNo: <b>1(</b>	01297				
Prep Date:	11/15/2023	Analysis [	Date: 11	/17/2023	Ş	SeqNo: 37	725926	Units: <b>mg/k</b>	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-Brom	ofluorobenzene	1.0		1.000		99.8	39.1	146			
Sample ID:	lcs-78810	Samp <sup>-</sup>	Гуре: <b>LC</b>	S	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID:	LCSS	Batc	h ID: <b>78</b>	810	RunNo: 101297						
Prep Date:	11/15/2023	Analysis [	Date: 11	/17/2023	5	SeqNo: 37	725929	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.92	0.025	1.000	0	91.8	70	130			
Toluene		0.93	0.050	1.000	0	93.4	70	130			
Ethylbenzene		0.95	0.050	1.000	0	94.7	70	130			
Xylenes, Total		2.8	0.10	3.000	0	93.9	70	130			
Surr: 4-Brom	ofluorobenzene	0.98		1.000		97.6	39.1	146			
Sample ID:	mb-78810	Samp <sup>-</sup>	Гуре: <b>МЕ</b>	BLK	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID:	PBS	Batc	h ID: <b>78</b>	810	F	RunNo: <b>1(</b>	01297				
Prep Date:	11/15/2023	Analysis [	Date: 11	/17/2023	S	SeqNo: 37	725930	Units: mg/k	٢g		
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	ofluorobenzene	1.0		1.000		99.6	39.1	146			

- \* 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#: 2311556

29-Nov-23

🔅 eurofins

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Environment Testin

#### Eurofins Environment Testing South Central, LLC 4901 Hawkins NE Albuquerque. NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Released to Imaging: 6/25/2025 2:43:17 PM

		Website: www	v.hallenvironmenta	l.com		
Client Name: Vertex Reso	ources	Work Order Num	ber: 2311556		RcptNo:	1
Received By: Juan Roja	5	11/10/2023 7:50:00	AM	Guan Say		
Completed By: Tracy Case		11/10/2023 8:39:25	AM			
Reviewed By: DAD	11/10/23					
Chain of Custody						
1. Is Chain of Custody compl	ete?		Yes	No 🗹	Not Present	
2. How was the sample delive	ered?		<u>Courier</u>			
Log In						
3. Was an attempt made to c	ool the samples?		Yes 🗹	No 🗌	NA 🗌	
1			_	N- 🗖		
4. Were all samples received	at a temperature c	of >0° C to 6.0°C	Yes 🗹	No 📙	na 🗌	
5. Sample(s) in proper contai	ner(s)?		Yes 🗹	No 🗌		
C. Cufficient complexity of		2	Yes 🗹	No 🗌		
6. Sufficient sample volume for	( )					
<ul><li>7. Are samples (except VOA a</li><li>8. Was preservative added to</li></ul>		preserved?	Yes ☑ Yes □	No 🗹	NA 🗌	
0. Was preservative added to	bottles!					
9. Received at least 1 vial with	n headspace <1/4"	for AQ VOA?	Yes 🗌	No 🗌	NA 🗹	
10. Were any sample containe	rs received broker	1?	Yes 🗌	No 🗹	# of preserved	-
11 Deer manager in the base			y the	a No 🗹	bottles checked for pH:	
11. Does paperwork match bot (Note discrepancies on cha			Yes Minel	A NO 1≥		>12 unless noted)
12. Are matrices correctly ident	tified on Chain of C	Custody?	Yes 🗹	No 🗌	Adjusted?	
13. Is it clear what analyses we	ere requested?		Yes 🗹	No 🗌		7m 110/2.
14. Were all holding times able (If no, notify customer for a			Yes 🗹	No 🗌	Checked by:	74 411010.
·						
Special Handling (if app					11	mc
15. Was client notified of all di	-		Yes 🔽	No 🗌		11/10/23
	thin C.		11/10/23			
	Tracy Casam	and the second se		Phone 🗌 Fax	In Person	
	and the second se	me discrepance	and the second se			
	Mailing address.pl	hone number, and Er	mail/Fax are miss	ing on COC- TN	1C 11/10/23	NOSE - me
16. Additional remarks:	LOC CONNECTION	iv	NUU NIL IV	1001 01 1010	word with the per chent.	11/10/23
		* y				
17. <u>Cooler Information</u> Cooler No Temp °C	Condition Se	al Intact Seal No	Seal Date	Signed By	***	
1 <u>3.7</u>	Good Yes					
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Page 1 of 1

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email or	email or Fax#:				Project Mana	ager:		5	Ô	6			SO4			sent)				
QA/QC Package:				KSt	allings (	avertex, ca	TMB's (8021)	RO / M	2 PCB'	ZOSIMS		2, PO4,			Total Coliform (Present/Absent)					
Accreditation:					Sampler: Zach Englebert On Ice:Yes DNO				2	/808	14.1) 182		NO <sub>2</sub> ,		Æ	Pres				
		Othe	r		On Ice:Yes □ No # of Coolers: ↓ ↓ ♡ 𝑘, `				GRO	ides	od 50	tals	<b>5</b> 3,		'0^-	Ē				
	(Type)_					O(including CF):		MTBE	15D(	estic	lethc	3 Me	Ъ,	(A)	<b>Semi</b>	olifo				
Deta	Time	Matrix	Sample Name		Container Type and #	Preservative Type	HEAL NO. 2311556	<b>ETEX</b>	(Ph: 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1) PAHs by 8310 or 8270SIMS	RCRA	CDF, Br, NO <sub>3</sub> ,	8260 (VOA)	8270 (Semi-VOA)	Total C				
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eleased	If riecessar	y, samples s	ubmitted to Hall Environmenta 2025 2:43:17 PM	al may be su	bcontracted to othe	accredited laborato	ries. This serves as notice of t	his pos	sibility.	Any si	ub-contra	cted dat	ta will t	be clea	irly not	tated o	n the ar	nalytical	report.	1 of

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QA/QC P	-			Malidation	K	Cent	Stall	ing	5	TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	PCB's		PAHs by 8310 or 8270SIMS		PO4,			Total Coliform (Present/Absent)				
□ Stand			Level 4 (Full	validation)	Sam	nlar: 7	A.L F	-	1017	MB	DRO	821	<del>,</del>	3270		NO <sub>2</sub> ,			lese			1.17	111
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					Cont	ainer	Preserva	ative	HEAL No.	BIEX	Å	<u></u>	B	R	ξ.	m l	00	20	tal (	а.			
Date	Time	Matrix	Sample Nan			and #	Туре		2311556	Ø	Y	<u>ö</u>		A	2	<u>5</u>	82	82	<u>P</u>	_	_		
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	11:10	1	BH23-:	37 2'		5			014				1.000	_									+-+-
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email or Fax#: QA/QC Package Standard Accreditation: NELAC		□ Level 4 (Full Valio ompliance	dation)		ager: Stallin Ach Eng Pres		TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	/8082 PCB's	04.1)	PAHs by 8310 or 8270SIMS	NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>		A)	Coliform (Present/Absent)					
EDD (Type)				# of Coolers:		yon: ,6+v.1=7.7(°€)		015D(GR(	8081 Pesticides/8082	EDB (Method 504.1)	PAHs by 8310 c	CDF, Br, NO <sub>3</sub> ,	(AO)	8270 (Semi-VOA)	Coliform (I					
Date Time	Matrix	Sample Name	50 T	Container Type and #	Preservative Type	HEAL NO. 2311556	BTEX	A D	8081 F	EDB (I	PAHs	CDF.	8260 (VOA)	8270 (	Total (					
11-8-23 13:00		BH23 - 43	01	<u>ljar</u>	ice	025							<u> </u>							
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Received by OCD: 6/6/2025 11:13:25 AM



**Environment Testing** 

# ANALYTICAL REPORT

# PREPARED FOR

Attn: Mr. Kent Stallings Vertex 3101 Boyd Dr Carlsbad, New Mexico 88220 Generated 4/16/2025 3:28:25 PM

# JOB DESCRIPTION

Thistle Unit 10 CTB

# **JOB NUMBER**

885-22848-1

Page 247 of 374

Eurofins Albuquerque 4901 Hawkins NE Albuquerque NM 87109





# **Eurofins Albuquerque**

### **Job Notes**

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

### Authorization

Authorized for release by

(505)345-3975

Andy Freeman, Business Unit Manager andy.freeman@et.eurofinsus.com

Generated 4/16/2025 3:28:25 PM

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Receipt Checklists	18

Job ID: 885-22848-1

### **Definitions/Glossary**

Client: Vertex Project/Site: Thistle Unit 10 CTB

litiers

Project/Site. Th		
Qualifiers		3
GC VOA		
Qualifier	Qualifier Description	
S1+	Surrogate recovery exceeds control limits, high biased.	
GC Semi VOA		5
Qualifier	Qualifier Description	
F1	MS and/or MSD recovery exceeds control limits.	6
Glossary		7
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
<del></del> ¢	Listed under the "D" column to designate that the result is reported on a dry weight basis	8
%R	Percent Recovery	0
CFL	Contains Free Liquid	Q
CFU	Colony Forming Unit	3
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision Level Concentration (Radiochemistry)	
EDL	Estimated Detection Limit (Dioxin)	
LOD	Limit of Detection (DoD/DOE)	
LOQ	Limit of Quantitation (DoD/DOE)	
MCL	EPA recommended "Maximum Contaminant Level"	
MDA	Minimum Datastable Activity (Padioshamistry)	

MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit

Minimum Level (Dioxin) ML

MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

Negative / Absent NEG

POS Positive / Present PQL Practical Quantitation Limit

PRES Presumptive

QC Quality Control

Relative Error Ratio (Radiochemistry) RER

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)

TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

### **Case Narrative**

#### Client: Vertex Project: Thistle Unit 10 CTB

Page 251 of 374

#### Job ID: 885-22848-1

#### **Eurofins Albuquerque**

#### Job Narrative 885-22848-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### Receipt

The samples were received on 4/9/2025 7:40 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.5°C.

#### **Gasoline Range Organics**

No additional analytical or guality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### **Diesel Range Organics**

Method 8015D DRO: The method blank for preparation batch 885-24116 and analytical batch 885-24185 contained Motor Oil Range Organics [C28-C40] above the method detection limit. This target analyte concentration was above the reporting limit (RL) in the method blank but no samples have the target analyte above the RL and/or do not request it; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015D DRO: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 885-24116 and analytical batch 885-24185 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### HPLC/IC

No additional analytical or guality issues were noted, other than those described above or in the Definitions/ Glossary page.

Job ID: 885-22848-1

Lab Sample ID: 885-22848-1

# Project/Site: Thistle Unit 10 CTB

### Client Sample ID: BH23-34 4'

Date Collected: 04/07/25 08:40 Date Received: 04/09/25 07:40

Client: Vertex

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		5.0	mg/Kg		04/10/25 14:24	04/11/25 22:09	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		35 - 166			04/10/25 14:24	04/11/25 22:09	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/10/25 14:24	04/11/25 22:09	1
Ethylbenzene	ND		0.050	mg/Kg		04/10/25 14:24	04/11/25 22:09	1
Toluene	ND		0.050	mg/Kg		04/10/25 14:24	04/11/25 22:09	1
Xylenes, Total	ND		0.10	mg/Kg		04/10/25 14:24	04/11/25 22:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		48 - 145			04/10/25 14:24	04/11/25 22:09	1
Method: SW846 8015M/D - Diese	Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		04/11/25 11:33	04/15/25 07:13	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		04/11/25 11:33	04/15/25 07:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	105		62 - 134			04/11/25 11:33	04/15/25 07:13	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Matrix: Solid

5
Matrix: Solid

5

Job ID: 885-22848-1

Lab Sample ID: 885-22848-2

# Project/Site: Thistle Unit 10 CTB

Client Sample ID: BH23-34 5'

Date Collected: 04/07/25 08:55 Date Received: 04/09/25 07:40

Client: Vertex

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		5.0	mg/Kg		04/10/25 14:24	04/11/25 23:14	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		35 - 166			04/10/25 14:24	04/11/25 23:14	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/10/25 14:24	04/11/25 23:14	1
Ethylbenzene	ND		0.050	mg/Kg		04/10/25 14:24	04/11/25 23:14	1
Toluene	ND		0.050	mg/Kg		04/10/25 14:24	04/11/25 23:14	1
Xylenes, Total	ND		0.10	mg/Kg		04/10/25 14:24	04/11/25 23:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		48 - 145			04/10/25 14:24	04/11/25 23:14	1
Method: SW846 8015M/D - Diese	Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6	mg/Kg		04/11/25 11:33	04/15/25 07:24	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/11/25 11:33	04/15/25 07:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	129		62 - 134			04/11/25 11:33	04/15/25 07:24	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

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Released to Imaging: 6/25/2025 2:43:17 PM

# **Client Sample Results**

Matrix: Solid

Job ID: 885-22848-1

Lab Sample ID: 885-22848-3

# Project/Site: Thistle Unit 10 CTB

### Client Sample ID: BH23-34 6' Date Collected: 04/07/25 09:00

Date Received: 04/09/25 07:40

Client: Vertex

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Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		4.8	mg/Kg		04/10/25 14:24	04/12/25 00:20	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		35 - 166			04/10/25 14:24	04/12/25 00:20	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/10/25 14:24	04/12/25 00:20	1
Ethylbenzene	ND		0.048	mg/Kg		04/10/25 14:24	04/12/25 00:20	1
Toluene	ND		0.048	mg/Kg		04/10/25 14:24	04/12/25 00:20	1
Xylenes, Total	ND		0.095	mg/Kg		04/10/25 14:24	04/12/25 00:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		48 - 145			04/10/25 14:24	04/12/25 00:20	1
Method: SW846 8015M/D - Diese	l Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND	F1	10	mg/Kg		04/11/25 11:33	04/15/25 07:36	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		04/11/25 11:33	04/15/25 07:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	127		62 - 134			04/11/25 11:33	04/15/25 07:36	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy						
		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result	Quaimer	RL	Unit		ricparca	Analyzeu	DirFac

# **QC Sample Results**

Client: Vertex Project/Site: Thistle Unit 10 CTB

## Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Job ID: 885-22848-1

5 6 7

Lab Sample ID: MB 885-240	51/1 <b>-A</b>							Client S	ample ID: M		
Matrix: Solid									Prep Ty		
Analysis Batch: 24179									Prep E	Satch:	2403
		MB MB									
Analyte	R	esult Qualifier		RL	Unit			repared	Analyzed		Dil Fa
Gasoline Range Organics		ND	5.	.0	mg/	Kg	04/1	10/25 14:24	04/11/25 21	:47	
(GRO)-C6-C10											
		MB MB									
Surrogate	%Reco	overy Qualifier	Limits				F	Prepared	Analyzed	d	Dil Fa
4-Bromofluorobenzene (Surr)		100	35 - 166	_			04/1	10/25 14:24	04/11/25 21	:47	
Lab Sample ID: LCS 885-24	031/2-A						Clien	t Sample	ID: Lab Cor	trol S	amp
Matrix: Solid									Prep Ty		
Analysis Batch: 24179									Prep E	-	
····· <b>·</b> ······························			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics			25.0	26.6		mg/Kg		106	70 - 130		
(GRO)-C6-C10						0 0					
<b>a</b> (		LCS									
Surrogate	%Recovery		Limits 35 - 166								
4-Bromofluorobenzene (Surr)	216	37+	35 - 100								
Lab Sample ID: 885-22848-1	MS							Clier	nt Sample ID	: BH2	3-34 4
Matrix: Solid									Prep Ty	pe: To	otal/N
Analysis Batch: 24179									Prep E	atch:	2403
	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics	ND		24.8	28.7		mg/Kg		116	70 - 130		
(GRO)-C6-C10											
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	217		35 - 166								
Lab Sample ID: 885-22848-1								Clier	nt Sample ID	: BH2	3-34 4
Matrix: Solid									Prep Ty		
Analysis Batch: 24179									Prep E		
	Sample	Sample	Spike	MSD	MSD				%Rec		RP
Analyte	-	Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Lim
Gasoline Range Organics	ND		24.9	27.8		mg/Kg		112	70 - 130	3	2
(GRO)-C6-C10	.15			20						÷	-
	MSD	MSD									
Suma mata	0/ <b>D</b>	0 117									

## Method: 8021B - Volatile Organic Compounds (GC)

%Recovery Qualifier

212

Lab Sample ID: MB 885-24031/1-A Matrix: Solid Analysis Batch: 24180	МВ	МВ				Client Sa	mple ID: Metho Prep Type: 1 Prep Batch	Total/NA
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/10/25 14:24	04/11/25 21:47	1
Ethylbenzene	ND		0.050	mg/Kg		04/10/25 14:24	04/11/25 21:47	1
Toluene	ND		0.050	mg/Kg		04/10/25 14:24	04/11/25 21:47	1

Limits 35 - 166

**Eurofins Albuquerque** 

Surrogate

4-Bromofluorobenzene (Surr)

Job ID: 885-22848-1

Client: Vertex Project/Site: Thistle Unit 10 CTB

Lab Sample ID: MB 885-24031/1-A

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

**Client Sample ID: Method Blank** Prop Type: Total/NA

Lab Sample ID: MB 885-24031/1-	A								Client Sa	ampie ID: Me		
Matrix: Solid										Prep Typ	e: To	tal/NA
Analysis Batch: 24180										Prep Ba	atch:	24031
	M	IB MB										
Analyte	Resu	ult Qualifier	RL		Unit		D	P	repared	Analyzed		Dil Fa
Xylenes, Total	N	ID	0.10		mg/ł	٢g	_	04/1	10/25 14:24	04/11/25 21:4	47	
		IB MB										
Surrogate	%Recove		Limits						Prepared	Analyzed		Dil Fa
4-Bromofluorobenzene (Surr)		99 <b>Quanner</b>	48 - 145						10/25 14:24	04/11/25 21:4		DIIFa
-Bromonuorobenzene (Surr)		99	40 - 145					04/1	10/23 14.24	04/11/23 21.4	+/	
Lab Sample ID: LCS 885-24031/3	3-A						С	lien	t Sample	ID: Lab Cont	trol S	ample
Matrix: Solid										Prep Typ		
Analysis Batch: 24180										Prep Ba		
			Spike	LCS	LCS					%Rec		
Analyte			Added	Result	Qualifier	Unit		D	%Rec	Limits		
Benzene			1.00	0.989		mg/Kg			99	70 - 130		
Ethylbenzene			1.00	0.993		mg/Kg			99	70 - 130		
n-Xylene & p-Xylene			2.00	2.01		mg/Kg			100	70 - 130		
p-Xylene			1.00	0.997		mg/Kg			100	70 - 130		
Toluene			1.00	0.978		mg/Kg			98	70 - 130		
	LCS L											
Surrogate	%Recovery 2011	ualifier	Limits 48 - 145									
_ab Sample ID: 885-22848-2 MS									Client	t Sample ID:	BH2:	3-34 5
Matrix: Solid										Prep Typ		
Analysis Batch: 24180										Prep Ba		
	Sample Sa	ample	Spike	MS	MS					%Rec		
Analyte	Result Q	ualifier	Added	Result	Qualifier	Unit		D	%Rec	Limits		
Benzene	ND		0.995	1.01		mg/Kg			101	70 - 130		
Ethylbenzene	ND		0.995	1.01		mg/Kg			101	70 - 130		
m-Xylene & p-Xylene	ND		1.99	2.02		mg/Kg			101	70 - 130		
o-Xylene	ND		0.995	1.03		mg/Kg			104	70 - 130		
Toluene	ND		0.995	1.00		mg/Kg			100	70 - 130		
		-										
<b>.</b>	MS M											
Surrogate		ualifier	Limits									
4-Bromofluorobenzene (Surr)	103		48 - 145									
Lab Sample ID: 885-22848-2 MSI	C								Client	t Sample ID:	BH23	3-34 5
Matrix: Solid										Prep Typ	e: To	tal/NA
Analysis Batch: 24180										Prep Ba	atch:	24031
	Sample Sa	ample	Spike	MSD	MSD					%Rec		RPD
Analyte	Result Q	ualifier	Added	Result	Qualifier	Unit		D	%Rec	Limits	RPD	Limi
Benzene	ND		1.00	0.973		mg/Kg			97	70 - 130	3	20
Ethylbenzene	ND		1.00	0.994		mg/Kg			99	70 - 130	1	20
m-Xylene & p-Xylene	ND		2.00	1.98		mg/Kg			99	70 - 130	2	20
o-Xylene	ND		1.00	1.02		mg/Kg			102	70 - 130	1	20
											-	

o-Xylene	ND		1.00
Toluene	ND		1.00
	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		48 - 145

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2

20

98

70 - 130

0.980

mg/Kg

Lab Sample ID: MB 885-24116/1-A

# **QC Sample Results**

Client: Vertex Project/Site: Thistle Unit 10 CTB

Matrix: Solid

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Job ID: 885-22848-1

Prep Type: Total/NA

**Client Sample ID: Method Blank** 

Analysis Batch: 24185	МВ	МВ							Prep Ba		
Analyte		Qualifier	RL		Unit		DI	Prepared	Analyzed		Dil Fa
Diesel Range Organics [C10-C28]	ND				mg/K	a		11/25 11:33	04/15/25 06:3		
Motor Oil Range Organics [C28-C40]	69.8		50		mg/K	-		11/25 11:33	04/15/25 06:3		
	MB	МВ									
Surrogate	%Recovery		Limits					Prepared	Analyzed		Dil Fa
Di-n-octyl phthalate (Surr)	127		62 - 134					11/25 11:33			
Lab Sample ID: LCS 885-24116	/2-4						Clien	t Sample	ID: Lab Cont	rol Sa	amnl
Matrix: Solid								e oumpro	Prep Typ		
Analysis Batch: 24185									Prep Ba		
			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics [C10-C28]			50.0	60.8		mg/Kg		122	60 - 135		
	LCS LCS	;									
Surrogate	%Recovery Qua	lifier	Limits								
Di-n-octyl phthalate (Surr)	95		62 - 134								
Lab Sample ID: 885-22848-3 M	S							Clier	t Sample ID:		
Matrix: Solid									Prep Typ		
Analysis Batch: 24185	Sample Sam	nle	Spike	MS	MS				Prep Ba %Rec	atch.	2411
Analyte	Result Qua	•	Added		Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics [C10-C28]	ND F1		48.1	68.7		mg/Kg		143	44 - 136		
	MS MS										
Surrogate	%Recovery Qua	lifier	Limits								
Di-n-octyl phthalate (Surr)	98		62 - 134								
- Lab Sample ID: 885-22848-3 M	SD							Clier	t Sample ID:	BH23	3-34 (
Matrix: Solid									Ргер Тур		
Analysis Batch: 24185									Prep Ba		
	Sample Sam	nple	Spike	MSD	MSD				%Rec		RP
Analyte	Result Qua	lifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Lim
Diesel Range Organics [C10-C28]	ND F1		47.1	55.1		mg/Kg		117	44 - 136	22	3
	MSD MSI	0									
Surrogate	%Recovery Qua	lifier	Limits								
Di-n-octyl phthalate (Surr)	89		62 - 134								

Lab Sample ID: MB 885-24097/1-A Matrix: Solid Analysis Batch: 24098						Client Sa	mple ID: Metho Prep Type: ⊺ Prep Batch	Total/NA
-	МВ	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5	mg/Kg		04/11/25 10:14	04/11/25 11:04	1

**Eurofins Albuquerque** 

# **QC Sample Results**

Client: Vertex Project/Site: Thistle Unit 10 CTB Job ID: 885-22848-1

# Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 885-24097/2-A Matrix: Solid Analysis Batch: 24098	Seile		1.00		Client	Sample	ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 24097	4
Analyte	Spike Added		LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Chloride	15.0	14.3		mg/Kg		96	90 - 110	6
								7
								8
								9

**Client Sample ID** 

BH23-34 4'

BH23-34 5'

BH23-34 6'

BH23-34 4'

BH23-34 4'

BH23-34 5'

BH23-34 5'

Method Blank

Lab Control Sample

Lab Control Sample

# **QC Association Summary**

Prep Type Total/NA

Matrix

Solid

Method

5030C

**Client: Vertex** Project/Site: Thistle Unit 10 CTB

**GC VOA** 

885-22848-1

885-22848-2

885-22848-3

MB 885-24031/1-A

LCS 885-24031/2-A

LCS 885-24031/3-A

885-22848-1 MS

885-22848-1 MSD

885-22848-2 MS

885-22848-2 MSD

Prep Batch: 24031 Lab Sample ID

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Prep Batch

	9
Deen Detab	10
Prep Batch 24031	
24031	

#### Analysis Batch: 24179

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-22848-1	BH23-34 4'	Total/NA	Solid	8015M/D	24031
885-22848-2	BH23-34 5'	Total/NA	Solid	8015M/D	24031
885-22848-3	BH23-34 6'	Total/NA	Solid	8015M/D	24031
MB 885-24031/1-A	Method Blank	Total/NA	Solid	8015M/D	24031
LCS 885-24031/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24031
885-22848-1 MS	BH23-34 4'	Total/NA	Solid	8015M/D	24031
885-22848-1 MSD	BH23-34 4'	Total/NA	Solid	8015M/D	24031

#### Analysis Batch: 24180

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-22848-1	BH23-34 4'	Total/NA	Solid	8021B	24031
885-22848-2	BH23-34 5'	Total/NA	Solid	8021B	24031
885-22848-3	BH23-34 6'	Total/NA	Solid	8021B	24031
MB 885-24031/1-A	Method Blank	Total/NA	Solid	8021B	24031
LCS 885-24031/3-A	Lab Control Sample	Total/NA	Solid	8021B	24031
885-22848-2 MS	BH23-34 5'	Total/NA	Solid	8021B	24031
885-22848-2 MSD	BH23-34 5'	Total/NA	Solid	8021B	24031

### GC Semi VOA

#### Prep Batch: 24116

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-22848-1	BH23-34 4'	Total/NA	Solid	SHAKE	
885-22848-2	BH23-34 5'	Total/NA	Solid	SHAKE	
885-22848-3	BH23-34 6'	Total/NA	Solid	SHAKE	
MB 885-24116/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-24116/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-22848-3 MS	BH23-34 6'	Total/NA	Solid	SHAKE	
885-22848-3 MSD	BH23-34 6'	Total/NA	Solid	SHAKE	

#### Analysis Batch: 24185

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-22848-1	BH23-34 4'	Total/NA	Solid	8015M/D	24116
885-22848-2	BH23-34 5'	Total/NA	Solid	8015M/D	24116
885-22848-3	BH23-34 6'	Total/NA	Solid	8015M/D	24116
MB 885-24116/1-A	Method Blank	Total/NA	Solid	8015M/D	24116
LCS 885-24116/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24116
885-22848-3 MS	BH23-34 6'	Total/NA	Solid	8015M/D	24116

**Eurofins Albuquerque** 

# **QC** Association Summary

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Job ID: 885-22848-1

5

## Client: Vertex Project/Site: Thistle Unit 10 CTB

# GC Semi VOA (Continued)

## Analysis Batch: 24185 (Continued)

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-22848-3 MSD	BH23-34 6'	Total/NA	Solid	8015M/D	24116

## HPLC/IC

#### Prep Batch: 24097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22848-1	BH23-34 4'	Total/NA	Solid	300_Prep	
885-22848-2	BH23-34 5'	Total/NA	Solid	300_Prep	
885-22848-3	BH23-34 6'	Total/NA	Solid	300_Prep	
MB 885-24097/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-24097/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
analysis Batch: 24098	3				
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-22848-1	BH23-34 4'	Total/NA	Solid	300.0	24097
005 000 10 0	BUIGG OF ST	<b>T</b> ( 1010	0		0.4007

885-22848-1	BH23-34 4'	Total/NA	Solid	300.0	24097
885-22848-2	BH23-34 5'	Total/NA	Solid	300.0	24097
885-22848-3	BH23-34 6'	Total/NA	Solid	300.0	24097
MB 885-24097/1-A	Method Blank	Total/NA	Solid	300.0	24097
LCS 885-24097/2-A	Lab Control Sample	Total/NA	Solid	300.0	24097

Eurofins Albuquerque

Job ID: 885-22848-1

# Lab Sample ID: 885-22848-1

# Matrix: Solid

Date Collected: 04/07/25 08:40 Date Received: 04/09/25 07:40

Project/Site: Thistle Unit 10 CTB

Client Sample ID: BH23-34 4'

Client: Vertex

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			24031	AT	EET ALB	04/10/25 14:24
Total/NA	Analysis	8015M/D		1	24179	AT	EET ALB	04/11/25 22:09
Total/NA	Prep	5030C			24031	AT	EET ALB	04/10/25 14:24
Total/NA	Analysis	8021B		1	24180	AT	EET ALB	04/11/25 22:09
Total/NA	Prep	SHAKE			24116	EM	EET ALB	04/11/25 11:33
Total/NA	Analysis	8015M/D		1	24185	MI	EET ALB	04/15/25 07:13
Total/NA	Prep	300_Prep			24097	DL	EET ALB	04/11/25 10:14
Total/NA	Analysis	300.0		20	24098	JT	EET ALB	04/11/25 11:26

## Client Sample ID: BH23-34 5'

Date Collected: 04/07/25 08:55 Date Received: 04/09/25 07:40

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			24031	AT	EET ALB	04/10/25 14:24
Total/NA	Analysis	8015M/D		1	24179	AT	EET ALB	04/11/25 23:14
Total/NA	Prep	5030C			24031	AT	EET ALB	04/10/25 14:24
Total/NA	Analysis	8021B		1	24180	AT	EET ALB	04/11/25 23:14
Total/NA	Prep	SHAKE			24116	EM	EET ALB	04/11/25 11:33
Total/NA	Analysis	8015M/D		1	24185	MI	EET ALB	04/15/25 07:24
Total/NA	Prep	300_Prep			24097	DL	EET ALB	04/11/25 10:14
Total/NA	Analysis	300.0		20	24098	JT	EET ALB	04/11/25 11:57

### Client Sample ID: BH23-34 6'

#### Date Collected: 04/07/25 09:00 Date Received: 04/09/25 07:40

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			24031	AT	EET ALB	04/10/25 14:24
Total/NA	Analysis	8015M/D		1	24179	AT	EET ALB	04/12/25 00:20
Total/NA	Prep	5030C			24031	AT	EET ALB	04/10/25 14:24
Total/NA	Analysis	8021B		1	24180	AT	EET ALB	04/12/25 00:20
Total/NA	Prep	SHAKE			24116	EM	EET ALB	04/11/25 11:33
Total/NA	Analysis	8015M/D		1	24185	MI	EET ALB	04/15/25 07:36
Total/NA	Prep	300_Prep			24097	DL	EET ALB	04/11/25 10:14
Total/NA	Analysis	300.0		20	24098	JT	EET ALB	04/11/25 12:28

#### Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

04/11/25 11:26 Lab Sample ID: 885-22848-2 Matrix: Solid

### Lab Sample ID: 885-22848-3

Matrix: Solid

# Accreditation/Certification Summary

Client: Vertex Project/Site: Thistle Unit 10 CTB

#### Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

nority	Prog	ram	Identification Number	Expiration Date
Mexico	State	•	NM9425, NM0901	02-27-26
The following analytes	are included in this report, b	out the laboratory is not certif	ied by the governing authority. This li	st may include analyte
for which the agency of	loes not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte	
300.0	300_Prep	Solid	Chloride	
8015M/D	5030C	Solid	Gasoline Range Organics	s (GRO)-C6-C10
8015M/D	SHAKE	Solid	Diesel Range Organics [0	C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organic	s [C28-C40]
8021B	5030C	Solid	Benzene	
8021B	5030C	Solid	Ethylbenzene	
8021B	5030C	Solid	Toluene	
8021B	5030C	Solid	Xylenes, Total	
gon	NEL	4P	NM100001	02-26-26

**Eurofins Albuquerque** 

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Job ID: 885-22848-1

Vertex   X Standard   Vertex     Voldress:   Vertex   Vertex     Voldress:   Project Name:   Project Name:     Voldress:   Project Name:   Vertex     Voldress:   Project Name:   Vertex     Project Name:   Project Name:   Vertex     Project Name:   Project Name:   Vertex     Project Name:   Project Manager:   Project Manager:     Project Manager:   Eax#:   Project Manager:     Project Manager:   Context Resource com   Rent Stallings     Bard:   Level 4 [Lul Validation)   kstallings     Bard:   Context   Sampler:   Level 4 [Lul Validation)     Collon:   Az Compliance   Sampler:   Level 4 [Lul Validation)     Matrix   Sampler:   Project Manager:   Level 4 [Lul Validation)     Sigs   Solid   BH23-34 d'   1, 4oz jar   Project Manager:     Sigs   Solid   BH23-34 d'   1, 4oz jar   Project Manager:   Level 4 [Lul Validation)     Sigs   Solid   BH23-34 d'   1, 4oz jar   Project Manager:   Level 4 [Lul Validation) <t< th=""><th>AMALYSIS LAB     AMALYSIS LAB     AMALYSIS LAB     AMALYSIS LAB     Aww.hallenvironmental.co     About Hawkins NE - Albuquerque, NR     AB01 Hawkins NE - Albuquerque, NR     B088 Pesticides/8085 PCB's     Fab 88260 (VOA)     Analysis Request     Amalysis Request     X   X     X   X     X   X     Abrit   Coliform (Pressent/Absent)     Amalysis Request   Mass     Amalysis Request   Mass     X   X   X     X   X   X     X   X   X     X   X   X     X   X   X     X   X   X     X   X   X     X   X   X     X   X   X     X   X   X     X   X   X     X   X   X   X</th></t<>	AMALYSIS LAB     AMALYSIS LAB     AMALYSIS LAB     AMALYSIS LAB     Aww.hallenvironmental.co     About Hawkins NE - Albuquerque, NR     AB01 Hawkins NE - Albuquerque, NR     B088 Pesticides/8085 PCB's     Fab 88260 (VOA)     Analysis Request     Amalysis Request     X   X     X   X     X   X     Abrit   Coliform (Pressent/Absent)     Amalysis Request   Mass     Amalysis Request   Mass     X   X   X     X   X   X     X   X   X     X   X   X     X   X   X     X   X   X     X   X   X     X   X   X     X   X   X     X   X   X     X   X   X     X   X   X   X
Project Name:   Thistle Unit 10 CTB     Thistle Unit 10 CTB   Project Manager:     23E-04784   23E-04784     Project Manager:   Kent Stallings     23E-04784   Namager:     23E-04784   Project Manager:     2402 jar   1, 402 jar     2402 jar   1, 402 jar	
Thistle Unit 10 CTB     Project #:     23E-04784     Project #:     23E-04784     23E-04784     23E-04784     Project Manager:     Kent Stallings     kstallings     kstallings     Sampler:     L. Pullman     On Ice:     # of Coolers:     Type and #     Type     1, 402 jar	
Project #: Project #: Project Manager: Kent Stallings Rent Stallings Project Manager: Kent Stallings Rent Stallings Project Manager: Kent Stallings Rent Stallings	2
23E-04784   23E-04784   Project Manager:   Conject Manager:   Ment Stallings   Ment Stallings   Ment Stallings   Ment Stallings   Ment Stallings   Sampler:   Ment Stallings	EDB (Method 504.1) PAHs by 8310 or 8270SIMS BCRA 8 Metals
Project Manager: Project Manager:	Image: Control Contro Control Control Contrecontrol Control Control Control Control Con
Ment Stallings   Cenel 4 (Full Validation)   Kent Stallings     Ampliance   Sampler:   L. Pullman     On los:   Earlies   No     Ampler:   L. Pullman     Antication   Sampler:   L. Pullman     Antication   Sampler:   L. Pullman     Antication   Sampler:   L. Pullman     Antication   Type and #   Type     Type   Type   HEAL No.     Type   1, 4oz jar   No     BH23-34 5'   1, 4oz jar   No     Antication   No   No     Antication   No   No     Antication   Type   No     Antication   No   No     No   No   No	EDB (Method 504.1)     PAHs by 8310 or 8270SIMS     RCRA 8 Metals     S260 (VOA)     8260 (VOA)
Image: Construct of the image of the im	EDB (Method 504.1)     PPHs by 8310 or 8270Slip     RCRA 8 Metals     S260 (VOA)     8260 (VOA)
Ompliance     Sample:     I       # of Coolers:     # of Coolers:     # of Coolers:     Mo       BH23-34 4'     1, 40z jar     No     No     No       Type and #     Type and #     Type     HEAL No.     No     No       Index:     1, 40z jar     1, 40z jar     No     No     No     No       Index:     1, 40z jar     1, 40z jar     No     No     No     No     No       Index:     1, 40z jar     1, 40z jar     No     No     No     No     No     No       Index:     1, 40z jar     1, 40z jar     No     No     No     No     No     No       Index:     1, 40z jar     1, 40z jar     No     No     No     No     No     No       Index:     1, 40z jar     1, 40z jar     No     No     No     No     No     No       Index:     1, 40z jar     1, 40z jar     No     No     No     No     No     No     No     No     No	EDB (Method 504.1)     PAHs by 8310 or 827     RCRA 8 Metals     S260 (VOA)     8260 (VOA)
On tee:   A   On tee:   A   A     # of Coolers:     # of Coolers:   Container   Preservative   Type and #   Type   Type     Type and #   Type   1, 4oz jar   1, 4oz jar   1, 4oz jar   HEAL No.     BH23-34 5'   1, 4oz jar   1, 4oz jar   1, 4oz jar   HEAL No.   NTBE/ T     Image: State in the image of the im	EDB (Method 504     PAHs by 8310 or 8     PAHs by 8310 or 8     RCRA 8 Metals     S260 (VOA)     8260 (VOA)
# of Coolers:   # of Coolers:   # of Coolers:   # of Coolers:     Cooler Temple Name   Container   Preservative   HEAL No.     Preservative   Type   1, 4oz jar   1, 4oz jar   X   X     BH23-34 6'   1, 4oz jar   1, 4oz jar   X   X   X   X     BH23-34 6'   1, 4oz jar   1, 4oz jar   X   X   X   X   X     BH23-34 6'   1, 4oz jar   1, 4oz jar   X   X   X   X   X     BH23-34 6'   1, 4oz jar   X   X   X   X   X   X   X     BH23-34 6'   1, 4oz jar   X   X   X   X   X   X   X   X     BH23-34 6'   1, 4oz jar   1, 4oz jar   X <t< td=""><td>EDB (Method 5   PAHs by 8310   RCRA 8 Metals   8260 (VOA)   8260 (VOA)</td></t<>	EDB (Method 5   PAHs by 8310   RCRA 8 Metals   8260 (VOA)   8260 (VOA)
Cooler Templineumory OF)     Cooler	EDB (Method PAHs by 83 RCRA 8 Method 8260 (VOA) 8260 (VOA)
Container Type and #   Container Type and #   Preservative Type   HEAL No.     Container Type and #   1, 4oz jar   1, 4oz jar   1, 4oz jar   ×   ×     BH23-34 5'   1, 4oz jar   1, 4oz jar   1, 4oz jar   ×   ×   ×   ×     BH23-34 6'   1, 4oz jar   1, 4oz jar   1, 4oz jar   ×   ×   ×   ×   ×   ×     BH23-34 6'   1, 4oz jar   1, 4oz jar   1, 4oz jar   ×	EDB (W 8250 (S 8260 (V 8260 (V 8260 (V
BH23-34 4'   1, 4oz jar   x	
BH23-34 5'   1, 4ozjar   1, 4ozjar   X     BH23-34 6'   1, 4ozjar   1, 4ozjar   X     BH23-34 6'   1, 4ozjar   1, 4ozjar   X     Image: Structure of the struct	
BH23-34 6' 1, 4oz jar 1, 4oz	
	×
Via: Date Time	I I I I I I I   Remarks: ATTN Jim Raley   Direct bill to Devon work order 21206611 Jim Raley
* Date Time リバセ・サイタノシーアシック	kstallings@vertexresource.com, SMcCarty@vertexresource.com, and LPullman@vertexresource.com for Final Report

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Job Number: 885-22848-1

List Source: Eurofins Albuquerque

## Login Sample Receipt Checklist

Client: Vertex

#### Login Number: 22848 List Number: 1

Creator: Rojas, Juan

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Received by OCD: 6/6/2025 11:13:25 AM



**Environment Testing** 

# ANALYTICAL REPORT

# PREPARED FOR

Attn: Mr. Kent Stallings Vertex 3101 Boyd Dr Carlsbad, New Mexico 88220 Generated 4/18/2025 3:48:41 PM

# **JOB DESCRIPTION**

Thistle Unit 10 CTB

# **JOB NUMBER**

885-23112-1

Eurofins Albuquerque 4901 Hawkins NE Albuquerque NM 87109

See page two for job notes and contact information

# **Eurofins Albuquerque**

# **Job Notes**

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

# Authorization

Authorized for release by

(505)345-3975

Andy Freeman, Business Unit Manager andy.freeman@et.eurofinsus.com

Generated 4/18/2025 3:48:41 PM

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# **Definitions/Glossary**

Client: Vertex Project/Site: Thistle Unit 10 CTB Job ID: 885-23112-1

# Qualifiors

Qualifiers		3
GC Semi VOA		
Qualifier	Qualifier Description	
S1+	Surrogate recovery exceeds control limits, high biased.	
Glossary		5
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
¢	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
CFL	Contains Free Liquid	
CFU	Colony Forming Unit	0
CNF	Contains No Free Liquid	0
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	9
DL	Detection Limit (DoD/DOE)	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision Level Concentration (Radiochemistry)	
EDL	Estimated Detection Limit (Dioxin)	
LOD	Limit of Detection (DoD/DOE)	
LOQ	Limit of Quantitation (DoD/DOE)	
MCL	EPA recommended "Maximum Contaminant Level"	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
MPN	Most Probable Number	
MQL	Method Quantitation Limit	
NC	Not Calculated	
ND	Not Detected at the reporting limit (or MDL or EDL if shown)	
NEG	Negative / Absent	
POS	Positive / Present	
PQL	Practical Quantitation Limit	
PRES	Presumptive	
QC	Quality Control	
RER	Relative Error Ratio (Radiochemistry)	
RL	Reporting Limit or Requested Limit (Radiochemistry)	
RPD	Relative Percent Difference, a measure of the relative difference between two points	
TEF	Toxicity Equivalent Factor (Dioxin)	
TEQ	Toxicity Equivalent Quotient (Dioxin)	

TNTC Too Numerous To Count

# **Case Narrative**

### Client: Vertex Project: Thistle Unit 10 CTB

Page 269 of 374

## Job ID: 885-23112-1

#### **Eurofins Albuquerque**

#### Job Narrative 885-23112-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### Receipt

The samples were received on 4/12/2025 7:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

#### **Gasoline Range Organics**

No additional analytical or guality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### **Diesel Range Organics**

Method 8015D DRO: Surrogate recovery for the following samples were outside the upper control limit: BS25-01 1' (885-23112-1), BS25-02 1' (885-23112-2) and (MB 885-24387/1-A). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8015D\_DRO: Surrogate recovery for the following samples were outside the upper control limit: WS25-01 0-1' (885-23112-3) and WS25-02 0-1' (885-23112-4). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**Eurofins Albuquerque** 

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Job ID: 885-23112-1

# Lab Sample ID: 885-23112-1 Matrix: Solid

Date Collected: 04/10/25 09:20 Date Received: 04/12/25 07:55

Project/Site: Thistle Unit 10 CTB

Client Sample ID: BS25-01 1'

Client: Vertex

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		4.8	mg/Kg		04/15/25 10:22	04/17/25 13:22	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		35 - 166			04/15/25 10:22	04/17/25 13:22	1
Method: SW846 8021B - Volatile (	Organic Comp	ounds (GC)	)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/15/25 10:22	04/17/25 13:22	1
Ethylbenzene	ND		0.048	mg/Kg		04/15/25 10:22	04/17/25 13:22	1
Toluene	ND		0.048	mg/Kg		04/15/25 10:22	04/17/25 13:22	1
Xylenes, Total	ND		0.097	mg/Kg		04/15/25 10:22	04/17/25 13:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		48 - 145			04/15/25 10:22	04/17/25 13:22	1
Method: SW846 8015M/D - Diese	Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1	mg/Kg		04/16/25 13:17	04/17/25 13:41	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		04/16/25 13:17	04/17/25 13:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	166	S1+	62 - 134			04/16/25 13:17	04/17/25 13:41	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	870		60	mg/Kg		04/16/25 09:52	04/16/25 16:21	20

**Eurofins Albuquerque** 

5

Job ID: 885-23112-1

# Lab Sample ID: 885-23112-2 Matrix: Solid

Date Collected: 04/10/25 09:25 Date Received: 04/12/25 07:55

Project/Site: Thistle Unit 10 CTB

Client Sample ID: BS25-02 1'

Client: Vertex

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Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		5.0	mg/Kg		04/15/25 10:22	04/17/25 13:47	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		35 - 166			04/15/25 10:22	04/17/25 13:47	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/15/25 10:22	04/17/25 13:47	1
Ethylbenzene	ND		0.050	mg/Kg		04/15/25 10:22	04/17/25 13:47	1
Toluene	ND		0.050	mg/Kg		04/15/25 10:22	04/17/25 13:47	1
Xylenes, Total	ND		0.10	mg/Kg		04/15/25 10:22	04/17/25 13:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		48 - 145			04/15/25 10:22	04/17/25 13:47	1
Method: SW846 8015M/D - Diese	I Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		04/16/25 13:17	04/17/25 13:54	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/16/25 13:17	04/17/25 13:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	170	S1+	62 - 134			04/16/25 13:17	04/17/25 13:54	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy						
Amaluta	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Roount							

1 ug 0 2/1 Uj

Client Sample ID: WS25-01 0-1'

# **Client Sample Results**

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Job ID: 885-23112-1

# Lab Sample ID: 885-23112-3 Matrix: Solid

Date Collected: 04/10/25 09:05 Date Received: 04/12/25 07:55

Project/Site: Thistle Unit 10 CTB

Client: Vertex

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Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		5.0	mg/Kg		04/15/25 10:22	04/17/25 14:12	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		35 - 166			04/15/25 10:22	04/17/25 14:12	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte	· ·	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/15/25 10:22	04/17/25 14:12	1
Ethylbenzene	ND		0.050	mg/Kg		04/15/25 10:22	04/17/25 14:12	1
Toluene	ND		0.050	mg/Kg		04/15/25 10:22	04/17/25 14:12	1
Xylenes, Total	ND		0.099	mg/Kg		04/15/25 10:22	04/17/25 14:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		48 - 145			04/15/25 10:22	04/17/25 14:12	1
Method: SW846 8015M/D - Diese	l Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3	mg/Kg		04/16/25 13:17	04/17/25 12:37	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		04/16/25 13:17	04/17/25 12:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	137	S1+	62 - 134			04/16/25 13:17	04/17/25 12:37	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	140		60	mg/Kg		04/16/25 09:52	04/16/25 16:49	20

Client: Vertex

# **Client Sample Results**

Job ID: 885-23112-1

# Lab Sample ID: 885-23112-4 Matrix: Solid

Client Sample ID: WS25-02 0-1' Date Collected: 04/10/25 09:15 Date Received: 04/12/25 07:55

Project/Site: Thistle Unit 10 CTB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		4.8	mg/Kg		04/15/25 10:22	04/17/25 14:37	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		35 - 166			04/15/25 10:22	04/17/25 14:37	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/15/25 10:22	04/17/25 14:37	1
Ethylbenzene	ND		0.048	mg/Kg		04/15/25 10:22	04/17/25 14:37	1
Toluene	ND		0.048	mg/Kg		04/15/25 10:22	04/17/25 14:37	1
Xylenes, Total	ND		0.095	mg/Kg		04/15/25 10:22	04/17/25 14:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		48 - 145			04/15/25 10:22	04/17/25 14:37	1
Method: SW846 8015M/D - Diese	Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3	mg/Kg		04/16/25 13:17	04/17/25 13:01	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		04/16/25 13:17	04/17/25 13:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	138	S1+	62 - 134			04/16/25 13:17	04/17/25 13:01	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride			61			04/16/25 09:52	04/16/25 17:03	20

## **QC Sample Results**

RL

5.0

Limits

35 - 166

Unit

LCS LCS

mg/Kg

D

Prepared

04/15/25 10:22

Prepared

04/15/25 10:22

Client: Vertex Project/Site: Thistle Unit 10 CTB

Lab Sample ID: MB 885-24279/1-A

Matrix: Solid

(GRO)-C6-C10

Surrogate

Analyte

Analysis Batch: 24454

Gasoline Range Organics

4-Bromofluorobenzene (Surr)

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

MB MB

MB MB %Recovery Qualifier

ND

120

Result Qualifier

Job ID: 885-23112-1

Prep Type: Total/NA

Prep Batch: 24279

Dil Fac

Dil Fac

1

1

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24279

%Rec

**Client Sample ID: Method Blank** 

Analyzed

04/17/25 12:32

Analyzed

04/17/25 12:32

# Lab Sample ID: LCS 885-24279/2-A Matrix: Solid Analysis Batch: 24454

Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics			25.0	29.8		mg/Kg		119	70 - 130	
(GRO)-C6-C10										
	1.05	LCS								
	200	200								
Surrogate	%Recovery	Qualifier	Limits							
4-Bromofluorobenzene (Surr)	216		35 - 166							

Spike

# Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-24279/1-A Matrix: Solid	L.								Client Sa	mple ID: Meth Prep Type:	
Analysis Batch: 24455										Prep Bate	
	Μ	з мв									
Analyte	Resu	t Qualifier	RL		Unit		D	Pi	repared	Analyzed	Dil Fac
Benzene	N	<u> </u>	0.025		mg/K	g		04/1	5/25 10:22	04/17/25 12:32	1
Ethylbenzene	N	C	0.050		mg/K	g		04/1	5/25 10:22	04/17/25 12:32	1
Toluene	N	C	0.050		mg/K	g		04/1	5/25 10:22	04/17/25 12:32	1
Xylenes, Total	N	)	0.10		mg/K	g		04/1	5/25 10:22	04/17/25 12:32	1
	М	3 <i>MB</i>									
Surrogate	%Recover	y Qualifier	Limits					PI	repared	Analyzed	Dil Fac
	-		10 115				-	04/4	5/25 10:22	04/17/25 12:32	1
4-Bromofluorobenzene (Surr) Lab Sample ID: LCS 885-24279/3-	11 <b>A</b>	5	48 - 145								
Lab Sample ID: LCS 885-24279/3-, Matrix: Solid		5	48 - 145							ID: Lab Contro Prep Type:	l Sample Total/NA
Lab Sample ID: LCS 885-24279/3-/		5								ID: Lab Contro Prep Type: Prep Bate	l Sample Total/NA
Lab Sample ID: LCS 885-24279/3-, Matrix: Solid Analysis Batch: 24455		5	Spike		LCS	Unit		ient	Sample	ID: Lab Contro Prep Type: Prep Bato %Rec	l Sample Total/NA
Lab Sample ID: LCS 885-24279/3- Matrix: Solid Analysis Batch: 24455 Analyte		5	Spike Added	Result	LCS Qualifier	Unit ma/Ka			Sample	ID: Lab Contro Prep Type: Prep Bato %Rec Limits	l Sample Total/NA
Lab Sample ID: LCS 885-24279/3- Matrix: Solid Analysis Batch: 24455 Analyte Benzene		5	Spike Added 1.00	<b>Result</b> 0.993		mg/Kg		ient	Sample       %Rec       99	ID: Lab Contro Prep Type: Prep Bato %Rec Limits 70 - 130	l Sample Total/NA
Lab Sample ID: LCS 885-24279/3-, Matrix: Solid Analysis Batch: 24455 Analyte Benzene Ethylbenzene		5	Spike Added 1.00 1.00	<b>Result</b> 0.993 0.997		mg/Kg mg/Kg		ient	Sample   <u>%Rec</u> 99 100	ID: Lab Contro Prep Type: Prep Bate %Rec Limits 70 - 130 70 - 130	l Sample Total/NA
Lab Sample ID: LCS 885-24279/3- Matrix: Solid Analysis Batch: 24455 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene		5	Spike Added 1.00 1.00 2.00	<b>Result</b> 0.993 0.997 2.14		mg/Kg mg/Kg mg/Kg		ient	Sample   %Rec 99 100 107	ID: Lab Contro Prep Type: Prep Bate %Rec Limits 70 - 130 70 - 130 70 - 130	l Sample Total/NA
Lab Sample ID: LCS 885-24279/3-, Matrix: Solid Analysis Batch: 24455 Analyte Benzene Ethylbenzene		5	Spike Added 1.00 1.00	<b>Result</b> 0.993 0.997		mg/Kg mg/Kg		ient	Sample   <u>%Rec</u> 99 100	ID: Lab Contro Prep Type: Prep Bate %Rec Limits 70 - 130 70 - 130	l Sample Total/NA
Lab Sample ID: LCS 885-24279/3- Matrix: Solid Analysis Batch: 24455 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene			Spike Added 1.00 2.00 1.00	Result 0.993 0.997 2.14 1.02		mg/Kg mg/Kg mg/Kg mg/Kg		ient	Sample   %Rec 99 100 107 102	ID: Lab Contro Prep Type: Prep Bate %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130	l Sample Total/NA
Lab Sample ID: LCS 885-24279/3- Matrix: Solid Analysis Batch: 24455 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene Toluene	<b>4</b>		Spike Added 1.00 2.00 1.00	Result 0.993 0.997 2.14 1.02		mg/Kg mg/Kg mg/Kg mg/Kg		ient	Sample   %Rec 99 100 107 102	ID: Lab Contro Prep Type: Prep Bate %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130	l Sample Total/NA

## **QC Sample Results**

RL

10

50

Limits

Spike

Added

50.0

62 - 134

Unit

mg/Kg

mg/Kg

Unit

mg/Kg

LCS LCS

60.3

Result Qualifier

D

Prepared

04/16/25 13:17

04/16/25 13:17

Prepared

**Client: Vertex** Project/Site: Thistle Unit 10 CTB

Lab Sample ID: MB 885-24387/1-A

Matrix: Solid

Analyte

Surrogate

Analyte

Matrix: Solid

Analysis Batch: 24440

Di-n-octyl phthalate (Surr)

Analysis Batch: 24440

**Diesel Range Organics** 

Diesel Range Organics [C10-C28]

Motor Oil Range Organics [C28-C40]

Lab Sample ID: LCS 885-24387/2-A

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

MB MB

MB MB

159 S1+

%Recovery Qualifier

ND

ND

Result Qualifier

Job ID: 885-23112-1

Prep Type: Total/NA

Prep Batch: 24387

**Client Sample ID: Method Blank** 

Analyzed

04/17/25 13:17

6

	1	04/17/25 13:17
	Dil Fac	Analyzed
5	1	04/17/25 13:17
	0	
		Dren Turner
		Prep Type: T

Dil Fac

1

	04/16/25 13:17	04/17/25 13:17	1
C	lient Sample II	D: Lab Control	Sample
		Prep Type: 1	Fotal/NA
		Prep Batch	n: 24387

Trop Type. Totaline	
Prep Batch: 24387	
%Rec	

			%Rec	
I	D	%Rec	Limits	
		121	60 - 135	

[C10-C28]			
	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Di-n-octyl phthalate (Surr)	125		62 - 134

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-24356/1-A								Client Sa	mple ID: Metho	d Blank
Matrix: Solid									Prep Type: 1	otal/NA
Analysis Batch: 24362									Prep Batch	1: 24350
	MB	MB								
Analyte	Result	Qualifier		RL	Unit		D	Prepared	Analyzed	Dil Fa
Chloride	ND			1.5	mg/k	g	04	/16/25 09:52	04/16/25 12:06	
Lab Sample ID: LCS 885-24356/2-A							Clie	nt Sample	ID: Lab Control	Sample
Matrix: Solid									Prep Type: 1	otal/N/
									Prep Batch	1: 24356
Analysis Batch: 24362									%Rec	
Analysis Batch: 24362			Spike	LCS	LCS				/onec	
Analysis Batch: 24362 Analyte			Spike Added		Qualifier	Unit		) %Rec	Limits	

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**Client Sample ID** 

BS25-01 1'

BS25-02 1'

WS25-01 0-1'

WS25-02 0-1'

Method Blank

Lab Control Sample

Lab Control Sample

**Client Sample ID** 

# **QC Association Summary**

Prep Type

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Prep Type

Matrix

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Matrix

Method

5030C

5030C

5030C

5030C

5030C

5030C

5030C

Method

**Client: Vertex** Project/Site: Thistle Unit 10 CTB

**GC VOA** 

885-23112-1

885-23112-2

885-23112-3

885-23112-4

MB 885-24279/1-A

LCS 885-24279/2-A

LCS 885-24279/3-A

Prep Batch: 24279 Lab Sample ID

Page 276 of 374

Prep Batch

Prep Batch

Job ID: 885-23112-1

	5
_	
	7
_	
	_
	ð
	ð
	8 9
	8 9
	8 9

# Lab Sample ID

Analysis Batch: 24454

	385-23112-1	BS25-01 1'	Total/NA	Solid	8015M/D	24279
	385-23112-2	BS25-02 1'	Total/NA	Solid	8015M/D	24279
	385-23112-3	WS25-01 0-1'	Total/NA	Solid	8015M/D	24279
1	385-23112-4	WS25-02 0-1'	Total/NA	Solid	8015M/D	24279
	MB 885-24279/1-A	Method Blank	Total/NA	Solid	8015M/D	24279
	_CS 885-24279/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24279

#### Analysis Batch: 24455

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-23112-1	BS25-01 1'	Total/NA	Solid	8021B	24279
885-23112-2	BS25-02 1'	Total/NA	Solid	8021B	24279
885-23112-3	WS25-01 0-1'	Total/NA	Solid	8021B	24279
885-23112-4	WS25-02 0-1'	Total/NA	Solid	8021B	24279
MB 885-24279/1-A	Method Blank	Total/NA	Solid	8021B	24279
LCS 885-24279/3-A	Lab Control Sample	Total/NA	Solid	8021B	24279

## GC Semi VOA

#### Prep Batch: 24387

_ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
385-23112-1	BS25-01 1'	Total/NA	Solid	SHAKE	
885-23112-2	BS25-02 1'	Total/NA	Solid	SHAKE	
85-23112-3	WS25-01 0-1'	Total/NA	Solid	SHAKE	
85-23112-4	WS25-02 0-1'	Total/NA	Solid	SHAKE	
1B 885-24387/1-A	Method Blank	Total/NA	Solid	SHAKE	
			0 11 1		
<sub>-</sub> CS 885-24387/2-A nalysis Batch: 24440	Lab Control Sample	Total/NA	Solid	SHAKE	
nalysis Batch: 24440					
alysis Batch: 24440 ab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
nalysis Batch: 24440 ab Sample ID 85-23112-1	Client Sample ID BS25-01 1'	Prep Type Total/NA	Matrix Solid	<u>Method</u> 8015M/D	24387
nalysis Batch: 24440 .ab Sample ID 385-23112-1 385-23112-2	Client Sample ID BS25-01 1' BS25-02 1'	Ргер Туре	Matrix Solid Solid	Method	24387 24387
	Client Sample ID BS25-01 1'	Prep Type Total/NA	Matrix Solid	<u>Method</u> 8015M/D	24387

#### Lab Sample ID **Client Sample ID** Prep Batch Prep Type Matrix Method WS25-01 0-1 885-23112-3 Total/NA Solid 8015M/D 24387 885-23112-4 WS25-02 0-1' Total/NA Solid 8015M/D 24387

# **QC Association Summary**

Client: Vertex Project/Site: Thistle Unit 10 CTB Job ID: 885-23112-1

300.0

300.0

Method Blank

Lab Control Sample

### HPLC/IC

### Prep Batch: 24356

MB 885-24356/1-A

LCS 885-24356/2-A

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-23112-1	BS25-01 1'	Total/NA	Solid	300_Prep	
885-23112-2	BS25-02 1'	Total/NA	Solid	300_Prep	
885-23112-3	WS25-01 0-1'	Total/NA	Solid	300_Prep	
885-23112-4	WS25-02 0-1'	Total/NA	Solid	300_Prep	
MB 885-24356/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-24356/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
Analysis Batch: 24362	2				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23112-1	BS25-01 1'	Total/NA	Solid	300.0	24356
885-23112-2	BS25-02 1'	Total/NA	Solid	300.0	24356
885-23112-3	WS25-01 0-1'	Total/NA	Solid	300.0	24356
885-23112-4	WS25-02 0-1'	Total/NA	Solid	300.0	24356

Total/NA

Total/NA

Solid

Solid

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23112-1 2 3 ep Batch 5 .....6

24356

24356

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Project/Site: Thistle Unit 10 CTB

Date Collected: 04/10/25 09:20

Client Sample ID: BS25-01 1'

Client: Vertex

Total/NA

Total/NA

20

Job ID: 885-23112-1

# Lab Sample ID: 885-23112-1 Matrix: Solid

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			24279	AT	EET ALB	04/15/25 10:22
Total/NA	Analysis	8015M/D		1	24454	JP	EET ALB	04/17/25 13:2
Total/NA	Prep	5030C			24279	AT	EET ALB	04/15/25 10:2
Total/NA	Analysis	8021B		1	24455	JP	EET ALB	04/17/25 13:2
Total/NA	Prep	SHAKE			24387	MI	EET ALB	04/16/25 13:1
Total/NA	Analysis	8015M/D		1	24440	EM	EET ALB	04/17/25 13:4 <sup>-</sup>

### Client Sample ID: BS25-02 1'

Prep

Analysis

300 Prep

300.0

Date Collected: 04/10/25 09:25

Date Received: 04/12/25 07:55

	Batch	Batch		Dilution	Batch			Prepared
Prep Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			24279	AT	EET ALB	04/15/25 10:22
Total/NA	Analysis	8015M/D		1	24454	JP	EET ALB	04/17/25 13:47
Total/NA	Prep	5030C			24279	AT	EET ALB	04/15/25 10:22
Total/NA	Analysis	8021B		1	24455	JP	EET ALB	04/17/25 13:47
Total/NA	Prep	SHAKE			24387	MI	EET ALB	04/16/25 13:17
Total/NA	Analysis	8015M/D		1	24440	EM	EET ALB	04/17/25 13:54
Total/NA	Prep	300_Prep			24356	DL	EET ALB	04/16/25 09:52
Total/NA	Analysis	300.0		20	24362	ES	EET ALB	04/16/25 16:35

#### Client Sample ID: WS25-01 0-1'

#### Date Collected: 04/10/25 09:05 Date Received: 04/12/25 07:55

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			24279	AT	EET ALB	04/15/25 10:22
Total/NA	Analysis	8015M/D		1	24454	JP	EET ALB	04/17/25 14:12
Total/NA	Prep	5030C			24279	AT	EET ALB	04/15/25 10:22
Total/NA	Analysis	8021B		1	24455	JP	EET ALB	04/17/25 14:12
Total/NA	Prep	SHAKE			24387	МІ	EET ALB	04/16/25 13:17
Total/NA	Analysis	8015M/D		1	24441	EM	EET ALB	04/17/25 12:37
Total/NA	Prep	300_Prep			24356	DL	EET ALB	04/16/25 09:52
Total/NA	Analysis	300.0		20	24362	ES	EET ALB	04/16/25 16:49

#### Client Sample ID: WS25-02 0-1' Date Collected: 04/10/25 09:15

#### Date Received: 04/12/25 07:55

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			24279	AT	EET ALB	04/15/25 10:22
Total/NA	Analysis	8015M/D		1	24454	JP	EET ALB	04/17/25 14:37

**Eurofins Albuquerque** 

8

# Lab Sample ID: 885-23112-2

Lab Sample ID: 885-23112-3

Lab Sample ID: 885-23112-4

Matrix: Solid

04/16/25 09:52

04/16/25 16:21

EET ALB

EET ALB

24356 DL

24362 ES

Matrix: Solid

Matrix: Solid

Job ID: 885-23112-1

Matrix: Solid

5 6 7

8 9 10

Lab Sample ID: 885-23112-4

# Client: Vertex Project/Site: Thistle Unit 10 CTB

#### Client Sample ID: WS25-02 0-1' Date Collected: 04/10/25 09:15 Date Received: 04/12/25 07:55

	Batch	Batch		Dilution	Batch			Prepared
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			24279	AT	EET ALB	04/15/25 10:22
Total/NA	Analysis	8021B		1	24455	JP	EET ALB	04/17/25 14:37
Total/NA	Prep	SHAKE			24387	MI	EET ALB	04/16/25 13:17
Total/NA	Analysis	8015M/D		1	24441	EM	EET ALB	04/17/25 13:01
Total/NA	Prep	300_Prep			24356	DL	EET ALB	04/16/25 09:52
Total/NA	Analysis	300.0		20	24362	ES	EET ALB	04/16/25 17:03

#### Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

**Eurofins Albuquerque** 

# Accreditation/Certification Summary

Client: Vertex Project/Site: Thistle Unit 10 CTB

#### Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Ithority	Prog	gram	Identification Number	Expiration Date
ew Mexico	State	e	NM9425, NM0901	02-27-26
The following analytes	are included in this report,	but the laboratory is not certi	fied by the governing authority. This li	st may include analytes
for which the agency of	oes not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte	
300.0	300_Prep	Solid	Chloride	
8015M/D	5030C	Solid	Gasoline Range Organics	s (GRO)-C6-C10
8015M/D	SHAKE	Solid	Diesel Range Organics [0	C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics	s [C28-C40]
8021B	5030C	Solid	Benzene	
8021B	5030C	Solid	Ethylbenzene	
8021B	5030C	Solid	Toluene	
8021B	5030C	Solid	Xylenes, Total	
egon	NEL	ΔΡ	NM100001	02-26-26

Job ID: 885-23112-1

Reco	eived	by O			/202	25 1	1:13	:25	AM							- 1				T	1	1	1	- Page	e-28	1 of 374
			885-23112 COC																				source.com.	ource.com,	todos	1
HALL ENVIRONMEN		www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	Analysis Request	90 <sup>4</sup>	s'#C SM s'#C	) PC	1085 1085 111) 1085 111)	09 89/29 004 10 01 10 ( 10 10 10 10 10 10 10 10 10 10 10 10 10	D)(G) picid beta beta beta	151 esti 9y 8 8 M 8 M 8 M 8 M	8ТЕХ / ТРН:80 8081 P 8081 P 8260 (/ 8260 (/ 8270 (5 8270 (5 7) 8270 (5 8270 (5 8270) (5 8270 (5 8270) (5	x	x	x	x x x						Remarks: ATTN Jim Raley Direct bill to Devon work order 21206611 Jim Raley cc. permain@vertexresource.com. SCarttar@vertexresource.com.	kstallings@vertexresource.com, SMcCarty@vertexresource.com, and LPullman@vertexresource.com for Final Report	lonitatione onto the postation of the state	
Turn-Around Time:	X-same 72-hr Rush	Project Name:	Thistle Unit 10 CTB	Project #:	23E-04784	Project Manager:	Kent Stallings	kstallings@vertexresource.com	Sampler: L. Pullman	On Ice: NY Yes DNo Mojo		Cooler Temp(including CF): 2 3 + 0.2 - 2.5 *	Container Preservative HEAL No. Type and # Type	1, 4oz jar	1, 4oz jar	1, 4oz jar	1, 4oz jar						V/II)35 D780	ő /	- 11	
Chain-of-Custody Record	Client: Vertex	(direct bill to Devon, work order 21206611)	Mailing Address:		Phone #:	email or Fax#:	QA/QC Package:	C Standard C Level 4 (Full Validation)	Accreditation: 🛛 Az Compliance				Date Time Matrix Sample Name	04.10.25 9:20 Soil BS25-01 1'	04.10.25 9:25 Soil BS25-02 1'	04.10.25 9:05 Soil WS25-01 0-1'	04.10.25 9:15 Soil WS25-02 0-1'						THE Relinquished by	Date: Time: Relinquished by:	100 1400 (UMMMMM	If necessary, samples submitted to Hall Environmental may be subc

## Login Sample Receipt Checklist

Client: Vertex

### Login Number: 23112 List Number: 1

Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Job Number: 885-23112-1

List Source: Eurofins Albuquerque

Received by OCD: 6/6/2025 11:13:25 AM



**Environment Testing** 

# **ANALYTICAL REPORT**

# PREPARED FOR

Attn: Ms. Sally Carttar Vertex 3101 Boyd Dr Carlsbad, New Mexico 88220 Generated 5/21/2025 3:24:40 PM

# **JOB DESCRIPTION**

Thistle Unit 10 Battery

# **JOB NUMBER**

885-25053-1

Eurofins Albuquerque 4901 Hawkins NE Albuquerque NM 87109





# **Eurofins Albuquerque**

# **Job Notes**

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

# Authorization

Authorized for release by

(505)345-3975

Andy Freeman, Business Unit Manager andy.freeman@et.eurofinsus.com

Generated 5/21/2025 3:24:40 PM

Released to Imaging: 6/25/2025 2:43:17 PM

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Job ID: 885-25053-1

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Glossary		
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
¢.	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
CFL	Contains Free Liquid	
CFU	Colony Forming Unit	
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision Level Concentration (Radiochemistry)	
EDL	Estimated Detection Limit (Dioxin)	
LOD	Limit of Detection (DoD/DOE)	
LOQ	Limit of Quantitation (DoD/DOE)	
MCL	EPA recommended "Maximum Contaminant Level"	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
MPN	Most Probable Number	
MQL	Method Quantitation Limit	
NC	Not Calculated	
ND	Not Detected at the reporting limit (or MDL or EDL if shown)	
NEG	Negative / Absent	
POS	Positive / Present	
PQL	Practical Quantitation Limit	
PRES	Presumptive	
QC	Quality Control	
RER	Relative Error Ratio (Radiochemistry)	
RL	Reporting Limit or Requested Limit (Radiochemistry)	
RPD	Relative Percent Difference, a measure of the relative difference between two points	
TEF	Toxicity Equivalent Factor (Dioxin)	
TEQ	Toxicity Equivalent Quotient (Dioxin)	
TNTC	Too Numerous To Count	

# **Case Narrative**

Job ID: 885-25053-1

Client: Vertex Project: Thistle Unit 10 Battery

## **Eurofins Albuquerque**

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## Job ID: 885-25053-1

#### Job Narrative 885-25053-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### Receipt

The sample was received on 5/16/2025 7:45 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.4°C.

#### **Receipt Exceptions**

The Field Sampler was not listed on the Chain of Custody.

#### **Gasoline Range Organics**

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### **Diesel Range Organics**

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**Eurofins Albuquerque** 

Project/Site: Thistle Unit 10 Battery

**Client Sample ID: Backfill** 

Job ID: 885-25053-1

## Lab Sample ID: 885-25053-1 Matrix: Solid

Date Collected: 05/14/25 09:00 Date Received: 05/16/25 07:45

Client: Vertex

\_

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		4.9	mg/Kg		05/16/25 11:37	05/19/25 16:29	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		15 - 150			05/16/25 11:37	05/19/25 16:29	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/16/25 11:37	05/20/25 14:33	1
Ethylbenzene	ND		0.049	mg/Kg		05/16/25 11:37	05/20/25 14:33	1
Toluene	ND		0.049	mg/Kg		05/16/25 11:37	05/20/25 14:33	1
Xylenes, Total	ND		0.098	mg/Kg		05/16/25 11:37	05/20/25 14:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		15 - 150			05/16/25 11:37	05/20/25 14:33	1
Method: SW846 8015M/D - Diese	I Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.4	mg/Kg		05/16/25 13:35	05/19/25 13:46	1
Motor Oil Range Organics [C28-C40]	ND		42	mg/Kg		05/16/25 13:35	05/19/25 13:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	91		62 - 134			05/16/25 13:35	05/19/25 13:46	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Released to Imaging: 6/25/2025 2:43:17 PM
### **QC Sample Results**

RL

5.0

Limits

15 - 150

Unit

mg/Kg

D

Prepared

05/16/25 11:36

Prepared

05/16/25 11:36

Client: Vertex Project/Site: Thistle Unit 10 Battery

Lab Sample ID: MB 885-26341/1-A

Matrix: Solid

(GRO)-C6-C10

Surrogate

Analyte

Analysis Batch: 26476

Gasoline Range Organics

4-Bromofluorobenzene (Surr)

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

MB MB

MB MB %Recovery Qualifier

ND

105

Result Qualifier

Job ID: 885-25053-1

Prep Type: Total/NA

Prep Batch: 26341

Dil Fac

Dil Fac

1

1

6

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26341

**Client Sample ID: Method Blank** 

Analyzed

05/19/25 12:51

Analyzed

05/19/25 12:51

### Lab Sample ID: LCS 885-26341/2-A Matrix: Solid Analysis Batch: 26476

			Spike	LCS	LCS				%Rec	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics			25.0	29.6		mg/Kg		118	70 - 130	
(GRO)-C6-C10										
	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							
4-Bromofluorobenzene (Surr)	235		15 _ 150							

## Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-26341/1-A Matrix: Solid								Client S	ample ID: Metho Prep Type:	
Analysis Batch: 26529									Prep Batc	
· ·····	Μ	з мв								
Analyte	Resu	t Qualifier	RL		Unit		D	Prepared	Analyzed	Dil Fac
Benzene	N	5	0.025		mg/K	g	05/	/16/25 11:36	05/20/25 11:18	1
Ethylbenzene	N	C	0.050		mg/K	g	05/	/16/25 11:36	05/20/25 11:18	1
Toluene	N	C	0.050		mg/K	g	05/	/16/25 11:36	05/20/25 11:18	1
Xylenes, Total	N	)	0.10		mg/K	g	05/	16/25 11:36	05/20/25 11:18	1
	М	B MB								
Surrogate	%Recover	y Qualifier	Limits					Prepared	Analyzed	Dil Fac
	9	4	15 - 150				05	/16/25 11:36	05/20/25 11:18	1
4-Bromofluorobenzene (Surr)	-						Clior	t Sampla	D: Lab Contro	Sample
Lab Sample ID: LCS 885-26341/3 Matrix: Solid	-						Clier	nt Sample	ID: Lab Contro Prep Type:	Total/NA
	-						Clier	nt Sample	Prep Type: Prep Batc	Total/NA
Lab Sample ID: LCS 885-26341/3- Matrix: Solid Analysis Batch: 26529	-		Spike		LCS Qualifier	Unit		·	Prep Type:	Total/NA
Lab Sample ID: LCS 885-26341/3-, Matrix: Solid Analysis Batch: 26529 Analyte	-				LCS Qualifier		Clier	·	Prep Type: Prep Batc %Rec	Total/NA
Lab Sample ID: LCS 885-26341/3-, Matrix: Solid Analysis Batch: 26529 Analyte Benzene	-		Spike Added	Result		mg/Kg		%Rec	Prep Type: Prep Batc %Rec Limits	Total/NA
Lab Sample ID: LCS 885-26341/3- Matrix: Solid Analysis Batch: 26529 Analyte Benzene Ethylbenzene	-		Spike Added 1.00	<b>Result</b> 0.880				<u>%Rec</u>	Prep Type: Prep Batc %Rec Limits 70 - 130	Total/NA
Lab Sample ID: LCS 885-26341/3- Matrix: Solid Analysis Batch: 26529 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene	-		<b>Spike</b> <u>Added</u> 1.00 1.00	<b>Result</b> 0.880 0.901		mg/Kg mg/Kg			Limits           70 - 130	Total/NA
Lab Sample ID: LCS 885-26341/3-, Matrix: Solid	-		Spike Added 1.00 1.00 2.00	<b>Result</b> 0.880 0.901 1.84		mg/Kg mg/Kg mg/Kg		%Rec 88 90 92	Prep Type:           Prep Batc           %Rec           Limits           70 - 130           70 - 130           70 - 130	Total/NA
Lab Sample ID: LCS 885-26341/3- Matrix: Solid Analysis Batch: 26529 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene	-		Spike Added 1.00 2.00 1.00	<b>Result</b> 0.880 0.901 1.84 0.900		mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 88 90 92 90	Image: Prep Type:           Prep Batc           %Rec           Limits           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130	Total/NA
Lab Sample ID: LCS 885-26341/3- Matrix: Solid Analysis Batch: 26529 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene Toluene	LCS LC		Spike Added 1.00 2.00 1.00	<b>Result</b> 0.880 0.901 1.84 0.900		mg/Kg mg/Kg mg/Kg mg/Kg		%Rec 88 90 92 90	Image: Prep Type:           Prep Batc           %Rec           Limits           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130	Total/NA

## **QC Sample Results**

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Job ID: 885-25053-1

Client: Vertex Project/Site: Thistle Unit 10 Battery

## Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-26350/	I-A								Client Sa	mple ID: Metho	
Matrix: Solid										Prep Type:	
Analysis Batch: 26453										Prep Batcl	n: 26350
		IB MB									
Analyte		ult Qualifier			Unit		D		repared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]		1D	10		mg/K	•			6/25 13:35	05/19/25 11:49	
Motor Oil Range Organics [C28-C40]	Ν	1D	50		mg/K	g		05/1	6/25 13:35	05/19/25 11:49	
	٨	IB MB									
Surrogate	%Recove	ry Qualifier	Limits					P	repared	Analyzed	Dil Fa
Di-n-octyl phthalate (Surr)	1	11	62 - 134					05/1	6/25 13:35	05/19/25 11:49	-
Lab Sample ID: LCS 885-26350	/2-A						с	lient	Sample I	D: Lab Control	Sample
Matrix: Solid										Prep Type:	
Analysis Batch: 26453										Prep Batcl	
			Spike	LCS	LCS					%Rec	
Analyte			Added	Result	Qualifier	Unit		D	%Rec	Limits	
Diesel Range Organics			50.0	56.5		mg/Kg			113	51 - 148	
[C10-C28]											
	LCS L	cs									
Surrogate	%Recovery Q	ualifier	Limits								
Di-n-octyl phthalate (Surr)	122		62 - 134								
/lethod: 300.0 - Anions, lor	Chromato	graphy									
									Olivert Or	male ID: Metho	
Lab Sample ID: MB 885-26422/	I-A								Client Sa	mple ID: Metho	
Matrix: Solid										Prep Type:	
Analysis Batch: 26430		1B MB								Prep Batcl	1: 20422
	n n	IB MB									
Analyte	Dee	ult Qualifier	RL		Unit		D	<b>–</b>	repared	Analyzed	Dil Fac

Lab Sample ID: LCS 885-26422/2-A Matrix: Solid Analysis Batch: 26430					Client	t Sample	Prep 1	ontrol Sample Type: Total/NA 9 Batch: 26422
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	15.0	15.3		mg/Kg		102	90 - 110	

**Eurofins Albuquerque** 

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#### Received by OCD: 6/6/2025 11:13:25 AM

**QC Association Summary** 

Client: Vertex Project/Site: Thistle Unit 10 Battery

### **GC VOA**

### Prep Batch: 26341

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-25053-1	Backfill	Total/NA	Solid	5030C	
MB 885-26341/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-26341/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-26341/3-A	Lab Control Sample	Total/NA	Solid	5030C	
Analysis Batch: 26476					
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-25053-1	Backfill	Total/NA	Solid	8015M/D	26341
MB 885-26341/1-A	Method Blank	Total/NA	Solid	8015M/D	26341
LCS 885-26341/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	26341
Analysis Batch: 26529					
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-25053-1	Backfill	Total/NA	Solid	8021B	26341
MB 885-26341/1-A	Method Blank	Total/NA	Solid	8021B	26341
LCS 885-26341/3-A	Lab Control Sample	Total/NA	Solid	8021B	26341

#### GC Semi VOA

#### Prep Batch: 26350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-25053-1	Backfill	Total/NA	Solid	SHAKE	
MB 885-26350/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-26350/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
Analysis Batch: 2645	3				
Analysis Batch: 2645	3 Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
		Prep Type Total/NA	Matrix Solid	Method 8015M/D	Prep Batch 26350
Lab Sample ID	Client Sample ID				

#### HPLC/IC

#### Prep Batch: 26422

		Prep Type	Matrix	Method	Prep Batch
885-25053-1 Backfi	I	Total/NA	Solid	300_Prep	
MB 885-26422/1-A Metho	d Blank	Total/NA	Solid	300_Prep	
LCS 885-26422/2-A Lab C	ontrol Sample	Total/NA	Solid	300_Prep	

#### Analysis Batch: 26430

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-25053-1	Backfill	Total/NA	Solid	300.0	26422
MB 885-26422/1-A	Method Blank	Total/NA	Solid	300.0	26422
LCS 885-26422/2-A	Lab Control Sample	Total/NA	Solid	300.0	26422

Job ID: 885-25053-1

Job ID: 885-25053-1

Client: Vertex Project/Site: Thistle Unit 10 Battery

## **Client Sample ID: Backfill** Date Collected: 05/14/25 09:00

Date	Received:	05/16/25	07:45	

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			26341	JE	EET ALB	05/16/25 11:37
Total/NA	Analysis	8015M/D		1	26476	AT	EET ALB	05/19/25 16:29
Total/NA	Prep	5030C			26341	JE	EET ALB	05/16/25 11:37
Total/NA	Analysis	8021B		1	26529	AT	EET ALB	05/20/25 14:33
Fotal/NA	Prep	SHAKE			26350	JM	EET ALB	05/16/25 13:35
lotal/NA	Analysis	8015M/D		1	26453	MB	EET ALB	05/19/25 13:46
Total/NA	Prep	300_Prep			26422	DL	EET ALB	05/19/25 08:26
Total/NA	Analysis	300.0		20	26430	MA	EET ALB	05/19/25 17:38

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

**Eurofins Albuquerque** 

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## Lab Sample ID: 885-25053-1 Matrix: Solid

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## Accreditation/Certification Summary

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Job ID: 885-25053-1

Client: Vertex Project/Site: Thistle Unit 10 Battery

#### Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

uthority	Pro	gram	Identification Number	Expiration Date	
ew Mexico	Stat	е	NM9425, NM0901	02-27-26	
The following analytes	are included in this report,	but the laboratory is not certi	fied by the governing authority. This lis	t may include analytes	
for which the agency d	oes not offer certification.				
Analysis Method	Prep Method	Matrix	Analyte		
300.0	300_Prep	Solid	Chloride	Chloride	
8015M/D	5030C	Solid	Gasoline Range Organics	(GRO)-C6-C10	
8015M/D	SHAKE	Solid	Diesel Range Organics [C	10-C28]	
8015M/D	SHAKE	Solid	Motor Oil Range Organics	[C28-C40]	
8021B	5030C	Solid	Benzene		
8021B	5030C	Solid	Ethylbenzene		
8021B	5030C	Solid	Toluene		
8021B	5030C	Solid	Xylenes, Total		
regon	NEL	ΔP	NM100001	02-26-26	

**Eurofins Albuquerque** 

<b>Received by OCD:</b> 6/6/2025 1	1:13:25 AM	Page 294 of 374	
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365-25053 COC		S Carttor @ vertex. (a	
8710 <b>N</b>			
St 41			
<b>/IRONMI</b> <b>5 LABOR</b> mental.com erque, NM 8710 505-345-4107 Request	Total Coliform (Present/Absent)		
uerc S Res S Res	(AOV-im92) 0728	WO: 24 20661	
HALL ENVIRONME ANALYSIS LABOR www.hallenvironmental.com kins NE - Albuquerque, NM 8710 345-3975 Fax 505-345-4107 Analysis Request	(AOV) 0528	o devon, WO: 24	
	Cl' E' BL' NO <sup>3</sup> ' NO <sup>3</sup> ' bO <sup>4</sup> ' 20 <sup>4</sup>	deven, deven	5
<b>AL</b> MW.F NE 397	PH4s by 8310 or 8270SIMS RCRA 8 Metals	and de la	
<b>H</b> w vkins 345-	EDB (Method 504.1)		9
HALL ANAL www.ha 1901 Hawkins NE Tel. 505-345-3975	8081 Pesticides/8082 PCB's	Vsub-contrar A	0
ANAL ANAL www.hi 4901 Hawkins NE Tel. 505-345-3975	ТРН:8015D(GRO / DRO / МRO)	N Xer Strand	4
	BTEX / MTBE / TMB's (8021)	X X X X X X X X X X X X X X X X X X X	
2	Jiect Manager: Sally Corttar SCarttorのVenteresource.com mpler: Ice: 成Yes IN0 mgb f Coolers: 1 oler Temp(Induding CF):3.2 +0.2=3.4 (°C) ntainer Preservative HEAL No.		
e: XRush ZZhr Unit 10 Bottery	seurce. ( Seurce. ( mgo = 3.4 HEAL No.	as notice	
8 9	Sour Sour	Date Date	
0	Corttor exresour 10,2=3,4 HEAL		
:: X Rush )n it 784	ager: Sally ( Ear Quente I ( (Including CF):3.2.1 Preservative Type	LCC Alla Counic	
	rr: Λ Λ Γ Ves I Ves Ves Ves		
Turn-Around Time: ☐ Standard XRu Project Name: This He Unit Project #: 23 E - 041 784	Project Manager: Sall SOartcorのve Sampler: On Ice: 成Yes # of Coolers: [ Cooler Temp(Including CF):3 Container Preservati Type and # Type	102, 1 1 eceived by WMMMAd eceived by	
Turn-Around T D Standard Project Name: $This He Project #: 23 \xi - ($	Project Mana Sourt Sampler: On Ice: # of Coolers: Cooler Temp Container Type and #	L AMM Aby	
	Project Mi Sampler: On Ice: # of Coole Cooler Te Container Type and	HOZ, 1 HOZ, 1 MMM Received by Received by	
	(ion)		
c d	□ Level 4 (Full Validation) npliance Sample Name		
dr. Greece			
Ř	□ Level 4 (Full V npliance Sample Name	Environ	
Le Reyd	nce i vel	BARLAN by LLAN ted to Hall Envire	
	Sam Sam	ted to the second secon	
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of-Custoo EX RESOUN DEVON) ZIOI BO ZIOI BO ZIOI BO ZIOI BO CIN L' LE	□ Az Compliance □ Other Matrix Sample	Bruch Bruch Relinquished by Relinquished by MMMULUM Bamples submitted to Hall b	
Chain-of-Custody Record "VERLEX RESOURCE Group (bill to Devon) 19 Address: 3101 Boyd dr. Carlshord att. N.M. ent: on L' Le			
Chain- nt: VErt (bill to Ing Address: Ing Address: Ine #:	r Fax# Packag dard tation: AC (Type Time	9.00 9.00 MID finecessary	
Client: VErlex resource Group Client: Verlex resource Group (bill to Devon) Mailing Address: 3/01 Boyd dr. Carlshord MANUM Phone #: 00 P. Le	이 드 팀 호 레임		
Pho		$\frac{1}{1/S}$ age 12 of 13 $\frac{1}{5/21/2025}$	
	Pa	age 12 of 13 5/21/2025	

Job Number: 885-25053-1

List Source: Eurofins Albuquerque

### Login Sample Receipt Checklist

Client: Vertex

#### Login Number: 25053 List Number: 1

Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Received by OCD: 6/6/2025 11:13:25 AM



**Environment Testing** 

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mr. Kent Stallings Vertex 3101 Boyd Dr Carlsbad, New Mexico 88220 Generated 6/3/2025 11:13:39 AM

## **JOB DESCRIPTION**

Thistle Unit 10 CTB

## **JOB NUMBER**

885-25492-1

Eurofins Albuquerque 4901 Hawkins NE Albuquerque NM 87109





## **Eurofins Albuquerque**

## **Job Notes**

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization

Authorized for release by

(505)345-3975

Andy Freeman, Business Unit Manager andy.freeman@et.eurofinsus.com

Generated 6/3/2025 11:13:39 AM

Laboratory Job ID: 885-25492-1

2 3

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## **Definitions/Glossary**

Client: Vertex
Project/Site: Thistle Unit 10 CTB

Job ID: 885-25492-1

Qualifiers		_ 3
GC Semi VOA Qualifier	Qualifier Description	
*+	LCS and/or LCSD is outside acceptance limits, high biased.	_
S1+	Surrogate recovery exceeds control limits, high biased.	5
		5
HPLC/IC Qualifier	Qualifier Description	
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not	
-	applicable.	
Glossary		
Abbreviation	These commonly used abbreviations may or may not be present in this report.	8
¢.	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	2
CFL	Contains Free Liquid	
CFU	Colony Forming Unit	
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision Level Concentration (Radiochemistry)	
EDL	Estimated Detection Limit (Dioxin)	
LOD	Limit of Detection (DoD/DOE)	
LOQ	Limit of Quantitation (DoD/DOE)	
MCL	EPA recommended "Maximum Contaminant Level"	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
MPN	Most Probable Number	
MQL	Method Quantitation Limit	
NC	Not Calculated	
ND	Not Detected at the reporting limit (or MDL or EDL if shown)	
NEG	Negative / Absent	
POS	Positive / Present	
PQL	Practical Quantitation Limit	
PRES	Presumptive	
QC	Quality Control	
RER	Relative Error Ratio (Radiochemistry)	

Reporting Limit or Requested Limit (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Relative Percent Difference, a measure of the relative difference between two points

RL

RPD TEF

TEQ

TNTC

## **Case Narrative**

Client: Vertex Project: Thistle Unit 10 CTB

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### Job ID: 885-25492-1

#### **Eurofins Albuquerque**

#### Job Narrative 885-25492-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### Receipt

The samples were received on 5/24/2025 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.5°C.

#### **Gasoline Range Organics**

No additional analytical or guality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### **Diesel Range Organics**

Method 8015D DRO: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 885-27083 and analytical batch 885-27142 recovered outside control limits for the following analytes: Diesel Range Organics [C10-C28]. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. Samples with hits will be re-extracted or re-ran with the LCS.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Job ID: 885-25492-1

## Project/Site: Thistle Unit 10 CTB

## Client Sample ID: BS25-03 0'

Date Collected: 05/22/25 08:00 Date Received: 05/24/25 08:00

Client: Vertex

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		4.9	mg/Kg		05/27/25 13:37	05/28/25 21:51	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		15 _ 150			05/27/25 13:37	05/28/25 21:51	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/27/25 13:37	05/28/25 21:51	1
Ethylbenzene	ND		0.049	mg/Kg		05/27/25 13:37	05/28/25 21:51	1
Toluene	ND		0.049	mg/Kg		05/27/25 13:37	05/28/25 21:51	1
Xylenes, Total	ND		0.097	mg/Kg		05/27/25 13:37	05/28/25 21:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		15 - 150			05/27/25 13:37	05/28/25 21:51	1
Method: SW846 8015M/D - Diese	l Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	, RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND	*+	9.6	mg/Kg		05/28/25 13:58	05/29/25 18:18	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		05/28/25 13:58	05/29/25 18:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	109		62 - 134			05/28/25 13:58	05/29/25 18:18	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte								

5

#### Lab Sample ID: 885-25492-1 Matrix: Solid

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Job ID: 885-25492-1

Lab Sample ID: 885-25492-2

## Project/Site: Thistle Unit 10 CTB

## Client Sample ID: BS25-034 0'

Date Collected: 05/22/25 08:05 Date Received: 05/24/25 08:00

Client: Vertex

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		5.0	mg/Kg		05/27/25 13:37	05/28/25 22:15	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		15 _ 150			05/27/25 13:37	05/28/25 22:15	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/27/25 13:37	05/28/25 22:15	1
Ethylbenzene	ND		0.050	mg/Kg		05/27/25 13:37	05/28/25 22:15	1
Toluene	ND		0.050	mg/Kg		05/27/25 13:37	05/28/25 22:15	1
Xylenes, Total	ND		0.10	mg/Kg		05/27/25 13:37	05/28/25 22:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		15 - 150			05/27/25 13:37	05/28/25 22:15	1
Method: SW846 8015M/D - Diese	I Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	, RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND	*+	9.8	mg/Kg		05/28/25 13:58	05/29/25 18:50	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		05/28/25 13:58	05/29/25 18:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	111		62 - 134			05/28/25 13:58	05/29/25 18:50	1
		h						
Method: EPA 300.0 - Anions, Ion	Chromatograp	ліу						
Method: EPA 300.0 - Anions, Ion Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

#### **Eurofins Albuquerque**

Matrix: Solid

Matrix: Solid

Job ID: 885-25492-1

Lab Sample ID: 885-25492-3

## Project/Site: Thistle Unit 10 CTB Client Sample ID: BS25-05 0'

Date Collected: 05/22/25 08:10

Date Received: 05/24/25 08:00

Client: Vertex

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		5.0	mg/Kg		05/27/25 13:37	05/28/25 22:38	1
GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
-Bromofluorobenzene (Surr)	93		15 - 150			05/27/25 13:37	05/28/25 22:38	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/27/25 13:37	05/28/25 22:38	1
Ethylbenzene	ND		0.050	mg/Kg		05/27/25 13:37	05/28/25 22:38	1
Toluene	ND		0.050	mg/Kg		05/27/25 13:37	05/28/25 22:38	1
Xylenes, Total	ND		0.10	mg/Kg		05/27/25 13:37	05/28/25 22:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		15 - 150			05/27/25 13:37	05/28/25 22:38	1
Method: SW846 8015M/D - Diese	I Range Organ	ics (DRO) (	GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		05/30/25 12:47	06/02/25 11:19	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		05/30/25 12:47	06/02/25 11:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	109		62 - 134			05/30/25 12:47	06/02/25 11:19	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy						
		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result	Quaimer	RL	Unit		Flepaleu	Analyzeu	DirFac

6/3/2025

Lab Sample ID: 885-25492-4

## Project/Site: Thistle Unit 10 CTB

## Client Sample ID: BS25-06 0'

Date Collected: 05/22/25 08:15 Date Received: 05/24/25 08:00

Client: Vertex

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		5.0	mg/Kg		05/27/25 13:37	05/28/25 23:01	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Bromofluorobenzene (Surr)	93		15 _ 150			05/27/25 13:37	05/28/25 23:01	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/27/25 13:37	05/28/25 23:01	1
Ethylbenzene	ND		0.050	mg/Kg		05/27/25 13:37	05/28/25 23:01	1
Toluene	ND		0.050	mg/Kg		05/27/25 13:37	05/28/25 23:01	1
Xylenes, Total	ND		0.10	mg/Kg		05/27/25 13:37	05/28/25 23:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		15 - 150			05/27/25 13:37	05/28/25 23:01	1
Method: SW846 8015M/D - Diese	l Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND	*+	9.3	mg/Kg		05/28/25 13:58	05/29/25 19:12	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		05/28/25 13:58	05/29/25 19:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	103		62 - 134			05/28/25 13:58	05/29/25 19:12	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy						
		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result	Quaimer	RL	Unit		Fiepaieu	Analyzeu	DirFac

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Matrix: Solid

Matrix: Solid

Job ID: 885-25492-1

Lab Sample ID: 885-25492-5

## Project/Site: Thistle Unit 10 CTB

## Client Sample ID: BS25-07 0'

Date Collected: 05/22/25 08:25 Date Received: 05/24/25 08:00

Client: Vertex

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		5.0	mg/Kg		05/27/25 13:37	05/28/25 23:25	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		15 _ 150			05/27/25 13:37	05/28/25 23:25	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/27/25 13:37	05/28/25 23:25	1
Ethylbenzene	ND		0.050	mg/Kg		05/27/25 13:37	05/28/25 23:25	1
Toluene	ND		0.050	mg/Kg		05/27/25 13:37	05/28/25 23:25	1
Xylenes, Total	ND		0.099	mg/Kg		05/27/25 13:37	05/28/25 23:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		15 - 150			05/27/25 13:37	05/28/25 23:25	1
Method: SW846 8015M/D - Diese	l Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND	*+	9.9	mg/Kg		05/28/25 13:58	05/29/25 19:23	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		05/28/25 13:58	05/29/25 19:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	105		62 - 134			05/28/25 13:58	05/29/25 19:23	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy						
		a	-	11	D	Duomourod	A maily maid	D!!
Analyte	Result	Qualifier	RL	Unit	U	Prepared	Analyzed	Dil Fac

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Job ID: 885-25492-1

## Project/Site: Thistle Unit 10 CTB

## Client Sample ID: BS25-08 0'

Date Collected: 05/22/25 08:30 Date Received: 05/24/25 08:00

Client: Vertex

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		5.0	mg/Kg		05/27/25 13:37	05/28/25 23:48	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Bromofluorobenzene (Surr)	92		15 _ 150			05/27/25 13:37	05/28/25 23:48	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/27/25 13:37	05/28/25 23:48	1
Ethylbenzene	ND		0.050	mg/Kg		05/27/25 13:37	05/28/25 23:48	1
Toluene	ND		0.050	mg/Kg		05/27/25 13:37	05/28/25 23:48	1
Xylenes, Total	ND		0.099	mg/Kg		05/27/25 13:37	05/28/25 23:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		15 - 150			05/27/25 13:37	05/28/25 23:48	1
Method: SW846 8015M/D - Diese	l Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	, RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND	*+	9.6	mg/Kg		05/28/25 13:58	05/29/25 19:34	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		05/28/25 13:58	05/29/25 19:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	122		62 - 134			05/28/25 13:58	05/29/25 19:34	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy						
						Description	A construction of	
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Lab Sample ID: 885-25492-6 Matrix: Solid

## Project/Site: Thistle Unit 10 CTB

Client: Vertex

## Client Sample ID: BS25-09 0'

Date Collected: 05/22/25 08:35 Date Received: 05/24/25 08:00

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		5.0	mg/Kg		05/27/25 13:37	05/29/25 00:12	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		15 _ 150			05/27/25 13:37	05/29/25 00:12	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/27/25 13:37	05/29/25 00:12	1
Ethylbenzene	ND		0.050	mg/Kg		05/27/25 13:37	05/29/25 00:12	1
Toluene	ND		0.050	mg/Kg		05/27/25 13:37	05/29/25 00:12	1
Xylenes, Total	ND		0.099	mg/Kg		05/27/25 13:37	05/29/25 00:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		15 - 150			05/27/25 13:37	05/29/25 00:12	1
Method: SW846 8015M/D - Diese	l Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND	*+	9.5	mg/Kg		05/28/25 13:58	05/29/25 19:45	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		05/28/25 13:58	05/29/25 19:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)			62 - 134			05/28/25 13:58	05/29/25 19:45	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Lab Sample ID: 885-25492-7 Matrix: Solid

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Lab Sample ID: 885-25492-8

## Project/Site: Thistle Unit 10 CTB

## Client Sample ID: BS25-10 0'

Date Collected: 05/22/25 08:40 Date Received: 05/24/25 08:00

Client: Vertex

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		5.0	mg/Kg		05/27/25 13:37	05/29/25 00:35	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		15 _ 150			05/27/25 13:37	05/29/25 00:35	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/27/25 13:37	05/29/25 00:35	1
Ethylbenzene	ND		0.050	mg/Kg		05/27/25 13:37	05/29/25 00:35	1
Toluene	ND		0.050	mg/Kg		05/27/25 13:37	05/29/25 00:35	1
Xylenes, Total	ND		0.10	mg/Kg		05/27/25 13:37	05/29/25 00:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		15 - 150			05/27/25 13:37	05/29/25 00:35	1
Method: SW846 8015M/D - Diese	Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND	*+	9.4	mg/Kg		05/28/25 13:58	05/29/25 19:56	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		05/28/25 13:58	05/29/25 19:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	132		62 - 134			05/28/25 13:58	05/29/25 19:56	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Matrix: Solid

## Project/Site: Thistle Unit 10 CTB 0'

C	ient	Samp	le ID:	BS25-	11 0
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Date Collected: 05/22/25 08:50 Date Received: 05/24/25 08:00

Client: Vertex

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		4.9	mg/Kg		05/27/25 13:37	05/29/25 00:58	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		15 _ 150			05/27/25 13:37	05/29/25 00:58	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/27/25 13:37	05/29/25 00:58	1
Ethylbenzene	ND		0.049	mg/Kg		05/27/25 13:37	05/29/25 00:58	1
Toluene	ND		0.049	mg/Kg		05/27/25 13:37	05/29/25 00:58	1
Xylenes, Total	ND		0.098	mg/Kg		05/27/25 13:37	05/29/25 00:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		15 - 150			05/27/25 13:37	05/29/25 00:58	1
Method: SW846 8015M/D - Diese	I Range Organ	ics (DRO) (	GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND	*+	9.4	mg/Kg		05/28/25 13:58	05/29/25 20:18	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		05/28/25 13:58	05/29/25 20:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)			62 - 134			05/28/25 13:58	05/29/25 20:18	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Lab Sample ID: 885-25492-9 Matrix: Solid

Job ID: 885-25492-1

#### Client: Vertex Project/Site: Thistle Unit 10 CTB

### Client Sample ID: BS25-12 0'

Date Collected: 05/22/25 08:55 Date Received: 05/24/25 08:00

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		5.0	mg/Kg		05/27/25 16:43	05/29/25 02:56	1
GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
I-Bromofluorobenzene (Surr)	92		15 _ 150			05/27/25 16:43	05/29/25 02:56	1
Method: SW846 8021B - Volatile (	Organic Comp	ounds (GC)	)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/27/25 16:43	05/29/25 02:56	1
Ethylbenzene	ND		0.050	mg/Kg		05/27/25 16:43	05/29/25 02:56	1
Toluene	ND		0.050	mg/Kg		05/27/25 16:43	05/29/25 02:56	1
Kylenes, Total	ND		0.10	mg/Kg		05/27/25 16:43	05/29/25 02:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Bromofluorobenzene (Surr)	95		15 - 150			05/27/25 16:43	05/29/25 02:56	1
Method: SW846 8015M/D - Diesel	Range Organ	ics (DRO) (	GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND	*+	10	mg/Kg		05/28/25 13:58	05/29/25 20:29	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		05/28/25 13:58	05/29/25 20:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	130		62 - 134			05/28/25 13:58	05/29/25 20:29	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy						
		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result	Quaimer	nL	Unit		rioparoa	Analyzeu	Diriac

Lab Sample ID: 885-25492-10 Matrix: Solid

Matrix: Solid

5

Job ID: 885-25492-1

Lab Sample ID: 885-25492-11

#### Client: Vertex Project/Site: Thistle Unit 10 CTB

### Client Sample ID: BS25-13 0'

Date Collected: 05/22/25 09:00 Date Received: 05/24/25 08:00

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		5.0	mg/Kg		05/27/25 16:43	05/29/25 04:07	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		15 - 150			05/27/25 16:43	05/29/25 04:07	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/27/25 16:43	05/29/25 04:07	1
Ethylbenzene	ND		0.050	mg/Kg		05/27/25 16:43	05/29/25 04:07	1
Toluene	ND		0.050	mg/Kg		05/27/25 16:43	05/29/25 04:07	1
Xylenes, Total	ND		0.10	mg/Kg		05/27/25 16:43	05/29/25 04:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		15 - 150			05/27/25 16:43	05/29/25 04:07	1
Method: SW846 8015M/D - Diese	l Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND	*+	9.3	mg/Kg		05/28/25 13:58	05/29/25 20:40	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		05/28/25 13:58	05/29/25 20:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	133		62 - 134			05/28/25 13:58	05/29/25 20:40	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ony						
Method: EPA 300.0 - Anions, Ion Analyte	• •	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

#### Client: Vertex Project/Site: Thistle Unit 10 CTB

#### Client Sample ID: BS25-14 0'

Date Collected: 05/22/25 10:00 Date Received: 05/24/25 08:00

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		5.0	mg/Kg		05/27/25 16:43	05/29/25 05:17	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		15 _ 150			05/27/25 16:43	05/29/25 05:17	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/27/25 16:43	05/29/25 05:17	1
Ethylbenzene	ND		0.050	mg/Kg		05/27/25 16:43	05/29/25 05:17	1
Toluene	ND		0.050	mg/Kg		05/27/25 16:43	05/29/25 05:17	1
Xylenes, Total	ND		0.099	mg/Kg		05/27/25 16:43	05/29/25 05:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		15 - 150			05/27/25 16:43	05/29/25 05:17	1
Method: SW846 8015M/D - Diese	I Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND	*+	9.6	mg/Kg		05/28/25 13:58	05/29/25 20:51	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		05/28/25 13:58	05/29/25 20:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	93		62 - 134			05/28/25 13:58	05/29/25 20:51	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Lab Sample ID: 885-25492-12 Matrix: Solid

Matrix: Solid

5

Job ID: 885-25492-1

Lab Sample ID: 885-25492-13

#### Client: Vertex Project/Site: Thistle Unit 10 CTB

### Client Sample ID: BS25-15 0'

Date Collected: 05/22/25 10:05 Date Received: 05/24/25 08:00

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		5.0	mg/Kg		05/27/25 16:43	05/29/25 05:41	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		15 - 150			05/27/25 16:43	05/29/25 05:41	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/27/25 16:43	05/29/25 05:41	1
Ethylbenzene	ND		0.050	mg/Kg		05/27/25 16:43	05/29/25 05:41	1
Toluene	ND		0.050	mg/Kg		05/27/25 16:43	05/29/25 05:41	1
Xylenes, Total	ND		0.10	mg/Kg		05/27/25 16:43	05/29/25 05:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		15 - 150			05/27/25 16:43	05/29/25 05:41	1
Method: SW846 8015M/D - Diese	l Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND	*+	9.7	mg/Kg		05/28/25 13:58	05/29/25 21:02	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		05/28/25 13:58	05/29/25 21:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<b>D</b> :			62 - 134			05/28/25 13:58	05/29/25 21:02	1
Di-n-octyl phthalate (Surr)								
	Chromatograp	ohy						
Di-n-octyl phthalate (Surr) 	• •	ohy Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Matrix: Solid

Job ID: 885-25492-1

Lab Sample ID: 885-25492-14

### Client: Vertex Project/Site: Thistle Unit 10 CTB

### Client Sample ID: BS25-16 0'

Date Collected: 05/22/25 10:10 Date Received: 05/24/25 08:00

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		4.8	mg/Kg		05/27/25 16:43	05/29/25 06:04	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		15 _ 150			05/27/25 16:43	05/29/25 06:04	1
Method: SW846 8021B - Volatile (	Organic Comp	ounds (GC)	)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/27/25 16:43	05/29/25 06:04	1
Ethylbenzene	ND		0.048	mg/Kg		05/27/25 16:43	05/29/25 06:04	1
Toluene	ND		0.048	mg/Kg		05/27/25 16:43	05/29/25 06:04	1
Xylenes, Total	ND		0.095	mg/Kg		05/27/25 16:43	05/29/25 06:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		15 - 150			05/27/25 16:43	05/29/25 06:04	1
Method: SW846 8015M/D - Diesel	Range Organ	ics (DRO) (	GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND	*+	9.2	mg/Kg		05/28/25 13:58	05/29/25 21:13	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		05/28/25 13:58	05/29/25 21:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	103		62 - 134			05/28/25 13:58	05/29/25 21:13	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

**Eurofins Albuquerque** 

Job ID: 885-25492-1

## Project/Site: Thistle Unit 10 CTB

## Client Sample ID: BS25-17 0'

Date Collected: 05/22/25 10:15 Date Received: 05/24/25 08:00

Client: Vertex

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		4.9	mg/Kg		05/27/25 16:43	05/29/25 06:27	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		15 _ 150			05/27/25 16:43	05/29/25 06:27	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/27/25 16:43	05/29/25 06:27	1
Ethylbenzene	ND		0.049	mg/Kg		05/27/25 16:43	05/29/25 06:27	1
Toluene	ND		0.049	mg/Kg		05/27/25 16:43	05/29/25 06:27	1
Xylenes, Total	ND		0.099	mg/Kg		05/27/25 16:43	05/29/25 06:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		15 - 150			05/27/25 16:43	05/29/25 06:27	1
Method: SW846 8015M/D - Diese	l Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND	*+	9.3	mg/Kg		05/28/25 13:58	05/29/25 21:24	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		05/28/25 13:58	05/29/25 21:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)			62 - 134			05/28/25 13:58	05/29/25 21:24	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	bhy						
Method: EPA 300.0 - Anions, Ion Analyte	• • •	ohy Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

#### **Eurofins Albuquerque**

Lab Sample ID: 885-25492-15 Matrix: Solid

Matrix: Solid

5

Job ID: 885-25492-1

Lab Sample ID: 885-25492-16

#### Client: Vertex Project/Site: Thistle Unit 10 CTB

### Client Sample ID: BS25-18 0'

Date Collected: 05/22/25 10:25 Date Received: 05/24/25 08:00

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		4.8	mg/Kg		05/27/25 16:43	05/29/25 06:51	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		15 _ 150			05/27/25 16:43	05/29/25 06:51	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/27/25 16:43	05/29/25 06:51	1
Ethylbenzene	ND		0.048	mg/Kg		05/27/25 16:43	05/29/25 06:51	1
Toluene	ND		0.048	mg/Kg		05/27/25 16:43	05/29/25 06:51	1
Xylenes, Total	ND		0.097	mg/Kg		05/27/25 16:43	05/29/25 06:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		15 - 150			05/27/25 16:43	05/29/25 06:51	1
Method: SW846 8015M/D - Diese	I Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND	*+	9.1	mg/Kg		05/28/25 13:58	05/29/25 21:35	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		05/28/25 13:58	05/29/25 21:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	- 88		62 - 134			05/28/25 13:58	05/29/25 21:35	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy						
		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result	Quaimer	RL .	Unit		riepaieu	Analyzeu	DIFAC

Matrix: Solid

Job ID: 885-25492-1

Lab Sample ID: 885-25492-17

## Project/Site: Thistle Unit 10 CTB

## Client Sample ID: BS25-19 0'

Date Collected: 05/22/25 10:30 Date Received: 05/24/25 08:00

Client: Vertex

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		4.8	mg/Kg		05/27/25 16:43	05/29/25 07:14	1
GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
I-Bromofluorobenzene (Surr)	92		15 - 150			05/27/25 16:43	05/29/25 07:14	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	l.					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/27/25 16:43	05/29/25 07:14	1
Ethylbenzene	ND		0.048	mg/Kg		05/27/25 16:43	05/29/25 07:14	1
Toluene	ND		0.048	mg/Kg		05/27/25 16:43	05/29/25 07:14	1
Xylenes, Total	ND		0.097	mg/Kg		05/27/25 16:43	05/29/25 07:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		15 - 150			05/27/25 16:43	05/29/25 07:14	1
Method: SW846 8015M/D - Diese	l Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND	*+	9.2	mg/Kg		05/28/25 13:58	05/29/25 21:46	1
Notor Oil Range Organics [C28-C40]	ND		46	mg/Kg		05/28/25 13:58	05/29/25 21:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	96		62 - 134			05/28/25 13:58	05/29/25 21:46	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy						
		0	DI DI	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result	Qualifier	RL	Unit		Fiepaieu	Analyzeu	DIFAC

Matrix: Solid

5

Job ID: 885-25492-1

Lab Sample ID: 885-25492-18

#### Client: Vertex Project/Site: Thistle Unit 10 CTB

#### Client Sample ID: BS25-20 0'

Date Collected: 05/22/25 10:35 Date Received: 05/24/25 08:00

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		4.9	mg/Kg		05/27/25 16:43	05/29/25 07:37	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		15 - 150			05/27/25 16:43	05/29/25 07:37	1
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)	)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/27/25 16:43	05/29/25 07:37	1
Ethylbenzene	ND		0.049	mg/Kg		05/27/25 16:43	05/29/25 07:37	1
Toluene	ND		0.049	mg/Kg		05/27/25 16:43	05/29/25 07:37	1
Xylenes, Total	ND		0.098	mg/Kg		05/27/25 16:43	05/29/25 07:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		15 - 150			05/27/25 16:43	05/29/25 07:37	1
Method: SW846 8015M/D - Diese	l Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	11		9.4	mg/Kg		05/30/25 12:47	06/02/25 11:30	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		05/30/25 12:47	06/02/25 11:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)			62 - 134			05/30/25 12:47	06/02/25 11:30	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy						
	Desult	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result	Quaimer	RL	Unit	U	Fiepaieu	Analyzeu	DirFac

### **QC Sample Results**

RL

5.0

Limits

15 \_ 150

Unit

mg/Kg

D

Prepared

05/27/25 13:37

Prepared

05/27/25 13:37

Client: Vertex Project/Site: Thistle Unit 10 CTB

Lab Sample ID: MB 885-26981/1-A

Matrix: Solid

(GRO)-C6-C10

Surrogate

Analyte

Analysis Batch: 27139

Gasoline Range Organics

4-Bromofluorobenzene (Surr)

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

MB MB

MB MB

%Recovery Qualifier

92

%Recovery Qualifier

ND

Result Qualifier

Job ID: 885-25492-1

Prep Type: Total/NA

Prep Batch: 26981

**Client Sample ID: Method Blank** 

Analyzed

05/28/25 20:41

Analyzed

05/28/25 20:41

5
6
8
9

Dil Fac

Dil Fac

1

1

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26981

#### Lab Sample ID: LCS 885-26981/2-A Matrix: Solid Analysis Batch: 27139

-			Spike	LCS	LCS				%Rec	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics			25.0	25.4		mg/Kg		102	70 - 130	
(GRO)-C6-C10										
	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							
4-Bromofluorobenzene (Surr)	193		15 _ 150							
Lab Sample ID: MB 885-270	06/1-A							Client S	ample ID: Met	hod Blank
Matrix: Solid									Ргер Туре	e: Total/NA

Prep Type: Total/NA 27006

Dil Fac

Dil Fac

1

Analysis Batch: 27141							Prep Batch	h: 2
	MB	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	I
Gasoline Range Organics	ND		5.0	mg/Kg		05/27/25 16:43	05/29/25 02:33	
(GRO)-C6-C10								
	MB	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	í

4-Bromofluorobenzene (Surr)	93	15 - 150	-	05/27/25 16:43	05/29/25 02:33	1
Lab Sample ID: LCS 885-27006/2-A				Client Sample I	D: Lab Control S	Sample
Matrix: Solid					Prep Type: T	otal/NA
Analysis Batch: 27141					Prep Batch	: 27006
		Spike	LCS LCS		%Rec	

Analyte	Addeo	d Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10	25.0	25.9		mg/Kg		103	70 - 130
	LCS LCS						

Limits

4-Bromofluorobenzene (Surr)	186		15 - 150							
Lab Sample ID: 885-25492-10 MS								Clie	nt Sample ID:	: BS25-12 0'
Matrix: Solid									Prep Ty	pe: Total/NA
Analysis Batch: 27141									Prep B	Batch: 27006
-	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	ND		24.9	26.7		mg/Kg		107	70 - 130	

(GRO)-C6-C10

Surrogate

**Eurofins Albuquerque** 

Released to Imaging: 6/25/2025 2:43:17 PM

Job ID: 885-25492-1

Client: Vertex Project/Site: Thistle Unit 10 CTB

## Method: 8015M/D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: 885-25492-10 Matrix: Solid	MS										Client	Sample ID: Prep Typ	e: To	tal/NA
Analysis Batch: 27141												Prep Ba	itch:	27000
	MS	мs												
Surrogate	%Recovery	Qualit	fier	Limits										
4-Bromofluorobenzene (Surr)	192			15 - 150										
Lab Sample ID: 885-25492-10	MSD										Client	Sample ID:	BS2	5-12 0
Matrix: Solid												Prep Typ	e: To	tal/NA
Analysis Batch: 27141												Prep Ba	tch:	2700
	Sample	Samp	le	Spike	м	SD	MSD					%Rec		RPI
Analyte	Result	Qualif	ier	Added	Res	ult	Qualifier	Unit		D	%Rec	Limits	RPD	Limi
Gasoline Range Organics (GRO)-C6-C10	ND			25.0	2	8.5		mg/Kg			114	70 - 130	7	2
	MSD	MSD												
Surrogate	%Recovery	Qualit	fier	Limits										
4-Bromofluorobenzene (Surr)	198			15 - 150										
. ,														
lethod: 8021B - Volatile C	Organic Cor	npol	unds (G	SC)										
Lab Sample ID: MB 885-26981	/1-A										Client Sa	mple ID: Me	thod	Blan
Matrix: Solid												Prep Typ	e: To	tal/N/
Analysis Batch: 27138												Prep Ba	tch:	2698
		MB	МВ											
Analyte	R	esult (	Qualifier	I	RL		Unit		D	Р	repared	Analyzed		Dil Fa
Benzene		ND		0.0	25		mg/k	íg	_	05/2	7/25 13:37	05/28/25 20:4	1	
Ethylbenzene		ND		0.0	50		mg/k	íg		05/2	7/25 13:37	05/28/25 20:4	1	
Toluene		ND		0.0	50		mg/k	g		05/2	7/25 13:37	05/28/25 20:4	1	
Xylenes, Total		ND		0.	10		mg/k	ģ		05/2	7/25 13:37	05/28/25 20:4	1	
		ΜΒ	МВ											
Surrogate	%Reco	<u> </u>	Qualifier	Limits							repared	Analyzed		Dil Fa
4-Bromofluorobenzene (Surr)		97		15 - 150	)					05/2	7/25 13:37	05/28/25 20:4	11	
Lab Sample ID: LCS 885-2698	1/3-A								С	lient	Sample I	D: Lab Cont	rol S	ample
Matrix: Solid												Prep Typ	e: To	tal/N/
Analysis Batch: 27138												Prep Ba	tch:	2698 <sup>,</sup>
				Calles	1	cs	LCS					%Rec		
-				Spike						_	%Rec	Limits		
-				Added		ult	Qualifier	Unit		D	70Rec	Linits		
Analyte				•	Res	ult .06	Qualifier	- Unit mg/Kg		<u> </u>	106	70 - 130		
Analyte Benzene				Added	Res 1		Qualifier			_ <u>D</u>				
Analyte Benzene Ethylbenzene m-Xylene & p-Xylene				Added	<b>Res</b> 1 1	.06	Qualifier	mg/Kg		<u> </u>	106	70 - 130		
Analyte Benzene Ethylbenzene				Added	Res 1 1 2	.06 .04	Qualifier	mg/Kg mg/Kg		<u> </u>	106 104	70 - 130 70 - 130		
Analyte Benzene Ethylbenzene m-Xylene & p-Xylene				Added 1.00 1.00 2.00	Res 1 1 2 1	.06 .04 .19	Qualifier	mg/Kg mg/Kg mg/Kg		<u> </u>	106 104 109	70 - 130 70 - 130 70 - 130		
Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene	LCS	LCS		Added 1.00 1.00 2.00 1.00	Res 1 1 2 1	.06 .04 .19 .05	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg		<u> </u>	106 104 109 105	70 - 130 70 - 130 70 - 130 70 - 130 70 - 130		
Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene	 LCS %Recovery	LCS Qualit		Added 1.00 1.00 2.00 1.00	Res 1 1 2 1	.06 .04 .19 .05	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg		<u> </u>	106 104 109 105	70 - 130 70 - 130 70 - 130 70 - 130 70 - 130		
Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene Toluene Surrogate			fier	Added 1.00 1.00 2.00 1.00 1.00	Res 1 1 2 1	.06 .04 .19 .05	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg		<u> </u>	106 104 109 105	70 - 130 70 - 130 70 - 130 70 - 130 70 - 130		
Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene Toluene	%Recovery 97		fier	Added 1.00 1.00 2.00 1.00 1.00 1.00 Limits	Res 1 1 2 1	.06 .04 .19 .05	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg			106 104 109 105 105	70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	thod	Blank
Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene Toluene Surrogate 4-Bromofluorobenzene (Surr) Lab Sample ID: MB 885-27006	%Recovery 97		fier	Added 1.00 1.00 2.00 1.00 1.00 1.00 Limits	Res 1 1 2 1	.06 .04 .19 .05	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg			106 104 109 105 105	70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130		
Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene Toluene Surrogate 4-Bromofluorobenzene (Surr)	%Recovery 97		fier	Added 1.00 1.00 2.00 1.00 1.00 1.00 Limits	Res 1 1 2 1	.06 .04 .19 .05	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg			106 104 109 105 105	70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	e: To	tal/NA
Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene Toluene Surrogate 4-Bromofluorobenzene (Surr) Lab Sample ID: MB 885-27006 Matrix: Solid	%Recovery 97			Added 1.00 1.00 2.00 1.00 1.00 1.00 Limits	Res 1 1 2 1	.06 .04 .19 .05	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg			106 104 109 105 105	70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 <b>mple ID: Me</b> <b>Prep Typ</b>	e: To	tal/NA

Eurofins Albuquerque

## **QC Sample Results**

Job ID: 885-25492-1

Prep Type: Total/NA

**Client Sample ID: Method Blank** 

Client: Vertex Project/Site: Thistle Unit 10 CTB

Lab Sample ID: MB 885-27006/1-A

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

										Pron Ba	tch:	27006
Analysis Batch: 27140										ттер ва		
		MB										
Analyte		Qualifier	RL		Unit		<u>D</u>		repared	Analyzed		Dil Fac
Ethylbenzene	ND		0.050		mg/K	-		05/27/25 16:43		05/29/25 02:3		1
Toluene	ND		0.050		mg/K			05/27/25 16:43 05/27/25 16:43		05/29/25 02:3		1
Xylenes, Total	ND		0.10		mg/K	g		05/2	//25 16:43	05/29/25 02:3	3	1
	MB	МВ										
Surrogate	%Recovery	Qualifier	Limits					P	repared	Analyzed		Dil Fac
4-Bromofluorobenzene (Surr)	97		15 - 150					05/2	7/25 16:43	05/29/25 02:3	3	1
Lab Sample ID: LCS 885-270	006/3-A						С	lient	Sample	ID: Lab Cont	ol Sa	ample
Matrix: Solid										Prep Type		
Analysis Batch: 27140										Prep Ba		
-			Spike	LCS	LCS					• %Rec		
Analyte			Added	Result	Qualifier	Unit		D	%Rec	Limits		
Benzene			1.00	1.06		mg/Kg			106	70 - 130		
Ethylbenzene			1.00	1.01		mg/Kg			101	70 - 130		
m-Xylene & p-Xylene			2.00	2.13		mg/Kg			106	70 - 130		
o-Xylene			1.00	1.01		mg/Kg			101	70 - 130		
Toluene			1.00	1.03		mg/Kg			103	70 - 130		
	LCS LCS	6										
-	%Recovery Qua	alifier	Limits									
4-Bromofluorobenzene (Surr)	97	alifier	Limits 15 - 150						Clien	t Sample ID:	BS25	5-13 0
4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid	97	alifier							Clien	t Sample ID: Prep Type Prep Ba	e: To	tal/NA
4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid	97			MS	MS				Clien		e: To	tal/NA
4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140	97 1 MS	nple	15 - 150		MS Qualifier	Unit		D	Clien %Rec	Prep Type Prep Ba	e: To	tal/NA
4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte	97 1 MS Sample San	nple	15 - 150 Spike			_ <mark>Unit</mark> mg/Kg		<u>D</u>		Prep Type Prep Ba %Rec	e: To	tal/NA
4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte Benzene	97 1 MS Sample San Result Qua	nple	15 - 150 Spike Added	Result				D	%Rec	Prep Type Prep Ba %Rec Limits	e: To	tal/NA
4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte Benzene Ethylbenzene	97 1 MS Sample San Result Qua ND	nple	15 - 150           Spike           Added           0.997	Result 1.07		mg/Kg		<u>D</u>	%Rec	Prep Type Prep Ba %Rec Limits 70 - 130	e: To	tal/NA
4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene	97 1 MS Sample San Result Qua ND ND	nple	15 - 150 Spike Added 0.997 0.997	<b>Result</b> 1.07 1.02		mg/Kg mg/Kg		<u>D</u>	%Rec 107 103	Limits           70 - 130	e: To	tal/NA
4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene	97 1 MS Sample San Result Qua ND ND ND ND	nple	<b>Spike</b> Added 0.997 0.997 1.99	Result 1.07 1.02 2.15		mg/Kg mg/Kg mg/Kg		<u> </u>	%Rec 107 103 108	Prep Type           Prep Ba           %Rec           Limits           70 - 130           70 - 130           70 - 130	e: To	tal/NA
4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene	97 1 MS Sample San Result Qua ND ND ND ND ND	nple	Spike           Added           0.997           1.99           0.997	Result 1.07 1.02 2.15 1.04		mg/Kg mg/Kg mg/Kg mg/Kg		<u>D</u>	%Rec 107 103 108 105	Prep Type           Prep Ba           %Rec           Limits           70 - 130           70 - 130           70 - 130           70 - 130	e: To	tal/NA
Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene	97 1 MS Sample San Result Qua ND ND ND ND ND ND ND ND ND ND	nple	Spike           Added           0.997           1.99           0.997	Result 1.07 1.02 2.15 1.04		mg/Kg mg/Kg mg/Kg mg/Kg		<u>D</u>	%Rec 107 103 108 105	Prep Type           Prep Ba           %Rec           Limits           70 - 130           70 - 130           70 - 130           70 - 130	e: To	tal/NA
4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene Toluene Surrogate	97 1 MS Sample San Result Qua ND ND ND ND ND ND ND ND ND ND	nple alifier	Spike           Added           0.997           0.997           0.997           0.997           0.997           0.997           0.997           0.997	Result 1.07 1.02 2.15 1.04		mg/Kg mg/Kg mg/Kg mg/Kg		<u>D</u>	%Rec 107 103 108 105	Prep Type           Prep Ba           %Rec           Limits           70 - 130           70 - 130           70 - 130           70 - 130	e: To	tal/NA
4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene Toluene Surrogate 4-Bromofluorobenzene (Surr)	1 MS Sample San Result Qua ND ND ND ND ND ND ND ND ND SD ND ND ND ND SD ND SD SD SD SD SD SD SD SD SD SD SD SD SD	nple alifier	15 - 150         Spike         Added         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997	Result 1.07 1.02 2.15 1.04		mg/Kg mg/Kg mg/Kg mg/Kg		<u>D</u>	%Rec 107 103 108 105 105	Prep Type           Prep Ba           %Rec           Limits           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130	e: To tch:	tal/NA 27006
4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene Toluene Surrogate 4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1	1 MS Sample San Result Qua ND ND ND ND ND ND ND ND ND SD ND ND ND ND SD ND SD SD SD SD SD SD SD SD SD SD SD SD SD	nple alifier	15 - 150         Spike         Added         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997	Result 1.07 1.02 2.15 1.04		mg/Kg mg/Kg mg/Kg mg/Kg		<u>D</u>	%Rec 107 103 108 105 105	Prep Type Prep Ba %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	e: To tch: 	5-13 0
4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene Toluene Surrogate 4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid	1 MS Sample San Result Qua ND ND ND ND ND ND ND ND ND SD ND ND ND ND SD ND SD SD SD SD SD SD SD SD SD SD SD SD SD	nple alifier	15 - 150         Spike         Added         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997	Result 1.07 1.02 2.15 1.04		mg/Kg mg/Kg mg/Kg mg/Kg		<u>D</u>	%Rec 107 103 108 105 105	Prep Type           Prep Ba           %Rec           Limits           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - 190           Prep Type	BS25	tal/NA 27006 5-13 0' tal/NA
4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene Toluene Surrogate 4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid	1 MS Sample San Result Qua ND ND ND ND ND ND ND ND ND SD ND ND ND ND SD ND SD SD SD SD SD SD SD SD SD SD SD SD SD	nple alifier	15 - 150         Spike         Added         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997	Result 1.07 1.02 2.15 1.04 1.04		mg/Kg mg/Kg mg/Kg mg/Kg		<u>D</u>	%Rec 107 103 108 105 105	Prep Type Prep Ba %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	BS25	5-13 0' tal/NA 27006
4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene Toluene Surrogate 4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140	97 1 MS Sample San Result Qua ND ND ND ND MS <i>%Recovery</i> Qua 95 1 MSD Sample San	nple alifier	15 - 150         Spike         Added         0.997         0.997         0.997         0.997         0.997         0.997         1.99         0.997         1.5 - 150	Result 1.07 1.02 2.15 1.04 1.04	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg		D D	%Rec 107 103 108 105 105	Prep Type           Prep Ba           %Rec           Limits           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - Prep Type           Prep Type           Prep Type           %Rec	BS25	5-13 0 tal/NA 27006 RPD
4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene Toluene Surrogate 4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte	97 1 MS Sample San Result Qua ND ND ND ND MS <i>%Recovery</i> Qua 95 1 MSD Sample San	nple alifier	15 - 150         Spike         Added         0.997         0.997         0.997         0.997         0.997         0.997         1.59         0.997         1.59         3.997         0.997         0.997         0.997         0.997         0.997         0.997         Spike	Result 1.07 1.02 2.15 1.04 1.04	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg			%Rec 107 103 108 105 105	Prep Type           Prep Ba           %Rec           Limits           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - Prep Type           Prep Type           Prep Type           %Rec	BS28 BS28 BS28 BS28	5-13 0 tal/NA 27006 27006 RPD Limit
4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene Toluene Surrogate 4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte Benzene	97 1 MS Sample San Result Qua ND ND ND ND MS %Recovery Qua 95 1 MSD Sample San Result Qua	nple alifier	15 - 150         Spike         Added         0.997         0.997         0.997         0.997         0.997         0.997         15 - 150         Spike         Added	Result           1.07           1.02           2.15           1.04           1.04           MSD           Result	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg			%Rec 107 103 108 105 105 Clien	Prep Type           Prep Ba           %Rec           Limits           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - 190           Prep Type           Prep Type           Prep Ba           %Rec           Limits	BS25 BS25 BS25 BS25 BS25 BS25 BS25 BS25	5-13 0 tal/NA 27006 27006 RPD Limit 20
4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene Toluene Surrogate 4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte Benzene Ethylbenzene	1 MS Sample San Result Qua ND ND ND ND ND MS MS %Recovery Qua 95 1 MSD Sample San Result Qua ND	nple alifier	15 - 150           Spike           Added           0.997	Result           1.07           1.02           2.15           1.04           1.04           MSD           Result           1.10	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg <u>Unit</u>			%Rec 107 103 108 105 105 Client	Prep Type           Prep Ba           %Rec           Limits           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130	BS22 BS22 BS22 BS22 BS22 BS22 BS22 BS22	5-13 0' tal/NA 27006 5-13 0' tal/NA 27006 RPD Limit 20 20
4-Bromofluorobenzene (Surr) Lab Sample ID: 885-25492-1 Matrix: Solid Analysis Batch: 27140 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene Toluene	1 MS Sample San Result Qua ND ND ND ND ND MS MS %Recovery Qua 95 1 MSD Sample San Result Qua ND ND ND	nple alifier	15 - 150         Spike         Added         0.997         0.997         0.997         0.997         1.99         0.997         1.99         0.997         5.907         Added         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.997         0.999         0.999	Result           1.07           1.02           2.15           1.04           1.04           1.04           1.04           1.04           1.04           1.04           1.04           1.04           1.04	Qualifier	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg			%Rec           107           103           108           105           105           005	Prep Type           Prep Ba           %Rec           Limits           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           70 - 130           Yeep Type           Prep Ba           %Rec           Limits           70 - 130           70 - 130	BS28 BS28 e: To tch: RPD 3 5	tal/NA 27006 5-13 0' tal/NA

Job ID: 885-25492-1

Client: Vertex Project/Site: Thistle Unit 10 CTB

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 885-25492-11 M Matrix: Solid	ทอบ										Clier	nt Sample ID Prep Ty		
Analysis Batch: 27140												Prep B	atch:	2700
	MSD	MSD												
Surrogate	%Recovery	Qual	ifier	Limits										
4-Bromofluorobenzene (Surr)	97			15 - 150										
lethod: 8015M/D - Diesel F	Range Org	anio	s (DRC	) (GC)										
Lab Sample ID: MB 885-27083/	'1-A										Client S	ample ID: M	ethod	Blan
Matrix: Solid												Prep Ty		
Analysis Batch: 27142												Prep B		
		МВ	МВ											
Analyte	R	esult	Qualifier		RL		Unit		D	Р	repared	Analyzec	I	Dil Fa
Diesel Range Organics [C10-C28]		ND			10		mg/K	g		05/2	8/25 13:58	05/29/25 12	:28	
Motor Oil Range Organics [C28-C40]		ND			50		mg/K	g		05/2	8/25 13:58	05/29/25 12	:28	
		MB	МВ											
Surrogate	%Reco		Qualifier	Limi	its					Р	repared	Analyzed	1	Dil Fac
Di-n-octyl phthalate (Surr)		133		62 -							8/25 13:58			
Lab Sample ID: LCS 885-27083	3/2-A								С	lient	Sample	ID: Lab Con	trol S	ample
Matrix: Solid												Prep Ty	pe: To	otal/N/
Analysis Batch: 27142												Prep B	atch:	2708
				Spike		LCS	LCS					%Rec		
Analyte				Added			Qualifier	Unit		D	%Rec	Limits		
Diesel Range Organics [C10-C28]				50.0		83.7	*+	mg/Kg			167	51 - 148		
	LCS	LCS												
Surrogate	%Recovery		ifier	Limits										
Di-n-octyl phthalate (Surr)	187	S1+		62 - 134										
Lab Sample ID: 885-25492-1 M	c										Clion	nt Sample ID		5.03.0
Matrix: Solid	5										Cilei	Prep Ty		
Analysis Batch: 27142												Prep B		
Analysis Daten. 27 142	Sample	Sam	nle	Spike		MS	MS					%Rec	aten.	27000
Analyte	Result			Added			Qualifier	Unit		D	%Rec	Limits		
Diesel Range Organics	ND	*+		49.6		48.3		mg/Kg			80	44 - 136		
[C10-C28]								5 5						
	MS	мs												
Surrogate	%Recovery	Qual	ifior	Limits										
Di-n-octyl phthalate (Surr)	96	Quai		62 - 134										
				02 - 707										
Lab Sample ID: 885-25492-1 M	SD										Clier	nt Sample ID	: BS2	5-03 0
Matrix: Solid												Prep Ty	pe: To	otal/NA
Analysis Batch: 27142												Prep B	atch:	27083
	Sample		-	Spike		MSD	MSD					%Rec		RPD
Analyte	Result		ifier	Added		Result	Qualifier	Unit		D	%Rec	Limits	RPD	Limi
Diesel Range Organics [C10-C28]	ND	*+		47.4		40.9		mg/Kg			68	44 - 136	17	32
	MSD	MSD												
Surrogate	%Recovery	Qual	ifier	Limits										

80

Di-n-octyl phthalate (Surr)

62 - 134

## **QC Sample Results**

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Job ID: 885-25492-1

Client: Vertex Project/Site: Thistle Unit 10 CTB

### Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 885-27265/	/ <b>1-A</b>									Client S	ample ID: I	Method	l Blank
Matrix: Solid											Prep T	ype: To	otal/N/
Analysis Batch: 27351											Prep	Batch:	: 2726
		MB	MB										
Analyte	R	esult	Qualifier		RL	Unit		D	Pr	epared	Analyz	ed	Dil Fa
Diesel Range Organics [C10-C28]		ND			10	mg/k	ίg	0	5/30	0/25 12:47	06/02/25	10:58	
Motor Oil Range Organics [C28-C40]		ND			50	mg/k	ίg	0	5/30	0/25 12:47	06/02/25	10:58	
		МВ	MB										
Surrogate	%Reco		Qualifier	Limits					Pr	repared	Analyz	ed	Dil Fa
Di-n-octyl phthalate (Surr)		108		62 - 134	4			0		0/25 12:47			
Lab Sample ID: LCS 885-27265	5/2_4							Clie	nt	Samplo	ID: Lab Co	ontrol S	Sample
Matrix: Solid	<i></i>							One		Sample		ype: To	-
Analysis Batch: 27351												Batch:	
Analysis Daton. 27551				Spike	LCS	LCS					%Rec	Daten.	. 2120
Analyte				Added		Qualifier	Unit		D	%Rec	Limits		
Diesel Range Organics				50.0	55.9		mg/Kg	•		112	51 - 148		
[C10-C28]													
	1.00	100											
0		LCS	<b>6</b>	1 : :4									
Surrogate Di-n-octyl phthalate (Surr)	%Recovery 109	Quain	ner	Limits 62 - 134									
	109			02 - 134									
Lab Sample ID: 885-25492-18	MS									Clier	t Sample I	D: BS2	25-20 0
Matrix: Solid												ype: To	
Analysis Batch: 27351												Batch:	
	Sample	Samp	le	Spike	MS	MS					%Rec		
Analyte	Result	Qualit	fier	Added	Result	Qualifier	Unit		D	%Rec	Limits		
Diesel Range Organics [C10-C28]	11			49.1	51.2		mg/Kg			83	44 - 136		
	MS	MS											
Surrogate	%Recovery	Quali	fier	Limits									
Di-n-octyl phthalate (Surr)	117			62 - 134									
Lab Sample ID: 885-25492-18 M										Clier	it Sample I		25-20 0
Matrix: Solid										oner		ype: To	
Analysis Batch: 27351												Batch:	
	Sample	Samn	le	Spike	MSD	MSD					%Rec	Daton.	RPI
Analyte	Result			Added		Qualifier	Unit		D	%Rec	Limits	RPD	Limi
Diesel Range Organics	11			49.1	57.0		mg/Kg			94	44 - 136	11	3
[C10-C28]													
	MSD	MSD											
		<b>.</b>	fior	Limits									
Surrogate	%Recovery	Quali	ner	Linnto									

**Eurofins Albuquerque** 

## **QC Sample Results**

Client: Vertex Project/Site: Thistle Unit 10 CTB Job ID: 885-25492-1

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8
9

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eived	by	OCD:	6/6	/2025	11:13	3:25 A	M

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 885-27035/2					Client	t Sample	ID: Lab C	ontrol S	ample		
Matrix: Solid									Prep 1	Гуре: То	tal/NA
Analysis Batch: 27034							Prep	Batch:	27035		
			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride			15.0	15.2		mg/Kg		101	90 - 110		
- Lab Sample ID: 885-25492-1 MS	D							Clie	nt Sample	ID: BS2	5-03 0'
Matrix: Solid									Prep 1	Гуре: То	tal/NA
Analysis Batch: 27034									Prep	Batch:	27035
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	360		30.2	403	4	mg/Kg		140	50 - 150	16	20
**Client Sample ID** 

BS25-03 0'

BS25-034 0'

BS25-05 0'

BS25-06 0'

BS25-07 0'

BS25-08 0'

BS25-09 0'

BS25-10 0'

BS25-11 0'

Method Blank

Lab Control Sample

Lab Control Sample

# **QC** Association Summary

Prep Type

Total/NA

Matrix

Solid

Method

5030C

Client: Vertex Project/Site: Thistle Unit 10 CTB

**GC VOA** 

885-25492-1

885-25492-2

885-25492-3

885-25492-4

885-25492-5

885-25492-6

885-25492-7

885-25492-8

885-25492-9

MB 885-26981/1-A

LCS 885-26981/2-A

Prep Batch: 26981

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Prep Batch

# LCS 885-26981/3-A Prep Batch: 27006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-25492-10	BS25-12 0'	Total/NA	Solid	5030C	
885-25492-11	BS25-13 0'	Total/NA	Solid	5030C	
885-25492-12	BS25-14 0'	Total/NA	Solid	5030C	
885-25492-13	BS25-15 0'	Total/NA	Solid	5030C	
885-25492-14	BS25-16 0'	Total/NA	Solid	5030C	
885-25492-15	BS25-17 0'	Total/NA	Solid	5030C	
885-25492-16	BS25-18 0'	Total/NA	Solid	5030C	
885-25492-17	BS25-19 0'	Total/NA	Solid	5030C	
885-25492-18	BS25-20 0'	Total/NA	Solid	5030C	
MB 885-27006/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-27006/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-27006/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-25492-10 MS	BS25-12 0'	Total/NA	Solid	5030C	
885-25492-10 MSD	BS25-12 0'	Total/NA	Solid	5030C	
885-25492-11 MS	BS25-13 0'	Total/NA	Solid	5030C	
885-25492-11 MSD	BS25-13 0'	Total/NA	Solid	5030C	

### Analysis Batch: 27138

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-25492-1	BS25-03 0'	Total/NA	Solid	8021B	26981
885-25492-2	BS25-034 0'	Total/NA	Solid	8021B	26981
885-25492-3	BS25-05 0'	Total/NA	Solid	8021B	26981
885-25492-4	BS25-06 0'	Total/NA	Solid	8021B	26981
885-25492-5	BS25-07 0'	Total/NA	Solid	8021B	26981
885-25492-6	BS25-08 0'	Total/NA	Solid	8021B	26981
885-25492-7	BS25-09 0'	Total/NA	Solid	8021B	26981
885-25492-8	BS25-10 0'	Total/NA	Solid	8021B	26981
885-25492-9	BS25-11 0'	Total/NA	Solid	8021B	26981
MB 885-26981/1-A	Method Blank	Total/NA	Solid	8021B	26981
LCS 885-26981/3-A	Lab Control Sample	Total/NA	Solid	8021B	26981

### Analysis Batch: 27139

Lab Sample ID 885-25492-1	Client Sample ID BS25-03 0'	Prep Type Total/NA	Matrix Solid	Method 8015M/D	Prep Batch 26981
885-25492-2	BS25-034 0'	Total/NA	Solid	8015M/D	26981
885-25492-3	BS25-05 0'	Total/NA	Solid	8015M/D	26981

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### Released to Imaging: 6/25/2025 2:43:17 PM

Client: Vertex Project/Site: Thistle Unit 10 CTB

# GC VOA (Continued)

# Analysis Batch: 27139 (Continued)

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-25492-4	BS25-06 0'	Total/NA	Solid	8015M/D	26981
885-25492-5	BS25-07 0'	Total/NA	Solid	8015M/D	26981
885-25492-6	BS25-08 0'	Total/NA	Solid	8015M/D	26981
885-25492-7	BS25-09 0'	Total/NA	Solid	8015M/D	26981
885-25492-8	BS25-10 0'	Total/NA	Solid	8015M/D	26981
885-25492-9	BS25-11 0'	Total/NA	Solid	8015M/D	26981
MB 885-26981/1-A	Method Blank	Total/NA	Solid	8015M/D	26981
LCS 885-26981/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	26981

### Analysis Batch: 27140

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-25492-10	BS25-12 0'	Total/NA	Solid	8021B	27006
885-25492-11	BS25-13 0'	Total/NA	Solid	8021B	27006
885-25492-12	BS25-14 0'	Total/NA	Solid	8021B	27006
885-25492-13	BS25-15 0'	Total/NA	Solid	8021B	27006
885-25492-14	BS25-16 0'	Total/NA	Solid	8021B	27006
885-25492-15	BS25-17 0'	Total/NA	Solid	8021B	27006
885-25492-16	BS25-18 0'	Total/NA	Solid	8021B	27006
885-25492-17	BS25-19 0'	Total/NA	Solid	8021B	27006
885-25492-18	BS25-20 0'	Total/NA	Solid	8021B	27006
MB 885-27006/1-A	Method Blank	Total/NA	Solid	8021B	27006
LCS 885-27006/3-A	Lab Control Sample	Total/NA	Solid	8021B	27006
885-25492-11 MS	BS25-13 0'	Total/NA	Solid	8021B	27006
885-25492-11 MSD	BS25-13 0'	Total/NA	Solid	8021B	27006

### Analysis Batch: 27141

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-25492-10	BS25-12 0'	Total/NA	Solid	8015M/D	27006
885-25492-11	BS25-13 0'	Total/NA	Solid	8015M/D	27006
885-25492-12	BS25-14 0'	Total/NA	Solid	8015M/D	27006
885-25492-13	BS25-15 0'	Total/NA	Solid	8015M/D	27006
885-25492-14	BS25-16 0'	Total/NA	Solid	8015M/D	27006
885-25492-15	BS25-17 0'	Total/NA	Solid	8015M/D	27006
885-25492-16	BS25-18 0'	Total/NA	Solid	8015M/D	27006
885-25492-17	BS25-19 0'	Total/NA	Solid	8015M/D	27006
885-25492-18	BS25-20 0'	Total/NA	Solid	8015M/D	27006
MB 885-27006/1-A	Method Blank	Total/NA	Solid	8015M/D	27006
LCS 885-27006/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	27006
885-25492-10 MS	BS25-12 0'	Total/NA	Solid	8015M/D	27006
885-25492-10 MSD	BS25-12 0'	Total/NA	Solid	8015M/D	27006

## GC Semi VOA

### Prep Batch: 27083

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-25492-1	BS25-03 0'	Total/NA	Solid	SHAKE	
885-25492-2	BS25-034 0'	Total/NA	Solid	SHAKE	
885-25492-4	BS25-06 0'	Total/NA	Solid	SHAKE	
885-25492-5	BS25-07 0'	Total/NA	Solid	SHAKE	
885-25492-6	BS25-08 0'	Total/NA	Solid	SHAKE	
885-25492-7	BS25-09 0'	Total/NA	Solid	SHAKE	

### **Eurofins Albuquerque**

Job ID: 885-25492-1

Client: Vertex Project/Site: Thistle Unit 10 CTB

# GC Semi VOA (Continued)

### Prep Batch: 27083 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-25492-8	BS25-10 0'	Total/NA	Solid	SHAKE	
885-25492-9	BS25-11 0'	Total/NA	Solid	SHAKE	
885-25492-10	BS25-12 0'	Total/NA	Solid	SHAKE	
885-25492-11	BS25-13 0'	Total/NA	Solid	SHAKE	
885-25492-12	BS25-14 0'	Total/NA	Solid	SHAKE	
885-25492-13	BS25-15 0'	Total/NA	Solid	SHAKE	
885-25492-14	BS25-16 0'	Total/NA	Solid	SHAKE	
885-25492-15	BS25-17 0'	Total/NA	Solid	SHAKE	
885-25492-16	BS25-18 0'	Total/NA	Solid	SHAKE	
885-25492-17	BS25-19 0'	Total/NA	Solid	SHAKE	
MB 885-27083/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-27083/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-25492-1 MS	BS25-03 0'	Total/NA	Solid	SHAKE	
885-25492-1 MSD	BS25-03 0'	Total/NA	Solid	SHAKE	

### Analysis Batch: 27142

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-25492-1	BS25-03 0'	Total/NA	Solid	8015M/D	27083
885-25492-2	BS25-034 0'	Total/NA	Solid	8015M/D	27083
885-25492-4	BS25-06 0'	Total/NA	Solid	8015M/D	27083
885-25492-5	BS25-07 0'	Total/NA	Solid	8015M/D	27083
885-25492-6	BS25-08 0'	Total/NA	Solid	8015M/D	27083
885-25492-7	BS25-09 0'	Total/NA	Solid	8015M/D	27083
885-25492-8	BS25-10 0'	Total/NA	Solid	8015M/D	27083
885-25492-9	BS25-11 0'	Total/NA	Solid	8015M/D	27083
885-25492-10	BS25-12 0'	Total/NA	Solid	8015M/D	27083
885-25492-11	BS25-13 0'	Total/NA	Solid	8015M/D	27083
885-25492-12	BS25-14 0'	Total/NA	Solid	8015M/D	27083
885-25492-13	BS25-15 0'	Total/NA	Solid	8015M/D	27083
885-25492-14	BS25-16 0'	Total/NA	Solid	8015M/D	27083
885-25492-15	BS25-17 0'	Total/NA	Solid	8015M/D	27083
885-25492-16	BS25-18 0'	Total/NA	Solid	8015M/D	27083
885-25492-17	BS25-19 0'	Total/NA	Solid	8015M/D	27083
MB 885-27083/1-A	Method Blank	Total/NA	Solid	8015M/D	27083
LCS 885-27083/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	27083
885-25492-1 MS	BS25-03 0'	Total/NA	Solid	8015M/D	27083
885-25492-1 MSD	BS25-03 0'	Total/NA	Solid	8015M/D	27083

### Prep Batch: 27265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-25492-3	BS25-05 0'	Total/NA	Solid	SHAKE	
885-25492-18	BS25-20 0'	Total/NA	Solid	SHAKE	
MB 885-27265/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-27265/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-25492-18 MS	BS25-20 0'	Total/NA	Solid	SHAKE	
885-25492-18 MSD	BS25-20 0'	Total/NA	Solid	SHAKE	

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-25492-3	BS25-05 0'	Total/NA	Solid	8015M/D	27265
885-25492-18	BS25-20 0'	Total/NA	Solid	8015M/D	27265

## Eurofins Albuquerque

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Job ID: 885-25492-1

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Job ID: 885-25492-1

### Client: Vertex Project/Site: Thistle Unit 10 CTB

# GC Semi VOA (Continued)

# Analysis Batch: 27351 (Continued)

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
MB 885-27265/1-A	Method Blank	Total/NA	Solid	8015M/D	27265
LCS 885-27265/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	27265
885-25492-18 MS	BS25-20 0'	Total/NA	Solid	8015M/D	27265
885-25492-18 MSD	BS25-20 0'	Total/NA	Solid	8015M/D	27265

## HPLC/IC

# Analysis Batch: 27034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-25492-1	BS25-03 0'	Total/NA	Solid	300.0	27035
MB 885-27035/1-A	Method Blank	Total/NA	Solid	300.0	27035
LCS 885-27035/2-A	Lab Control Sample	Total/NA	Solid	300.0	27035
885-25492-1 MSD	BS25-03 0'	Total/NA	Solid	300.0	27035

### Prep Batch: 27035

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-25492-1	BS25-03 0'	Total/NA	Solid	300_Prep	
885-25492-2	BS25-034 0'	Total/NA	Solid	300_Prep	
885-25492-3	BS25-05 0'	Total/NA	Solid	300_Prep	
885-25492-4	BS25-06 0'	Total/NA	Solid	300_Prep	
885-25492-5	BS25-07 0'	Total/NA	Solid	300_Prep	
885-25492-6	BS25-08 0'	Total/NA	Solid	300_Prep	
885-25492-7	BS25-09 0'	Total/NA	Solid	300_Prep	
885-25492-8	BS25-10 0'	Total/NA	Solid	300_Prep	
885-25492-9	BS25-11 0'	Total/NA	Solid	300_Prep	
885-25492-10	BS25-12 0'	Total/NA	Solid	300_Prep	
885-25492-11	BS25-13 0'	Total/NA	Solid	300_Prep	
885-25492-12	BS25-14 0'	Total/NA	Solid	300_Prep	
885-25492-13	BS25-15 0'	Total/NA	Solid	300_Prep	
885-25492-14	BS25-16 0'	Total/NA	Solid	300_Prep	
885-25492-15	BS25-17 0'	Total/NA	Solid	300_Prep	
885-25492-16	BS25-18 0'	Total/NA	Solid	300_Prep	
885-25492-17	BS25-19 0'	Total/NA	Solid	300_Prep	
885-25492-18	BS25-20 0'	Total/NA	Solid	300_Prep	
MB 885-27035/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-27035/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-25492-1 MSD	BS25-03 0'	Total/NA	Solid	300_Prep	

### Analysis Batch: 27235

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-25492-2	BS25-034 0'	Total/NA	Solid	300.0	27035
885-25492-3	BS25-05 0'	Total/NA	Solid	300.0	27035
885-25492-4	BS25-06 0'	Total/NA	Solid	300.0	27035
885-25492-5	BS25-07 0'	Total/NA	Solid	300.0	27035
885-25492-6	BS25-08 0'	Total/NA	Solid	300.0	27035
885-25492-7	BS25-09 0'	Total/NA	Solid	300.0	27035
885-25492-8	BS25-10 0'	Total/NA	Solid	300.0	27035
885-25492-9	BS25-11 0'	Total/NA	Solid	300.0	27035
885-25492-10	BS25-12 0'	Total/NA	Solid	300.0	27035
885-25492-11	BS25-13 0'	Total/NA	Solid	300.0	27035
885-25492-12	BS25-14 0'	Total/NA	Solid	300.0	27035

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# Released to Imaging: 6/25/2025 2:43:17 PM

Client: Vertex Project/Site: Thistle Unit 10 CTB

# HPLC/IC (Continued)

# Analysis Batch: 27235 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-25492-13	BS25-15 0'	Total/NA	Solid	300.0	27035
885-25492-14	BS25-16 0'	Total/NA	Solid	300.0	27035
885-25492-15	BS25-17 0'	Total/NA	Solid	300.0	27035
885-25492-16	BS25-18 0'	Total/NA	Solid	300.0	27035
885-25492-17	BS25-19 0'	Total/NA	Solid	300.0	27035
885-25492-18	BS25-20 0'	Total/NA	Solid	300.0	27035

Job ID: 885-25492-1

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Job ID: 885-25492-1

# Lab Sample ID: 885-25492-1

Lab Sample ID: 885-25492-2

Lab Sample ID: 885-25492-3

Lab Sample ID: 885-25492-4

Matrix: Solid

Matrix: Solid

Matrix: Solid

Date Collected: 05/22/25 08:00 Date Received: 05/24/25 08:00

Project/Site: Thistle Unit 10 CTB

Client Sample ID: BS25-03 0'

Client: Vertex

	Batch	Batch		Dilution	Batch			Prepared
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			26981	JE	EET ALB	05/27/25 13:37
Total/NA	Analysis	8015M/D		1	27139	JP	EET ALB	05/28/25 21:51
Total/NA	Prep	5030C			26981	JE	EET ALB	05/27/25 13:37
Total/NA	Analysis	8021B		1	27138	JP	EET ALB	05/28/25 21:51
Total/NA	Prep	SHAKE			27083	MI	EET ALB	05/28/25 13:58
Total/NA	Analysis	8015M/D		1	27142	MI	EET ALB	05/29/25 18:18
Total/NA	Prep	300_Prep			27035	DL	EET ALB	05/28/25 09:15
Total/NA	Analysis	300.0		20	27034	DL	EET ALB	05/28/25 19:55

# Client Sample ID: BS25-034 0'

Date Collected: 05/22/25 08:05 Date Received: 05/24/25 08:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			26981	JE	EET ALB	05/27/25 13:37
Total/NA	Analysis	8015M/D		1	27139	JP	EET ALB	05/28/25 22:15
Total/NA	Prep	5030C			26981	JE	EET ALB	05/27/25 13:37
Total/NA	Analysis	8021B		1	27138	JP	EET ALB	05/28/25 22:15
Total/NA	Prep	SHAKE			27083	MI	EET ALB	05/28/25 13:58
Total/NA	Analysis	8015M/D		1	27142	MI	EET ALB	05/29/25 18:50
Total/NA	Prep	300_Prep			27035	DL	EET ALB	05/28/25 09:15
Total/NA	Analysis	300.0		20	27235	RC	EET ALB	05/30/25 13:02

# Client Sample ID: BS25-05 0'

### Date Collected: 05/22/25 08:10 Date Received: 05/24/25 08:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			26981	JE	EET ALB	05/27/25 13:37
Total/NA	Analysis	8015M/D		1	27139	JP	EET ALB	05/28/25 22:38
Total/NA	Prep	5030C			26981	JE	EET ALB	05/27/25 13:37
Total/NA	Analysis	8021B		1	27138	JP	EET ALB	05/28/25 22:38
Total/NA	Prep	SHAKE			27265	KR	EET ALB	05/30/25 12:47
Total/NA	Analysis	8015M/D		1	27351	EM	EET ALB	06/02/25 11:19
Total/NA	Prep	300_Prep			27035	DL	EET ALB	05/28/25 09:15
Total/NA	Analysis	300.0		20	27235	RC	EET ALB	05/30/25 13:15

# Client Sample ID: BS25-06 0'

Date Collected: 05/22/25 08:15 Date Received: 05/24/25 08:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			26981	JE	EET ALB	05/27/25 13:37
Total/NA	Analysis	8015M/D		1	27139	JP	EET ALB	05/28/25 23:01

**Eurofins Albuquerque** 

# Released to Imaging: 6/25/2025 2:43:17 PM

Matrix: Solid

Job ID: 885-25492-1

# Lab Sample ID: 885-25492-4

Matrix: Solid

Date Collected: 05/22/25 08:15 Date Received: 05/24/25 08:00

Project/Site: Thistle Unit 10 CTB

Client Sample ID: BS25-06 0'

Client: Vertex

	Batch	Batch		Dilution	Batch			Prepared
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			26981	JE	EET ALB	05/27/25 13:37
Total/NA	Analysis	8021B		1	27138	JP	EET ALB	05/28/25 23:01
Total/NA	Prep	SHAKE			27083	MI	EET ALB	05/28/25 13:58
Total/NA	Analysis	8015M/D		1	27142	MI	EET ALB	05/29/25 19:12
Total/NA	Prep	300_Prep			27035	DL	EET ALB	05/28/25 09:15
Total/NA	Analysis	300.0		20	27235	RC	EET ALB	05/30/25 13:28

### Client Sample ID: BS25-07 0' Date Collected: 05/22/25 08:25

Date Received: 05/24/25 08:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			26981	JE	EET ALB	05/27/25 13:37
Total/NA	Analysis	8015M/D		1	27139	JP	EET ALB	05/28/25 23:25
Total/NA	Prep	5030C			26981	JE	EET ALB	05/27/25 13:37
Total/NA	Analysis	8021B		1	27138	JP	EET ALB	05/28/25 23:25
Total/NA	Prep	SHAKE			27083	MI	EET ALB	05/28/25 13:58
Total/NA	Analysis	8015M/D		1	27142	MI	EET ALB	05/29/25 19:23
Total/NA	Prep	300_Prep			27035	DL	EET ALB	05/28/25 09:15
Total/NA	Analysis	300.0		20	27235	RC	EET ALB	05/30/25 13:41

### Client Sample ID: BS25-08 0' Date Collected: 05/22/25 08:30 Date Received: 05/24/25 08:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			26981	JE	EET ALB	05/27/25 13:37
Total/NA	Analysis	8015M/D		1	27139	JP	EET ALB	05/28/25 23:48
Total/NA	Prep	5030C			26981	JE	EET ALB	05/27/25 13:37
Total/NA	Analysis	8021B		1	27138	JP	EET ALB	05/28/25 23:48
Total/NA	Prep	SHAKE			27083	MI	EET ALB	05/28/25 13:58
Total/NA	Analysis	8015M/D		1	27142	MI	EET ALB	05/29/25 19:34
Total/NA	Prep	300_Prep			27035	DL	EET ALB	05/28/25 09:15
Total/NA	Analysis	300.0		20	27235	RC	EET ALB	05/30/25 13:54

# Client Sample ID: BS25-09 0'

Date Collected: 05/22/25 08:35 Date Received: 05/24/25 08:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			26981	JE	EET ALB	05/27/25 13:37
Total/NA	Analysis	8015M/D		1	27139	JP	EET ALB	05/29/25 00:12
Total/NA	Prep	5030C			26981	JE	EET ALB	05/27/25 13:37
Total/NA	Analysis	8021B		1	27138	JP	EET ALB	05/29/25 00:12

**Eurofins Albuquerque** 

# Lab Sample ID: 885-25492-5

Matrix: Solid

# Lab Sample ID: 885-25492-6

Lab Sample ID: 885-25492-7

Matrix: Solid

Matrix: Solid

Matrix: Solid

Matrix: Solid

# Lab Chronicle

Job ID: 885-25492-1

Lab Sample ID: 885-25492-7

Lab Sample ID: 885-25492-8

# Project/Site: Thistle Unit 10 CTB

Client: Vertex

### Client Sample ID: BS25-09 0' Date Collected: 05/22/25 08:35

Date Received: 05/22/25 08:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	SHAKE			27083	MI	EET ALB	05/28/25 13:58
Total/NA	Analysis	8015M/D		1	27142	MI	EET ALB	05/29/25 19:45
Total/NA	Prep	300_Prep			27035	DL	EET ALB	05/28/25 09:15
Total/NA	Analysis	300.0		20	27235	RC	EET ALB	05/30/25 14:07

### Client Sample ID: BS25-10 0'

### Date Collected: 05/22/25 08:40 Date Received: 05/24/25 08:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			26981	JE	EET ALB	05/27/25 13:37
Total/NA	Analysis	8015M/D		1	27139	JP	EET ALB	05/29/25 00:35
Total/NA	Prep	5030C			26981	JE	EET ALB	05/27/25 13:37
Total/NA	Analysis	8021B		1	27138	JP	EET ALB	05/29/25 00:35
Total/NA	Prep	SHAKE			27083	МІ	EET ALB	05/28/25 13:58
Total/NA	Analysis	8015M/D		1	27142	MI	EET ALB	05/29/25 19:56
Total/NA	Prep	300_Prep			27035	DL	EET ALB	05/28/25 09:15
Total/NA	Analysis	300.0		20	27235	RC	EET ALB	05/30/25 14:21

## Client Sample ID: BS25-11 0' Date Collected: 05/22/25 08:50

Date Received: 05/24/25 08:00

	Batch	Batch		Dilution	Batch			Prepared
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			26981	JE	EET ALB	05/27/25 13:37
Total/NA	Analysis	8015M/D		1	27139	JP	EET ALB	05/29/25 00:58
Total/NA	Prep	5030C			26981	JE	EET ALB	05/27/25 13:37
Total/NA	Analysis	8021B		1	27138	JP	EET ALB	05/29/25 00:58
Total/NA	Prep	SHAKE			27083	МІ	EET ALB	05/28/25 13:58
Total/NA	Analysis	8015M/D		1	27142	MI	EET ALB	05/29/25 20:18
Total/NA	Prep	300_Prep			27035	DL	EET ALB	05/28/25 09:15
Total/NA	Analysis	300.0		20	27235	RC	EET ALB	05/30/25 14:34

# Client Sample ID: BS25-12 0'

Date Collected: 05/22/25 08:55 Date Received: 05/24/25 08:00

	Batch	Batch		Dilution	Batch			Prepared
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			27006	JE	EET ALB	05/27/25 16:43
Total/NA	Analysis	8015M/D		1	27141	JP	EET ALB	05/29/25 02:56
Total/NA	Prep	5030C			27006	JE	EET ALB	05/27/25 16:43
Total/NA	Analysis	8021B		1	27140	JP	EET ALB	05/29/25 02:56
Total/NA	Prep	SHAKE			27083	MI	EET ALB	05/28/25 13:58
Total/NA	Analysis	8015M/D		1	27142	MI	EET ALB	05/29/25 20:29

### Lab Sample ID: 885-25492-9 Matrix: Solid

# Lab Sample ID: 885-25492-10

Matrix: Solid

Eurofins Albuquerque

25492-1

Project/Site: Thistle Unit 10 CTB

Date Collected: 05/22/25 08:55

Date Received: 05/24/25 08:00

Client Sample ID: BS25-12 0'

Client Sample ID: BS25-13 0'

Date Collected: 05/22/25 09:00

Date Received: 05/24/25 08:00

Batch

Туре

Prep

Analysis

Batch

Туре

Prep

Prep

Prep

Prep

Analysis

Analysis

Analysis

Analysis

Batch

300.0

Batch

Method

8015M/D

5030C

5030C

8021B

SHAKE

8015M/D

300 Prep

300.0

Method

300\_Prep

**Client: Vertex** 

Prep Type

Total/NA

Total/NA

Ргер Туре

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

# Lab Chronicle

Dilution

Factor

Dilution

Factor

1

1

1

20

20

Run

Run

Batch

Number

27035 DL

Batch

27006 JE

27141 JP

27006 JE

27140 JP

27142 MI

27035 DL

27235 RC

27083 MI

Number

27235 RC

Analyst

Analyst

Lab

Lab

EET ALB

Job ID: 885-25492-1

Matrix: Solid

Matrix: Solid

Lab Sample ID: 885-25492-10

Lab Sample ID: 885-25492-11

Prepared

or Analyzed 05/28/25 09:15

05/30/25 14:47

Prepared

or Analyzed

05/27/25 16:43

05/29/25 04:07

05/27/25 16:43

05/29/25 04:07

05/28/25 13:58 05/29/25 20:40

05/28/25 09:15

8

05/30/25 15:00

# Lab Sample ID: 885-25492-12

Lab Sample ID: 885-25492-13

Matrix: Solid

Matrix: Solid

Date Received:	05/24/25 08:0	00
	Batch	Batch

Client Sample ID: BS25-14 0'

Date Collected: 05/22/25 10:00

	Batch	Batch		Dilution	Batch			Prepared
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			27006	JE	EET ALB	05/27/25 16:43
Total/NA	Analysis	8015M/D		1	27141	JP	EET ALB	05/29/25 05:17
Total/NA	Prep	5030C			27006	JE	EET ALB	05/27/25 16:43
Total/NA	Analysis	8021B		1	27140	JP	EET ALB	05/29/25 05:17
Total/NA	Prep	SHAKE			27083	MI	EET ALB	05/28/25 13:58
Total/NA	Analysis	8015M/D		1	27142	MI	EET ALB	05/29/25 20:51
Total/NA	Prep	300_Prep			27035	DL	EET ALB	05/28/25 09:15
Total/NA	Analysis	300.0		20	27235	RC	EET ALB	05/30/25 15:39

### Client Sample ID: BS25-15 0' Date Collected: 05/22/25 10:05 Date Received: 05/24/25 08:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			27006	JE	EET ALB	05/27/25 16:43
Total/NA	Analysis	8015M/D		1	27141	JP	EET ALB	05/29/25 05:41
Total/NA	Prep	5030C			27006	JE	EET ALB	05/27/25 16:43
Total/NA	Analysis	8021B		1	27140	JP	EET ALB	05/29/25 05:41
Total/NA	Prep	SHAKE			27083	MI	EET ALB	05/28/25 13:58
Total/NA	Analysis	8015M/D		1	27142	MI	EET ALB	05/29/25 21:02
Total/NA	Prep	300_Prep			27035	DL	EET ALB	05/28/25 09:15
Total/NA	Analysis	300.0		20	27235	RC	EET ALB	05/30/25 15:53

### **Eurofins Albuquerque**

Matrix: Solid

5

8

Job ID: 885-25492-1

# Lab Sample ID: 885-25492-14

### Client Sample ID: BS25-16 0' Date Collected: 05/22/25 10:10

Project/Site: Thistle Unit 10 CTB

Client: Vertex

Date Received: 05/24/25 08:00

	Batch	Batch		Dilution	Batch			Prepared
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			27006	JE	EET ALB	05/27/25 16:43
Total/NA	Analysis	8015M/D		1	27141	JP	EET ALB	05/29/25 06:04
Total/NA	Prep	5030C			27006	JE	EET ALB	05/27/25 16:43
Total/NA	Analysis	8021B		1	27140	JP	EET ALB	05/29/25 06:04
Total/NA	Prep	SHAKE			27083	MI	EET ALB	05/28/25 13:58
Total/NA	Analysis	8015M/D		1	27142	MI	EET ALB	05/29/25 21:13
Total/NA	Prep	300_Prep			27035	DL	EET ALB	05/28/25 09:15
Total/NA	Analysis	300.0		20	27235	RC	EET ALB	05/30/25 16:06

# Lab Sample ID: 885-25492-15

Lab Sample ID: 885-25492-16

Matrix: Solid

Matrix: Solid

# Client Sample ID: BS25-17 0'

Date Collected: 05/22/25 10:15 Date Received: 05/24/25 08:00

	Batch	Batch		Dilution	Batch			Prepared
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			27006	JE	EET ALB	05/27/25 16:43
Total/NA	Analysis	8015M/D		1	27141	JP	EET ALB	05/29/25 06:27
Total/NA	Prep	5030C			27006	JE	EET ALB	05/27/25 16:43
Total/NA	Analysis	8021B		1	27140	JP	EET ALB	05/29/25 06:27
Total/NA	Prep	SHAKE			27083	МІ	EET ALB	05/28/25 13:58
Total/NA	Analysis	8015M/D		1	27142	MI	EET ALB	05/29/25 21:24
Total/NA	Prep	300_Prep			27035	DL	EET ALB	05/28/25 09:15
Total/NA	Analysis	300.0		20	27235	RC	EET ALB	05/30/25 16:19

# Client Sample ID: BS25-18 0'

### Date Collected: 05/22/25 10:25 Date Received: 05/24/25 08:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			27006	JE	EET ALB	05/27/25 16:43
Total/NA	Analysis	8015M/D		1	27141	JP	EET ALB	05/29/25 06:51
Total/NA	Prep	5030C			27006	JE	EET ALB	05/27/25 16:43
Total/NA	Analysis	8021B		1	27140	JP	EET ALB	05/29/25 06:51
Total/NA	Prep	SHAKE			27083	MI	EET ALB	05/28/25 13:58
Total/NA	Analysis	8015M/D		1	27142	MI	EET ALB	05/29/25 21:35
Total/NA	Prep	300_Prep			27035	DL	EET ALB	05/28/25 09:15
Total/NA	Analysis	300.0		20	27235	RC	EET ALB	05/30/25 16:32

### Client Sample ID: BS25-19 0' Date Collected: 05/22/25 10:30

Date Received: 05/24/25 08:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			27006	JE	EET ALB	05/27/25 16:43
Total/NA	Analysis	8015M/D		1	27141	JP	EET ALB	05/29/25 07:14

**Eurofins Albuquerque** 

Lab Sample ID: 885-25492-17

Matrix: Solid

Job ID: 885-25492-1

# Lab Sample ID: 885-25492-17

Lab Sample ID: 885-25492-18

# Client Sample ID: BS25-19 0'

Project/Site: Thistle Unit 10 CTB

Date Collected: 05/22/25 10:30 Date Received: 05/24/25 08:00

**Client: Vertex** 

	Batch	Batch		Dilution	Batch			Prepared	
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed	
Total/NA	Prep	5030C			27006	JE	EET ALB	05/27/25 16:43	
Total/NA	Analysis	8021B		1	27140	JP	EET ALB	05/29/25 07:14	
Total/NA	Prep	SHAKE			27083	MI	EET ALB	05/28/25 13:58	
Total/NA	Analysis	8015M/D		1	27142	MI	EET ALB	05/29/25 21:46	
Total/NA	Prep	300_Prep			27035	DL	EET ALB	05/28/25 09:15	
Total/NA	Analysis	300.0		20	27235	RC	EET ALB	05/30/25 16:45	

### Client Sample ID: BS25-20 0' Date Collected: 05/22/25 10:35 Date Received: 05/24/25 08:00

### Batch Batch Dilution Prepared Batch Prep Type Туре Method Run Factor Number Analyst Lab or Analyzed Total/NA Prep 5030C 27006 JE EET ALB 05/27/25 16:43 Total/NA 8015M/D 05/29/25 07:37 Analysis 27141 JP EET ALB 1 Total/NA 5030C EET ALB 05/27/25 16:43 Prep 27006 JE 27140 JP Total/NA Analysis 8021B EET ALB 05/29/25 07:37 1 Total/NA SHAKE EET ALB 05/30/25 12:47 Prep 27265 KR Total/NA Analysis 8015M/D 1 27351 EM EET ALB 06/02/25 11:30 300\_Prep Total/NA 27035 DL EET ALB 05/28/25 09:15 Prep 05/30/25 16:58 Total/NA Analysis 300.0 20 27235 RC EET ALB

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Matrix: Solid

8

Matrix: Solid

**Eurofins Albuquerque** 

# Accreditation/Certification Summary

Client: Vertex Project/Site: Thistle Unit 10 CTB

### Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

hority	Prog	gram	Identification Number	Expiration Date
/ Mexico	Stat	e	NM9425, NM0901	02-27-26
• •	are included in this report, loes not offer certification.	but the laboratory is not certif	ied by the governing authority. This li	st may include analyte
Analysis Method	Prep Method	Matrix	Analyte	
300.0	300_Prep	Solid	Chloride	
8015M/D	5030C	Solid	Gasoline Range Organics	s (GRO)-C6-C10
8015M/D	SHAKE	Solid	Diesel Range Organics [0	C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics	s [C28-C40]
8021B	5030C	Solid	Benzene	
8021B	5030C	Solid	Ethylbenzene	
8021B	5030C	Solid	Toluene	
8021B	5030C	Solid	Xylenes, Total	
gon	NEL	AP	NM100001	02-26-26

**Eurofins Albuquerque** 

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Job ID: 885-25492-1

	Chair	1-of-CI	Chain-of-Custody Record	Turn-Around Tim	Time:						-						
Client:	÷	Vertex		X 72-hour						ANAL		YSIS		ABOR	2	1	. 2
	(direct	t bill to Dev	(direct bill to Devon, work order 21206611)	Project Name:						www	v.halle	nviror	ment	www.hallenvironmental.com			
Maili	Mailing Address:	SS.		Thistle Unit 10	10 CTB			490	4901 Hawkins NE	kins <b>N</b>		Albuq	nerque	Albuquerque, NM 8710		<sup>885,25405</sup>	i a
				Project #:			_	Tel.		505-345-3975	975	Fax		505-345-4107	×	0	ő
Phone #:	1e #:			23E-04784							An	alysis	Analysis Request	lest			
emai	email or Fax#:			Project Manager:	ger:		(1	(0)				700		(Jua			
QA/Q	QA/QC Package:	ë		Kent Stallings	Kent Stallings, Sally Carttar		805	AM Y	s,8;	SM		5 '*0		əsq		_	
D St	Standard		Level 4 (Full Validation)	<u>kstallings@ve</u>	kstallings@vertexresource.com	Som	) s,ɛ 	105	Dd i	ISO.		, r.		удu			
Accr	Accreditation:	D Az Co	Az Compliance	Sampler:	L. Pullman		IME	JO I		_		201		əsə.			
Z	D NELAC	□ Other		On Ice:	111	CINO NO	/	05	_			3' 1	(AC	19) (Pr			
	DD (Type			# of Coolers: 1	1	0	BE	19)(					_	۵. سار			
				Cooler Temp	(including CF): 0.3	5 + 0.2 - 0.5	LW	<b>15</b> D				_		ofilo			
Date	e Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX /	08:H9T	8081 P	d sHA9	RCRA	8560 ( <i>/</i>	S) 0728	J IstoT			
05.22.25 Da	:25 8:00	Soil	BS25-03 0'	1, 4oz jar			×	×				×			-		
05.22.25	.25 8:05	Soil	BS25-04 0'	1, 4oz jar			×	×				×					
b 05.22.25	.25 8:10	Soil	BS25-05 0'	1, 4oz jar			×	×				×					
05.22.25	25 8:15	Soil	BS25-06 0'	1, 4oz jar			×	×	_			×			_		_
05.22.25	25 8.25	Soil	BS25-07 0'	1, 4oz jar			×	×	-			×			-		
05.22.25	25 8:30	Soil	BS25-08 0'	1, 4oz jar			×	×	_			×		_	-		_
05.22.25	25 8:35	Soil	BS25-09 0'	1, 4oz jar			×	×				×		_	-		_
05.22.25	25 8:40	Soil	BS25-10 0'	1, 4oz jar			×	×	-		-	×		-			
05.22.25	25 8:50	Soil	BS25-11 0'	1, 4oz jar			×	×	_			×					-
05.22.25	25 8:55	Soil	BS25-12 0'	1, 4oz jar			×	×	-			×			-		
05.22.25	25 9:00	Soil	BS25-13 0'	1, 4oz jar			×	×	-			×		_			
05.22.25	25	_	BS25-14 0'	1, 4oz jar			×	×	_		_	×			_		_
Date: 5-13-25	25 07 \00	Relinquished	In Man	Received by:	Via:	Salac Time	Dire	narks: ict bill	Remarks: ATTN Jim Raley Direct bill to Devon work	Jim R von wo	aley ork ord	ler 21	20661	Remarks: ATTN Jim Raley Direct bill to Devon work order 21206611 Jim Raley	ey		
Date	Time:	Relinquished by	hed by:	Received by: VI	ViaCanu	1	cc.   ksta	perma	ain@vert @vert	exreso	source.	e.com	SCar McCa	cc. permain@vertexresource.com, SCarttar@vertexresource.com, kstallings@vertexresource.com, SMcCarty@vertexresource.com,	texreso	urce.co	ĥ, ĥ
5/13/15	15 900	_	Calibratica - ou			S/2W/27 B: 00	and	LPull	man@	vertex	resou	rce.co	m for	and LPullman@vertexresource.com for Final Report	port		
2025	If necessa	ary, samples su	ental may be su	contracted to other a	ccredited laboratories	s. This serves as notice of this possibility	this possi		o-gns fuv	ontracted	d data wi	pe cles	urly notat	Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated on the analytical report  Any sub-contracted data will be clearly notated data will be clearl	alytical re	port	1

	Turn-Around Time: X 72-hour	HALL ENVIRONMENTAL
	Project Name:	ORATORY
(direct bill to Devon, work order 21200011) Address:	Thists Init 10 CTR	
	Project #:	- Albuquerque, NM 67 109 5 Fax 505-345-4107
	23E-04784	Analysis Request
	Project Manager:	(0)
	Kent Stallings, Sally Carttar	SW S'*( SW
Level 4 (Full Validation)	kstallings@vertexresource.com	yov /
	Sampler: L. Pultman	NO <sub>2</sub> , NO <sub>2</sub> , NO <sub>2</sub> , NO <sub>2</sub> , DF DF
	PLCS V	VO 103, 100 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	Cooler Temp(Including CF): 0.3 +0.1 + 0.5	etho M
Sample Name	Container Preservative HEAL No. Type and # Type	BTEX / TPH:80 8081 Pe BOB (M PAHs b RCRA 8 8260 (V S260 (V Cl,F, B R260 (V Cl,F, B R260 (V Cl,F, B R260 (V S260 (S S260 (V S260 (S S260 (S S26
BS25-15 0'	1, 4oz jar	
BS25-16 0'	1, 4oz jar	
BS25-17 0'	1, 4oz jar	x
BS25-18 0'	1, 4oz jar	x
BS25-19 0'	1, 4oz jar	x
BS25-20 0'	1, 4oz jar	
	Date 5/23/25	Remarks: ATTN Jim Raley Direct bill to Devon work order 21206611 Jim Raley cc. permain@vertexresource.com, SCarttar@vertexresource.com,
1	Received by: Via: Courty Date Time 8:00	kstallings@vertexresource.com, SMcCarty@vertexresource.com, and LPullman@vertexresource.com for Final Report
iental may be subco	If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this	This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
		of 374 1 2 √3 √4 5 6 7 8 9 10 11

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Job Number: 885-25492-1

List Source: Eurofins Albuquerque

# Login Sample Receipt Checklist

Client: Vertex

### Login Number: 25492 List Number: 1

Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Received by OCD: 6/6/2025 11:13:25 AM



**Environment Testing** 

# **ANALYTICAL REPORT**

# PREPARED FOR

Attn: Mr. Kent Stallings Vertex 3101 Boyd Dr Carlsbad, New Mexico 88220 Generated 6/2/2025 4:59:30 PM

# **JOB DESCRIPTION**

Thistle Unit 10 CTB

# **JOB NUMBER**

885-25565-1

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Eurofins Albuquerque 4901 Hawkins NE Albuquerque NM 87109





# **Eurofins Albuquerque**

# **Job Notes**

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

# Authorization

Authorized for release by

(505)345-3975

Andy Freeman, Business Unit Manager andy.freeman@et.eurofinsus.com

Generated 6/2/2025 4:59:30 PM

Laboratory Job ID: 885-25565-1

2 3

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# **Definitions/Glossary**

**Client: Vertex** Project/Site: Thistle Unit 10 CTB Job ID: 885-25565-1

Page	343	of 3	74

Glossary		3
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
¢.	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
CFL	Contains Free Liquid	5
CFU	Colony Forming Unit	
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision Level Concentration (Radiochemistry)	3
EDL	Estimated Detection Limit (Dioxin)	
LOD	Limit of Detection (DoD/DOE)	9
LOQ	Limit of Quantitation (DoD/DOE)	
MCL	EPA recommended "Maximum Contaminant Level"	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
MPN	Most Probable Number	
MQL	Method Quantitation Limit	
NC	Not Calculated	
ND	Not Detected at the reporting limit (or MDL or EDL if shown)	
NEG	Negative / Absent	
POS	Positive / Present	
PQL	Practical Quantitation Limit	
PRES	Presumptive	
QC	Quality Control	
RER	Relative Error Ratio (Radiochemistry)	
RL	Reporting Limit or Requested Limit (Radiochemistry)	
RPD	Relative Percent Difference, a measure of the relative difference between two points	
TEF	Toxicity Equivalent Factor (Dioxin)	
TEQ	Toxicity Equivalent Quotient (Dioxin)	
TNTO		

TNTC Too Numerous To Count

**Eurofins Albuquerque** 

# **Case Narrative**

Client: Vertex Project: Thistle Unit 10 CTB

# **Eurofins Albuquerque**

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# Job ID: 885-25565-1

### Job Narrative 885-25565-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these
  situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise
  specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

### Receipt

The samples were received on 5/28/2025 7:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.2°C.

### Gasoline Range Organics

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

### GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

### **Diesel Range Organics**

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

### HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: Vertex Project/Site: Thistle Unit 10 CTB

## Client Sample ID: BS25-21 0' Date Collected: 05/23/25 08:00 Date Received: 05/28/25 07:50

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 	I age 0 01

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**Eurofins Albuquerque** 

Job ID: 885-25565-1

# Lab Sample ID: 885-25565-1 Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0	mg/Kg		05/28/25 12:34	05/31/25 23:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		15 - 150			05/28/25 12:34	05/31/25 23:31	1
Method: SW846 8021B - Volat	ile Organic	Compound	ds (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/28/25 12:34	05/31/25 23:31	1
Ethylbenzene	ND		0.050	mg/Kg		05/28/25 12:34	05/31/25 23:31	1
Toluene	ND		0.050	mg/Kg		05/28/25 12:34	05/31/25 23:31	1
Xylenes, Total	ND		0.10	mg/Kg		05/28/25 12:34	05/31/25 23:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		15 - 150			05/28/25 12:34	05/31/25 23:31	1
Method: SW846 8015M/D - Die	esel Range (	Organics (	DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		05/29/25 16:16	05/29/25 22:57	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		05/29/25 16:16	05/29/25 22:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	112		62 - 134			05/29/25 16:16	05/29/25 22:57	1
Method: EPA 300.0 - Anions,	lon Chromat	tography						
Method: EPA 300.0 - Anions, Analyte		tography Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Limits

15 - 150

Unit

Unit

mg/Kg

D

Prepared

05/29/25 07:06 05/29/25 10:50

mg/Kg

D

Prepared

Prepared

**Client: Vertex** Project/Site: Thistle Unit 10 CTB

Surrogate

Analyte

Chloride

4-Bromofluorobenzene (Surr)

## Client Sample ID: BS25-22 0' Date Collected: 05/23/25 08:05 Date Received: 05/28/25 07:50

**Eurofins Albuquerque** 

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/28/25 12:34	06/01/25 00:37	1
Ethylbenzene	ND		0.050	mg/Kg		05/28/25 12:34	06/01/25 00:37	1
Toluene	ND		0.050	mg/Kg		05/28/25 12:34	06/01/25 00:37	1
Xylenes, Total	ND		0.099	mg/Kg		05/28/25 12:34	06/01/25 00:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		15 - 150			<b>Prepared</b> 05/28/25 12:34		Dil Fac
4-Bromofluorobenzene (Surr) Method: SW846 8015M/D - Die Analyte	100 esel Range ( Result		15 - 150 DRO) (GC) RL	Unit	D	05/28/25 12:34 Prepared	06/01/25 00:37	Dil Fac
4-Bromofluorobenzene (Surr) Method: SW846 8015M/D - Die	100 esel Range (	Organics (	15 - 150 DRO) (GC)	Unit mg/Kg	<u>D</u>	05/28/25 12:34	06/01/25 00:37	1
4-Bromofluorobenzene (Surr) Method: SW846 8015M/D - Die Analyte	100 esel Range ( Result	Organics (	15 - 150 DRO) (GC) RL		<u>D</u>	05/28/25 12:34 Prepared	06/01/25 00:37 Analyzed 05/29/25 23:21	1
4-Bromofluorobenzene (Surr) Method: SW846 8015M/D - Die Analyte Diesel Range Organics [C10-C28]	100 esel Range ( Result ND	Drganics ( Qualifier	15 - 150 DRO) (GC) RL 9.6	mg/Kg	D	05/28/25 12:34 Prepared 05/29/25 16:16	06/01/25 00:37 Analyzed 05/29/25 23:21	1

RL

60

### Analyte Result Qualifier RL Gasoline Range Organics ND 5.0 (GRO)-C6-C10

%Recovery Qualifier

**Result Qualifier** 

1400

104

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

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Lab Sample ID: 885-25565-2

05/28/25 12:34 06/01/25 00:37

05/28/25 12:34 06/01/25 00:37

Analyzed

Analyzed

Analyzed

# Job ID: 885-25565-1

Matrix: Solid

Dil Fac

Dil Fac

Dil Fac

20

**Client: Vertex** Project/Site: Thistle Unit 10 CTB

## Client Sample ID: BS25-23 0' Date Collected: 05/23/25 08:15 Date Received: 05/28/25 07:50

Job ID: 885-25565-1

# Lab Sample ID: 885-25565-3 Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
asoline Range Organics	ND		5.0	mg/Kg		05/28/25 12:34	06/01/25 01:43	1
GRO)-C6-C10								
urrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Bromofluorobenzene (Surr)	105		15 - 150			05/28/25 12:34	06/01/25 01:43	1
lethod: SW846 8021B - Volat	ile Organic	Compound	ds (GC)					
nalyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
enzene	ND		0.025	mg/Kg		05/28/25 12:34	06/01/25 01:43	1
thylbenzene	ND		0.050	mg/Kg		05/28/25 12:34	06/01/25 01:43	1
oluene	ND		0.050	mg/Kg		05/28/25 12:34	06/01/25 01:43	1
ylenes, Total	ND		0.099	mg/Kg		05/28/25 12:34	06/01/25 01:43	1
urrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
-Bromofluorobenzene (Surr)	99		15 - 150			05/28/25 12:34	06/01/25 01:43	1
/lethod: SW846 8015M/D - Die	esel Range (	Organics (	DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
iesel Range Organics [C10-C28]	ND		9.9	mg/Kg		05/29/25 16:16	05/29/25 23:45	1
lotor Oil Range Organics [C28-C40]	ND		50	mg/Kg		05/29/25 16:16	05/29/25 23:45	1
urrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
i-n-octyl phthalate (Surr)	118		62 - 134			05/29/25 16:16	05/29/25 23:45	

	Method: EPA 300.0 - Anions, lo	on Chromat	tography						
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
l	Chloride	1400		60	mg/Kg		05/29/25 07:06	05/29/25 11:30	20

Client: Vertex Project/Site: Thistle Unit 10 CTB

# Client Sample ID: BS25-24 0' Date Collected: 05/23/25 08:20

Date Received: 05/28/25 07:50

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		4.9	mg/Kg		05/28/25 12:34	06/01/25 02:05	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		15 - 150			05/28/25 12:34	06/01/25 02:05	1
Method: SW846 8021B - Volat	ile Organic	Compound	ds (GC)					
Analyte	-	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/28/25 12:34	06/01/25 02:05	1
Ethylbenzene	ND		0.049	mg/Kg		05/28/25 12:34	06/01/25 02:05	1
Toluene	ND		0.049	mg/Kg		05/28/25 12:34	06/01/25 02:05	1
Xylenes, Total	ND		0.098	mg/Kg		05/28/25 12:34	06/01/25 02:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		15 - 150			05/28/25 12:34	06/01/25 02:05	1
Method: SW846 8015M/D - Die	esel Range	Organics (	DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4	mg/Kg		05/29/25 16:16	05/30/25 00:09	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		05/29/25 16:16	05/30/25 00:09	1
						Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	Limits			rieparea	,	Dirrac
•	%Recovery 106	Qualifier	Limits 62 - 134			05/29/25 16:16	05/30/25 00:09	1
Di-n-octyl phthalate (Surr)	106							
Surrogate Di-n-octyl phthalate (Surr) Method: EPA 300.0 - Anions, Analyte	106 Ion Chroma			Unit	D			

Job ID: 885-25565-1

# Lab Sample ID: 885-25565-4

Matrix: Solid

5

**Eurofins Albuquerque** 

Released to Imaging: 6/25/2025 2:43:17 PM

Client: Vertex Project/Site: Thistle Unit 10 CTB

# Client Sample ID: BS25-25 0' Date Collected: 05/23/25 08:30

Date Received: 05/28/25 07:50

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		5.0	mg/Kg		05/28/25 12:34	06/01/25 02:27	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		15 - 150			05/28/25 12:34	06/01/25 02:27	1
Method: SW846 8021B - Volat	ile Organic	Compound	ds (GC)					
Analyte	-	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/28/25 12:34	06/01/25 02:27	1
Ethylbenzene	ND		0.050	mg/Kg		05/28/25 12:34	06/01/25 02:27	1
Toluene	ND		0.050	mg/Kg		05/28/25 12:34	06/01/25 02:27	1
Kylenes, Total	ND		0.10	mg/Kg		05/28/25 12:34	06/01/25 02:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		15 - 150			05/28/25 12:34	06/01/25 02:27	1
Method: SW846 8015M/D - Die	esel Range	Organics (	DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3	mg/Kg		05/29/25 16:16	05/30/25 00:33	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		05/29/25 16:16	05/30/25 00:33	1
			Limits			Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	LIIIIIIS					
•	%Recovery 108	Qualifier	<u>62 - 134</u>			05/29/25 16:16	05/30/25 00:33	1
Di-n-octyl phthalate (Surr)	108					05/29/25 16:16	05/30/25 00:33	1
Surrogate Di-n-octyl phthalate (Surr) Method: EPA 300.0 - Anions, Analyte	108 Ion Chroma			Unit	D	05/29/25 16:16 Prepared	05/30/25 00:33 Analyzed	1 Dil Fac

5

Job ID: 885-25565-1

Matrix: Solid

# Lab Sample ID: 885-25565-5

Client: Vertex Project/Site: Thistle Unit 10 CTB

# Client Sample ID: BS25-26 0' Date Collected: 05/23/25 08:35

Date Received: 05/28/25 07:50

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		5.0	mg/Kg		05/28/25 12:34	06/01/25 02:49	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		15 - 150			05/28/25 12:34	06/01/25 02:49	1
Method: SW846 8021B - Volat	ile Organic	Compoun	ds (GC)					
Analyte	-	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/28/25 12:34	06/01/25 02:49	1
Ethylbenzene	ND		0.050	mg/Kg		05/28/25 12:34	06/01/25 02:49	1
Toluene	ND		0.050	mg/Kg		05/28/25 12:34	06/01/25 02:49	1
Kylenes, Total	ND		0.099	mg/Kg		05/28/25 12:34	06/01/25 02:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Bromofluorobenzene (Surr)	98		15 - 150			05/28/25 12:34	06/01/25 02:49	1
Method: SW846 8015M/D - Die	esel Range (	Organics (	DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		05/29/25 16:16	05/30/25 00:57	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		05/29/25 16:16	05/30/25 00:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	112		62 - 134			05/29/25 16:16	05/30/25 00:57	1
Method: EPA 300.0 - Anions, I	on Chroma	tography						
		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Rooun			•				

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# Job ID: 885-25565-1

# Lab Sample ID: 885-25565-6 Matrix: Solid

**Eurofins Albuquerque** 

Released to Imaging: 6/25/2025 2:43:17 PM

Client: Vertex Project/Site: Thistle Unit 10 CTB

## Client Sample ID: BS25-27 0' Date Collected: 05/23/25 08:45 Date Received: 05/28/25 07:50

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Job ID: 885-25565-1

# Lab Sample ID: 885-25565-7

Matrix: Solid

Method: SW846 8015M/D - Ga Analyte	-	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.9	mg/Kg		05/28/25 12:34	06/01/25 03:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		15 - 150			05/28/25 12:34	06/01/25 03:10	1
Method: SW846 8021B - Volat	tile Organic	Compound	ds (GC)					
Analyte	-	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/28/25 12:34	06/01/25 03:10	1
Ethylbenzene	ND		0.049	mg/Kg		05/28/25 12:34	06/01/25 03:10	1
Toluene	ND		0.049	mg/Kg		05/28/25 12:34	06/01/25 03:10	1
Xylenes, Total	ND		0.099	mg/Kg		05/28/25 12:34	06/01/25 03:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		15 - 150			05/28/25 12:34	06/01/25 03:10	1
Method: SW846 8015M/D - Die	esel Range (	Organics (	DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4	mg/Kg		05/29/25 16:16	05/30/25 01:21	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		05/29/25 16:16	05/30/25 01:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	131		62 - 134			05/29/25 16:16	05/30/25 01:21	1
	lon Chromat	tography						
Method: EPA 300.0 - Anions,								
Method: EPA 300.0 - Anions, Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client: Vertex Project/Site: Thistle Unit 10 CTB

# Client Sample ID: BS25-28 0' Date Collected: 05/23/25 08:50

Date Received: 05/28/25 07:50

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		4.8	mg/Kg		05/28/25 12:34	06/01/25 03:32	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		15 - 150			05/28/25 12:34	06/01/25 03:32	1
Method: SW846 8021B - Volat	ile Organic	Compound	ds (GC)					
Analyte	-	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/28/25 12:34	06/01/25 03:32	1
Ethylbenzene	ND		0.048	mg/Kg		05/28/25 12:34	06/01/25 03:32	1
Toluene	ND		0.048	mg/Kg		05/28/25 12:34	06/01/25 03:32	1
Xylenes, Total	ND		0.096	mg/Kg		05/28/25 12:34	06/01/25 03:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		15 - 150			05/28/25 12:34	06/01/25 03:32	1
Method: SW846 8015M/D - Die	esel Range	Organics (	DRO) (GC)					
Analyte	-	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
- indigite	Result	quannor		•				
	ND	duamor	9.4	mg/Kg		05/29/25 16:16	05/30/25 01:45	1
Diesel Range Organics [C10-C28]						05/29/25 16:16 05/29/25 16:16	05/30/25 01:45 05/30/25 01:45	1 1
Diesel Range Organics [C10-C28] Motor Oil Range Organics [C28-C40]	ND		9.4	mg/Kg				1 1 Dil Fac
Diesel Range Organics [C10-C28] Motor Oil Range Organics [C28-C40] <b>Surrogate</b>	ND ND		9.4 47	mg/Kg		05/29/25 16:16	05/30/25 01:45	1 1 <b>Dil Fac</b> 1
Diesel Range Organics [C10-C28] Motor Oil Range Organics [C28-C40] <b>Surrogate</b> Di-n-octyl phthalate (Surr)	ND ND <b>%Recovery</b> 110	Qualifier	9.4 47 Limits	mg/Kg		05/29/25 16:16 Prepared	05/30/25 01:45 Analyzed	
Diesel Range Organics [C10-C28] Motor Oil Range Organics [C28-C40] Surrogate Di-n-octyl phthalate (Surr) Method: EPA 300.0 - Anions, Analyte	ND ND %Recovery 110	Qualifier	9.4 47 Limits	mg/Kg		05/29/25 16:16 Prepared	05/30/25 01:45 Analyzed	

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Job ID: 885-25565-1

# Lab Sample ID: 885-25565-8 Matrix: Solid

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RL

5.0

RL

0.025

0.050

0.050

0.10

RL

9.4

47

RL

60

Limits

Limits

62 - 134

15 - 150

Limits

15 - 150

Unit

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

Unit

mg/Kg

mg/Kg

Unit

mg/Kg

mg/Kg

D

D

D

D

Prepared

Prepared

05/28/25 12:34

Prepared

05/28/25 12:34

05/28/25 12:34

05/28/25 12:34

Prepared

Prepared

Prepared

Prepared

**Client: Vertex** Project/Site: Thistle Unit 10 CTB

Analyte

(GRO)-C6-C10

Surrogate

Analyte

Benzene

Toluene

Ethylbenzene

Xylenes, Total

Surrogate

Analyte

Surrogate

Analyte

Chloride

**Gasoline Range Organics** 

4-Bromofluorobenzene (Surr)

4-Bromofluorobenzene (Surr)

Diesel Range Organics [C10-C28]

Di-n-octyl phthalate (Surr)

Motor Oil Range Organics [C28-C40]

### Client Sample ID: BS25-29 0' Date Collected: 05/23/25 09:00 Date Received: 05/28/25 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Method: SW846 8021B - Volatile Organic Compounds (GC)

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Method: EPA 300.0 - Anions, Ion Chromatography

Result Qualifier

**Result Qualifier** 

Qualifier

Qualifier

Qualifier

ND

103

ND

ND

ND

ND

98

ND

ND

111

2000

**Result Qualifier** 

**Result Qualifier** 

%Recovery

%Recovery

%Recovery

Dil Fac

20

1

1

1

1

1

1

1

1

Job ID: 885-25565-1

# Lab Sample ID: 885-25565-9 Matrix: Solid

05/28/25 12:34 06/01/25 03:54

05/28/25 12:34 06/01/25 03:54

05/28/25 12:34 06/01/25 03:54

05/29/25 16:16 05/30/25 02:08

05/29/25 16:16 05/30/25 02:08

05/29/25 16:16 05/30/25 02:08

05/29/25 07:06 05/29/25 13:19

Analyzed

Analyzed

06/01/25 03:54

Analyzed

06/01/25 03:54

06/01/25 03:54

06/01/25 03:54

Analyzed

Analyzed

Analyzed

Analyzed

**Eurofins Albuquerque** 

<b>Released to Imaging:</b>	6/25/2025	2:43:17	PM

**Client: Vertex** Project/Site: Thistle Unit 10 CTB

## Client Sample ID: BS25-30 0' Date Collected: 05/23/25 09:05 Date Received: 05/28/25 07:50

**Eurofins Albuquerque** 

# Lab Sample ID: 885-25565-10 Matrix: Solid

Method: SW846 8015M/D - Ga	isoline Rang	je Organic	S (GRU) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		4.9	mg/Kg		05/28/25 12:34	06/01/25 04:16	1
(GRO)-C6-C10								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		15 - 150			05/28/25 12:34	06/01/25 04:16	1
Method: SW846 8021B - Volat	ile Organic	Compound	ds (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/28/25 12:34	06/01/25 04:16	1
Ethylbenzene	ND		0.049	mg/Kg		05/28/25 12:34	06/01/25 04:16	1
Toluene	ND		0.049	mg/Kg		05/28/25 12:34	06/01/25 04:16	1
Xylenes, Total	ND		0.098	mg/Kg		05/28/25 12:34	06/01/25 04:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		15 - 150			05/28/25 12:34	06/01/25 04:16	1
Method: SW846 8015M/D - Die	esel Range	Organics (	DRO) (GC)					
Analyte	-	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8	mg/Kg		05/29/25 16:16	05/30/25 02:32	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		05/29/25 16:16	05/30/25 02:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	111		62 - 134			05/29/25 16:16	05/30/25 02:32	1
Method: EPA 300.0 - Anions,	Ion Chroma	tography						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1700		60	mg/Kg		05/29/25 07:06	05/29/25 13:33	20

# **QC Sample Results**

**Client: Vertex** 

Project/Site: Thistle Unit 10 CTB

# Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: LCS 885- Matrix: Solid	27069/2-A					Clier	nt Sai	nple ID	: Lab Control Sample Prep Type: Total/NA
Analysis Batch: 27392									Prep Batch: 27069
			Spike	LCS	LCS				%Rec
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10			25.0	27.8		mg/Kg		111	70 - 130
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene (Surr)	218		15 - 150						

# N

Lab Sample ID: MB 885-2 Matrix: Solid Analysis Batch: 27352	7069/1-A						C		le ID: Metho Prep Type: T Prep Batch	otal/NA
Analysis Batch. 27552	N	в мв							Fiep Datch	. 27003
Analyte		It Qualifier	RL		Unit		D	Prepared	Analyzed	Dil Fa
Benzene	N	D	0.025		mg/K	g	- ī	)5/28/25 12:34	05/31/25 23:10	
Ethylbenzene	Ν	D	0.050		mg/K		C	)5/28/25 12:34	05/31/25 23:10	
Toluene	Ν	D	0.050		mg/K	g	C	05/28/25 12:34	05/31/25 23:10	
Xylenes, Total	N	D	0.10		mg/K	g	C	05/28/25 12:34	05/31/25 23:10	
	N	B MB								
Surrogate	%Recove	ry Qualifier	Limits					Prepared	Analyzed	Dil Fa
							_			-
4-Bromofluorobenzene (Surr)		99	15 - 150			Clie		05/28/25 12:34		
Lab Sample ID: LCS 885-2 Matrix: Solid		99		LCS	LCS	Clie		Sample ID:	Lab Control Prep Type: T Prep Batch	Samplo otal/N/
Lab Sample ID: LCS 885-2 Matrix: Solid Analysis Batch: 27352		99	15 - 150 Spike Added		LCS Qualifier	Clie		Sample ID:	Lab Control Prep Type: T	Samplo otal/N/
Lab Sample ID: LCS 885-2 Matrix: Solid Analysis Batch: 27352 Analyte			Spike					Sample ID:	Lab Control S Prep Type: T Prep Batch %Rec	Sample otal/N/
Lab Sample ID: LCS 885-2 Matrix: Solid Analysis Batch: 27352 Analyte Benzene			Spike Added	Result		Unit		D         %Rec           97	Lab Control 3 Prep Type: T Prep Batch %Rec Limits	Sample otal/N/
Lab Sample ID: LCS 885-2 Matrix: Solid Analysis Batch: 27352 Analyte Benzene Ethylbenzene			Spike Added 1.00	<b>Result</b> 0.966		Unit mg/Kg		D         %Rec           97         98	Lab Control S Prep Type: T Prep Batch %Rec Limits 70 - 130	Sample otal/NA
4-Bromofluorobenzene (Surr) Lab Sample ID: LCS 885-2 Matrix: Solid Analysis Batch: 27352 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene			<b>Spike</b> Added 1.00 1.00	<b>Result</b> 0.966 0.979		Unit mg/Kg mg/Kg		Sample ID: <u>D</u> <u>%Rec</u> 97 98 100	Lab Control 3 Prep Type: T Prep Batch %Rec Limits 70 - 130 70 - 130	otal/NA
Lab Sample ID: LCS 885-2 Matrix: Solid Analysis Batch: 27352 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene			<b>Spike</b> <u>Added</u> 1.00 1.00 2.00	<b>Result</b> 0.966 0.979 2.00		Unit mg/Kg mg/Kg mg/Kg		D         %Rec           97         98           100         99	Lab Control 3 Prep Type: T Prep Batch %Rec Limits 70 - 130 70 - 130 70 - 130	Sample otal/NA
Lab Sample ID: LCS 885-2 Matrix: Solid Analysis Batch: 27352 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene		- 	Spike           Added           1.00           2.00           1.00	Result 0.966 0.979 2.00 0.994		Unit mg/Kg mg/Kg mg/Kg mg/Kg		D         %Rec           97         98           100         99	Lab Control 3 Prep Type: T Prep Batch %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130	Sample otal/NA
Lab Sample ID: LCS 885-2 Matrix: Solid Analysis Batch: 27352 Analyte Benzene Ethylbenzene m-Xylene & p-Xylene o-Xylene	27069/3-A		Spike           Added           1.00           2.00           1.00	Result 0.966 0.979 2.00 0.994		Unit mg/Kg mg/Kg mg/Kg mg/Kg		D         %Rec           97         98           100         99	Lab Control 3 Prep Type: T Prep Batch %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130	Samplo otal/N/

# Method: 8015M/D - Diesel Range Organics (שט) (שט)

### Lab Sample ID: MB 885-27203/1-A **Matrix: Solid** Analysis Batch: 27133 MB MB Analyte RL Unit **Result Qualifier** D Diesel Range Organics [C10-C28] 10 mg/Kg 05/29/25 16:16 05/29/25 22:09 ND 05/29/25 16:16 05/29/25 22:09 Motor Oil Range Organics [C28-C40] ND 50 mg/Kg MB MB Surrogate %Recovery Qualifier Limits

130

## **Client Sample ID: Method Blank** Prep Type: Total/NA Prep Batch: 27203

Analyzed

Prepared

Prepared	Analyzed	Dil Fac	
05/29/25 16:16	05/29/25 22:09	1	

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Job ID: 885-25565-1

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**Eurofins Albuquerque** 

Di-n-octyl phthalate (Surr)

62 - 134

Dil Fac

1

# **QC Sample Results**

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		Q	C Sample	e Resı	ılts							
Client: Vertex									Job ID:	885-25	565-1	
Project/Site: Thistle Unit 10 0	CTB											
Method: 8015M/D - Die	sel Range	Organi	cs (DRO) (	GC) (Co	ontinue	<b>d)</b>						
Lab Sample ID: LCS 885-2	27203/2-A					Clier	nt Sa	mple ID	): Lab Con			
Matrix: Solid									Prep Ty			
Analysis Batch: 27133			Spike	201	LCS				%Rec	Batch: 2	27203	
Analyte			Added	-	Qualifier	Unit	D	%Rec	Limits			
Diesel Range Organics [C10-C28]			50.0	57.4		mg/Kg		115	51 - 148			
	LCS	LCS										
Surrogate	%Recovery		Limits									
Di-n-octyl phthalate (Surr)	133		62 - 134									
	- :							-				
Lab Sample ID: 885-2556	3-10 MS							Client :	Sample ID			
Matrix: Solid									Prep Ty	-		
Analysis Batch: 27133	Samplo	Sample	Spike	MS	MS				Ргер В %Rec	Batch: 2	1/203	
Analyte	•	Qualifier	Added	-	Qualifier	Unit	D	%Rec	Limits			
Diesel Range Organics	ND	Quaimer	46.6	45.1	Quanner	mg/Kg	_ <u>-</u>	97	44 - 136			
[C10-C28]			•===			119/13			1100			
•	MS	MS										
Surrogate	%Recovery		Limits									
Di-n-octyl phthalate (Surr)	108	Quanner	62 - 134									
-												
Lab Sample ID: 885-2556	5-10 MSD							Client §	Sample ID			
Matrix: Solid									Prep Ty			
Analysis Batch: 27133										Batch: 2		
	-	Sample	Spike	-	MSD		_		%Rec		RPD	
Analyte		Qualifier	Added		Qualifier		D	%Rec 99	Limits	<b>RPD</b> 8	Limit	
Diesel Range Organics [C10-C28]	ND		49.0	48.6		mg/Kg		99	44 - 136	8	32	
[010-020]												
		MSD										
Surrogate	%Recovery	Qualifier	Limits									
Di-n-octyl phthalate (Surr)	112		62 - 134									

# Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-27127/1-A Matrix: Solid Analysis Batch: 27136	МВ	МВ						Clie		ole ID: Method Prep Type: T Prep Batch	otal/NA
Analyte	Result	Qualifier		RL		Unit	D	Р	repared	Analyzed	Dil Fac
Chloride	ND			1.5		mg/Kg	<b>)</b> —	05/2	9/25 07:06	05/29/25 09:41	1
Lab Sample ID: LCS 885-27127/2-A Matrix: Solid Analysis Batch: 27136	L						Client	t Sai		Lab Control S Prep Type: To Prep Batch	otal/NA
			Spike	L	CS LC	S				%Rec	
Analyte			Added	Res	ult Qu	alifier	Unit	D	%Rec	Limits	
Chloride			15.0	1	4.8		mg/Kg		99	90 - 110	

**Eurofins Albuquerque** 

Client: Vertex Project/Site: Thistle Unit 10 CTB

# GC VOA

## Prep Batch: 27069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-25565-1	BS25-21 0'	Total/NA	Solid	5030C	
885-25565-2	BS25-22 0'	Total/NA	Solid	5030C	
885-25565-3	BS25-23 0'	Total/NA	Solid	5030C	
885-25565-4	BS25-24 0'	Total/NA	Solid	5030C	
885-25565-5	BS25-25 0'	Total/NA	Solid	5030C	
885-25565-6	BS25-26 0'	Total/NA	Solid	5030C	
885-25565-7	BS25-27 0'	Total/NA	Solid	5030C	
885-25565-8	BS25-28 0'	Total/NA	Solid	5030C	
885-25565-9	BS25-29 0'	Total/NA	Solid	5030C	
885-25565-10	BS25-30 0'	Total/NA	Solid	5030C	
MB 885-27069/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-27069/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-27069/3-A	Lab Control Sample	Total/NA	Solid	5030C	

# Analysis Batch: 27352

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-25565-1	BS25-21 0'	Total/NA	Solid	8021B	27069
885-25565-2	BS25-22 0'	Total/NA	Solid	8021B	27069
885-25565-3	BS25-23 0'	Total/NA	Solid	8021B	27069
885-25565-4	BS25-24 0'	Total/NA	Solid	8021B	27069
885-25565-5	BS25-25 0'	Total/NA	Solid	8021B	27069
885-25565-6	BS25-26 0'	Total/NA	Solid	8021B	27069
885-25565-7	BS25-27 0'	Total/NA	Solid	8021B	27069
885-25565-8	BS25-28 0'	Total/NA	Solid	8021B	27069
885-25565-9	BS25-29 0'	Total/NA	Solid	8021B	27069
885-25565-10	BS25-30 0'	Total/NA	Solid	8021B	27069
MB 885-27069/1-A	Method Blank	Total/NA	Solid	8021B	27069
LCS 885-27069/3-A	Lab Control Sample	Total/NA	Solid	8021B	27069

# Analysis Batch: 27392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-25565-1	BS25-21 0'	Total/NA	Solid	8015M/D	27069
885-25565-2	BS25-22 0'	Total/NA	Solid	8015M/D	27069
885-25565-3	BS25-23 0'	Total/NA	Solid	8015M/D	27069
885-25565-4	BS25-24 0'	Total/NA	Solid	8015M/D	27069
885-25565-5	BS25-25 0'	Total/NA	Solid	8015M/D	27069
885-25565-6	BS25-26 0'	Total/NA	Solid	8015M/D	27069
885-25565-7	BS25-27 0'	Total/NA	Solid	8015M/D	27069
885-25565-8	BS25-28 0'	Total/NA	Solid	8015M/D	27069
885-25565-9	BS25-29 0'	Total/NA	Solid	8015M/D	27069
885-25565-10	BS25-30 0'	Total/NA	Solid	8015M/D	27069
LCS 885-27069/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	27069
	- ··· <b>F</b> ·-				

# GC Semi VOA

# Analysis Batch: 27133

Lab Sample ID 885-25565-1	Client Sample ID BS25-21 0'	Prep Type Total/NA	Matrix	Method 8015M/D	Prep Batch 27203
885-25565-2	BS25-22 0'	Total/NA	Solid	8015M/D	27203
885-25565-3	BS25-23 0'	Total/NA	Solid	8015M/D	27203
885-25565-4	BS25-24 0'	Total/NA	Solid	8015M/D	27203

# Job ID: 885-25565-1

Eurofins Albuquerque

Client: Vertex Project/Site: Thistle Unit 10 CTB

# GC Semi VOA (Continued)

# Analysis Batch: 27133 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-25565-5	BS25-25 0'	Total/NA	Solid	8015M/D	27203
885-25565-6	BS25-26 0'	Total/NA	Solid	8015M/D	27203
885-25565-7	BS25-27 0'	Total/NA	Solid	8015M/D	27203
885-25565-8	BS25-28 0'	Total/NA	Solid	8015M/D	27203
885-25565-9	BS25-29 0'	Total/NA	Solid	8015M/D	27203
885-25565-10	BS25-30 0'	Total/NA	Solid	8015M/D	27203
MB 885-27203/1-A	Method Blank	Total/NA	Solid	8015M/D	27203
LCS 885-27203/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	27203
885-25565-10 MS	BS25-30 0'	Total/NA	Solid	8015M/D	27203
885-25565-10 MSD	BS25-30 0'	Total/NA	Solid	8015M/D	27203

### Prep Batch: 27203

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-25565-1	BS25-21 0'	Total/NA	Solid	SHAKE	
885-25565-2	BS25-22 0'	Total/NA	Solid	SHAKE	
885-25565-3	BS25-23 0'	Total/NA	Solid	SHAKE	
885-25565-4	BS25-24 0'	Total/NA	Solid	SHAKE	
885-25565-5	BS25-25 0'	Total/NA	Solid	SHAKE	
885-25565-6	BS25-26 0'	Total/NA	Solid	SHAKE	
885-25565-7	BS25-27 0'	Total/NA	Solid	SHAKE	
885-25565-8	BS25-28 0'	Total/NA	Solid	SHAKE	
885-25565-9	BS25-29 0'	Total/NA	Solid	SHAKE	
885-25565-10	BS25-30 0'	Total/NA	Solid	SHAKE	
MB 885-27203/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-27203/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-25565-10 MS	BS25-30 0'	Total/NA	Solid	SHAKE	
885-25565-10 MSD	BS25-30 0'	Total/NA	Solid	SHAKE	

# HPLC/IC

# Prep Batch: 27127

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
885-25565-1	BS25-21 0'	Total/NA	Solid	300_Prep	
885-25565-2	BS25-22 0'	Total/NA	Solid	300_Prep	
885-25565-3	BS25-23 0'	Total/NA	Solid	300_Prep	
885-25565-4	BS25-24 0'	Total/NA	Solid	300_Prep	
885-25565-5	BS25-25 0'	Total/NA	Solid	300_Prep	
885-25565-6	BS25-26 0'	Total/NA	Solid	300_Prep	
885-25565-7	BS25-27 0'	Total/NA	Solid	300_Prep	
885-25565-8	BS25-28 0'	Total/NA	Solid	300_Prep	
885-25565-9	BS25-29 0'	Total/NA	Solid	300_Prep	
885-25565-10	BS25-30 0'	Total/NA	Solid	300_Prep	
MB 885-27127/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-27127/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

## Analysis Batch: 27136

Lab Sample ID 885-25565-1	Client Sample ID BS25-21 0'	Prep Type Total/NA	Matrix Solid	Method 300.0	Prep Batch 27127
885-25565-2	BS25-22 0'	Total/NA	Solid	300.0	27127
885-25565-3	BS25-23 0'	Total/NA	Solid	300.0	27127
885-25565-4	BS25-24 0'	Total/NA	Solid	300.0	27127

# Eurofins Albuquerque

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Job ID: 885-25565-1

Client: Vertex Project/Site: Thistle Unit 10 CTB

# HPLC/IC (Continued)

# Analysis Batch: 27136 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-25565-5	BS25-25 0'	Total/NA	Solid	300.0	27127
885-25565-6	BS25-26 0'	Total/NA	Solid	300.0	27127
885-25565-7	BS25-27 0'	Total/NA	Solid	300.0	27127
885-25565-8	BS25-28 0'	Total/NA	Solid	300.0	27127
885-25565-9	BS25-29 0'	Total/NA	Solid	300.0	27127
885-25565-10	BS25-30 0'	Total/NA	Solid	300.0	27127
MB 885-27127/1-A	Method Blank	Total/NA	Solid	300.0	27127
LCS 885-27127/2-A	Lab Control Sample	Total/NA	Solid	300.0	27127

Job ID: 885-25565-1

Client: Vertex

Job ID: 885-25565-1

Matrix: Solid

# Lab Sample ID: 885-25565-1

# Client Sample ID: BS25-21 0' Date Collected: 05/23/25 08:00 Date Received: 05/28/25 07:50

Project/Site: Thistle Unit 10 CTB

	Batch	Batch		Dilution	Batch			Prepared
Ргер Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
otal/NA	Prep	5030C			27069	JE	EET ALB	05/28/25 12:34
otal/NA	Analysis	8015M/D		1	27392	AT	EET ALB	05/31/25 23:31
otal/NA	Prep	5030C			27069	JE	EET ALB	05/28/25 12:34
otal/NA	Analysis	8021B		1	27352	AT	EET ALB	05/31/25 23:31
otal/NA	Prep	SHAKE			27203	MI	EET ALB	05/29/25 16:16
otal/NA	Analysis	8015M/D		1	27133	MI	EET ALB	05/29/25 22:57
otal/NA	Prep	300_Prep			27127	DL	EET ALB	05/29/25 07:06
otal/NA	Analysis	300.0		20	27136	DL	EET ALB	05/29/25 10:09

# Client Sample ID: BS25-22 0'

Date Collected: 05/23/25 08:05 Date Received: 05/28/25 07:50

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			27069	JE	EET ALB	05/28/25 12:34
Total/NA	Analysis	8015M/D		1	27392	AT	EET ALB	06/01/25 00:37
Total/NA	Prep	5030C			27069	JE	EET ALB	05/28/25 12:34
Total/NA	Analysis	8021B		1	27352	AT	EET ALB	06/01/25 00:37
Total/NA	Prep	SHAKE			27203	MI	EET ALB	05/29/25 16:16
Total/NA	Analysis	8015M/D		1	27133	MI	EET ALB	05/29/25 23:21
Total/NA	Prep	300_Prep			27127	DL	EET ALB	05/29/25 07:06
Total/NA	Analysis	300.0		20	27136	DL	EET ALB	05/29/25 10:50

### Client Sample ID: BS25-23 0' Date Collected: 05/23/25 08:15

### Date Received: 05/28/25 07:50

_	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			27069	JE	EET ALB	05/28/25 12:34
Total/NA	Analysis	8015M/D		1	27392	AT	EET ALB	06/01/25 01:43
Total/NA	Prep	5030C			27069	JE	EET ALB	05/28/25 12:34
Total/NA	Analysis	8021B		1	27352	AT	EET ALB	06/01/25 01:43
Total/NA	Prep	SHAKE			27203	MI	EET ALB	05/29/25 16:16
Total/NA	Analysis	8015M/D		1	27133	MI	EET ALB	05/29/25 23:45
Total/NA	Prep	300_Prep			27127	DL	EET ALB	05/29/25 07:06
Total/NA	Analysis	300.0		20	27136	DL	EET ALB	05/29/25 11:30

## Client Sample ID: BS25-24 0' Date Collected: 05/23/25 08:20 Date Received: 05/28/25 07:50

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			27069	JE	EET ALB	05/28/25 12:34
Total/NA	Analysis	8015M/D		1	27392	AT	EET ALB	06/01/25 02:05

**Eurofins Albuquerque** 

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Lab Sample ID: 885-25565-2

Lab Sample ID: 885-25565-3

Lab Sample ID: 885-25565-4

Matrix: Solid

Matrix: Solid

Matrix: Solid
Project/Site: Thistle Unit 10 CTB

Date Collected: 05/23/25 08:20

Date Received: 05/28/25 07:50

Client Sample ID: BS25-24 0'

Batch

Туре

Prep

Prep

Prep

Client Sample ID: BS25-25 0'

Date Collected: 05/23/25 08:30

Analysis

Analysis

Analysis

Batch

Method

5030C

8021B

SHAKE

8015M/D

300 Prep

300.0

**Client: Vertex** 

**Prep Type** 

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Batch

Number Analyst

27069 JE

27352 AT

27203 MI

27133 MI

27127 DL

27136 DL

Lab

EET ALB

EET ALB

EET ALB

EET ALB

EET ALB

EET ALB

Dilution

Factor

1

1

20

Run

Job ID: 885-25565-1

# Lab Sample ID: 885-25565-4

Prepared

or Analyzed

05/28/25 12:34

06/01/25 02:05

05/29/25 16:16

05/30/25 00:09

05/29/25 07:06

05/29/25 11:44

Lab Sample ID: 885-25565-5

Matrix: Solid

Matrix: Solid

# 9 1(

-	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			27069	JE	EET ALB	05/28/25 12:34
Total/NA	Analysis	8015M/D		1	27392	AT	EET ALB	06/01/25 02:27
Total/NA	Prep	5030C			27069	JE	EET ALB	05/28/25 12:34
Total/NA	Analysis	8021B		1	27352	AT	EET ALB	06/01/25 02:27
Total/NA	Prep	SHAKE			27203	MI	EET ALB	05/29/25 16:16
Total/NA	Analysis	8015M/D		1	27133	MI	EET ALB	05/30/25 00:33
Total/NA	Prep	300_Prep			27127	DL	EET ALB	05/29/25 07:00
Total/NA	Analysis	300.0		20	27136	DL	EET ALB	05/29/25 12:2

### Client Sample ID: BS25-26 0' Date Collected: 05/23/25 08:35 Date Received: 05/28/25 07:50

# Lab Sample ID: 885-25565-6

Lab Sample ID: 885-25565-7

Matrix: Solid

Matrix: Solid

_	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			27069	JE	EET ALB	05/28/25 12:34
Total/NA	Analysis	8015M/D		1	27392	AT	EET ALB	06/01/25 02:49
Total/NA	Prep	5030C			27069	JE	EET ALB	05/28/25 12:34
Total/NA	Analysis	8021B		1	27352	AT	EET ALB	06/01/25 02:49
Total/NA	Prep	SHAKE			27203	MI	EET ALB	05/29/25 16:16
Total/NA	Analysis	8015M/D		1	27133	MI	EET ALB	05/30/25 00:57
Total/NA	Prep	300_Prep			27127	DL	EET ALB	05/29/25 07:06
Total/NA	Analysis	300.0		20	27136	DL	EET ALB	05/29/25 12:39

## Client Sample ID: BS25-27 0' Date Collected: 05/23/25 08:45 Date Received: 05/28/25 07:50

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			27069	JE	EET ALB	05/28/25 12:34
Total/NA	Analysis	8015M/D		1	27392	AT	EET ALB	06/01/25 03:10
Total/NA	Prep	5030C			27069	JE	EET ALB	05/28/25 12:34
Total/NA	Analysis	8021B		1	27352	AT	EET ALB	06/01/25 03:10

**Eurofins Albuquerque** 

Released to Imaging: 6/25/2025 2:43:17 PM

# Lab Chronicle

Job ID: 885-25565-1

Matrix: Solid

Matrix: Solid

Lab Sample ID: 885-25565-7

Lab Sample ID: 885-25565-8

# Client: Vertex Project/Site: Thistle Unit 10 CTB

### Client Sample ID: BS25-27 0' Date Collected: 05/23/25 08:45 Date Received: 05/28/25 07:50

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	SHAKE			27203	MI	EET ALB	05/29/25 16:16
Total/NA	Analysis	8015M/D		1	27133	MI	EET ALB	05/30/25 01:21
Total/NA	Prep	300_Prep			27127	DL	EET ALB	05/29/25 07:06
Total/NA	Analysis	300.0		20	27136	DL	EET ALB	05/29/25 12:52

### Client Sample ID: BS25-28 0' Date Collected: 05/23/25 08:50 Date Received: 05/28/25 07:50

	Batch	Batch		Dilution	Batch			Prepared
Prep Туре	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			27069	JE	EET ALB	05/28/25 12:34
Total/NA	Analysis	8015M/D		1	27392	AT	EET ALB	06/01/25 03:32
Total/NA	Prep	5030C			27069	JE	EET ALB	05/28/25 12:34
Total/NA	Analysis	8021B		1	27352	AT	EET ALB	06/01/25 03:32
Total/NA	Prep	SHAKE			27203	MI	EET ALB	05/29/25 16:16
Total/NA	Analysis	8015M/D		1	27133	MI	EET ALB	05/30/25 01:45
Total/NA	Prep	300_Prep			27127	DL	EET ALB	05/29/25 07:06
Total/NA	Analysis	300.0		20	27136	DL	EET ALB	05/29/25 13:06

### Client Sample ID: BS25-29 0' Date Collected: 05/23/25 09:00 Date Received: 05/28/25 07:50

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			27069	JE	EET ALB	05/28/25 12:34
Total/NA	Analysis	8015M/D		1	27392	AT	EET ALB	06/01/25 03:54
Total/NA	Prep	5030C			27069	JE	EET ALB	05/28/25 12:34
Total/NA	Analysis	8021B		1	27352	AT	EET ALB	06/01/25 03:54
Total/NA	Prep	SHAKE			27203	MI	EET ALB	05/29/25 16:16
Total/NA	Analysis	8015M/D		1	27133	MI	EET ALB	05/30/25 02:08
Total/NA	Prep	300_Prep			27127	DL	EET ALB	05/29/25 07:06
Total/NA	Analysis	300.0		20	27136	DL	EET ALB	05/29/25 13:19

### Client Sample ID: BS25-30 0' Date Collected: 05/23/25 09:05 Date Received: 05/28/25 07:50

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	5030C			27069	JE	EET ALB	05/28/25 12:34
Total/NA	Analysis	8015M/D		1	27392	AT	EET ALB	06/01/25 04:16
Total/NA	Prep	5030C			27069	JE	EET ALB	05/28/25 12:34
Total/NA	Analysis	8021B		1	27352	AT	EET ALB	06/01/25 04:16
Total/NA	Prep	SHAKE			27203	MI	EET ALB	05/29/25 16:16
Total/NA	Analysis	8015M/D		1	27133	MI	EET ALB	05/30/25 02:32

**Eurofins Albuquerque** 

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# Lab Sample ID: 885-25565-9 Matrix: Solid

Lab Sample ID: 885-25565-10

Matrix: Solid

# Lab Chronicle

Job ID: 885-25565-1

Lab Sample ID: 885-25565-10

# **Client: Vertex** Project/Site: Thistle Unit 10 CTB

## Client Sample ID: BS25-30 0' Date Collected: 05/23/25 09:05 Date Received: 05/28/25 07:50

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Prep	300_Prep			27127	DL	EET ALB	05/29/25 07:06
Total/NA	Analysis	300.0		20	27136	DL	EET ALB	05/29/25 13:33

### Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Matrix: Solid

# 5 6 7 8 9 10 11

**Eurofins Albuquerque** 

**Accreditation/Certification Summary** 

Client: Vertex Project/Site: Thistle Unit 10 CTB

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Progra	am	Identification Number	Expiration Date
New Mexico	State		NM9425, NM0901	02-27-26
• •	s are included in this repo does not offer certification		not certified by the governing author	ity. This list may include analyte:
Analysis Method	Prep Method	Matrix	Analyte	
300.0	300_Prep	Solid	Chloride	
8015M/D	5030C	Solid	Gasoline Range Organics (GRO)-C6-C10	
8015M/D	SHAKE	Solid	Diesel Range Organics [	C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organic	s [C28-C40]
8021B	5030C	Solid	Benzene	
8021B	5030C	Solid	Ethylbenzene	
8021B	5030C	Solid	Toluene	
8021B	5030C	Solid	Xylenes, Total	
Oregon	NELAI	c	NM100001	02-26-26

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Job ID: 885-25565-1

Client:	:										ENTRONITIN	
	Vertex	Xe	X 72-hour			L	f	AN	IAL	SIS	ANALYSIS LABORATOR	RATOR
(dir	ect bill to D	(direct bill to Devon, work order 21206611)	Project Name:	iai				M	w.halle	inviron	www.hallenvironmental.com	. Settind
Mailing Address:	Iress:		Thistle Unit 10	10 CTB			4901	4901 Hawkins NE	- 1	Albuqu	Albuquerque, NM 87105	ŏ
			Project #:				Tel. 5	505-345-3975	ю	Fax	505-345-4107	
Phone #:			23E-04784						Ar	Analysis	Request	885-25565 COC
email or Fax#	X#:		Project Manager	iger:		(1	_			705	(tu	
QA/QC Package:	age:		Kent Stalling:	Kent Stallings, Sally Carttar	ЯГ	208	_			S '*	əsq	
Standard	7	Level 4 (Full Validation)	<u>kstallings@v</u>	kstallings@vertexresource.com	s.com	)				Dd	A'tr	
Accreditation:		Az Compliance	Sampler:	L. Pullman		IME	_	(1.		10 <sup>5'</sup>		
			On Ice:	8	No D	/=		<del>2</del> 04	s	J ' <sup>2</sup>		
	(be)		# of Coolers:	1	NOTO NOTO	1181		роц	stəN		_	
				(including CF).	0+0.7=1.4.0	N /		19M	8 8	_		
Date Time	ne Matrix	rix Sample Name	Container Type and #	Preservative Type	HEAL NO.	8TEX	8:H9T 1 1808	) 803 PAHs	АЯЭЯ	8560 ( Cl' L'	) 0728 ) letoT	
05.23.25 8.	8:00 Soil	oil BS25-21 0'	1, 4oz jar			×	×			×		
05.23.25 8:	8:05 Soil	oil BS25-22 0'	1, 4oz jar			×	×			×		
05.23.25 8:	8:15 Soil	oil BS25-23 0'	1, 4oz jar			×	×			×		
05.23.25 8:	8:20 Soil	oil BS25-24 0'	1, 4oz jar			×	×			×		
05.23.25 8:	8:30 Soil	oil BS25-25 0'	1, 4oz jar			×	×			×		
05.23.25 8:	8:35 Soil	oil BS25-26 0'	1, 4oz jar			×	×			×		
05.23.25 8:	8:45 Soil	oil BS25-27 0%	1, 4oz jar		3	×	×			×		
05.23.25 8:	8:50 Soil	oil BS25-28 0'	1, 4oz jar			×	×			×		
05.23.25 9:	9:00 Soil	oil BS25-29 0'	1, 4oz jar			×	×			×		
05.23.25 9:	9:05 Soil	oil BS25-30 0'	1, 4oz jar			×	×			×		
	_						+					
Date: Time: 5-20-15 071	8	Mon /	Received by:	Via:	SIN 35 TW	Remé	arks: A <sup>-</sup> t bill to	Remarks: ATTN Jim Raley	Raley vork or	der 212	Remarks: ATTN Jim Raley Direct bill to Devon work order 21206611 Jim Raley	-
Date: Time:		Relinquished by:	Received by:	Via:	1	Lcc. p kstall	lings@	wertexres	source.	e.com, com, SI	cc. permain@vertexresource.com, >carttar@vertexresource.com, kstallings@vertexresource.com, SMcCartv@vertexresource.com,	xresource.cor (resource.com
2) 50/10/2	1940 CA	CULUUUU	SrW	Courie	p 5/28/25 0751	and L	-Pullma	n@verte	xresou	rce.con	and LPullman@vertexresource.com for Final Report	L.

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Job Number: 885-25565-1

List Source: Eurofins Albuquerque

# Login Sample Receipt Checklist

Client: Vertex

### Login Number: 25565 List Number: 1 Creator: Dominguez, Desiree

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

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QUESTIONS

Action 471584

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	471584
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

### QUESTIONS

Prerequisites	
Incident ID (n#)	nRM1933052987
Incident Name	NRM1933052987 THISTLE UNIT 10 CTB @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received
Incident Facility	[fAPP2130647365] THISTLE UNIT 10 BATTERY
Incident Facility	[fAPP2130647365] THISTLE UNIT 10 BATTERY

### Location of Release Source

Please	e answer all the questions in this group.	

Site Name	THISTLE UNIT 10 CTB
Date Release Discovered	08/30/2019
Surface Owner	State

### 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	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

### Nature and Volume of Release

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: Lightning   Water Tank   Produced Water   Released: 407 BBL   Recovered: 407 BBL   Lost: 0 BBL.	
Is the concentration of chloride in the produced water >10,000 mg/l	Yes	
Condensate Released (bbls) Details	Not answered.	
Natural Gas Vented (Mcf) Details	Not answered.	
Natural Gas Flared (Mcf) Details	Not answered.	
Other Released Details	Not answered.	
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.	

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

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QUESTIONS, Page 2

Action 471584

QUESTIONS (continued)

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	471584
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

ľ	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.		

Initial Response		
ne responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.		
The source of the release has been stopped	True	
The impacted area has been secured to protect human health and the environment	True	
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True	
All free liquids and recoverable materials have been removed and managed appropriately	True	
If all the actions described above have not been undertaken, explain why Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remedi	Not answered. ation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of	
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dvn.com Date: 06/06/2025	

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

# State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 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:
Oklahoma City, OK 73102	471584
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

### 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	Direct Measurement
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	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 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 ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 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 as	sociated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	4100
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	3400
GRO+DRO (EPA SW-846 Method 8015M)	1800
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed eff which includes the anticipated timelines for beginning and completing the remediation.	orts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC,
On what estimated date will the remediation commence	04/07/2025
On what date will (or did) the final sampling or liner inspection occur	08/31/2024
On what date will (or was) the remediation complete(d)	07/06/2025
What is the estimated surface area (in square feet) that will be reclaimed	0
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	324
What is the estimated volume (in cubic yards) that will be remediated	12
These estimated dates and measurements are recognized to be the best guess or calculation at the tin	ne 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.

Action 471584

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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

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QUESTIONS, Page 4

Action 471584

QUESTIONS (continued)		
Operator:	OGRID:	
DEVON ENERGY PRODUCTION COMPANY, LP	6137	
333 West Sheridan Ave.	Action Number:	
Oklahoma City, OK 73102	471584	
	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		
This remediation will (or is expected to) utilize the following processes to remediate	/ reduce contaminants:	
(Select all answers below that apply.)		
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes	
Which OCD approved facility will be used for off-site disposal	HALFWAY DISPOSAL AND LANDFILL [FEEM0112334510]	
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.	
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	No	
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	No	
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	No	
(In Situ) Soil Vapor Extraction	No	
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No	
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No	
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No	
Ground Water Abatement pursuant to 19.15.30 NMAC	No	
OTHER (Non-listed remedial process)	No	
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efi which includes the anticipated timelines for beginning and completing the remediation.	forts at remediation, the report must include a proposed remediation plan in accordance with 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 to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dvn.com	

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.

Date: 03/13/2025

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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	(continued)
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Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	471584
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QU	EST	<b>FIOI</b>	٧S

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of	f 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	Νο

Action 471584

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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 6

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**QUESTIONS** (continued)

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	471584
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	464776
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	05/23/2025
What was the (estimated) number of samples that were to be gathered	20
What was the sampling surface area in square feet	10808

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all i	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	396	
What was the total volume (cubic yards) remediated	15	
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)	Area remediated	
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 to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.		
1	Name: James Raley	

I hereby agree and sign off to the above statement	Name: James Raley
	Title: EHS Professional
	Email: jim.raley@dvn.com
	Date: 06/06/2025

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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** (continued)

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	471584
	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

QUESTIONS, Page 7

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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

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Action 471584

CONDITIONS

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	471584
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

### CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	The remediation closure is approved.	6/25/2025
michael.buchanan	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. The 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.	6/25/2025
michael.buchanan	A reclamation report will not be accepted until reclamation of the release area, including areas reasonably needed for production or drilling activities, is complete and meet the requirements of 19.15.29.13 NMAC. Areas not reasonably needed for production or drilling activities will still need to be reclaimed and revegetated as early as practicable.	6/25/2025
michael.buchanan	All revegetation activities will need to be documented and included in the revegetation report. The revegetation report will need to include: An executive summary of the revegetation activities including: Seed mix, Method of seeding, dates of when the release area was reseeded, information pertinent to inspections, information about any amendments added to the soil, information on how the vegetative cover established meets the life-form ratio of plus or minus fifty percent of pre-disturbance levels and a total percent plant cover of at least seventy percent of pre-disturbance levels, excluding noxious weeds per 19.15.29.13 D.(3) NMAC, and any additional information; a scaled Site Map including area that was revegetated in square feet; and pictures of the revegetated areas during reseeding activities, inspections, and final pictures when revegetation is achieved.	6/25/2025
michael.buchanan	A revegetation report will not be accepted until revegetation of the release area, including areas reasonably needed for production or drilling activities, is complete and meet the requirements of 19.15.29.13 NMAC. Areas not reasonably needed for production or drilling activities will still need to be reclaimed and revegetated as early as practicable.	6/25/2025
michael.buchanan	Per 19.15.29.13 E. NMAC, if a reclamation and revegetation report has been submitted to the surface owner, it may be used if the requirements of the surface owner provide equal or better protection of freshwater, human health, and the environment. A copy of the approval of the reclamation and revegetation report from the surface owner and a copy of the approved reclamation and revegetation report will need to be submitted to the OCD via the Permitting website.	6/25/2025