

## Remediation Closure and Reclamation Report

**Hawkins GY #4**

**API: 30-015-00252**

**Incident ID: nAPP2222242315**

**Unit F, Section 27, Township 18 South, Range 26 East**

**County: Eddy**

**Coordinates: 32.72337, -104.37303**

Prepared for:

**Riley Permian Operating Company, LLC.**

**Formerly: Silverback Operating II, LLC.**

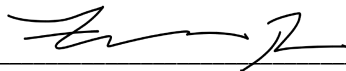
108 South 4<sup>th</sup> Street

Artesia, New Mexico 88210

**New Mexico Oil Conservation Division – District 2 – Artesia**

508 West Texas Avenue

Artesia, New Mexico 88210



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SENIOR EHSR SPECIALIST, REPORTING

January 22, 2026

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Date

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## 1.0 Introduction

Riley Permian Operating Company Inc. (Riley Permian) formally Silverback Operating II, LLC. (Silverback) is submitting a Remediation Closure and Reclamation Report for a produced water release that occurred on August 10, 2022, at Hawkins GY #4 (hereafter referred to as the "site"). Silverback submitted an initial C-141 release notification to the New Mexico Oil Conservation Division (NMOCD) District 2 on August 10, 2022. Incident ID number nAPP2222242315 was assigned to this incident.

This report provides a description of the site assessment, remediation and reclamation 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 reclamation of the release site was completed following the completion of remediation activities as per 19.15.29.13 NMAC.

## 2.0 Incident Description

The release occurred on August 10, 2022, due to pumping operations on an offset completion for some nearby wells communicated with the Hawkins GY #4 plugged and abandoned (P&A) wellbore, which caused fluids to breach out of the wellbore and impact surrounding areas of the reclaimed site. Silverback submitted the initial C-141 which describes the release of an unknown volume of fracking fluids into the surrounding reclaimed pad areas. Approximately 18,036 barrels (bbls.) fluids were recovered and recoverable impacted materials were scraped off during the initial site assessment and clean-up. Additional details relevant to the release are presented in the C-141 Report.

## 3.0 Site Characteristics

The site is located approximately 8.35 miles southeast of Artesia, New Mexico (Google Inc., 2025). The legal location for the site is Unit F, Section 27, Township 18 South and Range 26 East in Eddy County, New Mexico. The release area is located on private 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 the site was a gas well prior to P&A operations. The following sections specifically describe the release area surrounding the site and surrounding areas.

*The Geological Map of New Mexico* (New Mexico Bureau of Geology and Mineral Resources, 2025) indicates the site's surface geology primarily comprises Qp – Piedmont alluvial deposits (Holocene to lower Pleistocene) and is characterized as loamy. The predominant soil texture on the site is Reagan loam. Soils can be classified as well-drained with a low runoff class. The karst geology at the site is characterized as low potential (United States Department of the Interior, Bureau of Land Management, 2018).

The surrounding landscape is associated with plain, fan piedmont, and terrace landforms with elevations ranging between 2,800 and 5,000 feet. The climate is semiarid with average annual precipitation ranging between 7 and 15 inches. Using information from the United States Department of Agriculture, the historical plant community was

determined to be a black grama and dropseed dominated grassland. Blue grama also occurs as a subdominant species. Litter and bare ground compose a significant proportion of the ground cover while grasses compose the remainder. Fire suppression, and the loss of grass cover due to overgrazing and drought may facilitate the increase and encroachment of shrubs (United States Department of Agriculture, Natural Resources Conservation Service, 2025).

#### 4.0 Closure Criteria Determination

The nearest active well to the site is a private well (RA 03055) located approximately 0.12 miles north of the site with a recorded depth to groundwater of 79.54 feet below ground surface (bgs; New Mexico Office of the State Engineer, 2025b). Information pertaining to the depth to ground water determination is included in Appendix A.

On December 6, 2023, a temporary groundwater determination and monitoring bore was installed and analyzed by Carmona Resources. The boring was drilled to a depth of 98 feet bgs. The open borehole was temporarily cased and stabilized. After 72 hours, the borehole was gauged for groundwater. Groundwater was detected at approximately 75 feet bgs. There is no surface water present at the site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, are features for the Rio Penasco located approximately 1.24 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.

Silverback Operating II, LLC.  
Hawkins GY #4

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<b>Table 1. Closure Criteria Determination</b>			
<b>Site Specific Conditions</b>		<b>Value</b>	<b>Unit</b>
1	Depth to Groundwater (nearest reference)	75	feet
	Distance between release and nearest DTGW reference	89	feet
		0.02	miles
Date of nearest DTGW reference measurement		December 6, 2023	
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	6,382	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	6,557	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	275	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or	430	feet
	ii) Within 1000 feet of any fresh water well or spring		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	14,386	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
	Distance between release and nearest registered mine	18,951	feet
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
	Distance between release and nearest unstable area	19,619	feet
10	Within a 100-year Floodplain	>500	year
	Distance between release and nearest FEMA Zone A (100-year Floodplain)	6,315	feet
11	Soil Type	Rc: Reagan loam	
12	Ecological Classification	R042CY153NM — Loamy	
13	Geology	Qp - Piedmont alluvial deposits	
	<b>NMAC 19.15.29.12 E (Table 1) Closure Criteria</b>	<50'	<50' 51-100' >100'

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Hawkins GY #4

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

<b>Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS</b>	<b>Constituent</b>	<b>Limit</b>
Within 300 feet of an occupied residence; Within 500 feet of a private, domestic water well	Chloride	600 mg/kg
	TPH (GRO+DRO+MRO)	100 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

TDS – Total dissolved solids

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

BTEX – benzene, toluene, ethylbenzene and xylenes

## 5.0 Remediation Work Plan Approval and Correspondence

### 5.1 Remediation Work Plan Initial Rejection by NMOCD

On February 10, 2023, the C-141 application for a remediation work plan approval was denied. Silverback was emailed details stating:

*“The Remediation Plan is Denied. The OCD believes additional investigation needs to be completed adjacent to the Hawkins GY #4 well. Additional surveillance boreholes need to be put in to investigate lost subsurface fluids that communicated with the Hawkins GY #4 during the completion of the adjacent well. A thorough investigation will need to be conducted in close proximity of the Hawkins GY #4 well in an attempt to trace the path of fluids from the offset completion to the Hawkins GY #4 well. Boreholes in close proximity to the Hawkins GY #4 well should be dropped to the agreed upon depth and converted to monitoring wells if groundwater or trapped fluids in the strata are encountered. The OCD is obligated to make sure a complete and thorough investigation is performed. A site conceptual model using subsurface geologic and hydrologic data should be developed after the investigation around the Hawkins GY #4 well has been completed. 400 ft2 Floor/Sidewall confirmation samples approved.”*

On February 16, 2023, Carmona Resources and Silverback had a meeting with the NMOCD to discuss the next steps forward with the remediation project and how a temporary monitoring well needed to be installed. On December 6, 2023, Carmona Resources contracted HCl Drilling to drill the temporary monitoring well to 98 feet bgs, with groundwater encountered at approximately 75 feet bgs. The monitoring well was temporarily cased and stabilized.

### 5.1 Groundwater Sampling Activities and Discussion

Groundwater investigation sampling activities were conducted on December 20, 2023. Carmona Resources collected a groundwater sample in accordance with New Mexico Oil Conservation Division (NMOCD) water sampling procedures as outlined in 20.6.2 NMAC. The sample was submitted to Eurofins Midland under standard chain-of-custody protocols for laboratory analysis. Analytical parameters included benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B; total petroleum hydrocarbons (GRO, DRO, and MRO) by EPA Method 8015D; total chlorides by EPA

Method 300.0; total dissolved solids; nitrate; and sulfate. Additional analytes included calcium, magnesium, potassium, sodium, silica (SiO<sub>2</sub>), and fluoride. General water quality parameters evaluated included alkalinity (total, bicarbonate as CaCO<sub>3</sub>, carbonate as CaCO<sub>3</sub>, hydroxide, and phenolphthalein), anion/cation balance, and specific conductance.

The groundwater analytical results were subsequently reviewed and discussed during a meeting held on May 3, 2024 via Microsoft Teams, between NMOCD representatives Mike Bratcher and Robert Hamlet and representatives from Silverback Operating II, LLC and Carmona Resources. During the meeting, groundwater data collected from the temporary monitoring bore at Hawkins GY #4 were evaluated, and Mr. Bratcher confirmed that the results indicated no groundwater impacts associated with the release. Verbal approval of the proposed remediation plan was provided at that time. Subsequently, the remediation work plan was submitted through the NMOCD portal on November 11, 2024 and then approved on January 13, 2025. Groundwater laboratory results are presented in Table 3, and the laboratory data report is included in Appendix B. Email correspondence and meeting notes of these events are presented in Appendix C.

## 6.0 Remedial Actions Taken

The remedial activities were completed following the proposed remediation plan which was conditionally approved by NMOCD on January 13, 2025. The plan included a sampling variance requesting permission to use a sampling size variance of 400 square feet and approval to lay down liner in areas of BH-5 and BH-6 at 4 feet bgs. On March 11, 2025, a revised variance request was approved to lay down the liner at 10 feet bgs instead of 4 feet bgs. A copy of the variance request correspondence approval is included in Appendix D. Site characterization activities were conducted by Carmona Resources on September 16, 2022, and December 19, 2023. A total of nine sampling boreholes were established to obtain both horizontal and vertical delineation. From these boreholes, a total of 76 samples were collected at various depths and submitted to Envirotech, Inc. in Farmington, New Mexico, for laboratory analysis. Characterization laboratory results are presented in Table 3.

Remediation efforts began on February 12, 2025, and were finalized on March 19, 2025. Vertex Resources supervised the excavation of impacted soils. Soil sampling was completed with a total of 132 sample points and consisted of field screen analysis using a Photo Ionization Detector (volatile hydrocarbons), Dexsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons) and Silver Nitrate titrations (chlorides). Field screening results were used to identify areas requiring further remediation. Impacted soil was transported by a licensed waste hauler and disposed of at an approved waste management facility. The final daily field report with photographs of the remediated site prior to backfill is included in Appendix E.

Notification that confirmatory samples were being collected was provided to the NMOCD two business days prior to conducting final sampling pursuant to 19.15.29.12.D(1)(a). Confirmatory base floor and sidewall samples were collected from the surfaces of the excavation in 400 square foot increments. A total of 132 confirmation samples (93 base samples and 39 wall samples) were collected for laboratory analysis following NMOCD soil sampling procedures. Samples were submitted to Cardinal Laboratories 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). The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The excavation extent and the final sampling locations were mapped utilizing

a handheld GPS and are presented on Figures 2 and 3. Laboratory results are presented in Table 4, and the laboratory data reports are included in Appendix F.

## 6.0 Remediation Closure Request

No additional remedial actions are recommended at the site. Laboratory analyses of confirmation samples collected at the site show final confirmatory values below the applicable NMOCD closure criteria, as presented in Table 2. There are no anticipated risks to human, ecological, or hydrological receptors at this site. The excavation was backfilled with non-waste-containing, uncontaminated, earthen material, sourced locally, and placed to meet the site's existing grade to prevent water ponding and erosion. The reclamation requirements of 19.15.29.13 NMAC were completed following backfilling activities and are outlined in Section 7.0, below.

On behalf of Silverback, Riley Permian requests that this incident (nAPP2222242315) be closed as all closure requirements set forth in Subsection E of 19.15.29.12 NMAC have been met. Riley Permian certifies that all information in this report and appendices are 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 site.

Should you have any questions or concerns, please do not hesitate to contact Fernando Rodriguez at fernandorodriguez@rileypermian.com.

## 7.0 Reclamation Report

The Reclamation Report for the site is detailed below. This report outlines the principles that were used during the surface reclamation phase for the site.

### 7.1 End Land Use and Capability

The land use surrounding the site is defined as natural; therefore, the end land use would be natural land. A natural area is described as: away from human habitation and activities, where the primary concern is the protection of ecological receptors. The site was reclaimed so that the capability of the land will match that of the areas immediately surrounding the site, which consists of rangeland.

### 7.2 Infrastructure Decommissioning

All equipment, infrastructure, and associated components have been decommissioned and removed as part of past reclamation efforts.

### 7.3 Reclamation Procedures

#### 7.3.1 Excavation Backfill

Restoration of the site included the replacement of removed materials to the near original relative positions and contoured to achieve erosion control, long-term stability and preservation of surface water flow patterns. The excavation was backfilled on March 20, 2025, and was finalized on March 25, 2025. Approximately 14,580 cubic yards of materials were used for backfilling the excavation and used as topsoil for reclamation. Materials used for backfilling procedures were sampled and submitted for laboratory analysis for constituents as described in Table 1 of 19.15.29

NMAC. On April 7, 2025, three representative 5-point composite samples were collected from the backfill material that was used for the reclamation of the remediated areas. Analytical results for these samples are presented in Table 4, and the laboratory data report is included in Appendix F. The site photographs showing the backfilled remediated areas is included in Appendix E.

### **7.3.2 HDPE Liner Installation**

The remediation plan, which was initially approved by the NMOCD on January 13, 2025, included the condition of installing a liner in the area of BH-5 and BH-6 after backfilling these excavated areas. On March 11, 2025, a revised variance request was approved to lay down the liner at 10 feet bgs instead of the initial 4 feet bgs depth. A 30-mil string reinforced HDPE liner was installed after areas of BH-5 and BH-6 were backfilled to 10 feet bgs. The liner was unrolled and positioned with overlaps at the seams, ensuring proper alignment and coverage of the excavated area. The seams were sealed and anchored as per manufacturer specifications to maintain impermeability and structural integrity. The liner installation was conducted under the supervision of a Vertex Resources representative to ensure adherence to design specifications and to confirm that the liner meets performance standards for containment and environmental performance. After the liner was installed across the backfilled 10 feet bgs areas, the remaining depths were covered with more backfill material. The site photographs documenting the liner installation is included in Appendix E.

### **7.3.3 Contouring**

The site was contoured to match surrounding topography as near as practicable to restore natural drainage, which is generally in a west-to-east direction. Compaction on the site was addressed by decompaction via cross ripping to a maximum depth of 18 inches (or as site conditions allow) with a furrow spacing of 2 feet. Decompaction activities were conducted post-backfill and pre-seeding to maximize seed to soil contact and promote vegetation establishment.

### **7.3.4 Access Road and Pad**

The supplementary access road and pad areas associated with the site were reclaimed by removing caliche materials from the surfaces. Locally sourced topsoil was brought in to replace the scraped surface materials and maintain background contours. The start of the access road had a berm constructed to prevent vehicle traffic and unauthorized access to the location. The map outlining the reclamation areas is presented on Figure 4.

### **7.3.5 Erosion Control**

There are currently no erosion concerns on-site, and the use of erosion control devices at this site was not anticipated; however, erosion control devices will be installed at the discretion of the on-site environmental inspector during monitoring activities.

### **7.3.6 Seeding**

Seeding activities commenced and were completed on March 27, 2025. A seed mix suitable for the site and surrounding area was used and applied at appropriate rates. New Mexico State Land Office loamy seed mix was obtained for the site and administered at an application rate of 18 PLS/acre. Seeding methods were completed using a tractor with a no-till seed drill on all areas under reclamation. Seed establishment and revegetation will be monitored bi-annually to determine success. The proposed seed mixture and application document is included in Appendix F. The site photographs documenting reclamation activities and the seeding of the site is also included in Appendix E.

### **7.3.7 Fertilization**

Fertilizer application was not planned but will be incorporated into the contoured topsoil and/or upper subsoil to improve soil nutrient content, if deemed necessary or as per landowner recommendations.

### **7.4 Reclamation Standards**

Reclamation of all disturbed areas will be considered complete when uniform vegetative cover has been established that reflects a life-form ratio of plus or minus 50% of pre-disturbance levels and a total percent plant cover of at least 70% of pre-disturbance levels, excluding noxious weeds.

### **7.5 Weed Management**

The site will be monitored for vegetative growth throughout all phases of the project. Should state classified noxious weeds be identified on-site, a control program will be implemented and managed as required.

Weed management programs will identify weed species of concern and utilize effective control methods. These methods include but are not limited to chemical (herbicide) control, mechanical (mowing) control or biological control as approved by governing regulatory agencies.

### **8.0 Monitoring Program**

Bi-annual inspections will be conducted, during the growing season, to monitor site progression and assess the need for additional best management practices (BMPs). Inspections will include photographs of the site and BMPs implemented.

## 9.0 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 Department of Surface Water Quality Bureau. (2025). *Assessed and Impaired Waters of New Mexico*. Retrieved from <https://gis.web.env.nm.gov/oem/?map=swqb>
- New Mexico Mining and Minerals Division. (2025). *Coal Mine Resources in New Mexico*. Retrieved from <https://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=5f80f3b0faa545e58fe747cc7b037a93>
- New Mexico Office of the State Engineer. (2025a). *Point of Diversion Location Report - New Mexico Water Rights Reporting System*. Retrieved from <http://nmwrrs.ose.state.nm.us/nmwrrs/wellSurfaceDiversion.html>
- New Mexico Office of the State Engineer. (2025b). *Water Column/Average Depth to Water Report - New Mexico Water Rights Reporting System*. Retrieved from <http://nmwrrs.ose.state.nm.us/nmwrrs/waterColumn.html>
- New Mexico Office of the State Engineer. (2025c). *Well Log/Meter Information Report - New Mexico Water Rights Reporting System*. Retrieved from <http://nmwrrs.ose.state.nm.us/nmwrrs/meterReport.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](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>

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Hawkins GY #4

Remediation Closure and Reclamation Report  
January 2026

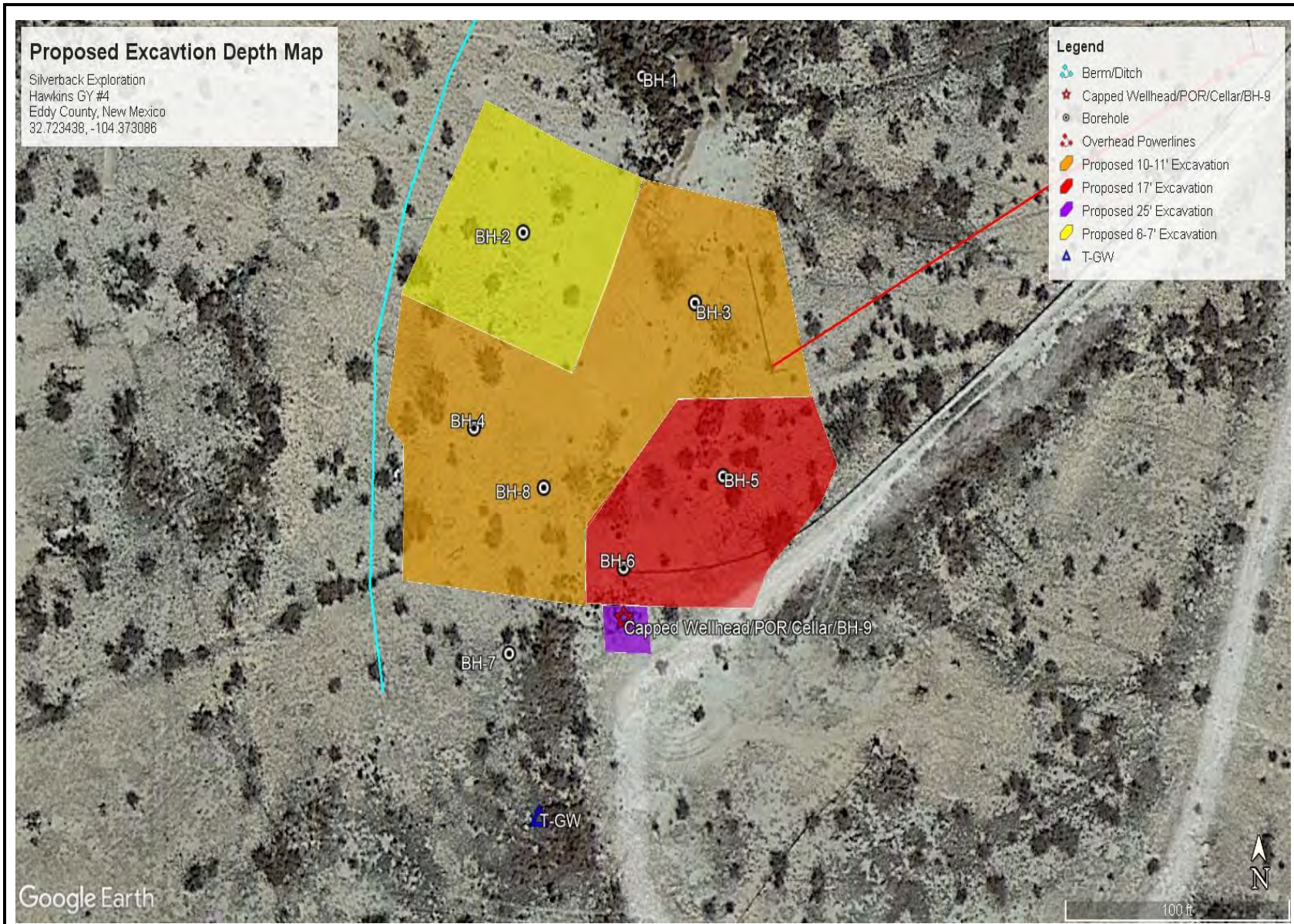
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## 10.0 Limitations

This report has been prepared for the sole benefit of Riley Permian Operating Company, LLC. / Silverback Operating II, LLC. This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation District. 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 based on the data collected during the assessment. Conclusions and recommendations presented in this report should not be considered legal advice.

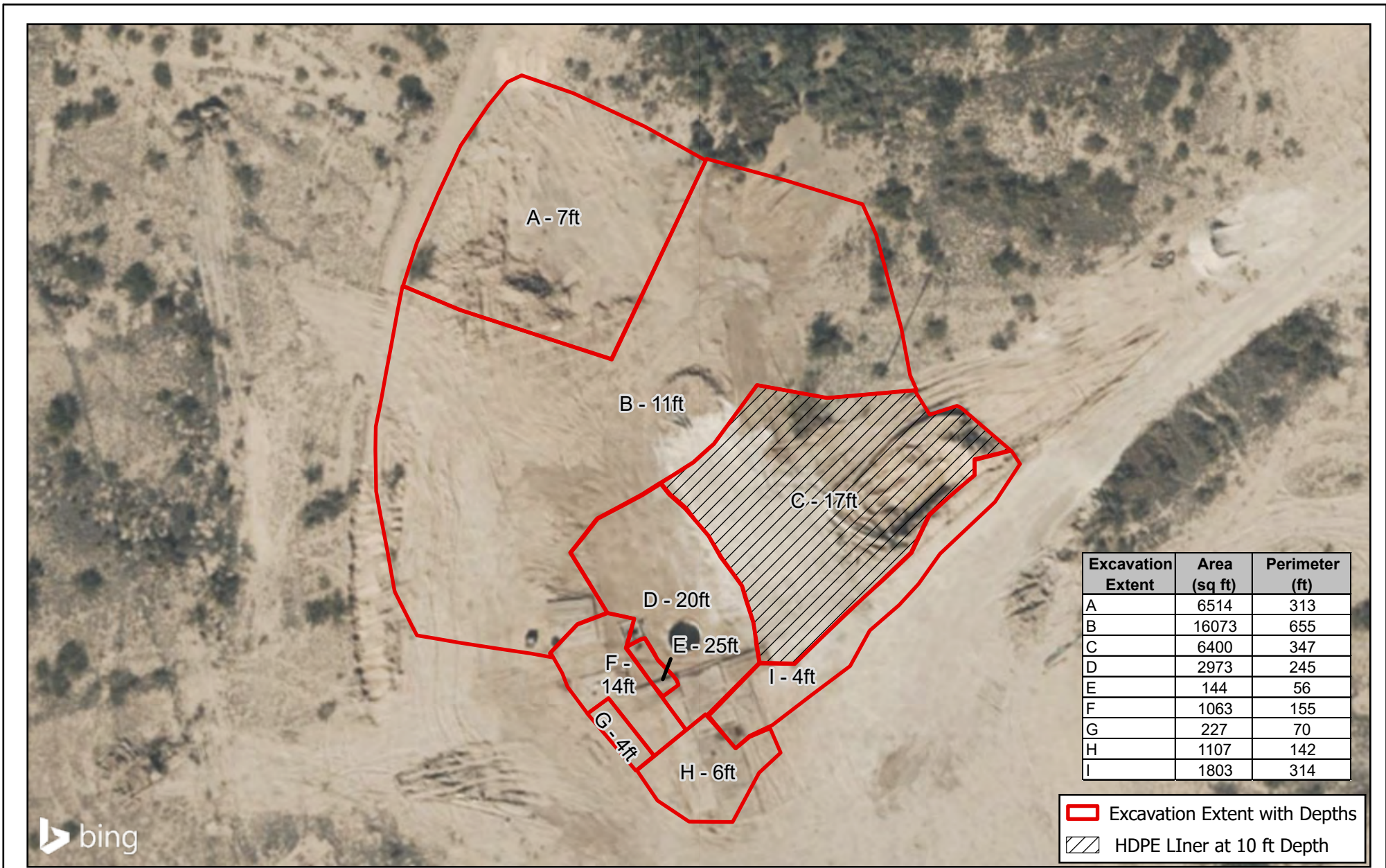
## **FIGURES**



CHARACTERIZATION SAMPLING SITE SCHEMATIC  
SILVERBACK EXPLORATION  
HAWKINS GY #4  
EDDY COUNTY, NEW MEXICO  
32.723438, -104.373086



FIGURE 1



Map Center:  
Lat/Long: 32.723582°N, 104.373065°W

Date: Apr 28/25

NAD 1983 StatePlane New Mexico East FIPS 3001 Feet

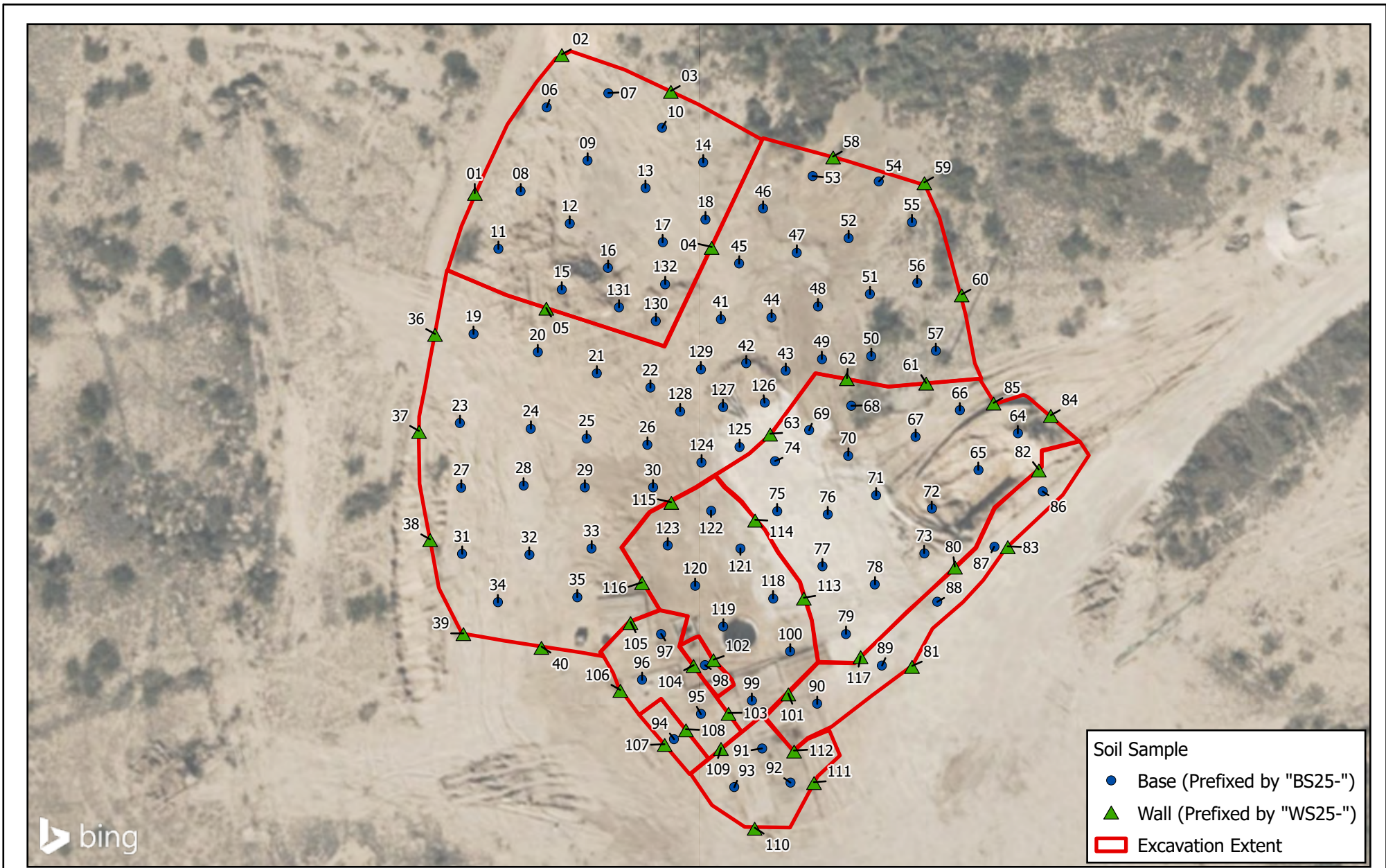
**Excavation Site Schematic**  
**Hawkins GY #4**

FIGURE:  
2

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

Note: Georeferenced image from Esri, 2025. Site features from GPS, Vertex, 2025.

**VERSATILITY. EXPERTISE.**



**VERTEX**

Map Center:  
Lat/Long: 32.723573°N, 104.373127°W  
Date: Apr 28/25

0 20 40 ft  
NAD 1983 StatePlane New Mexico East FIPS 3001 Feet

**Confirmation Sampling Site Schematic  
Hawkins GY #4**

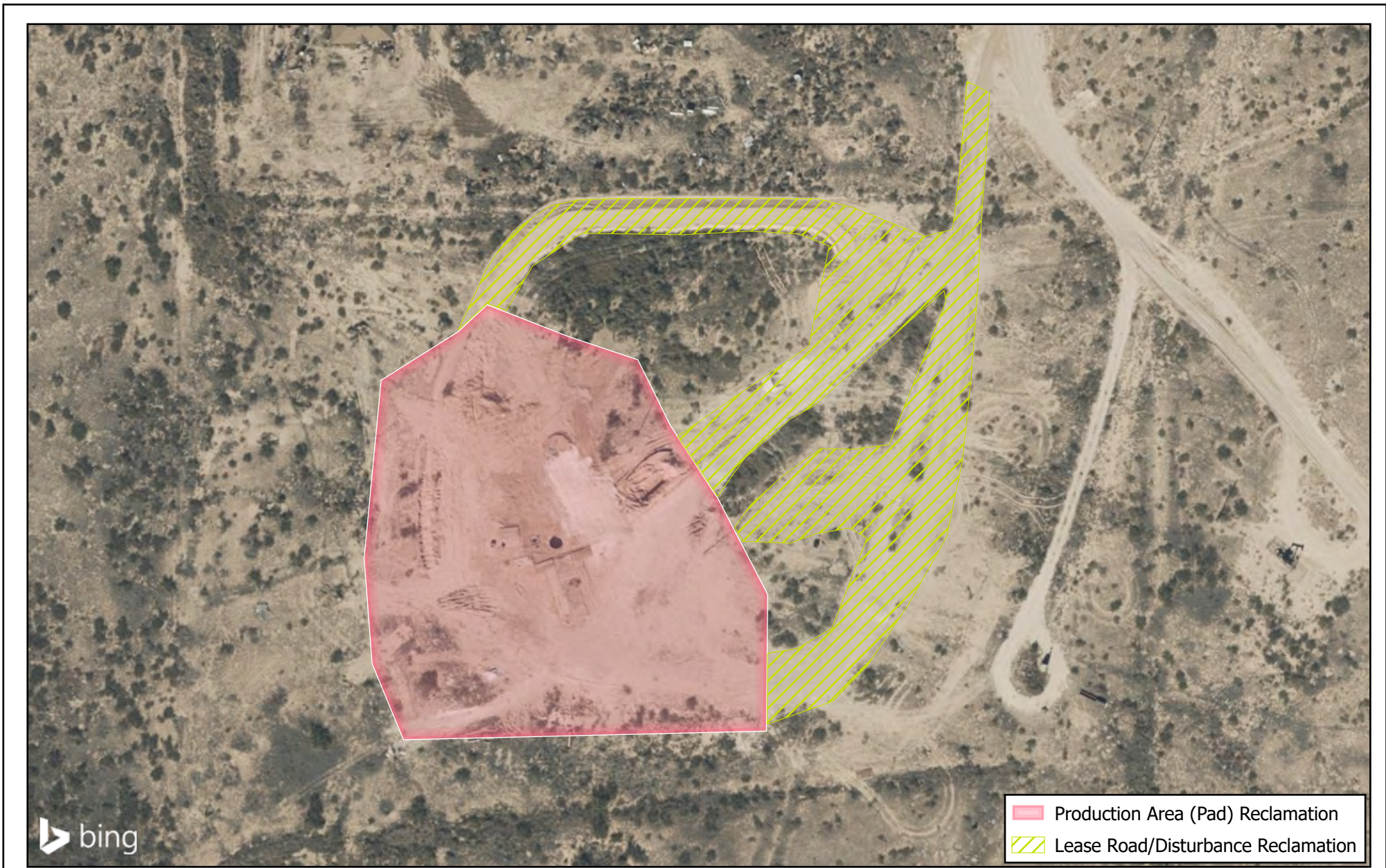
**FIGURE:  
3**

**SILVERBACK  
EXPLORATION**

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

Note: Georeferenced image from Esri, 2025. Site features from GPS, Vertex, 2025.

**VERSATILITY. EXPERTISE.**



Map Center:  
 Lat/Long: 32.723625°N, 104.372682°W  
 Date: Apr 28/25  
 0 50 100 ft  
 NAD 1983 StatePlane New Mexico East FIPS 3001 Feet



**Reclamation Areas Site Schematic  
 Hawkins GY #4**

**FIGURE:  
 4**



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

Note: Georeferenced image from Esri, 2025. Site features from GPS, Vertex, 2025.

**VERSATILITY. EXPERTISE.**

## **TABLES**

**Table 3 (pg. 1)  
Groundwater Sampling Data  
Laboratory Results  
Hawkins GY #4  
Eddy County, New Mexico**

Sample ID	Date	TPH (mg/kg)				Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	Total BTEX (mg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Nitrate as N (mg/L)	Sulfate (mg/L)
		GRO	DRO	MRO	Total									
<b>T-GW</b>	12/20/2023	<4.66	<4.66	<4.66	<4.66	<0.00100	<0.00100	<0.00100	<0.0100	<0.0100	94.2	1,190	0.745	530
<i>Regulatory Criteria<sup>A</sup></i>					-	0.005 mg/L	1.0 mg/L	-	-	-	250 mg/L	1,000 mg/L	10.0 mg/L	600 mg/L

**Other Constituents Tested**

Sample ID	Date	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	SiO2 (mg/L)	Sodium (mg/L)	Fluoride (mg/L)	Anion/Cation Balance (%)	Alkalinity (mg/L)	Bicarbonate Alkalinity as CaCO3 (mg/L)	Carbonate Alkalinity as CaCO3 (mg/L)	Hydroxide Alkalinity (mg/L)	Phenolphthalein Alkalinity (mg/L)	Specific Conductance (umho/cm @ 25°C)
<b>T-GW</b>	12/20/2023	215	51.1	2.18	44.9	29.3	0.744	-6.92	170	170	<4.00	<4.00	<4.00	1,510
<i>Regulatory Criteria<sup>A</sup></i>														

(-) Not Analyzed

<sup>A</sup> - Table 1 - 20.6.2 NMAC  
mg/L - milligram per liter

**Table 3 (pg. 2)**  
**Initial Characterization Laboratory Results**  
**Hawkins GY #4**  
**Eddy County, New Mexico**

Sample ID	Date	Depth (ft)	TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			GRO	DRO	MRO	Total						
<b>BH-1</b>	9/16/2022	0-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	"	2-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>BH-2</b>	9/16/2022	0-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	<b>709</b>
	"	2-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	513
	"	4-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	<b>862</b>
	"	6-7	ND	ND	ND	ND	ND	ND	ND	ND	ND	219
	"	8-9	ND	ND	ND	ND	ND	ND	ND	ND	ND	171
	"	10-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	531
<b>BH-3</b>	9/16/2022	0-1	ND	<b>115</b>	<b>319</b>	<b>434</b>	ND	ND	ND	ND	ND	<b>1,280</b>
	"	2-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	<b>20,900</b>
	"	4-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	<b>1,580</b>
	"	6-7	ND	ND	ND	ND	ND	ND	ND	ND	ND	<b>1,570</b>
	"	8-9	ND	ND	ND	ND	ND	ND	ND	ND	ND	<b>2,640</b>
	"	10-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	121
<b>BH-4</b>	9/16/2022	0-1	ND	<b>132</b>	ND	<b>132</b>	ND	ND	ND	ND	ND	<b>890</b>
	"	2-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	537
	"	4-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	427
	"	6-7	ND	ND	ND	ND	ND	ND	ND	ND	ND	421
	"	8-9	ND	ND	ND	ND	ND	ND	ND	ND	ND	<b>666</b>
	"	10-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	556
	"	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	438
	"	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	395
	"	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	378
	"	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	125
<b>Regulatory Criteria<sup>A</sup></b>						<b>100 mg/kg</b>	<b>10 mg/kg</b>	-	-	-	<b>50 mg/kg</b>	<b>600 mg/kg</b>

(-) Not Analyzed

<sup>A</sup> – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH- Total Petroleum Hydrocarbons



ft-feet

(BH) Bore Hole

 Proposed Excavation

**Table 3 (Pg. 3)**  
**Initial Characterization Laboratory Results**  
**Silverback Exploration**  
**Hawkins GY #4**  
**Eddy County, New Mexico**

Sample ID	Date	Depth (ft)	TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			GRO	DRO	MRO	Total						
BH-5	9/16/2022	0-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,110
	"	2-3	ND	109	60.4	169	ND	0.0265	0.032	0.0275	0.086	4,860
	"	4-5	ND	104	ND	104	0.045	0.145	0.157	0.096	0.443	2,820
	"	6-7	ND	83.5	92.6	176	ND	ND	ND	ND	ND	3,520
	"	8-9	ND	44.4	ND	44.4	ND	ND	ND	ND	ND	2,950
	"	10-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	5,690
	"	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,210
	"	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,310
	"	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,930
	"	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	358
BH-6	9/16/2022	0-1	ND	139	67.1	206	ND	ND	ND	ND	ND	1,080
	"	2-3	ND	113	ND	113	ND	ND	ND	ND	ND	2,020
	"	4-5	ND	97.4	ND	97.4	ND	ND	ND	ND	ND	2,410
	"	6-7	ND	102	ND	102	ND	0.0285	ND	0.0285	ND	2,300
	"	8-9	ND	ND	ND	ND	0.0405	0.055	0.045	0.1405	ND	2,150
	"	10-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,590
	"	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	577
	"	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	605
	"	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,100
	"	17	ND	ND	ND	ND	ND	ND	ND	ND	ND	610
BH-7	9/16/2022	0-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	499
	"	2-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	160
	"	4-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	413
	"	6-7	ND	ND	ND	ND	ND	ND	ND	ND	ND	327
	"	8-9	ND	ND	ND	ND	ND	ND	ND	ND	ND	488
BH-8	9/16/2022	0-1	ND	ND	ND	ND	0.025	0.035	ND	0.06	ND	1,080
	"	2-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,700
	"	4-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,930
	"	6-7	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,300
	"	8-9	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,410
BH-9	12/19/23	0-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,380
	"	2-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,980
	"	4-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,340
	"	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,170
	"	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,530
	"	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	850
	"	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	471
	"	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	566
	"	40	ND	ND	ND	ND	ND	ND	ND	ND	ND	192
Regulatory Criteria <sup>A</sup>						100 mg/kg	10 mg/kg	-	-	-	50 mg/kg	600 mg/kg

(-) Not Analyzed  
<sup>A</sup> - Table 1 - 19.15.29 NMAC  
 mg/kg - milligram per kilogram  
 TPH- Total Petroleum Hydrocarbons  
 ft-feet  
 (BH) Bore Hole  
 Proposed Excavation  
 Proposed Liner Instillation

**Table 3 (Pg. 4)**  
**Initial Characterization Laboratory Results**  
**Silverback Exploration**  
**Hawkins GY #4**  
**Eddy County, New Mexico**

Sample ID	Date	Depth (ft)	TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			GRO	DRO	MRO	Total						
H-1	9/16/2022	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
H-2	9/16/2022	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
H-3	9/16/2022	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
H-4	9/16/2022	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	168
H-5	9/16/2022	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	193
H-6	9/16/2022	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	373
<i>Regulatory Criteria<sup>A</sup></i>						100 mg/kg	10 mg/kg	-	-	-	50 mg/kg	600 mg/kg

(-) Not Analyzed

<sup>A</sup> – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH- Total Petroleum Hydrocarbons

ft-feet

(H) Horizontal

Client Name: Silverback Operating II, LLC.  
 Site Name: Hawkins GY #4  
 NMOCD Tracking #: nAPP2222242315  
 Project #: 25A-00778  
 Lab Reports: H251241, H251323, H251422, H251616, and H252202

Table 4. Confirmation Sampling Field Screen and Laboratory Results

Table 4. Confirmation Sampling Field Screen and Laboratory Results													
Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Volatile		Extractable					Chloride Concentration
						Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	
Closure Criteria for Soils Impacted by a Release - Table 1 of 19.15.29.12 NMAC													
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
WS25-01	0-7	February 27, 2025	-	-	203	ND	ND	ND	ND	ND	ND	ND	16
WS25-02	0-7	February 27, 2025	-	-	102	ND	ND	ND	ND	ND	ND	ND	16
WS25-03	0-7	February 27, 2025	-	-	244	ND	ND	ND	ND	ND	ND	ND	16
WS25-04	7-11	February 27, 2025	-	-	267	ND	ND	ND	ND	ND	ND	ND	352
WS25-05	7-11	February 27, 2025	-	-	336	ND	ND	ND	ND	ND	ND	ND	304
BS25-06	7	February 27, 2025	-	-	224	ND	ND	ND	ND	ND	ND	ND	240
BS25-07	7	February 27, 2025	-	-	300	ND	ND	ND	ND	ND	ND	ND	240
BS25-08	7	February 27, 2025	-	-	163	ND	ND	ND	ND	ND	ND	ND	304
BS25-09	7	February 27, 2025	-	-	182	ND	ND	ND	ND	ND	ND	ND	240
BS25-10	7	February 27, 2025	-	-	331	ND	ND	ND	ND	ND	ND	ND	256
BS25-11	7	February 27, 2025	-	-	101	ND	ND	ND	ND	ND	ND	ND	192
BS25-12	7	February 27, 2025	-	-	259	ND	ND	ND	ND	ND	ND	ND	272
BS25-13	7	February 27, 2025	-	-	305	ND	ND	ND	ND	ND	ND	ND	256
BS25-14	7	February 27, 2025	-	-	161	ND	ND	ND	ND	ND	ND	ND	240
BS25-15	7	February 27, 2025	-	-	235	ND	ND	ND	ND	ND	ND	ND	240
BS25-16	7	February 27, 2025	-	-	193	ND	ND	ND	ND	ND	ND	ND	240
BS25-17	7	February 27, 2025	-	-	379	ND	ND	ND	ND	ND	ND	ND	240
BS25-18	7	February 27, 2025	-	-	124	ND	ND	ND	ND	ND	ND	ND	288
BS25-19	11	February 28, 2025	-	-	195	ND	ND	ND	ND	ND	ND	ND	256
BS25-20	11	February 28, 2025	-	-	316	ND	ND	ND	ND	ND	ND	ND	256
BS25-21	11	February 28, 2025	-	-	126	ND	ND	ND	ND	ND	ND	ND	240
BS25-22	11	February 28, 2025	-	-	418	ND	ND	ND	ND	ND	ND	ND	240
BS25-23	11	February 28, 2025	-	-	122	ND	ND	ND	ND	ND	ND	ND	176
BS25-24	11	February 28, 2025	-	-	239	ND	ND	ND	ND	ND	ND	ND	240
BS25-25	11	February 28, 2025	-	-	129	ND	ND	ND	ND	ND	ND	ND	224
BS25-26	11	February 28, 2025	-	-	345	ND	ND	ND	ND	ND	ND	ND	272
BS25-27	11	February 28, 2025	-	-	295	ND	ND	ND	ND	ND	ND	ND	240
BS25-28	11	February 28, 2025	-	-	296	ND	ND	ND	ND	ND	ND	ND	240
BS25-29	11	February 28, 2025	-	-	340	ND	ND	ND	ND	ND	ND	ND	304
BS25-30	11	February 28, 2025	-	-	245	ND	ND	ND	ND	ND	ND	ND	288
BS25-31	11	February 28, 2025	-	-	235	ND	ND	ND	ND	ND	ND	ND	288
BS25-32	11	February 28, 2025	-	-	272	ND	ND	ND	ND	ND	ND	ND	304
BS25-33	11	February 28, 2025	-	-	215	ND	ND	ND	ND	ND	ND	ND	272
BS25-34	11	February 28, 2025	-	-	450	ND	ND	ND	ND	ND	ND	ND	304
BS25-35	11	February 28, 2025	-	-	451	ND	ND	ND	ND	ND	ND	ND	304
WS25-36	0-11	February 28, 2025	-	-	253	ND	ND	ND	ND	ND	ND	ND	304
WS25-37	0-11	February 28, 2025	-	-	127	ND	ND	ND	ND	ND	ND	ND	288
WS25-38	0-11	February 28, 2025	-	-	321	ND	ND	ND	ND	ND	ND	ND	240
WS25-39	0-11	February 28, 2025	-	-	250	ND	ND	ND	ND	ND	ND	ND	224
WS25-40	0-11	February 28, 2025	-	-	195	ND	ND	ND	ND	ND	ND	ND	224
BS25-41	11	March 1, 2025	-	-	147	ND	ND	ND	ND	ND	ND	ND	256
BS25-42	11	March 1, 2025	-	-	185	ND	ND	ND	ND	ND	ND	ND	208
BS25-43	11	March 1, 2025	-	-	177	ND	ND	ND	ND	ND	ND	ND	256
BS25-44	11	March 1, 2025	-	-	135	ND	ND	ND	ND	ND	ND	ND	224
BS25-45	11	March 1, 2025	-	-	389	ND	ND	ND	ND	ND	ND	ND	240
BS25-46	11	March 1, 2025	-	-	260	ND	ND	ND	ND	ND	ND	ND	272
BS25-47	11	March 1, 2025	-	-	460	ND	ND	ND	ND	ND	ND	ND	240
BS25-48	11	March 1, 2025	-	-	288	ND	ND	ND	ND	ND	ND	ND	240
BS25-49	11	March 1, 2025	-	-	295	ND	ND	ND	ND	ND	ND	ND	304
BS25-50	11	March 1, 2025	-	-	289	ND	ND	ND	ND	ND	ND	ND	256
BS25-51	11	March 1, 2025	-	-	208	ND	ND	ND	ND	ND	ND	ND	288

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

**Bold and grey: exceeds NMOCD Closure Criteria (on-pad)**

**Bold and green: exceeds NMOCD Reclamation Criteria (off-pad)**



Client Name: Silverback Operating II, LLC.  
 Site Name: Hawkins GY #4  
 NMOCD Tracking #: nAPP2222242315  
 Project #: 25A-00778  
 Lab Reports: H251241, H251323, H251422, H251616, and H252202

Table 4. Confirmation Sampling Field Screen and Laboratory Results

Sample Description			Field Screening			Petroleum Hydrocarbons						Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Volatile		Extractable				Chloride Concentration
						Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	
Closure Criteria for Soils Impacted by a Release - Table 1 of 19.15.29.12 NMAC												
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BS25-52	11	March 1, 2025	-	-	209	ND	ND	ND	ND	ND	ND	272
BS25-53	11	March 1, 2025	-	-	210	ND	ND	ND	ND	ND	ND	320
BS25-54	11	March 1, 2025	-	-	445	ND	ND	ND	ND	ND	ND	352
BS25-55	11	March 1, 2025	-	-	249	ND	ND	ND	ND	ND	ND	336
BS25-56	11	March 1, 2025	-	-	239	ND	ND	ND	ND	ND	ND	384
BS25-57	11	March 1, 2025	-	-	306	ND	ND	ND	ND	ND	ND	352
WS25-58	0-11	March 1, 2025	-	-	224	ND	ND	ND	ND	ND	ND	368
WS25-59	0-11	March 1, 2025	-	-	124	ND	ND	ND	ND	ND	ND	368
WS25-60	0-11	March 1, 2025	-	-	137	ND	ND	ND	ND	ND	ND	496
WS25-61	11-17	March 1, 2025	-	-	432	ND	ND	ND	ND	ND	ND	448
WS25-62	11-17	March 1, 2025	-	-	225	ND	ND	ND	ND	ND	ND	528
WS25-63	11-17	March 3, 2025	-	-	204	ND	ND	ND	ND	ND	ND	336
BS25-64	17	March 3, 2025	-	-	239	ND	ND	ND	ND	ND	ND	432
BS25-65	17	March 3, 2025	-	-	287	ND	ND	ND	ND	ND	ND	464
BS25-66	17	March 3, 2025	-	-	274	ND	ND	ND	ND	ND	ND	304
BS25-67	17	March 3, 2025	-	-	203	ND	ND	ND	ND	ND	ND	288
BS25-68	17	March 3, 2025	-	-	273	ND	ND	ND	ND	ND	ND	272
BS25-69	17	March 3, 2025	-	-	170	ND	ND	ND	ND	ND	ND	288
BS25-70	17	March 3, 2025	-	-	389	ND	ND	ND	ND	ND	ND	240
BS25-71	17	March 3, 2025	-	-	293	ND	ND	ND	ND	ND	ND	320
BS25-72	17	March 3, 2025	-	-	353	ND	ND	ND	ND	ND	ND	272
BS25-73	17	March 3, 2025	-	-	279	ND	ND	ND	ND	ND	ND	224
BS25-74	17	March 3, 2025	-	-	245	ND	ND	ND	ND	ND	ND	256
BS25-75	17	March 3, 2025	-	-	224	ND	ND	ND	ND	ND	ND	160
BS25-76	17	March 3, 2025	-	-	235	ND	ND	ND	ND	ND	ND	176
BS25-77	17	March 3, 2025	-	-	227	ND	ND	ND	ND	ND	ND	144
BS25-78	17	March 3, 2025	-	-	260	ND	ND	ND	ND	ND	ND	192
BS25-79	17	March 3, 2025	-	-	212	ND	ND	ND	ND	ND	ND	128
WS25-80	4-17	March 3, 2025	-	-	245	ND	ND	ND	ND	ND	ND	288
WS25-81	0-4	March 3, 2025	-	-	158	ND	ND	ND	ND	ND	ND	96
WS25-82	4-17	March 3, 2025	-	-	385	ND	ND	ND	ND	ND	ND	288
WS25-83	0-4	March 3, 2025	-	-	109	ND	ND	ND	ND	ND	ND	32
WS25-84	0-17	March 3, 2025	-	-	129	ND	ND	ND	ND	ND	ND	288
WS25-85	0-17	March 3, 2025	-	-	285	ND	ND	ND	ND	ND	ND	272
BS25-86	4	March 10, 2025	-	-	191	ND	ND	ND	ND	ND	ND	64
BS25-87	4	March 10, 2025	-	-	150	ND	ND	ND	ND	ND	ND	64
BS25-88	4	March 10, 2025	-	-	231	ND	ND	ND	ND	ND	ND	32
BS25-89	4	March 10, 2025	-	-	120	ND	ND	ND	ND	ND	ND	48
BS25-90	4	March 10, 2025	-	-	258	ND	ND	ND	ND	ND	ND	16
BS25-91	6	March 10, 2025	-	-	285	ND	ND	ND	ND	ND	ND	240
BS25-92	6	March 10, 2025	-	-	221	ND	ND	ND	ND	ND	ND	208
BS25-93	6	March 10, 2025	-	-	202	ND	ND	ND	ND	ND	ND	256
BS25-94	4	March 10, 2025	-	-	204	ND	ND	ND	ND	ND	ND	96
BS25-95	14	March 10, 2025	-	-	227	ND	ND	ND	ND	ND	ND	96
BS25-96	14	March 10, 2025	-	-	235	ND	ND	ND	ND	ND	ND	112
BS25-97	14	March 10, 2025	-	-	300	ND	ND	ND	ND	ND	ND	64
BS25-98	25	March 10, 2025	-	-	245	ND	ND	ND	ND	ND	ND	320
BS25-99	20	March 10, 2025	-	-	195	ND	ND	ND	ND	ND	ND	256
BS25-100	20	March 10, 2025	-	-	270	ND	ND	ND	ND	ND	ND	208
WS25-101	4-20	March 10, 2025	-	-	302	ND	ND	ND	ND	ND	ND	224
WS25-102	20-25	March 10, 2025	-	-	174	ND	ND	ND	ND	ND	ND	240
WS25-103	14-20	March 10, 2025	-	-	175	ND	ND	ND	ND	ND	ND	464
WS25-104	14-25	March 10, 2025	-	-	176	ND	ND	ND	ND	ND	ND	208
WS25-105	11-14	March 10, 2025	-	-	177	ND	ND	ND	ND	ND	ND	224
WS25-106	0-14	March 13, 2025	-	-	178	ND	ND	ND	ND	ND	ND	272
WS25-107	0-4	March 13, 2025	-	-	179	ND	ND	ND	ND	ND	ND	32

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

**Bold and grey: exceeds NMOCD Closure Criteria (on-pad)**

**Bold and green: exceeds NMOCD Reclamation Criteria (off-pad)**



Client Name: Silverback Operating II, LLC.  
 Site Name: Hawkins GY #4  
 NMOCD Tracking #: nAPP2222242315  
 Project #: 25A-00778  
 Lab Reports: H251241, H251323, H251422, H251616, and H252202

Table 4. Confirmation Sampling Field Screen and Laboratory Results													
Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Volatile		Extractable					Chloride Concentration
						Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
<b>Closure Criteria for Soils Impacted by a Release - Table 1 of 19.15.29.12 NMAC</b>													
WS25-108	4-14	March 13, 2025	-	-	180	ND	ND	ND	ND	ND	ND	ND	272
WS25-109	6-14	March 13, 2025	-	-	181	ND	ND	ND	ND	ND	ND	ND	272
WS25-110	0-6	March 13, 2025	-	-	182	ND	ND	ND	ND	ND	ND	ND	48
WS25-111	0-6	March 13, 2025	-	-	183	ND	ND	ND	ND	ND	ND	ND	80
WS25-112	4-6	March 13, 2025	-	-	184	ND	ND	ND	ND	ND	ND	ND	224
WS25-113	17-20	March 13, 2025	-	-	185	ND	ND	ND	ND	ND	ND	ND	240
WS25-114	17-20	March 13, 2025	-	-	186	ND	ND	ND	ND	ND	ND	ND	224
WS25-115	11-20	March 13, 2025	-	-	187	ND	ND	ND	ND	ND	ND	ND	352
WS25-116	11-20	March 17, 2025	-	-	188	ND	ND	ND	ND	ND	ND	ND	368
WS25-117	4-17	March 17, 2025	-	-	189	ND	ND	ND	ND	ND	ND	ND	240
BS25-118	20	March 17, 2025	-	-	190	ND	ND	ND	ND	ND	ND	ND	352
BS25-119	20	March 17, 2025	-	-	191	ND	ND	ND	ND	ND	ND	ND	352
BS25-120	20	March 17, 2025	-	-	192	ND	ND	ND	ND	ND	ND	ND	336
BS25-121	20	March 17, 2025	-	-	193	ND	ND	ND	ND	ND	ND	ND	256
BS25-122	20	March 17, 2025	-	-	194	ND	ND	ND	ND	ND	ND	ND	304
BS25-123	20	March 17, 2025	-	-	195	ND	ND	ND	ND	ND	ND	ND	288
BS25-124	11	March 17, 2025	-	-	196	ND	ND	ND	ND	ND	ND	ND	320
BS25-125	11	March 17, 2025	-	-	197	ND	ND	ND	ND	ND	ND	ND	368
BS25-126	11	March 18, 2025	-	-	198	ND	ND	ND	ND	ND	ND	ND	352
BS25-127	11	March 18, 2025	-	-	199	ND	ND	ND	ND	ND	ND	ND	368
BS25-128	11	March 18, 2025	-	-	200	ND	ND	ND	ND	ND	ND	ND	272
BS25-129	11	March 18, 2025	-	-	201	ND	ND	ND	ND	ND	ND	ND	400
BS25-130	7	March 18, 2025	-	-	202	ND	ND	ND	ND	ND	ND	ND	176
BS25-131	7	March 18, 2025	-	-	203	ND	ND	ND	ND	ND	ND	ND	160
BS25-132	7	March 18, 2025	-	-	204	ND	ND	ND	ND	ND	ND	ND	160
<b>Closure Criteria for Materials Used For Backfill - Table 1 of 19.15.29.12 NMAC</b>													
Backfill-01	0	April 7, 2025	-	-	205	ND	ND	ND	ND	ND	ND	ND	112
Backfill-02	0	April 7, 2025	-	-	206	ND	ND	ND	ND	ND	ND	ND	32
Backfill-03	0	April 7, 2025	-	-	207	ND	ND	ND	ND	ND	ND	ND	64

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

**Bold and grey: exceeds NMOCD Closure Criteria (on-pad)**  
**Bold and green: exceeds NMOCD Reclamation Criteria (off-pad)**



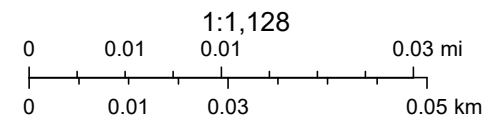
## **APPENDIX A - Closure Criteria Determination**

# Hawkins GY #4 - DTGW Reference



4/9/2025, 11:09:50 AM

- OSE Water PODs Incident Release
- Release Other



Maxar, Microsoft, Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., Esri, HERE, Garmin, IPC

New Mexico Oil Conservation Division



<b>Project Name :</b>	<b>Hawkins GY #4 (T-GW)</b>	<b>Date :</b>	<b>Wednesday, December 6, 2023</b>
<b>Project No. :</b>	<b>1123</b>	<b>Sampler :</b>	<b>Clinton Merritt</b>
<b>Location :</b>	<b>Eddy County, New Mexico</b>	<b>Driller :</b>	<b>HCI Drilling</b>
<b>Coordinates :</b>	<b>32.723182°, -104.373062°</b>	<b>Method :</b>	<b>Air Rotary</b>
<b>Elevation :</b>	<b>3,338'</b>		

Depth (ft.)	WL	Soil Description	Lithology	Depth (ft.)	WL	Soil Description	Lithology
0		Light brown, soft, medium (2.0-.43 mm) sand, with 20% Gypsum and limestone fragments. Dry, no organics, no odor (SC).		50		Dark brown soft, medium plastic clay, with silty (<.08 mm) sand. Dry, no organics, no odor (CL).	
5		Light brown, soft, medium (2.0-.43 mm) sand, with 20% Gypsum and limestone fragments. Dry, no organics, no odor (SC).		55		Dark brown soft, medium plastic clay, with silty (<.08 mm) sand. Dry, no organics, no odor (CL).	
10		Light brown, soft, medium (2.0-.43 mm) sand, with 20% Gypsum and limestone fragments. Dry, no organics, no odor (SC).		60		Dark brown soft, medium plastic clay, with silty (<.08 mm) sand. Dry, no organics, no odor (CL).	
15		Light brown, soft, medium (2.0-.43 mm) sand, with 20% Gypsum and limestone fragments. Dry, no organics, no odor (SC).		65		Dark brown soft clay, with silty (<.08 mm) sand. Dry, no organics, no odor (CL).	
20		White, loose, medium (2.0-.43 mm) sand, with 20% calcareous caliche. Dry, no organics, no odor (SC).		70		Dark brown soft, medium plastic clay, with silty (<.08 mm) sand. Dry, no organics, no odor (CL).	
25		White, loose, medium (2.0-.43 mm) sand, with 20% calcareous caliche. Dry, no organics, no odor (SC).		75		Dark brown soft, medium plastic clay, with silty (<.08 mm) sand. Moist, no organics, no odor (CL).	
30		Light brown fine (.43-.08 mm) sand with medium stiff clay. Dry, no organics, no odor (CL).		80		Dark brown highly plastic soft clay, with silty (<.08 mm) sand. Saturated, no organics, no odor (CH).	
35		Dark brown soft, medium plastic clay, with silty (<.08 mm) sand. Dry, no organics, no odor (CL).		85		Dark brown highly plastic soft clay, with silty (<.08 mm) sand. Saturated, no organics, no odor (CH).	
40		Dark brown soft, medium plastic clay, with silty (<.08 mm) sand. Dry, no organics, no odor (CL).		90		Dark brown highly plastic soft clay, with silty (<.08 mm) sand. Saturated, no organics, no odor (CH).	
45		Dark brown soft, medium plastic clay, with silty (<.08 mm) sand. Dry, no organics, no odor (CL).		95		(95' - 98') Dark brown highly plastic soft clay, with silty (<.08 mm) sand. Saturated, no organics, no odor (CH).	
50				98			

Comments : (12/5/23) - Boring terminated at 80' with no groundwater present.  
 (12/6/23) - Well measured with 0.5' of water inside casing. Boring terminated at 98' 11:00 AM (MT).



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

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

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

(quarters are smallest to largest)

(meters)

(In feet)

POD Number	Code	Sub basin	County	Q64	Q16	Q4	Sec	Tws	Range	X	Y	Map	Distance	Well Depth	Depth Water	Water Column
<a href="#">RA 03055</a>		RA	ED	NW	NE	NW	27	18S	26E	558757.0	3620986.0 *	●	192	146	85	61
<a href="#">RA 04701</a>		RA	ED		SW	SW	22	18S	26E	558456.0	3621290.0 *	●	577	80	55	25
<a href="#">RA 11952 POD1</a>	O	RA	ED	SE	NE	NE	28	18S	26E	558153.4	3620727.5	●	602	170	90	80
<a href="#">RA 11890 POD1</a>	O	RA	ED	NW	NW	SE	28	18S	26E	559160.8	3620210.2	●	712	175	85	90
<a href="#">RA 11506 POD1</a>	O	RA	ED	NW	SW	SW	22	18S	26E	558290.3	3621345.4	●	719	160	78	82

Average Depth to Water: **78 feet**

Minimum Depth: **55 feet**

Maximum Depth: **90 feet**

**Record Count:** 5

**UTM Filters (in meters):**

**Easting:** 558752

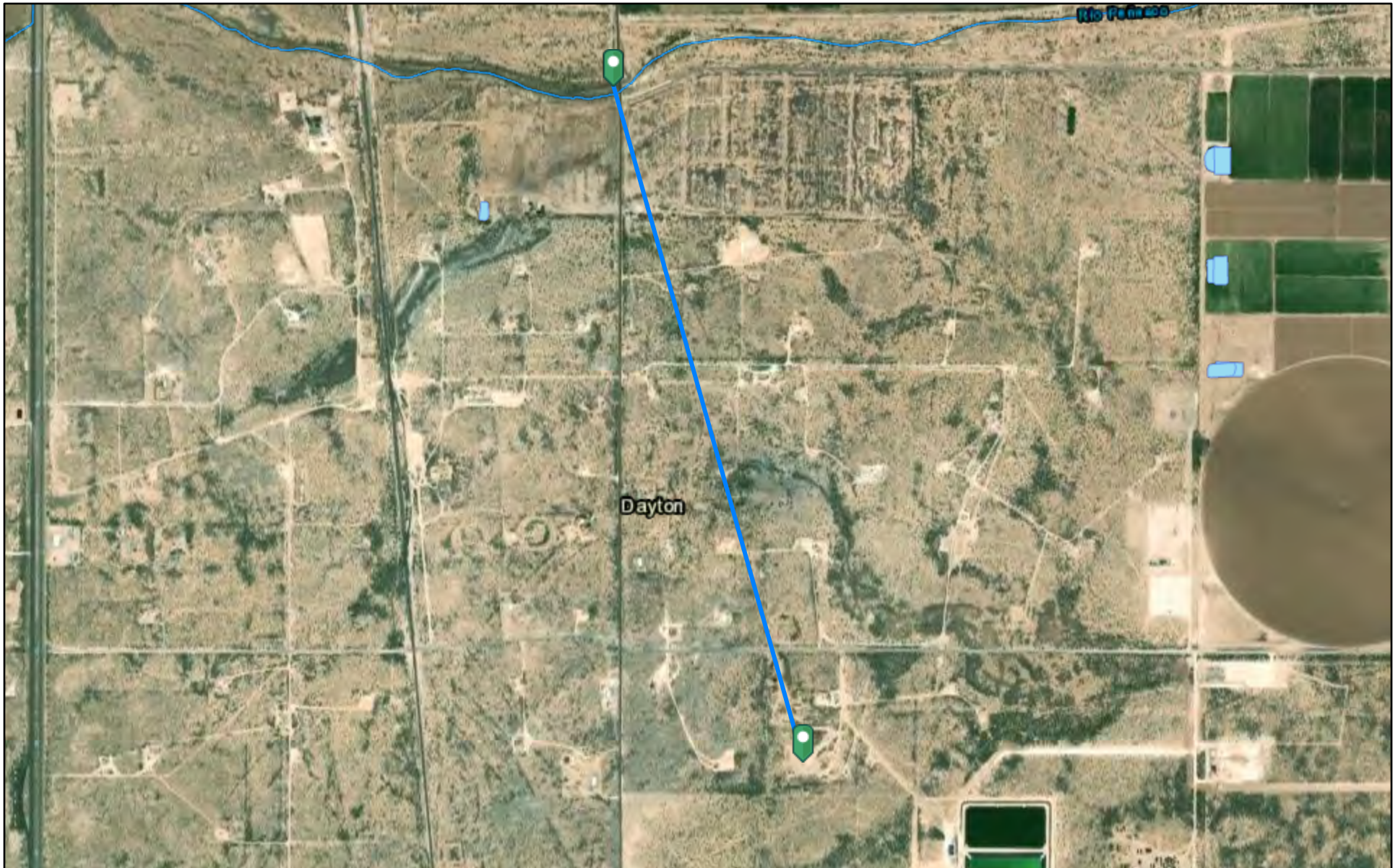
**Northing:** 3620794

**Radius:** 805



\* UTM location was derived from PLSS - see Help

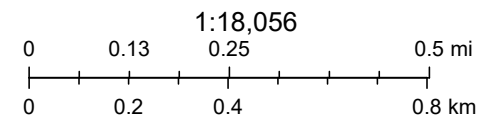
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

# Hawkins GY #4 - Watercourse



4/9/2025, 11:37:19 AM

-  OSW Water Bodies
-  OSE Streams





Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, Esri, HERE, Garmin, iPC, NM OSE

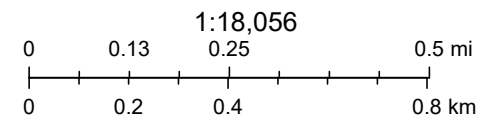
New Mexico Oil Conservation Division

# Hawkins GY #4 - Lake



4/9/2025, 2:21:45 PM

-  OSW Water Bodies
-  OSE Streams



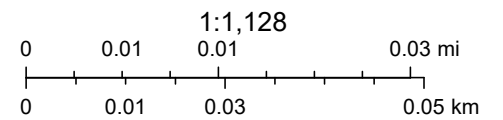
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, Esri, HERE, Garmin, iPC, NM OSE

New Mexico Oil Conservation Division

# Hawkins GY #4 - Residence

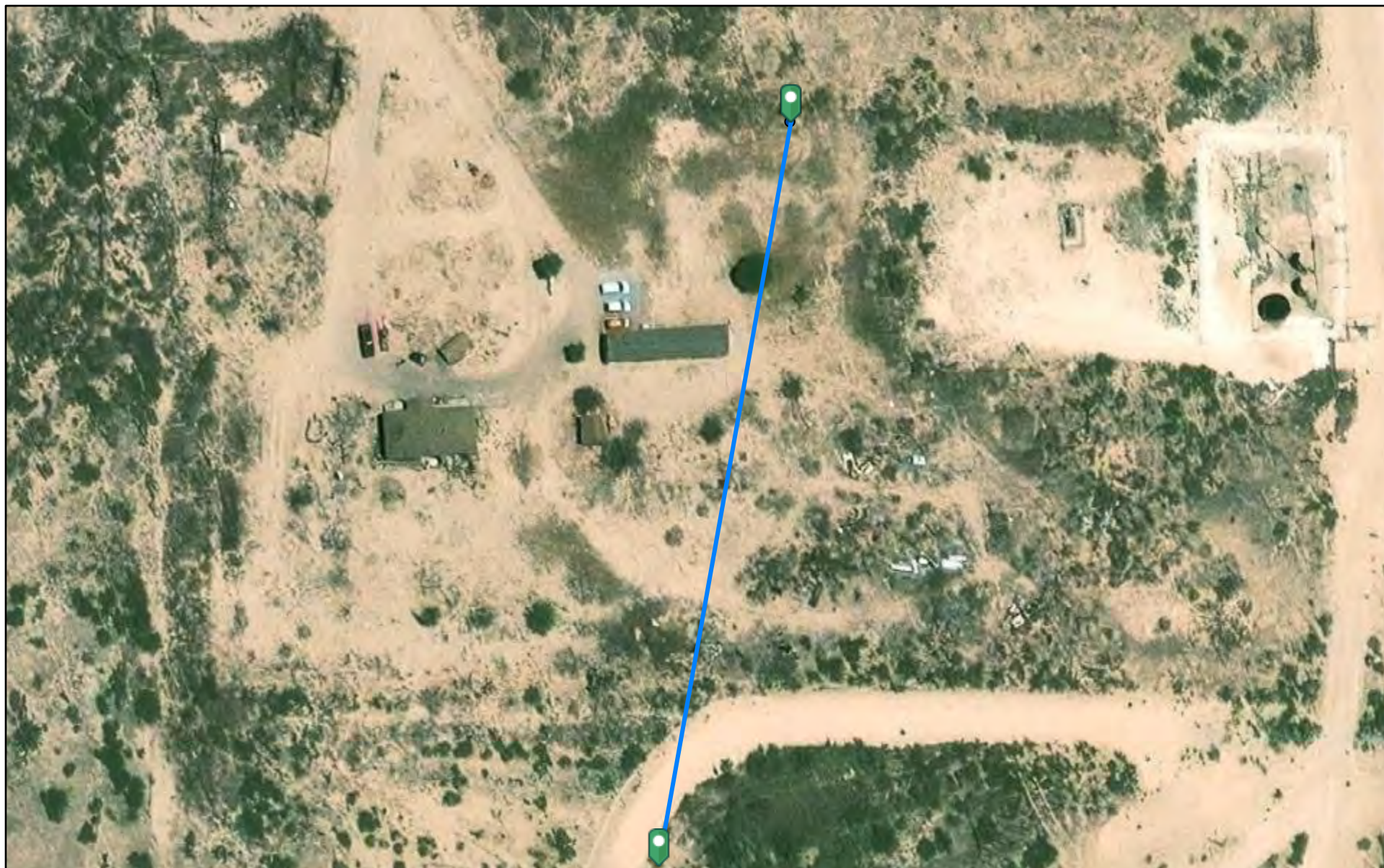


4/9/2025, 2:32:36 PM



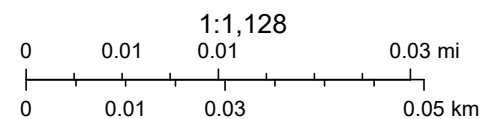
Maxar, Microsoft, Esri, HERE, Garmin, iPC, NM OSE

# Hawkins GY #4 - Fresh Water Well



4/9/2025, 2:48:37 PM

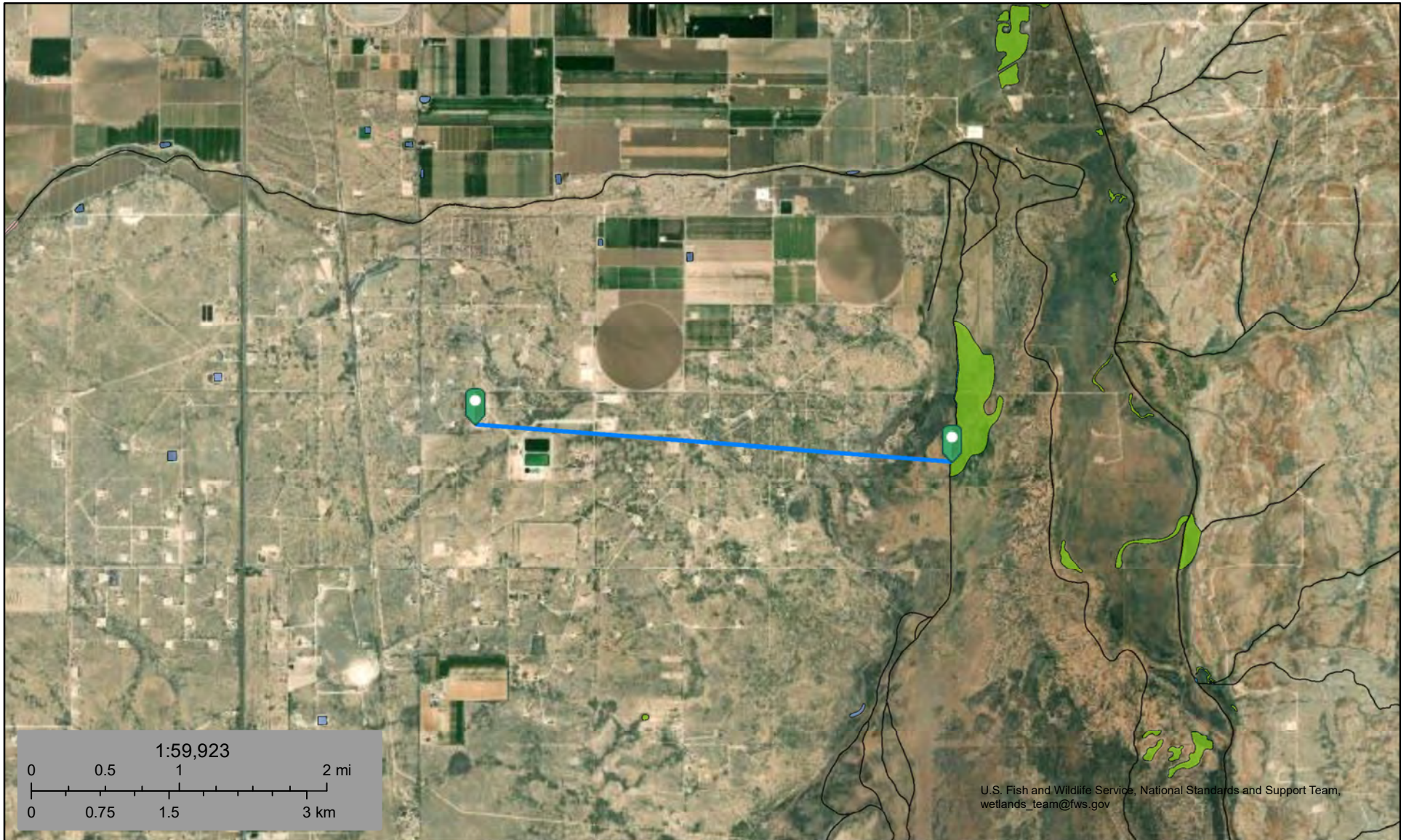
● OSE Water PODs



Maxar, Microsoft, Esri, HERE, Garmin, iPC, NM OSE



# Hawkins GY #4 - Wetland



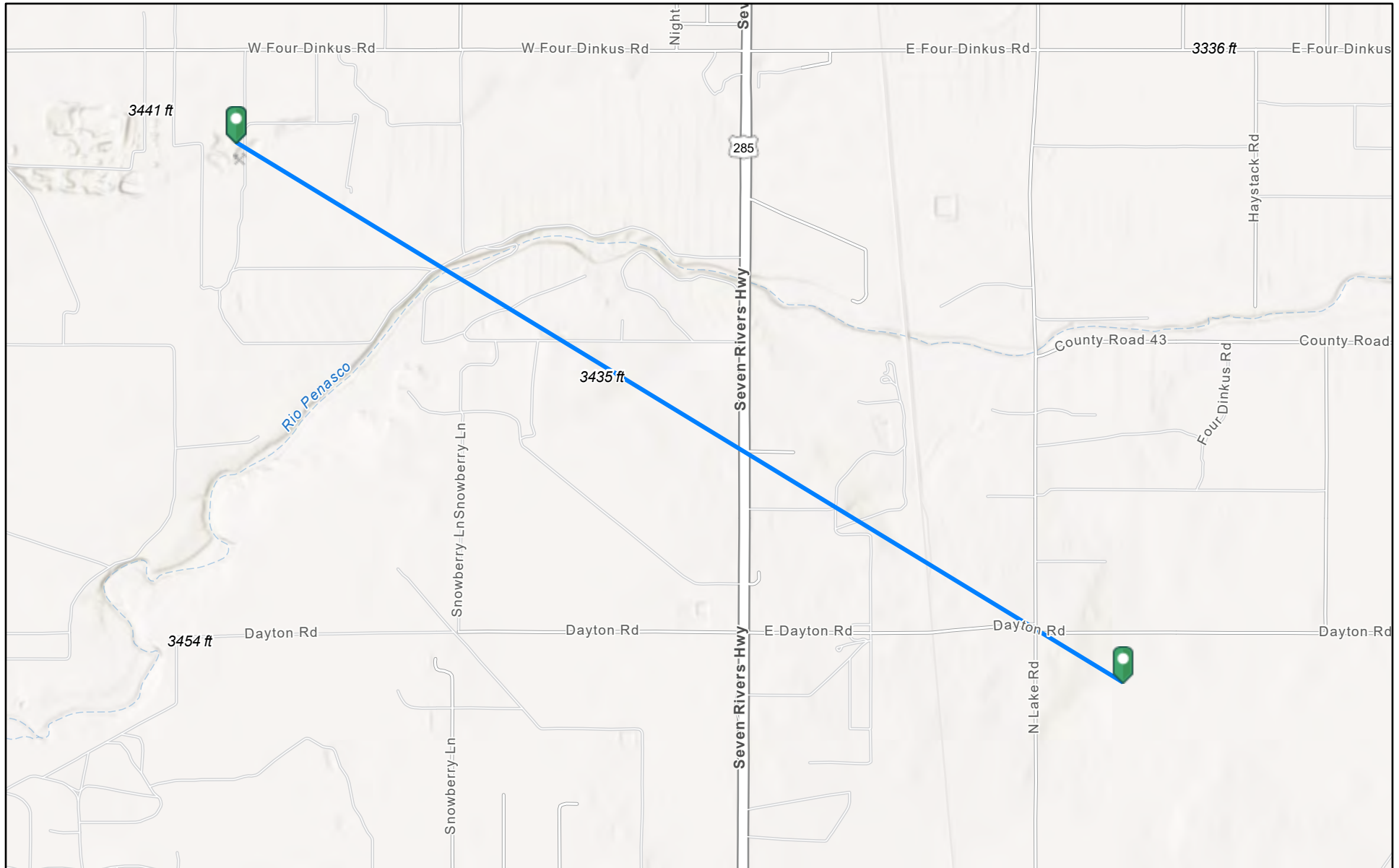
April 9, 2025

### Wetlands

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

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

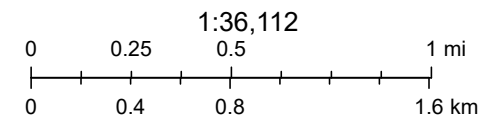
# Hawkins GY #4 - Mine



4/9/2025, 3:40:19 PM

Registered Mines

✕ Aggregate, Stone etc.



Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

EMNRD MMD GIS Coordinator




NM Energy, Minerals and Natural Resources Department (<http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=1b5e577974664d689b47790897ca2795>)

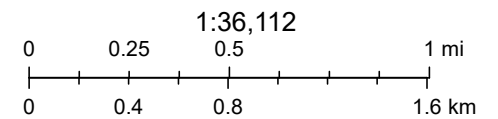
# Hawkins GY #4 - Karst



4/9/2025, 3:44:32 PM

Karst Occurrence Potential

	High		Medium
	Low		



BLM, OCD, New Mexico Tech, Esri, HERE, Garmin, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

New Mexico Oil Conservation Division

# National Flood Hazard Layer FIRMette



104°22'42"W 32°43'39"N



## Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
OTHER FEATURES		Profile Baseline
		Hydrographic Feature

MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



1:6,000

104°22'4"W 32°43'9"N

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

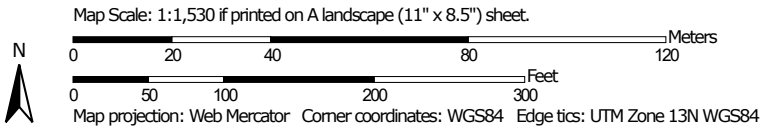
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/28/2025 at 8:44 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

### Custom Soil Resource Report Soil Map




Soil Map may not be valid at this scale.



Custom Soil Resource Report

**MAP LEGEND**

**Area of Interest (AOI)**

 Area of Interest (AOI)




















**Soils**







 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

**Special Point Features**






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features


**Water Features**

 Streams and Canals

**Transportation**

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

**Background**

 Aerial Photography

**MAP INFORMATION**

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

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

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

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

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

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

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

Soil Survey Area: Eddy Area, New Mexico  
 Survey Area Data: Version 20, Sep 3, 2024

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

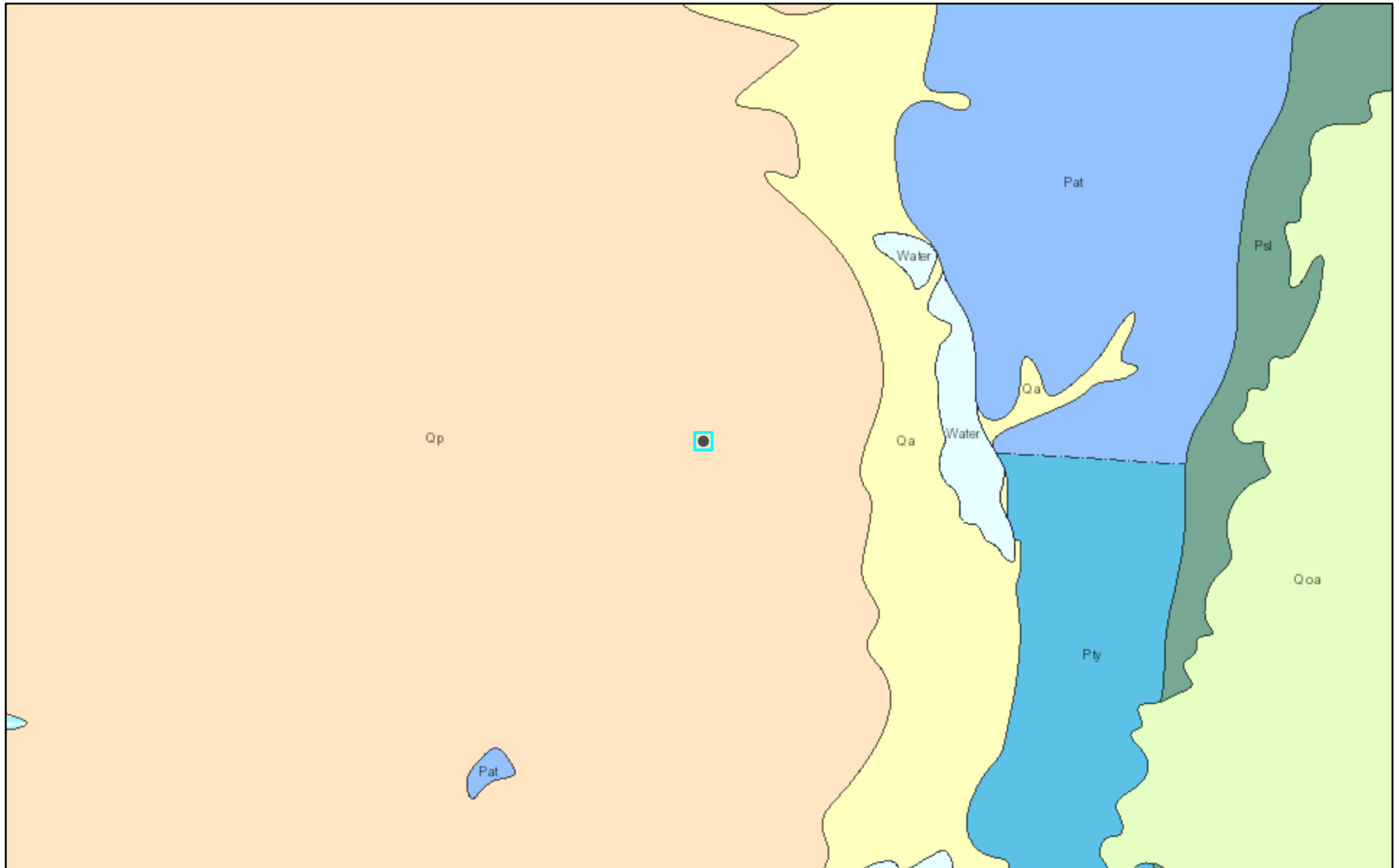
Date(s) aerial images were photographed: Nov 12, 2022—Dec 2, 2022

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

## Custom Soil Resource Report

**Eddy Area, New Mexico****Rc—Reagan loam, 0 to 1 percent slopes****Map Unit Setting***National map unit symbol:* 1w5l*Elevation:* 1,100 to 5,300 feet*Mean annual precipitation:* 7 to 15 inches*Mean annual air temperature:* 57 to 70 degrees F*Frost-free period:* 200 to 240 days*Farmland classification:* Farmland of statewide importance**Map Unit Composition***Reagan and similar soils:* 97 percent*Minor components:* 3 percent*Estimates are based on observations, descriptions, and transects of the mapunit.***Description of Reagan****Setting***Landform:* Fan remnants, alluvial fans*Landform position (three-dimensional):* Rise*Down-slope shape:* Convex, linear*Across-slope shape:* Linear*Parent material:* Alluvium and/or eolian deposits**Typical profile***H1 - 0 to 8 inches:* loam*H2 - 8 to 82 inches:* loam**Properties and qualities***Slope:* 0 to 1 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*Maximum salinity:* Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)*Sodium adsorption ratio, maximum:* 1.0*Available water supply, 0 to 60 inches:* Moderate (about 8.2 inches)**Interpretive groups***Land capability classification (irrigated):* 2e*Land capability classification (nonirrigated):* 6c*Hydrologic Soil Group:* B*Ecological site:* R070BC007NM - Loamy*Hydric soil rating:* No**Minor Components****Reeves***Percent of map unit:* 1 percent

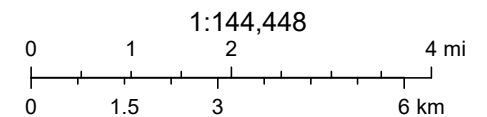
# Hawkins GY #4 - Geology



4/9/2025, 4:31:20 PM

### Lithologic Units

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



Esri, NASA, NGA, USGS, USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System,

ArcGIS Web AppBuilder

**APPENDIX B - Groundwater Laboratory Data Report  
and Chain of Custody Form**



Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Conner Moehring  
 Carmona Resources  
 310 W Wall St  
 Ste 500  
 Midland, Texas 79701

Generated 1/10/2024 11:28:46 AM

## JOB DESCRIPTION

Hawkins GY #4  
 Eddy County, New Mexico

## JOB NUMBER

880-37245-1

Eurofins Midland  
 1211 W. Florida Ave  
 Midland TX 79701



# Eurofins Midland

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Generated  
1/10/2024 11:28:46 AM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

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Client: Carmona Resources  
Project/Site: Hawkins GY #4

Laboratory Job ID: 880-37245-1  
SDG: Eddy County, New Mexico

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## Definitions/Glossary

Client: Carmona Resources  
Project/Site: Hawkins GY #4

Job ID: 880-37245-1  
SDG: Eddy County, New Mexico

## Qualifiers

## GC/MS VOA

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## 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.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

## Metals

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.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

## General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present

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### Definitions/Glossary

Client: Carmona Resources  
Project/Site: Hawkins GY #4

Job ID: 880-37245-1  
SDG: Eddy County, New Mexico

#### Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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

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## Case Narrative

Client: Carmona Resources  
Project: Hawkins GY #4

Job ID: 880-37245-1

**Job ID: 880-37245-1**

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### Job Narrative 880-37245-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

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

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

#### Receipt

The sample was received on 12/21/2023 3:20 PM. 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 5.2°C

#### GC/MS VOA

Method 8260D: The surrogate Toluene-d8 (Surr) recovery for the blank associated with analytical batch 860-136452 was outside the upper control limits.

Method 8260D: Internal standard 1,4-Dichlobenzene-d4 (ISTD) response for <AffectedAnalytes> for the following samples in analytical batch 860-136452 was outside acceptance criteria: T-GW (880-37245-1) and (MB 860-136452/8). This ISTD does not correspond to any of the requested target compounds reported from this analytical batch; therefore, the data have been reported.

Method 8260D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-136452 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.

#### GC Semi VOA

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

#### HPLC/IC

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-136275 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) recovery was within acceptance limits.

Method 300\_ORGFM\_28D: The following sample was diluted to bring the concentration of target analytes within the calibration range: T-GW (880-37245-1). Elevated reporting limits (RLs) are provided.

Method 300\_ORGFMS: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-136276 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 /laboratory control sample duplicate (LCS/LCSD) recovery is within acceptance limits.

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

#### Metals

Method 200.7: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 860-139740 and analytical batch 860-139896 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

#### General Chemistry

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

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### Case Narrative

Client: Carmona Resources  
Project: Hawkins GY #4

Job ID: 880-37245-1

**Job ID: 880-37245-1 (Continued)**

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### Client Sample Results

Client: Carmona Resources  
 Project/Site: Hawkins GY #4

Job ID: 880-37245-1  
 SDG: Eddy County, New Mexico

**Client Sample ID: T-GW**

**Lab Sample ID: 880-37245-1**

Date Collected: 12/20/23 16:30

Matrix: Water

Date Received: 12/21/23 15:20

**Method: SW846 8260D - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00100	U	0.00100		mg/L			12/22/23 22:39	1
Toluene	<0.00100	U	0.00100		mg/L			12/22/23 22:39	1
Ethylbenzene	<0.00100	U	0.00100		mg/L			12/22/23 22:39	1
m,p-Xylenes	<0.0100	U	0.0100		mg/L			12/22/23 22:39	1
o-Xylene	<0.00100	U	0.00100		mg/L			12/22/23 22:39	1
Xylenes, Total	<0.0100	U	0.0100		mg/L			12/22/23 22:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		63 - 144		12/22/23 22:39	1
4-Bromofluorobenzene (Surr)	123	*3	74 - 124		12/22/23 22:39	1
Dibromofluoromethane (Surr)	100		75 - 131		12/22/23 22:39	1
Toluene-d8 (Surr)	119		80 - 120		12/22/23 22:39	1

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.0100	U	0.0100		mg/L			12/22/23 22:39	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<4.66	U	4.66		mg/L			12/29/23 20:41	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<4.66	U	4.66		mg/L		12/28/23 08:06	12/29/23 20:41	1
Diesel Range Organics (Over C10-C28)	<4.66	U	4.66		mg/L		12/28/23 08:06	12/29/23 20:41	1
Oil Range Organics (Over C28-C36)	<4.66	U	4.66		mg/L		12/28/23 08:06	12/29/23 20:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 135	12/28/23 08:06	12/29/23 20:41	1
o-Terphenyl	76		70 - 135	12/28/23 08:06	12/29/23 20:41	1

**Method: EPA 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	94.2		0.500		mg/L			12/22/23 15:45	1
Nitrate as N	0.745		0.100		mg/L			12/22/23 15:45	1
Fluoride	0.744		0.500		mg/L			12/22/23 15:45	1
Nitrite as N	0.113		0.100		mg/L			12/22/23 15:45	1
Sulfate	530		5.00		mg/L			12/22/23 15:58	10

**Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	215		10.0		mg/L		01/09/24 00:26	01/09/24 16:26	50
Magnesium	51.1		0.200		mg/L		01/09/24 00:26	01/09/24 16:21	1
Potassium	2.18		0.500		mg/L		01/09/24 00:26	01/09/24 16:21	1
Sodium	29.3		0.500		mg/L		01/09/24 00:26	01/09/24 16:21	1
SiO2	44.9		1.07		mg/L		01/09/24 00:26	01/09/24 16:21	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anion/Cation Balance (SM 1030E)	-6.92				%			01/10/24 12:21	1

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### Client Sample Results

Client: Carmona Resources  
 Project/Site: Hawkins GY #4

Job ID: 880-37245-1  
 SDG: Eddy County, New Mexico

**Client Sample ID: T-GW**

**Lab Sample ID: 880-37245-1**

Date Collected: 12/20/23 16:30

Matrix: Water

Date Received: 12/21/23 15:20

**General Chemistry (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Alkalinity (SM 2320B)</b>	<b>170</b>		4.00		mg/L			12/27/23 12:20	1
<b>Bicarbonate Alkalinity as CaCO3 (SM 2320B)</b>	<b>170</b>		4.00		mg/L			12/27/23 12:20	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<4.00	U	4.00		mg/L			12/27/23 12:20	1
Hydroxide Alkalinity (SM 2320B)	<4.00	U	4.00		mg/L			12/27/23 12:20	1
Phenolphthalein Alkalinity (SM 2320B)	<4.00	U	4.00		mg/L			12/27/23 12:20	1
<b>Specific Conductance (SM 2510B)</b>	<b>1510</b>		10.0		umho/cm @ 25C			12/28/23 10:48	1
<b>Total Dissolved Solids (SM 2540C)</b>	<b>1190</b>		10.0		mg/L			12/27/23 13:41	1

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### Surrogate Summary

Client: Carmona Resources  
 Project/Site: Hawkins GY #4

Job ID: 880-37245-1  
 SDG: Eddy County, New Mexico

**Method: 8260D - Volatile Organic Compounds by GC/MS**

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-120)
860-64097-E-2 MS	Matrix Spike	111	89	96	99
880-37245-1	T-GW	97	123 *3	100	119
LCS 860-136452/3	Lab Control Sample	100	92	96	98
LCSD 860-136452/4	Lab Control Sample Dup	110	93	97	99
MB 860-136452/8	Method Blank	96	130 *3 S1+	88	123 S1+

**Surrogate Legend**

- DCA = 1,2-Dichloroethane-d4 (Surr)
- BFB = 4-Bromofluorobenzene (Surr)
- DBFM = Dibromofluoromethane (Surr)
- TOL = Toluene-d8 (Surr)

**Method: 8015B NM - Diesel Range Organics (DRO) (GC)**

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-135)	OTPH1 (70-135)
880-37245-1	T-GW	81	76
LCS 860-138133/2-A	Lab Control Sample	112	84
LCSD 860-138133/3-A	Lab Control Sample Dup	107	79
MB 860-138133/1-A	Method Blank	83	79

**Surrogate Legend**

- 1CO = 1-Chlorooctane
- OTPH = o-Terphenyl

### QC Sample Results

Client: Carmona Resources  
 Project/Site: Hawkins GY #4

Job ID: 880-37245-1  
 SDG: Eddy County, New Mexico

#### Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 860-136452/8  
 Matrix: Water  
 Analysis Batch: 136452

Client Sample ID: Method Blank  
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00100	U	0.00100		mg/L			12/22/23 15:49	1
Toluene	<0.00100	U	0.00100		mg/L			12/22/23 15:49	1
Ethylbenzene	<0.00100	U	0.00100		mg/L			12/22/23 15:49	1
m,p-Xylenes	<0.0100	U	0.0100		mg/L			12/22/23 15:49	1
o-Xylene	<0.00100	U	0.00100		mg/L			12/22/23 15:49	1
Xylenes, Total	<0.0100	U	0.0100		mg/L			12/22/23 15:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		63 - 144		12/22/23 15:49	1
4-Bromofluorobenzene (Surr)	130	*3 S1+	74 - 124		12/22/23 15:49	1
Dibromofluoromethane (Surr)	88		75 - 131		12/22/23 15:49	1
Toluene-d8 (Surr)	123	S1+	80 - 120		12/22/23 15:49	1

Lab Sample ID: LCS 860-136452/3  
 Matrix: Water  
 Analysis Batch: 136452

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.0500	0.05415		mg/L		108	75 - 125
Toluene	0.0500	0.05075		mg/L		101	70 - 130
Ethylbenzene	0.0500	0.05272		mg/L		105	75 - 125
m,p-Xylenes	0.0500	0.05117		mg/L		102	75 - 125
o-Xylene	0.0500	0.05389		mg/L		108	75 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		63 - 144
4-Bromofluorobenzene (Surr)	92		74 - 124
Dibromofluoromethane (Surr)	96		75 - 131
Toluene-d8 (Surr)	98		80 - 120

Lab Sample ID: LCSD 860-136452/4  
 Matrix: Water  
 Analysis Batch: 136452

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.0500	0.04958		mg/L		99	75 - 125	9	25
Toluene	0.0500	0.04591		mg/L		92	70 - 130	10	25
Ethylbenzene	0.0500	0.04678		mg/L		94	75 - 125	12	25
m,p-Xylenes	0.0500	0.04536		mg/L		91	75 - 125	12	25
o-Xylene	0.0500	0.04869		mg/L		97	75 - 125	10	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	110		63 - 144
4-Bromofluorobenzene (Surr)	93		74 - 124
Dibromofluoromethane (Surr)	97		75 - 131
Toluene-d8 (Surr)	99		80 - 120

### QC Sample Results

Client: Carmona Resources  
 Project/Site: Hawkins GY #4

Job ID: 880-37245-1  
 SDG: Eddy County, New Mexico

#### Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 860-64097-E-2 MS  
 Matrix: Water  
 Analysis Batch: 136452

Client Sample ID: Matrix Spike  
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00100	U	0.0500	0.05287		mg/L		105	66 - 142
Toluene	<0.00100	U	0.0500	0.05007		mg/L		99	59 - 139
Ethylbenzene	0.0347	F1	0.0500	0.09833	F1	mg/L		127	75 - 125
m,p-Xylenes	0.0179		0.0500	0.06853		mg/L		101	75 - 125
o-Xylene	0.00109		0.0500	0.05302		mg/L		104	75 - 125
<b>MS MS</b>									
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	111		63 - 144						
4-Bromofluorobenzene (Surr)	89		74 - 124						
Dibromofluoromethane (Surr)	96		75 - 131						
Toluene-d8 (Surr)	99		80 - 120						

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 860-138133/1-A  
 Matrix: Water  
 Analysis Batch: 138216

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 138133

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<5.00	U	5.00		mg/L		12/28/23 08:06	12/28/23 19:22	1
Diesel Range Organics (Over C10-C28)	<5.00	U	5.00		mg/L		12/28/23 08:06	12/28/23 19:22	1
Oil Range Organics (Over C28-C36)	<5.00	U	5.00		mg/L		12/28/23 08:06	12/28/23 19:22	1
<b>MB MB</b>									
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1-Chlorooctane	83		70 - 135	12/28/23 08:06	12/28/23 19:22	1			
o-Terphenyl	79		70 - 135	12/28/23 08:06	12/28/23 19:22	1			

Lab Sample ID: LCS 860-138133/2-A  
 Matrix: Water  
 Analysis Batch: 138216

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 138133

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	100	102.5		mg/L		103	70 - 135
Diesel Range Organics (Over C10-C28)	100	97.09		mg/L		97	70 - 135
<b>LCS LCS</b>							
Surrogate	%Recovery	Qualifier	Limits				
1-Chlorooctane	112		70 - 135				
o-Terphenyl	84		70 - 135				

### QC Sample Results

Client: Carmona Resources  
 Project/Site: Hawkins GY #4

Job ID: 880-37245-1  
 SDG: Eddy County, New Mexico

**Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)**

Lab Sample ID: LCSD 860-138133/3-A  
 Matrix: Water  
 Analysis Batch: 138216

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 138133

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	100	104.3		mg/L		104	70 - 135	2	35
Diesel Range Organics (Over C10-C28)	100	93.52		mg/L		94	70 - 135	4	35
<b>Surrogate</b>		<b>LCSD %Recovery</b>	<b>LCSD Qualifier</b>						<b>Limits</b>
1-Chlorooctane		107							70 - 135
o-Terphenyl		79							70 - 135

**Method: 300.0 - Anions, Ion Chromatography**

Lab Sample ID: MB 860-136275/3  
 Matrix: Water  
 Analysis Batch: 136275

Client Sample ID: Method Blank  
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.500	U	0.500		mg/L			12/21/23 17:10	1
Fluoride	<0.500	U	0.500		mg/L			12/21/23 17:10	1
Sulfate	<0.500	U	0.500		mg/L			12/21/23 17:10	1

Lab Sample ID: MB 860-136275/99  
 Matrix: Water  
 Analysis Batch: 136275

Client Sample ID: Method Blank  
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.500	U	0.500		mg/L			12/22/23 10:13	1
Fluoride	<0.500	U	0.500		mg/L			12/22/23 10:13	1
Sulfate	<0.500	U	0.500		mg/L			12/22/23 10:13	1

Lab Sample ID: LCS 860-136275/100  
 Matrix: Water  
 Analysis Batch: 136275

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	5.00	4.815		mg/L		96	90 - 110		
Fluoride	5.00	5.038		mg/L		101	90 - 110		
Sulfate	5.00	4.696		mg/L		94	90 - 110		

Lab Sample ID: LCSD 860-136275/101  
 Matrix: Water  
 Analysis Batch: 136275

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	5.00	4.740		mg/L		95	90 - 110	2	20
Fluoride	5.00	4.937		mg/L		99	90 - 110	2	20
Sulfate	5.00	4.616		mg/L		92	90 - 110	2	20

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### QC Sample Results

Client: Carmona Resources  
Project/Site: Hawkins GY #4

Job ID: 880-37245-1  
SDG: Eddy County, New Mexico

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

Lab Sample ID: LLCS 860-136275/7  
Matrix: Water  
Analysis Batch: 136275

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.5109		mg/L		102	50 - 150
Fluoride	0.500	0.4637	J	mg/L		93	50 - 150
Sulfate	0.500	0.3901	J	mg/L		78	50 - 150

Lab Sample ID: 860-63811-A-7 MS  
Matrix: Water  
Analysis Batch: 136275

Client Sample ID: Matrix Spike  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	66.3		5.00	71.15	4	mg/L		97	90 - 110
Fluoride	4.90		5.00	9.817		mg/L		98	90 - 110
Sulfate	419		5.00	418.3	4	mg/L		-17	90 - 110

Lab Sample ID: 860-63811-A-7 MSD  
Matrix: Water  
Analysis Batch: 136275

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	66.3		5.00	71.23	4	mg/L		99	90 - 110	0	15
Fluoride	4.90		5.00	9.874		mg/L		100	90 - 110	1	15
Sulfate	419		5.00	418.9	4	mg/L		-6	90 - 110	0	15

Lab Sample ID: MB 860-136276/3  
Matrix: Water  
Analysis Batch: 136276

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100	U	0.100		mg/L			12/21/23 17:10	1
Nitrite as N	<0.100	U	0.100		mg/L			12/21/23 17:10	1

Lab Sample ID: MB 860-136276/99  
Matrix: Water  
Analysis Batch: 136276

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100	U	0.100		mg/L			12/22/23 10:13	1
Nitrite as N	<0.100	U	0.100		mg/L			12/22/23 10:13	1

Lab Sample ID: LCS 860-136276/100  
Matrix: Water  
Analysis Batch: 136276

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	5.00	4.787		mg/L		96	80 - 120
Nitrite as N	5.00	4.728		mg/L		95	80 - 120

### QC Sample Results

Client: Carmona Resources  
 Project/Site: Hawkins GY #4

Job ID: 880-37245-1  
 SDG: Eddy County, New Mexico

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

Lab Sample ID: LCSD 860-136276/101  
 Matrix: Water  
 Analysis Batch: 136276

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	5.00	4.698		mg/L		94	80 - 120	2	20
Nitrite as N	5.00	4.632		mg/L		93	80 - 120	2	20

Lab Sample ID: LLCS 860-136276/6  
 Matrix: Water  
 Analysis Batch: 136276

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.100	0.1216		mg/L		122	50 - 150
Nitrite as N	0.100	0.1085		mg/L		109	50 - 150

Lab Sample ID: 860-63811-A-7 MS  
 Matrix: Water  
 Analysis Batch: 136276

Client Sample ID: Matrix Spike  
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.880	^2	5.00	5.887		mg/L		100	80 - 120
Nitrite as N	<0.100	U F1	1.25	1.601	F1	mg/L		125	80 - 120

Lab Sample ID: 860-63811-A-7 MSD  
 Matrix: Water  
 Analysis Batch: 136276

Client Sample ID: Matrix Spike Duplicate  
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.880	^2	5.00	6.128		mg/L		105	80 - 120	4	15
Nitrite as N	<0.100	U F1	1.25	1.605	F1	mg/L		125	80 - 120	0	15

#### Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 860-139740/1-A  
 Matrix: Water  
 Analysis Batch: 139896

Client Sample ID: Method Blank  
 Prep Type: Total Recoverable  
 Prep Batch: 139740

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Calcium	<0.200	U	0.200		mg/L		01/09/24 00:26	01/09/24 14:33	1
Magnesium	<0.200	U	0.200		mg/L		01/09/24 00:26	01/09/24 14:33	1
Potassium	<0.500	U	0.500		mg/L		01/09/24 00:26	01/09/24 14:33	1
Sodium	<0.500	U	0.500		mg/L		01/09/24 00:26	01/09/24 14:33	1
SiO2	<1.07	U	1.07		mg/L		01/09/24 00:26	01/09/24 14:33	1

Lab Sample ID: LCS 860-139740/2-A  
 Matrix: Water  
 Analysis Batch: 139896

Client Sample ID: Lab Control Sample  
 Prep Type: Total Recoverable  
 Prep Batch: 139740

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25.0	25.50		mg/L		102	85 - 115
Magnesium	25.0	23.90		mg/L		96	85 - 115
Potassium	10.0	10.00		mg/L		100	85 - 115
Sodium	25.0	25.50		mg/L		102	85 - 115
SiO2	21.4	21.83		mg/L		102	85 - 115

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### QC Sample Results

Client: Carmona Resources  
 Project/Site: Hawkins GY #4

Job ID: 880-37245-1  
 SDG: Eddy County, New Mexico

**Method: 200.7 Rev 4.4 - Metals (ICP)**

**Lab Sample ID: LCSD 860-139740/3-A**  
**Matrix: Water**  
**Analysis Batch: 139896**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total Recoverable**  
**Prep Batch: 139740**

Analyte	Spike Added	LCSD		Unit	D	%Rec	%Rec		RPD	Limit
		Result	Qualifier				Limits	RPD		
Calcium	25.0	25.50		mg/L		102	85 - 115	0	20	
Magnesium	25.0	23.90		mg/L		96	85 - 115	0	20	
Potassium	10.0	10.00		mg/L		100	85 - 115	0	20	
Sodium	25.0	25.50		mg/L		102	85 - 115	0	20	
SiO2	21.4	22.04		mg/L		103	85 - 115	1	20	

**Lab Sample ID: LLCS 860-139740/4-A**  
**Matrix: Water**  
**Analysis Batch: 139896**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 139740**

Analyte	Spike Added	LLCS		Unit	D	%Rec	%Rec		RPD	Limit
		Result	Qualifier				Limits	RPD		
Calcium	0.200	0.1590	J	mg/L		80	50 - 150			
Magnesium	0.200	0.1910	J	mg/L		96	50 - 150			
Potassium	0.500	0.4330	J	mg/L		87	50 - 150			
Sodium	0.500	0.5330		mg/L		107	50 - 150			
SiO2	1.07	1.021	J	mg/L		95	50 - 150			

**Lab Sample ID: 860-64290-B-3-B MS**  
**Matrix: Water**  
**Analysis Batch: 139896**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 139740**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec		RPD	Limit
				Result	Qualifier				Limits	RPD		
Calcium	19.2		25.0	38.70		mg/L		78	70 - 130			
Magnesium	2.01		25.0	21.60		mg/L		78	70 - 130			
Potassium	0.583		10.0	8.920		mg/L		83	70 - 130			
Sodium	2.76		25.0	23.70		mg/L		84	70 - 130			
SiO2	<1.07	U	21.4	19.94		mg/L		89	70 - 130			

**Lab Sample ID: 860-64290-B-3-C MSD**  
**Matrix: Water**  
**Analysis Batch: 139896**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 139740**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec		RPD	Limit
				Result	Qualifier				Limits	RPD		
Calcium	19.2		25.0	39.30		mg/L		80	70 - 130	2	20	
Magnesium	2.01		25.0	21.80		mg/L		79	70 - 130	1	20	
Potassium	0.583		10.0	9.000		mg/L		84	70 - 130	1	20	
Sodium	2.76		25.0	23.90		mg/L		85	70 - 130	1	20	
SiO2	<1.07	U	21.4	20.12		mg/L		90	70 - 130	1	20	

**Lab Sample ID: 860-64408-B-2-B MS ^50**  
**Matrix: Water**  
**Analysis Batch: 139896**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total Recoverable**  
**Prep Batch: 139740**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec		RPD	Limit
				Result	Qualifier				Limits	RPD		
Calcium	234		25.0	225.0	4	mg/L		-34	70 - 130			
Magnesium	<10.0	U	25.0	24.40		mg/L		98	70 - 130			
Potassium	26.1	F1	10.0	32.95	F1	mg/L		69	70 - 130			
Sodium	4790		25.0	4140	4	mg/L		-2580	70 - 130			
SiO2	<53.5	U	21.4	<53.5	U	mg/L		NC	70 - 130			

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### QC Sample Results

Client: Carmona Resources  
 Project/Site: Hawkins GY #4

Job ID: 880-37245-1  
 SDG: Eddy County, New Mexico

#### Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 860-64408-B-2-C MSD ^50  
 Matrix: Water  
 Analysis Batch: 139896

Client Sample ID: Matrix Spike Duplicate  
 Prep Type: Total Recoverable  
 Prep Batch: 139740

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Calcium	234		25.0	227.0	4	mg/L		-26	70 - 130	1	20
Magnesium	<10.0	U	25.0	24.70		mg/L		99	70 - 130	1	20
Potassium	26.1	F1	10.0	34.00		mg/L		79	70 - 130	3	20
Sodium	4790		25.0	4175	4	mg/L		-2440	70 - 130	1	20
SiO2	<53.5	U	21.4	<53.5	U	mg/L		NC	70 - 130	0	20

#### Method: SM 2320B - Alkalinity

Lab Sample ID: MB 860-137020/3  
 Matrix: Water  
 Analysis Batch: 137020

Client Sample ID: Method Blank  
 Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Alkalinity	<4.00	U	4.00		mg/L			12/27/23 10:02	1	
Bicarbonate Alkalinity as CaCO3	<4.00	U	4.00		mg/L			12/27/23 10:02	1	
Carbonate Alkalinity as CaCO3	<4.00	U	4.00		mg/L			12/27/23 10:02	1	
Hydroxide Alkalinity	<4.00	U	4.00		mg/L			12/27/23 10:02	1	
Phenolphthalein Alkalinity	<4.00	U	4.00		mg/L			12/27/23 10:02	1	

Lab Sample ID: LCS 860-137020/4  
 Matrix: Water  
 Analysis Batch: 137020

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec	RPD	Limit
		Result	Qualifier				Limits		
Alkalinity	250	243.4		mg/L		97	85 - 115		

Lab Sample ID: LCSD 860-137020/5  
 Matrix: Water  
 Analysis Batch: 137020

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD
		Result	Qualifier				Limits		Limit
Alkalinity	250	242.6		mg/L		97	85 - 115	0	20

Lab Sample ID: 560-114792-AK-1 DU  
 Matrix: Water  
 Analysis Batch: 137020

Client Sample ID: Duplicate  
 Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier				Limits	
Alkalinity	524		519.2		mg/L		0.9		20
Bicarbonate Alkalinity as CaCO3	444		440.4		mg/L		0.9		20
Carbonate Alkalinity as CaCO3	79.4		78.87		mg/L		0.7		20
Hydroxide Alkalinity	<4.00	U	<4.00	U	mg/L		NC		20
Phenolphthalein Alkalinity	39.7		39.44		mg/L		0.7		20

### QC Sample Results

Client: Carmona Resources  
 Project/Site: Hawkins GY #4

Job ID: 880-37245-1  
 SDG: Eddy County, New Mexico

#### Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 860-138338/29  
 Matrix: Water  
 Analysis Batch: 138338

Client Sample ID: Method Blank  
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	<10.0	U	10.0		umho/cm @ 25C			12/28/23 10:46	1

Lab Sample ID: 860-64365-A-1 DU  
 Matrix: Water  
 Analysis Batch: 138338

Client Sample ID: Duplicate  
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Specific Conductance	3900		3890		umho/cm @ 25C		0.3	20

#### Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 860-136961/1  
 Matrix: Water  
 Analysis Batch: 136961

Client Sample ID: Method Blank  
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00		mg/L			12/27/23 13:41	1

Lab Sample ID: LCS 860-136961/2  
 Matrix: Water  
 Analysis Batch: 136961

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1002		mg/L		100	80 - 120

Lab Sample ID: LCSD 860-136961/3  
 Matrix: Water  
 Analysis Batch: 136961

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Total Dissolved Solids	1000	1001		mg/L		100	80 - 120	0	10

Lab Sample ID: LLCS 860-136961/4  
 Matrix: Water  
 Analysis Batch: 136961

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	5.00	5.000		mg/L		100	50 - 150

Lab Sample ID: 880-37245-1 DU  
 Matrix: Water  
 Analysis Batch: 136961

Client Sample ID: T-GW  
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	1190		1152		mg/L		3	10

### QC Association Summary

Client: Carmona Resources  
 Project/Site: Hawkins GY #4

Job ID: 880-37245-1  
 SDG: Eddy County, New Mexico

#### GC/MS VOA

##### Analysis Batch: 136452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-37245-1	T-GW	Total/NA	Water	8260D	
MB 860-136452/8	Method Blank	Total/NA	Water	8260D	
LCS 860-136452/3	Lab Control Sample	Total/NA	Water	8260D	
LCSD 860-136452/4	Lab Control Sample Dup	Total/NA	Water	8260D	
860-64097-E-2 MS	Matrix Spike	Total/NA	Water	8260D	

##### Analysis Batch: 138895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-37245-1	T-GW	Total/NA	Water	Total BTEX	

#### GC Semi VOA

##### Analysis Batch: 130308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-37245-1	T-GW	Total/NA	Water	8015 NM	

##### Prep Batch: 138133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-37245-1	T-GW	Total/NA	Water	8015NM Aq Prep	
MB 860-138133/1-A	Method Blank	Total/NA	Water	8015NM Aq Prep	
LCS 860-138133/2-A	Lab Control Sample	Total/NA	Water	8015NM Aq Prep	
LCSD 860-138133/3-A	Lab Control Sample Dup	Total/NA	Water	8015NM Aq Prep	

##### Analysis Batch: 138216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-138133/1-A	Method Blank	Total/NA	Water	8015B NM	138133
LCS 860-138133/2-A	Lab Control Sample	Total/NA	Water	8015B NM	138133
LCSD 860-138133/3-A	Lab Control Sample Dup	Total/NA	Water	8015B NM	138133

##### Analysis Batch: 138579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-37245-1	T-GW	Total/NA	Water	8015B NM	138133

#### HPLC/IC

##### Analysis Batch: 136275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-37245-1	T-GW	Total/NA	Water	300.0	
880-37245-1	T-GW	Total/NA	Water	300.0	
MB 860-136275/3	Method Blank	Total/NA	Water	300.0	
MB 860-136275/99	Method Blank	Total/NA	Water	300.0	
LCS 860-136275/100	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-136275/101	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-136275/7	Lab Control Sample	Total/NA	Water	300.0	
860-63811-A-7 MS	Matrix Spike	Total/NA	Water	300.0	
860-63811-A-7 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

##### Analysis Batch: 136276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-37245-1	T-GW	Total/NA	Water	300.0	
MB 860-136276/3	Method Blank	Total/NA	Water	300.0	
MB 860-136276/99	Method Blank	Total/NA	Water	300.0	

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## QC Association Summary

Client: Carmona Resources  
Project/Site: Hawkins GY #4Job ID: 880-37245-1  
SDG: Eddy County, New Mexico

## HPLC/IC (Continued)

## Analysis Batch: 136276 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 860-136276/100	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-136276/101	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-136276/6	Lab Control Sample	Total/NA	Water	300.0	
860-63811-A-7 MS	Matrix Spike	Total/NA	Water	300.0	
860-63811-A-7 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

## Metals

## Prep Batch: 139740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-37245-1	T-GW	Total Recoverable	Water	200.7	
MB 860-139740/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 860-139740/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 860-139740/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	
LLCS 860-139740/4-A	Lab Control Sample	Total Recoverable	Water	200.7	
860-64290-B-3-B MS	Matrix Spike	Total Recoverable	Water	200.7	
860-64290-B-3-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7	
860-64408-B-2-B MS ^50	Matrix Spike	Total Recoverable	Water	200.7	
860-64408-B-2-C MSD ^50	Matrix Spike Duplicate	Total Recoverable	Water	200.7	

## Analysis Batch: 139896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-37245-1	T-GW	Total Recoverable	Water	200.7 Rev 4.4	139740
880-37245-1	T-GW	Total Recoverable	Water	200.7 Rev 4.4	139740
MB 860-139740/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	139740
LCS 860-139740/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	139740
LCSD 860-139740/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	139740
LLCS 860-139740/4-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	139740
860-64290-B-3-B MS	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	139740
860-64290-B-3-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	139740
860-64408-B-2-B MS ^50	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	139740
860-64408-B-2-C MSD ^50	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	139740

## General Chemistry

## Analysis Batch: 136687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-37245-1	T-GW	Total/NA	Water	SM 1030E	

## Analysis Batch: 136961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-37245-1	T-GW	Total/NA	Water	SM 2540C	
MB 860-136961/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-136961/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 860-136961/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
LLCS 860-136961/4	Lab Control Sample	Total/NA	Water	SM 2540C	
880-37245-1 DU	T-GW	Total/NA	Water	SM 2540C	

## Analysis Batch: 137020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-37245-1	T-GW	Total/NA	Water	SM 2320B	
MB 860-137020/3	Method Blank	Total/NA	Water	SM 2320B	

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### QC Association Summary

Client: Carmona Resources  
Project/Site: Hawkins GY #4

Job ID: 880-37245-1  
SDG: Eddy County, New Mexico

#### General Chemistry (Continued)

##### Analysis Batch: 137020 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 860-137020/4	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 860-137020/5	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
560-114792-AK-1 DU	Duplicate	Total/NA	Water	SM 2320B	

##### Analysis Batch: 138338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-37245-1	T-GW	Total/NA	Water	SM 2510B	
MB 860-138338/29	Method Blank	Total/NA	Water	SM 2510B	
LCS 860-138338/30	Lab Control Sample	Total/NA	Water	SM 2510B	
LCSD 860-138338/31	Lab Control Sample Dup	Total/NA	Water	SM 2510B	
860-64365-A-1 DU	Duplicate	Total/NA	Water	SM 2510B	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

### Lab Chronicle

Client: Carmona Resources  
 Project/Site: Hawkins GY #4

Job ID: 880-37245-1  
 SDG: Eddy County, New Mexico

**Client Sample ID: T-GW**

**Lab Sample ID: 880-37245-1**

**Date Collected: 12/20/23 16:30**

**Matrix: Water**

**Date Received: 12/21/23 15:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	136452	12/22/23 22:39	AN	EET HOU
Total/NA	Analysis	Total BTEX		1			138895	12/22/23 22:39	AN	EET HOU
Total/NA	Analysis	8015 NM		1			130308	12/29/23 20:41	ELJ	EET HOU
Total/NA	Prep	8015NM Aq Prep			32.2 mL	3 mL	138133	12/28/23 08:06	BNW	EET HOU
Total/NA	Analysis	8015B NM		1			138579	12/29/23 20:41	TTD	EET HOU
Total/NA	Analysis	300.0		1			136275	12/22/23 15:45	A1S	EET HOU
Total/NA	Analysis	300.0		1			136276	12/22/23 15:45	A1S	EET HOU
Total/NA	Analysis	300.0		10			136275	12/22/23 15:58	A1S	EET HOU
Total Recoverable	Prep	200.7			50 mL	50 mL	139740	01/09/24 00:26	AGR	EET HOU
Total Recoverable	Analysis	200.7 Rev 4.4		1			139896	01/09/24 16:21	JDM	EET HOU
Total Recoverable	Prep	200.7			50 mL	50 mL	139740	01/09/24 00:26	AGR	EET HOU
Total Recoverable	Analysis	200.7 Rev 4.4		50			139896	01/09/24 16:26	JDM	EET HOU
Total/NA	Analysis	SM 1030E		1			136687	01/10/24 12:21	MC	EET HOU
Total/NA	Analysis	SM 2320B		1			137020	12/27/23 12:20	KEG	EET HOU
Total/NA	Analysis	SM 2510B		1			138338	12/28/23 10:48	KEG	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	136961	12/27/23 13:41	ADL	EET HOU

**Laboratory References:**

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

### Accreditation/Certification Summary

Client: Carmona Resources  
Project/Site: Hawkins GY #4

Job ID: 880-37245-1  
SDG: Eddy County, New Mexico

#### Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-03-24
Florida	NELAP	E871002	06-30-24
Louisiana (All)	NELAP	03054	06-30-24
Oklahoma	NELAP	1306	08-31-24
Oklahoma	State	2023-139	08-31-24
Texas	NELAP	T104704215-23-53	06-30-24
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

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### Method Summary

Client: Carmona Resources  
 Project/Site: Hawkins GY #4

Job ID: 880-37245-1  
 SDG: Eddy County, New Mexico

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET HOU
Total BTEX	Total BTEX Calculation	TAL SOP	EET HOU
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET HOU
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET HOU
300.0	Anions, Ion Chromatography	EPA	EET HOU
200.7 Rev 4.4	Metals (ICP)	EPA	EET HOU
SM 1030E	Cation Anion Balance	SM	EET HOU
SM 2320B	Alkalinity	SM	EET HOU
SM 2510B	Conductivity, Specific Conductance	SM	EET HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET HOU
200.7	Preparation, Total Recoverable Metals	EPA	EET HOU
5030C	Purge and Trap	SW846	EET HOU
8015NM Aq Prep	Microextraction	SW846	EET HOU

**Protocol References:**

- EPA = US Environmental Protection Agency
- SM = "Standard Methods For The Examination Of Water And Wastewater"
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

- EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200



### Sample Summary

Client: Carmona Resources  
Project/Site: Hawkins GY #4

Job ID: 880-37245-1  
SDG: Eddy County, New Mexico

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-37245-1	T-GW	Water	12/20/23 16:30	12/21/23 15:20

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- 5
- 6
- 7
- 8
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- 10
- 11
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Chain of Custody



880-37245 Chain of Custody

Project Manager:	Corner Moehring	Bill To: (if different):		Mark Ritchie
Company Name:	Carmona Resources	Company Name:		
Address:	310 W Wall St Ste 415	Address:		
City, State ZIP	Midland, TX 79701	City, State ZIP		
Phone:	(432) 813-6823	Email:	mitchie@silverbackexp.com	

Program: USTRPST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> pertund <input type="checkbox"/>	
State of Project:	
Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>	Deliverables EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other <input type="checkbox"/>

Project Name	Project Number	Project Location	Sampler's Name	PO #	Turn Around		Due Date	Standard	Pres. Code	ANALYSIS REQUEST					Sample Comments		
					<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Rush				BTEX 8021B	TPH 8015M ( GRO + DRO + MRO)	Chloride 300.0	Anions	Cations			
Hawkins GY #4	1123	Eddy County, New Mexico	CCM														
SAMPLE RECEIPT Received Inact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Cooler Custody Seals: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Sample Custody Seals: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Total Containers: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					Tegan Blank: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Thermometer ID: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Correction Factor: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temperature Reading: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Corrected Temperature: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Wet Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No										
Sample Identification	Date	Time	Soil	Water	Grab/Comp	# of Cont						Sample Comments					
T-GW	12/20/2023	18:30		X	-	10	X	X	X	X	X						

Comments:

Relinquished by (Signature): *[Signature]* Date/Time: 12-21-23 1530

Received by: (Signature): *[Signature]* Date/Time:

**Eurofins Midland**  
1211 W Florida Ave  
Midland, TX 79701  
Phone: 432-704-5440

### Chain of Custody Record



Environment Testing

<b>Client Information (Sub Contract Lab)</b>		Sampler	Lab Pk.	Kramer Jessica	Carrier Tracking No(s):	COC No:	880-8754-1	
Client Contact:		Phone:	E-Mail:	Jessica.Kramer@eurofins.com	State of Origin:	Page:	Page 1 of 1	
Shipping/Receiving		Company		NELAP, Texas	Accreditations Required (See note):	Job #:	880-37245-1	
Address:		Due Date Requested:	Analysis Requested					
4145 Greenbriar Dr		1/2/2024	<input checked="" type="checkbox"/> 2610B/Specific Conductance <input checked="" type="checkbox"/> 200.7/200.7_P TR (MOD) Custom List <input checked="" type="checkbox"/> 300_ORG/MS/Nitrate and Nitrite as N <input checked="" type="checkbox"/> 300_ORG/MS/20D/ (MOD) Custom List <input checked="" type="checkbox"/> 8016MOD_Calc <input checked="" type="checkbox"/> 8016MOD_MM/8016MM_Aq_Prep Full TPH <input checked="" type="checkbox"/> Total_BTEX <input checked="" type="checkbox"/> 8260D/8030C BTEX <input checked="" type="checkbox"/> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Field Filtered Sample (Yes or No)					
City:	Stafford	TAT Requested (days):	Sample Date	12/20/23	Sample Time	16:30	Matrix	Water
State, Zip:	TX, 77477	PO #:	Sample Type (C=Comp, G=grab)		Preservation Code	Mountain		
Phone:	281-240-4200(Tel)	WO #:						
Email:		Project #:						
		88001612						
Project Name:	Hawkins CY #4	SSDW#:						
Site:								
<b>Sample Identification Client ID (Lab ID)</b>		T-GW (880-37245-1)		Special Instructions/Note:		Temp 30 IR ID HOU-369 C/F-0.0 Corrected Temp: 3.0		
Total Number of Containers		2220B		Callon_Anlon				
Total BTEX		X		X		X		
8016MOD_MM/8016MM_Aq_Prep Full TPH		X		X		X		
8016MOD_Calc		X		X		X		
300_ORG/MS/20D/ (MOD) Custom List		X		X		X		
300_ORG/MS/Nitrate and Nitrite as N		X		X		X		
200.7/200.7_P TR (MOD) Custom List		X		X		X		
2610B/Specific Conductance		X		X		X		
2220B		X		X		X		
Callon_Anlon		X		X		X		
Total Number of Containers		2220B		Callon_Anlon				

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to Eurofins Environment Testing South Central, LLC.

**Possible Hazard Identification**  
 Unconfirmed  
 Deliverable Requested: I, II, III, IV Other (specify) \_\_\_\_\_ Primary Deliverable Rank: 2  
 Special Instructions/QC Requirements: \_\_\_\_\_

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**  
 Return To Client  
 Disposal By Lab  
 Archive For \_\_\_\_\_ Months

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Custody Seals Intact: \_\_\_\_\_ Custody Seal No. \_\_\_\_\_  
 Δ Yes Δ No

Method of Shipment: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received by: *Fedex* Date/Time: *12/22 12:21pm*  
 Received by: *AF* Date/Time: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Cooler Temperature(s) °C and Other Remarks: \_\_\_\_\_

### Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-37245-1  
SDG Number: Eddy County, New Mexico

**Login Number: 37245**

**List Number: 1**

**Creator: Rodriguez, Leticia**

**List Source: Eurofins Midland**

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

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### Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-37245-1  
SDG Number: Eddy County, New Mexico

**Login Number: 37245**

**List Number: 2**

**Creator: Garcia, Yaillet**

**List Source: Eurofins Houston**

**List Creation: 12/22/23 02:51 PM**

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

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**APPENDIX C - NMOCD Groundwater Discussion  
Meeting Notes and Email Correspondence**

Silverback – Hawkins GY #4 - nAPP2222242315: Meeting Notes

Summary of a conversation between NMOCD representatives Mike Bratcher and Robert Hamlet with Silverback and Carmona Resources on May 3rd, 2024, conducted via Microsoft Teams at 2:30 p.m. (MT):

The meeting focused on the next steps at Hawkins GY #4. Key points discussed include:

1. Groundwater data from a temporary monitoring bore was reviewed and discussed during the meeting, which Mike Bratcher confirmed showed no impact from the release.
2. Verbal approval of the remediation plan was granted. Silverback now awaits written approval of the work plan and confirmation that groundwater remains unaffected.

Upon receiving these approvals, Silverback plans to proceed with plugging the temporary monitoring bore, followed by commencing soil excavation.

## Conner Moehring

---

**From:** Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>  
**Sent:** Tuesday, August 27, 2024 9:17 AM  
**To:** Conner Moehring; Bratcher, Michael, EMNRD  
**Cc:** Mike Carmona; Devin Dominguez; Clint Merritt  
**Subject:** RE: [EXTERNAL] Silverback - Hawkins GY #4 - nAPP2222242315 (HIGH PRIORITY)

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Conner,

We did give Silverback/Carmona verbal approval to proceed with the soil remediation work, but we still need a Remediation/Workplan Report uploaded to the OCD Permitting Portal including everything that was agreed to in the meeting, so it we can verified and approved. Everything has to go through the OCD Portal, so all of reports and dates are recorded/filed to make sure the operator is compliant with all deadlines. Please, submit the updated report to the OCD Portal. Send me an email after you have uploaded it and I will move it to the front of the line.

Regards,

**Robert Hamlet** • Environmental Specialist - Advanced  
 Environmental Bureau  
 EMNRD - Oil Conservation Division  
 506 W. Texas Ave. | Artesia, NM 88210  
 575.909.0302 | [robert.hamlet@state.nm.us](mailto:robert.hamlet@state.nm.us)  
<http://www.emnrd.state.nm.us/OCD/>




---

**From:** Conner Moehring <Cmoehring@carmonaresources.com>  
**Sent:** Tuesday, August 27, 2024 7:31 AM  
**To:** Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>  
**Cc:** Mike Carmona <Mcarmona@carmonaresources.com>; Devin Dominguez <Ddominguez@carmonaresources.com>; Clint Merritt <MerrittC@carmonaresources.com>  
**Subject:** RE: [EXTERNAL] Silverback - Hawkins GY #4 - nAPP2222242315 (HIGH PRIORITY)

Good Morning,

I'm checking the status of the work plan approval or review. Silverback and Carmona Resources met with the NMOCD via teams on May 3<sup>rd</sup>, 2024. NMOCD verbally approved and agreed that no additional groundwater work was needed, and we were good to proceed with the soil remediation. However, we have yet to see anything regarding the approval on the NMOCD website with the written and documented approval.

Conner R. Moehring

310 West Wall Street, Suite 500  
Midland TX, 79701  
M: 432-813-6823  
[cmoehring@carmonaresources.com](mailto:cmoehring@carmonaresources.com)

---

**From:** Conner Moehring  
**Sent:** Tuesday, August 6, 2024 9:16 AM  
**To:** 'Hamlet, Robert, EMNRD' <[Robert.Hamlet@emnrd.nm.gov](mailto:Robert.Hamlet@emnrd.nm.gov)>; Bratcher, Michael, EMNRD <[mike.bratcher@emnrd.nm.gov](mailto:mike.bratcher@emnrd.nm.gov)>  
**Cc:** Mike Carmona <[Mcarmona@carmonaresources.com](mailto:Mcarmona@carmonaresources.com)>; Devin Dominguez <[Ddominguez@carmonaresources.com](mailto:Ddominguez@carmonaresources.com)>; Clint Merritt <[MerrittC@carmonaresources.com](mailto:MerrittC@carmonaresources.com)>  
**Subject:** RE: [EXTERNAL] Silverback - Hawkins GY #4 - nAPP2222242315 (HIGH PRIORITY)

Robert,

Please see the attached PDF with the summary of what was discussed via Teams with Silberback and Carmona Resources regarding the Silberback Hawking GY #4.

Silverback is ready to move on the project once they have written approval from the NMOCD.

Conner R. Moehring  
310 West Wall Street, Suite 500  
Midland TX, 79701  
M: 432-813-6823  
[cmoehring@carmonaresources.com](mailto:cmoehring@carmonaresources.com)

---

**From:** Hamlet, Robert, EMNRD <[Robert.Hamlet@emnrd.nm.gov](mailto:Robert.Hamlet@emnrd.nm.gov)>  
**Sent:** Tuesday, June 25, 2024 8:36 AM  
**To:** Conner Moehring <[cmoehring@carmonaresources.com](mailto:cmoehring@carmonaresources.com)>; Bratcher, Michael, EMNRD <[mike.bratcher@emnrd.nm.gov](mailto:mike.bratcher@emnrd.nm.gov)>  
**Cc:** Mike Carmona <[Mcarmona@carmonaresources.com](mailto:Mcarmona@carmonaresources.com)>; Devin Dominguez <[Ddominguez@carmonaresources.com](mailto:Ddominguez@carmonaresources.com)>; Clint Merritt <[MerrittC@carmonaresources.com](mailto:MerrittC@carmonaresources.com)>  
**Subject:** RE: [EXTERNAL] Silverback - Hawkins GY #4 - nAPP2222242315 (HIGH PRIORITY)

Conner,

We can include a comment in the Incident Events section of the Incident page. Also, include any communications between yourself and the OCD regarding this discussion in the Remediation Closure Report. Thanks

**Robert Hamlet** • Environmental Specialist - Advanced  
Environmental Bureau  
EMNRD - Oil Conservation Division  
506 W. Texas Ave. | Artesia, NM 88210  
575.909.0302 | [robert.hamlet@state.nm.us](mailto:robert.hamlet@state.nm.us)  
<http://www.emnrd.state.nm.us/OCD/>



---

**From:** Conner Moehring <[Cmoehring@carmonaresources.com](mailto:Cmoehring@carmonaresources.com)>  
**Sent:** Tuesday, June 25, 2024 7:21 AM  
**To:** Bratcher, Michael, EMNRD <[mike.bratcher@emnrd.nm.gov](mailto:mike.bratcher@emnrd.nm.gov)>; Hamlet, Robert, EMNRD <[Robert.Hamlet@emnrd.nm.gov](mailto:Robert.Hamlet@emnrd.nm.gov)>  
**Cc:** Mike Carmona <[Mcarmona@carmonaresources.com](mailto:Mcarmona@carmonaresources.com)>; Devin Dominguez <[Ddominguez@carmonaresources.com](mailto:Ddominguez@carmonaresources.com)>; Clint Merritt <[MerrittC@carmonaresources.com](mailto:MerrittC@carmonaresources.com)>  
**Subject:** RE: [EXTERNAL] Silverback - Hawkins GY #4 - nAPP2222242315 (HIGH PRIORITY)

Good Morning,

We met last month on the 3<sup>rd</sup> to discuss this project. Over the team call, the NMOCD approved and agreed that no additional groundwater work was needed, and we were good to proceed with the soil remediation. However, we have yet to see anything regarding the approval on the NMOCD website with the written and documented approval.

Please call if you have any questions.

Conner R. Moehring  
310 West Wall Street, Suite 500  
Midland TX, 79701  
M: 432-813-6823  
[cmoehring@carmonaresources.com](mailto:cmoehring@carmonaresources.com)

---

**From:** Conner Moehring  
**Sent:** Wednesday, May 1, 2024 10:32 AM  
**To:** Bratcher, Michael, EMNRD <[mike.bratcher@emnrd.nm.gov](mailto:mike.bratcher@emnrd.nm.gov)>; Hamlet, Robert, EMNRD <[Robert.Hamlet@emnrd.nm.gov](mailto:Robert.Hamlet@emnrd.nm.gov)>  
**Cc:** Mark Ritchie <[mritchie@silverbackexp.com](mailto:mritchie@silverbackexp.com)>; Fernando Rodriguez <[frodriguez@silverbackexp.com](mailto:frodriguez@silverbackexp.com)>; Greg Miller <[gmiller@silverbackexp.com](mailto:gmillersilverbackexp.com)>; Mike Carmona <[Mcarmona@carmonaresources.com](mailto:Mcarmona@carmonaresources.com)>; Devin Dominguez <[Ddominguez@carmonaresources.com](mailto:Ddominguez@carmonaresources.com)>; Clint Merritt <[MerrittC@carmonaresources.com](mailto:MerrittC@carmonaresources.com)>  
**Subject:** RE: [EXTERNAL] Silverback - Hawkins GY #4 - nAPP2222242315 (HIGH PRIORITY)

Mr. Bratcher,

We understand we are available next week in the afternoon to review this project. Would Wednesday 2:30 pm work for y'all?

Conner R. Moehring  
310 West Wall Street, Suite 500  
Midland TX, 79701  
M: 432-813-6823  
[cmoehring@carmonaresources.com](mailto:cmoehring@carmonaresources.com)

---

**From:** Bratcher, Michael, EMNRD <[mike.bratcher@emnrd.nm.gov](mailto:mike.bratcher@emnrd.nm.gov)>  
**Sent:** Tuesday, April 30, 2024 10:54 AM  
**To:** Conner Moehring <[Cmoehring@carmonaresources.com](mailto:Cmoehring@carmonaresources.com)>; Hamlet, Robert, EMNRD <[Robert.Hamlet@emnrd.nm.gov](mailto:Robert.Hamlet@emnrd.nm.gov)>  
**Cc:** Mark Ritchie <[mritchie@silverbackexp.com](mailto:mritchie@silverbackexp.com)>; Fernando Rodriguez <[frodriguez@silverbackexp.com](mailto:frodriguez@silverbackexp.com)>; Greg Miller <[gmiller@silverbackexp.com](mailto:gmillersilverbackexp.com)>; Mike Carmona <[Mcarmona@carmonaresources.com](mailto:Mcarmona@carmonaresources.com)>; Devin Dominguez <[Ddominguez@carmonaresources.com](mailto:Ddominguez@carmonaresources.com)>; Clint Merritt <[MerrittC@carmonaresources.com](mailto:MerrittC@carmonaresources.com)>  
**Subject:** RE: [EXTERNAL] Silverback - Hawkins GY #4 - nAPP2222242315 (HIGH PRIORITY)

Conner,

You have not heard from us because we are seriously outnumbered, but you are up. We can meet in the morning (Wed 5/1) or have some afternoon time available next week. Let me know what works best for you guys.

Mark – I believe the well being fraccd was either 015-49493 or 49494. Looks like the lateral for 49494 goes directly under the Hawkins well.

Thanks,

**Mike Bratcher** • Incident Supervisor  
Environmental Bureau  
EMNRD - Oil Conservation Division  
506 W. Texas Ave | Artesia, NM 88210  
(575) 626-0857 | [mike.bratcher@emnrn.nm.gov](mailto:mike.bratcher@emnrn.nm.gov)  
<http://www.emnrn.nm.gov/ocd>



---

**From:** Conner Moehring <[Cmoehring@carmonaresources.com](mailto:Cmoehring@carmonaresources.com)>  
**Sent:** Tuesday, April 30, 2024 8:03 AM  
**To:** Bratcher, Michael, EMNRD <[mike.bratcher@emnrn.nm.gov](mailto:mike.bratcher@emnrn.nm.gov)>; Hamlet, Robert, EMNRD <[Robert.Hamlet@emnrn.nm.gov](mailto:Robert.Hamlet@emnrn.nm.gov)>  
**Cc:** Mark Ritchie <[mritchie@silverbackexp.com](mailto:mritchie@silverbackexp.com)>; Fernando Rodriguez <[frodriguez@silverbackexp.com](mailto:frodriguez@silverbackexp.com)>; Greg Miller <[gmiller@silverbackexp.com](mailto:gmillier@silverbackexp.com)>; Mike Carmona <[Mcarmona@carmonaresources.com](mailto:Mcarmona@carmonaresources.com)>; Devin Dominguez <[Ddominguez@carmonaresources.com](mailto:Ddominguez@carmonaresources.com)>; Clint Merritt <[MerrittC@carmonaresources.com](mailto:MerrittC@carmonaresources.com)>  
**Subject:** [EXTERNAL] Silverback - Hawkins GY #4 - nAPP222242315 (HIGH PRIORITY)

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

Good Morning,

Please see the attached lab analytics from the groundwater sampling event and map the location of the temporary groundwater monitoring bore. We have reached out multiple times and have heard no response.

When would you be free to discuss the data and the next steps.

Please call if you have any questions or comments.

Conner R. Moehring  
310 West Wall Street, Suite 500  
Midland TX, 79701  
M: 432-813-6823  
[cmoehring@carmonaresources.com](mailto:cmoehring@carmonaresources.com)

---

**From:** Hamlet, Robert, EMNRD  
**Sent:** Tuesday, February 28, 2023 10:46 AM  
**To:** Mike Carmona  
**Cc:** mritchie@silverbackexp.com; Conner Moehring; Bratcher, Michael, EMNRD; Nobui, Jennifer, EMNRD; Harimon, Jocelyn, EMNRD  
**Subject:** RE: [EXTERNAL] FW: The Oil Conservation Division (OCD) has rejected the application, Application ID: 153579

Mike,

The OCD is in agreement with the next steps forward on the Hawkins GY #4 remediation project. We would like to see a hydrogeological model of what Silverback believes took place during the completion. This includes any pressure data recorded during the frack stage that involved the loss of fluids.

As far as the Temporary monitoring well, the analytical data will need to be evaluated before any decisions are made.

Regards,

**Robert Hamlet** • Environmental Specialist - Advanced  
Environmental Bureau  
EMNRD - Oil Conservation Division  
506 W. Texas Ave. | Artesia, NM 88210  
575.909.0302 | [robert.hamlet@state.nm.us](mailto:robert.hamlet@state.nm.us)  
<http://www.emnrd.state.nm.us/OCD/>



---

**From:** Mike Carmona <[Mcarmona@carmonaresources.com](mailto:Mcarmona@carmonaresources.com)>  
**Sent:** Tuesday, February 28, 2023 8:58 AM  
**To:** Hamlet, Robert, EMNRD <[Robert.Hamlet@emnrd.nm.gov](mailto:Robert.Hamlet@emnrd.nm.gov)>  
**Cc:** mritchie@silverbackexp.com; Conner Moehring <[Cmoehring@carmonaresources.com](mailto:Cmoehring@carmonaresources.com)>; Bratcher, Michael, EMNRD <[mike.bratcher@emnrd.nm.gov](mailto:mike.bratcher@emnrd.nm.gov)>; Nobui, Jennifer, EMNRD <[Jennifer.Nobui@emnrd.nm.gov](mailto:Jennifer.Nobui@emnrd.nm.gov)>; Harimon, Jocelyn, EMNRD <[Jocelyn.Harimon@emnrd.nm.gov](mailto:Jocelyn.Harimon@emnrd.nm.gov)>  
**Subject:** RE: [EXTERNAL] FW: The Oil Conservation Division (OCD) has rejected the application, Application ID: 153579

Good Morning,

I wanted to clarify from our meeting discussing the Hawkins GY #4 and the next steps. See bullet points below.

- Amend work plan to include Drilling a Temporary Monitoring Well South of release near H-6?

- Drill in the heart of the release and define?
- Silverback will file for the W-07 permit once the work plan is approved.

If the Temporary monitoring well shows no impact how long do we need to monitor that well? If the site is contaminated we will then generate a plan to drill more monitoring wells up and down gradient.

Mike J. Carmona  
310 West Wall Street, Suite 500  
Midland TX, 79701  
M: [432-813-1992](tel:432-813-1992)  
[Mcarmona@carmonaresources.com](mailto:Mcarmona@carmonaresources.com)

CARMONA RESOURCES



---

**From:** Hamlet, Robert, EMNRD <[Robert.Hamlet@emnrd.nm.gov](mailto:Robert.Hamlet@emnrd.nm.gov)>  
**Sent:** Tuesday, February 14, 2023 10:48:44 AM  
**To:** Mike Carmona <[Mcarmona@carmonaresources.com](mailto:Mcarmona@carmonaresources.com)>  
**Cc:** [mritchie@silverbackexp.com](mailto:mritchie@silverbackexp.com) <[mritchie@silverbackexp.com](mailto:mritchie@silverbackexp.com)>; Conner Moehring <[Cmoehring@carmonaresources.com](mailto:Cmoehring@carmonaresources.com)>; Bratcher, Michael, EMNRD <[mike.bratcher@emnrd.nm.gov](mailto:mike.bratcher@emnrd.nm.gov)>; Nobui, Jennifer, EMNRD <[Jennifer.Nobui@emnrd.nm.gov](mailto:Jennifer.Nobui@emnrd.nm.gov)>; Harimon, Jocelyn, EMNRD <[Jocelyn.Harimon@emnrd.nm.gov](mailto:Jocelyn.Harimon@emnrd.nm.gov)>  
**Subject:** RE: [EXTERNAL] FW: The Oil Conservation Division (OCD) has rejected the application, Application ID: 153579

Mike,

Maybe try and set up a Teams or Zoom meeting for 1:30-2:30 p.m. Mountain time for Thursday February 16<sup>th</sup>. Send an invite to the CC'd OCD Environmental Specialists. Thanks

**Robert Hamlet** • Environmental Specialist - Advanced  
Environmental Bureau  
EMNRD - Oil Conservation Division  
506 W. Texas Ave. | Artesia, NM 88210  
575.909.0302 | [robert.hamlet@state.nm.us](mailto:robert.hamlet@state.nm.us)  
<http://www.emnrd.state.nm.us/OCD/>



**APPENDIX D - Variance and Extension Request  
Approval Correspondence**



Outlook

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**RE: [EXTERNAL] Variance Request Submission – Hawkins GY #4 (30-015-00252): nAPP2222242315**

---

**From** Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>**Date** Tue 3/11/2025 7:42 AM**To** Fernando Rodriguez <frodriguez@silverbackexp.com>**Cc** Justin Carter <jcarter@novooog.com>; Wade Chapman <wchapman@silverbackexp.com>; Rafael Alvizo <ralvizo@silverbackexp.com>; Boone Bajgier <bbajgier@novooog.com>; Andrew Parker <aparker@vertexresource.com>; Michael Moffitt <mmoffitt@vertexresource.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>

Fernando,

A formal deferral request would need to be submitted to the OCD Permitting Portal for the impacted material in situ around the wellhead area. Remediation on an active site can be deferred in areas immediately under or around production equipment such as production tanks, wellheads, and pipelines where remediation could cause a major facility deconstruction. A major facility deconstruction is determined by the OCD on a case by case basis. The remediation, restoration, and reclamation may be deferred with OCD's written approval until the equipment is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first. For the deferral request the contamination must be fully delineated. In addition, the contamination must not pose an imminent risk to human health, the environment, or groundwater. Deferrals are not forever and remediation must be completed in a timely fashion once the equipment is out of use for oil and gas operations.

If the areas discussed have been excavated to 17 feet, a variance request is approved for a liner at 10 feet bgs instead of 4 feet bgs. After contaminated soil is removed down to 17 feet in areas BH-5 and BH-6, backfill excavation to 10' below ground surface with clean material, install liner, backfill to surface with clean material. Please, include this e-mail correspondence in the Remediation Closure Report.

Regards,

**Robert Hamlet** • Environmental Specialist - Advanced

Environmental Bureau

EMNRD - Oil Conservation Division

506 W. Texas Ave. | Artesia, NM 88210

575.909.0302 | [robert.hamlet@emnrd.nm.gov](mailto:robert.hamlet@emnrd.nm.gov)<http://www.emnrd.state.nm.us/OCD/>

---

**From:** Fernando Rodriguez <frodriguez@silverbackexp.com>**Sent:** Monday, March 10, 2025 4:37 PM**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>

**Cc:** Justin Carter <jcarter@novoog.com>; Wade Chapman <wchapman@silverbackexp.com>; Rafael Alvizo <ralvizo@silverbackexp.com>; Boone Bajgier <bbajgier@novoog.com>; Andrew Parker <aparker@vertexresource.com>; Michael Moffitt <mmoffitt@vertexresource.com>  
**Subject:** [EXTERNAL] Variance Request Submission – Hawkins GY #4 (30-015-00252): nAPP2222242315

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

Good evening,

Please find attached a formal variance request for the remediation approach at the Hawkins GY #4 (30-015-00252) - nAPP2222242315. We are proposing to leave impacted material in situ around the wellhead area and installing an HDPE liner to mitigate migration. Additionally, we are requesting a modification to the liner depth in the 17-foot excavation areas to ensure consistency with the wellhead area approach.

Please review the attached letter and let us know if you need any additional information or if a Teams meeting would be beneficial. We appreciate your time and consideration.

Best regards,

**Fernando Rodriguez** B.Sc.  
Environmental Consultant

Silverback Operating II, LLC.  
108 South 4th Street,  
Artesia, New Mexico 88210

**P 575.725.5001 ext.714**

**C 575.361.4509**

**F 403.299.3969**

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**Extension Approval – Hawkins GY #4 (30-015-00252): nAPP2222242315**

**From** Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>

**Date** Thu 4/10/2025 8:02 AM

**To** Fernando Rodriguez <frodriguez@silverbackexp.com>

**Cc** Justin Carter <jcarter@novooog.com>; Fatma Abdallah <fabdallah@silverbackexp.com>; Boone Bajgier <bbajgier@novooog.com>; Wade Chapman <wchapman@silverbackexp.com>; Rafael Alvizo <ralvizo@silverbackexp.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>

Fernando,

OCD Permitting has been revamped recently and automatically defaults to 90 days for a Remediation Closure Report Extension. Please have a Remediation Closure Report uploaded to the OCD Permitting Portal no later than **July 9th, 2025**. Please include this e-mail correspondence in the Remediation Closure Report.

**Robert Hamlet** • Environmental Specialist - Advanced

Environmental Bureau

EMNRD - Oil Conservation Division

506 W. Texas Ave. | Artesia, NM 88210

575.909.0302 | [robert.hamlet@emnrd.nm.gov](mailto:robert.hamlet@emnrd.nm.gov)

<http://www.emnrd.state.nm.us/OCD/>



**From:** Fernando Rodriguez <frodriguez@silverbackexp.com>

**Sent:** Wednesday, April 9, 2025 9:50 AM

**To:** Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>

**Cc:** Justin Carter <jcarter@novooog.com>; Fatma Abdallah <fabdallah@silverbackexp.com>; Boone Bajgier <bbajgier@novooog.com>; Wade Chapman <wchapman@silverbackexp.com>; Rafael Alvizo <ralvizo@silverbackexp.com>

**Subject:** [EXTERNAL] Extension Request – Hawkins GY #4 (30-015-00252): nAPP2222242315

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

Robert,

Silverback Operating II, LLC, respectfully requests a 30-day extension for the submission of the final closure report associated with the Hawkins GY #4 (Incident nAPP2222242315). The additional time is needed to finalize report documentation, compile all necessary data, and ensure the closure report meets the requirements outlined in 19.15.29 NMAC. Granting this

extension will support the preparation of a complete and accurate submittal for NMOCD's review.

We appreciate your consideration of this request and are available to provide any additional information if needed.

Thanks,

**Fernando Rodriguez** B.Sc.  
Environmental Consultant

Silverback Operating II, LLC.  
108 South 4th Street,  
Artesia, New Mexico 88210

**P 575.725.5001 ext.714**

**C 575.361.4509**

**F 403.299.3969**

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## **APPENDIX E - Daily Field Reports with Site Photographs**



# Daily Site Visit Report

Client	Silverback Operating II, LLC	Inspection Date	3/10-20/2025
Site Location Name	Hawkins GY #4	API #	30--015-002522
Client Contact Name	Rafael Alvizo	Project Owner	
Client Contact Phone #		Project Manager	
Project Reference #			
Unique Project ID			

### Summary of Times

Arrived at Site	
Departed Site	

### Field Notes

- Excavation photos prior to backfill.

### Next Steps & Recommendations

1

# Daily Site Visit Report



## Site Photos

### Viewing Direction: West

Date & Time: Mon Mar 10 11:10:34 MDT 2025  
Position: +032.72364° / -104.37280°  
Altitude: 1017m  
Datum: WGS-84  
Azimuth/Bearing: 249° 56'W 4427mils (True)  
Zoom: 1x



Overview of excavation

### Viewing Direction: Southwest

Date & Time: Mon Mar 10 11:10:36 MDT 2025  
Position: +032.72364° / -104.37280°  
Altitude: 1017m  
Datum: WGS-84  
Azimuth/Bearing: 209° 52'W 3716mils (True)  
Zoom: 1x



Overview of excavation

### Viewing Direction: West

Date & Time: Mon Mar 10 11:10:52 MDT 2025  
Position: +032.72360° / -104.37268°  
Altitude: 1018m  
Datum: WGS-84  
Azimuth/Bearing: 270° 59'W 4800mils (True)  
Zoom: 1x



Overview of excavation

### Viewing Direction: North

Date & Time: Mon Mar 10 11:11:17 MDT 2025  
Position: +032.72344° / -104.37284°  
Altitude: 1017m  
Datum: WGS-84  
Azimuth/Bearing: 342° N18W 6080mils (True)  
Zoom: 1x



Overview of excavation

# Daily Site Visit Report



## Site Photos

### Viewing Direction: West

Date & Time: Mon Mar 10 11:11:19 MDT 2025  
Position: +032.72343° / -104.37284°  
Altitude: 1017m  
Datum: WGS-84  
Azimuth/Bearing: 274° N86W 4871mils (True)  
Zoom: 1X



Overview of excavation

### Viewing Direction: North

Date & Time: Mon Mar 10 11:11:47 MDT 2025  
Position: +032.72323° / -104.37303°  
Altitude: 1017m  
Datum: WGS-84  
Azimuth/Bearing: 350° N10W 6222mils (True)  
Zoom: 1X



Overview of excavation

### Viewing Direction: Northwest

Date & Time: Mon Mar 10 11:08:05 MDT 2025  
Position: +032.72344° / -104.37322°  
Altitude: 1017m  
Datum: WGS-84  
Azimuth/Bearing: 320° N40W 5689mils (True)  
Zoom: 1X



Overview of excavation

### Viewing Direction: Northeast

Date & Time: Mon Mar 10 11:08:29 MDT 2025  
Position: +032.72347° / -104.37341°  
Altitude: 1018m  
Datum: WGS-84  
Azimuth/Bearing: 047° N47E 0836mils (True)  
Zoom: 1X



Overview of excavation

# Daily Site Visit Report



## Site Photos

**Viewing Direction: Southeast**

Date & Time: Mon Mar 10 11:08:53 MDT 2025  
Position: +032.72368° / -104.37342°  
Altitude: 1016m  
Datum: WGS-84  
Azimuth/Bearing: 146° S34E 259mils (True)  
Zoom: 1X



Overview of excavation

**Viewing Direction: East**

Date & Time: Mon Mar 10 11:08:55 MDT 2025  
Position: +032.72368° / -104.37343°  
Altitude: 1016m  
Datum: WGS-84  
Azimuth/Bearing: 091° S89E 1618mils (True)  
Zoom: 1X



Overview of excavation

**Viewing Direction: Northeast**

Date & Time: Mon Mar 10 11:08:57 MDT 2025  
Position: +032.72368° / -104.37343°  
Altitude: 1017m  
Datum: WGS-84  
Azimuth/Bearing: 059° N59E 1049mils (True)  
Zoom: 1X



Overview of excavation

**Viewing Direction: South**

Date & Time: Mon Mar 10 11:09:29 MDT 2025  
Position: +032.72399° / -104.37327°  
Altitude: 1017m  
Datum: WGS-84  
Azimuth/Bearing: 132° S08E 3058mils (True)  
Zoom: 1X



Overview of excavation

# Daily Site Visit Report



## Site Photos

**Viewing Direction: Southwest**



Overview of excavation

**Viewing Direction: South**



Overview of excavation

**Viewing Direction: West**



Overview of areas around DHM

**Viewing Direction: Southeast**



Areas around DHM

# Daily Site Visit Report



## Site Photos

**Viewing Direction: Southwest**



Areas around DHM

**Viewing Direction: Northeast**



Overview of excavation

**Viewing Direction: Southeast**



Overview of areas around DHM

**Viewing Direction: North**



Areas around DHM

# Daily Site Visit Report



## Site Photos

**Viewing Direction: Southeast**



Overview of excavation

**Viewing Direction: East**



Overview of excavation

**Viewing Direction: Northeast**



Overview of areas around DHM

**Viewing Direction: Southeast**



Overview of areas around DHM

# Daily Site Visit Report



## Site Photos

**Viewing Direction: East**



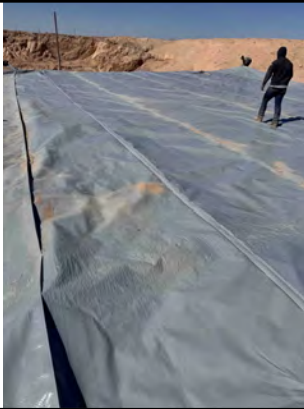
Areas backfilled to 10ft BGS before liner placement

**Viewing Direction: North**



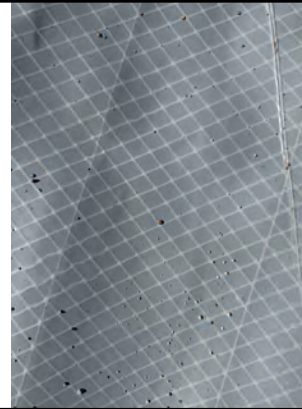
Liner Installation

**Viewing Direction: West**



Laying down liner

**Viewing Direction: Southwest**



HDPE string-reinforced liner material

# Daily Site Visit Report



## Site Photos

**Viewing Direction: Southwest**



Liner placement

**Viewing Direction: West**



Overview of liner placement

**Viewing Direction: North**



Overview of liner placement

**Viewing Direction: Northwest**



Overview of liner placement

# Daily Site Visit Report



Daily Site Visit Signature

**Inspector:** Fernando Rodriguez

**Signature:**   
Signature



# Daily Site Visit Report

Client	Silverback Operating II, LLC	Inspection Date	3/25-27/2025
Site Location Name	Hawkins GY #4	API #	30-015-00252
Client Contact Name	Rafael Alvizo	Project Owner	
Client Contact Phone #		Project Manager	
Project Reference #			
Unique Project ID			

## Summary of Times

Arrived at Site \_\_\_\_\_

Departed Site \_\_\_\_\_

## Field Notes

- Reclamation activities photographs.

## Next Steps & Recommendations

1

# Daily Site Visit Report



## Site Photos

**Viewing Direction: West**



Reclamation Areas

**Viewing Direction: Southwest**



Reclamation Areas

**Viewing Direction: West**



Reclamation Areas

**Viewing Direction: North**



Reclamation Areas

# Daily Site Visit Report



## Site Photos

**Viewing Direction: West**



Reclamation Areas

**Viewing Direction: North**



Overview of reclamation areas

**Viewing Direction: Northwest**



Overview of reclamation areas

**Viewing Direction: Northeast**



Overview of reclamation areas

# Daily Site Visit Report



## Site Photos

**Viewing Direction: Southeast**



Overview of reclamation areas

**Viewing Direction: East**



Overview of reclamation areas

**Viewing Direction: Northeast**



Reclamation activities

**Viewing Direction: South**



Reclamation activities



# Daily Site Visit Report

## Site Photos

Viewing Direction: Southwest



Reclamation activities

Viewing Direction: South



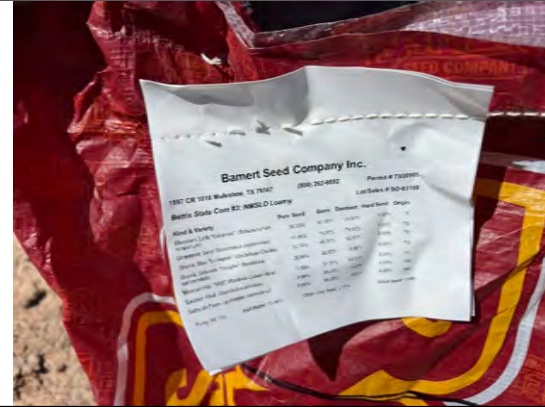
Reclamation activities

Viewing Direction: West



Reclamation activities

Viewing Direction: Southeast



Applied seed mixture

# Daily Site Visit Report



Daily Site Visit Signature

**Inspector:** Fernando Rodriguez

**Signature:**

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

Signature

**APPENDIX E - Laboratory Data  
Reports and Chain of Custody Forms**



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

---

March 06, 2025

MICHAEL MOFFITT  
VERTEX RESOURCE  
3101 BOYD DRIVE  
CARLSBAD, NM 88220

RE: HAWKINS GY #4

Enclosed are the results of analyses for samples received by the laboratory on 03/03/25 12:38.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, flowing "C" at the beginning.

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/27/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS 25 - 01 0-7FT (H251241-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/04/2025	ND	2.05	102	2.00	6.70	
Toluene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	5.24	
Ethylbenzene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	4.83	
Total Xylenes*	<0.150	0.150	03/04/2025	ND	6.67	111	6.00	4.47	
Total BTEX	<0.300	0.300	03/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/04/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	187	93.4	200	4.35	
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	176	88.0	200	7.29	
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND					

Surrogate: 1-Chlorooctane 78.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 76.6 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/27/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS 25 - 02 0-7FT (H251241-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/04/2025	ND	2.05	102	2.00	6.70	
Toluene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	5.24	
Ethylbenzene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	4.83	
Total Xylenes*	<0.150	0.150	03/04/2025	ND	6.67	111	6.00	4.47	
Total BTEX	<0.300	0.300	03/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/04/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	187	93.4	200	4.35	
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	176	88.0	200	7.29	
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND					

Surrogate: 1-Chlorooctane 74.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 72.5 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/27/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS 25 - 03 0-7FT (H251241-03)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/04/2025	ND	2.05	102	2.00	6.70		
Toluene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	5.24		
Ethylbenzene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	4.83		
Total Xylenes*	<0.150	0.150	03/04/2025	ND	6.67	111	6.00	4.47		
Total BTEX	<0.300	0.300	03/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	03/04/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	187	93.4	200	4.35		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	176	88.0	200	7.29		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 76.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 73.7 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	02/27/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: WS 25 - 04 7-11FT (H251241-04)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/04/2025	ND	2.05	102	2.00	6.70	
Toluene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	5.24	
Ethylbenzene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	4.83	
Total Xylenes*	<0.150	0.150	03/04/2025	ND	6.67	111	6.00	4.47	
Total BTEX	<0.300	0.300	03/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	03/04/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	187	93.4	200	4.35	
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	176	88.0	200	7.29	
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND					

Surrogate: 1-Chlorooctane 87.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 84.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/27/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS 25 - 05 7-11FT (H251241-05)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/04/2025	ND	2.05	102	2.00	6.70	
Toluene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	5.24	
Ethylbenzene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	4.83	
Total Xylenes*	<0.150	0.150	03/04/2025	ND	6.67	111	6.00	4.47	
Total BTEX	<0.300	0.300	03/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	03/04/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	187	93.4	200	4.35	
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	176	88.0	200	7.29	
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND					

Surrogate: 1-Chlorooctane 75.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 72.4 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/27/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 06 7FT (H251241-06)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/04/2025	ND	2.05	102	2.00	6.70		
Toluene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	5.24		
Ethylbenzene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	4.83		
Total Xylenes*	<0.150	0.150	03/04/2025	ND	6.67	111	6.00	4.47		
Total BTEX	<0.300	0.300	03/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/04/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	187	93.4	200	4.35		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	176	88.0	200	7.29		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 89.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.4 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/27/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 07 7FT (H251241-07)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/04/2025	ND	2.05	102	2.00	6.70		
Toluene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	5.24		
Ethylbenzene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	4.83		
Total Xylenes*	<0.150	0.150	03/04/2025	ND	6.67	111	6.00	4.47		
Total BTEX	<0.300	0.300	03/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	187	93.4	200	4.35		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	176	88.0	200	7.29		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 98.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 95.2 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/27/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 08 7FT (H251241-08)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/04/2025	ND	2.05	102	2.00	6.70		
Toluene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	5.24		
Ethylbenzene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	4.83		
Total Xylenes*	<0.150	0.150	03/04/2025	ND	6.67	111	6.00	4.47		
Total BTEX	<0.300	0.300	03/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	187	93.4	200	4.35		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	176	88.0	200	7.29		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 77.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 73.8 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	02/27/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 09 7FT (H251241-09)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/04/2025	ND	2.05	102	2.00	6.70		
Toluene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	5.24		
Ethylbenzene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	4.83		
Total Xylenes*	<0.150	0.150	03/04/2025	ND	6.67	111	6.00	4.47		
Total BTEX	<0.300	0.300	03/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	187	93.4	200	4.35		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	176	88.0	200	7.29		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 87.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 83.0 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	02/27/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 10 7FT (H251241-10)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/04/2025	ND	2.05	102	2.00	6.70		
Toluene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	5.24		
Ethylbenzene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	4.83		
Total Xylenes*	<0.150	0.150	03/04/2025	ND	6.67	111	6.00	4.47		
Total BTEX	<0.300	0.300	03/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	187	93.4	200	4.35		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	176	88.0	200	7.29		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 99.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 96.3 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	02/27/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 11 7FT (H251241-11)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/04/2025	ND	2.05	102	2.00	6.70		
Toluene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	5.24		
Ethylbenzene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	4.83		
Total Xylenes*	<0.150	0.150	03/04/2025	ND	6.67	111	6.00	4.47		
Total BTEX	<0.300	0.300	03/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 84.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.2 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	02/27/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 12 7FT (H251241-12)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/04/2025	ND	2.05	102	2.00	6.70	
Toluene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	5.24	
Ethylbenzene*	<0.050	0.050	03/04/2025	ND	2.14	107	2.00	4.83	
Total Xylenes*	<0.150	0.150	03/04/2025	ND	6.67	111	6.00	4.47	
Total BTEX	<0.300	0.300	03/04/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	03/04/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86	
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23	
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND					

Surrogate: 1-Chlorooctane 80.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 74.1 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/27/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 13 7FT (H251241-13)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.05	102	2.00	6.70		
Toluene*	<0.050	0.050	03/05/2025	ND	2.14	107	2.00	5.24		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.14	107	2.00	4.83		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.67	111	6.00	4.47		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 84.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 76.7 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/27/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 14 7FT (H251241-14)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.05	102	2.00	6.70		
Toluene*	<0.050	0.050	03/05/2025	ND	2.14	107	2.00	5.24		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.14	107	2.00	4.83		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.67	111	6.00	4.47		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 88.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 81.3 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/27/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 15 7FT (H251241-15)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.05	102	2.00	6.70		
Toluene*	<0.050	0.050	03/05/2025	ND	2.14	107	2.00	5.24		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.14	107	2.00	4.83		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.67	111	6.00	4.47		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 92.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 86.2 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	02/27/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 16 7FT (H251241-16)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.05	102	2.00	6.70		
Toluene*	<0.050	0.050	03/05/2025	ND	2.14	107	2.00	5.24		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.14	107	2.00	4.83		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.67	111	6.00	4.47		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 81.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 76.1 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/27/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 17 7FT (H251241-17)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.05	102	2.00	6.70		
Toluene*	<0.050	0.050	03/05/2025	ND	2.14	107	2.00	5.24		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.14	107	2.00	4.83		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.67	111	6.00	4.47		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 93.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 85.2 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	02/27/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 18 7FT (H251241-18)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.05	102	2.00	6.70		
Toluene*	<0.050	0.050	03/05/2025	ND	2.14	107	2.00	5.24		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.14	107	2.00	4.83		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.67	111	6.00	4.47		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 83.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 75.9 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	02/28/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 19 11FT (H251241-19)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.05	102	2.00	6.70		
Toluene*	<0.050	0.050	03/05/2025	ND	2.14	107	2.00	5.24		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.14	107	2.00	4.83		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.67	111	6.00	4.47		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 91.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 83.9 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	02/28/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 20 11FT (H251241-20)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2025	ND	2.05	102	2.00	6.70	
Toluene*	<0.050	0.050	03/05/2025	ND	2.14	107	2.00	5.24	
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.14	107	2.00	4.83	
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.67	111	6.00	4.47	
Total BTEX	<0.300	0.300	03/05/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	03/04/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86	
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23	
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND					

Surrogate: 1-Chlorooctane 94.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 86.1 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	02/28/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 21 11FT (H251241-21)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	0.882	
Toluene*	<0.050	0.050	03/05/2025	ND	2.21	111	2.00	0.519	
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.37	119	2.00	1.75	
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.18	120	6.00	2.15	
Total BTEX	<0.300	0.300	03/05/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>240</b>	16.0	03/04/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86	
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23	
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND					

Surrogate: 1-Chlorooctane 80.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 70.8 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	02/28/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 22 11FT (H251241-22)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	0.882		
Toluene*	<0.050	0.050	03/05/2025	ND	2.21	111	2.00	0.519		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.37	119	2.00	1.75		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.18	120	6.00	2.15		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 90.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.8 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/28/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 23 11FT (H251241-23)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	0.882		
Toluene*	<0.050	0.050	03/05/2025	ND	2.21	111	2.00	0.519		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.37	119	2.00	1.75		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.18	120	6.00	2.15		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 93.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 84.1 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/28/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 24 11FT (H251241-24)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/04/2025	ND	1.96	98.1	2.00	10.8		
Toluene*	<0.050	0.050	03/04/2025	ND	2.22	111	2.00	9.48		
Ethylbenzene*	<0.050	0.050	03/04/2025	ND	2.30	115	2.00	8.95		
Total Xylenes*	<0.150	0.150	03/04/2025	ND	6.99	117	6.00	9.92		
Total BTEX	<0.300	0.300	03/04/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 89.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 78.8 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/28/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 25 11FT (H251241-25)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2025	ND	1.96	98.1	2.00	10.8	
Toluene*	<0.050	0.050	03/05/2025	ND	2.22	111	2.00	9.48	
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.30	115	2.00	8.95	
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.99	117	6.00	9.92	
Total BTEX	<0.300	0.300	03/05/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	03/04/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86	
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23	
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND					

Surrogate: 1-Chlorooctane 94.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 84.2 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/28/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 26 11FT (H251241-26)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	1.96	98.1	2.00	10.8		
Toluene*	<0.050	0.050	03/05/2025	ND	2.22	111	2.00	9.48		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.30	115	2.00	8.95		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.99	117	6.00	9.92		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 88.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 78.0 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/28/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 27 11FT (H251241-27)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	1.96	98.1	2.00	10.8		
Toluene*	<0.050	0.050	03/05/2025	ND	2.22	111	2.00	9.48		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.30	115	2.00	8.95		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.99	117	6.00	9.92		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 95.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 85.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	02/28/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 28 11FT (H251241-28)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	1.96	98.1	2.00	10.8		
Toluene*	<0.050	0.050	03/05/2025	ND	2.22	111	2.00	9.48		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.30	115	2.00	8.95		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.99	117	6.00	9.92		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 88.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.0 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	02/28/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 29 11FT (H251241-29)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	1.96	98.1	2.00	10.8		
Toluene*	<0.050	0.050	03/05/2025	ND	2.22	111	2.00	9.48		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.30	115	2.00	8.95		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.99	117	6.00	9.92		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 84.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 74.8 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	02/28/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 30 11FT (H251241-30)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	1.96	98.1	2.00	10.8		
Toluene*	<0.050	0.050	03/05/2025	ND	2.22	111	2.00	9.48		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.30	115	2.00	8.95		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.99	117	6.00	9.92		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	3.86		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	186	93.0	200	1.23		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 85.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 73.0 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	02/28/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 31 11FT (H251241-31)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	1.96	98.1	2.00	10.8		
Toluene*	<0.050	0.050	03/05/2025	ND	2.22	111	2.00	9.48		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.30	115	2.00	8.95		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.99	117	6.00	9.92		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 99.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 103 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	02/28/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 32 11FT (H251241-32)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2025	ND	1.96	98.1	2.00	10.8	
Toluene*	<0.050	0.050	03/05/2025	ND	2.22	111	2.00	9.48	
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.30	115	2.00	8.95	
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.99	117	6.00	9.92	
Total BTEX	<0.300	0.300	03/05/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	03/04/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02	
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37	
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND					

Surrogate: 1-Chlorooctane 105 % 44.4-145

Surrogate: 1-Chlorooctadecane 109 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	02/28/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 33 11FT (H251241-33)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	1.96	98.1	2.00	10.8		
Toluene*	<0.050	0.050	03/05/2025	ND	2.22	111	2.00	9.48		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.30	115	2.00	8.95		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.99	117	6.00	9.92		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 108 % 44.4-145

Surrogate: 1-Chlorooctadecane 112 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	02/28/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 34 11FT (H251241-34)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	1.96	98.1	2.00	10.8		
Toluene*	<0.050	0.050	03/05/2025	ND	2.22	111	2.00	9.48		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.30	115	2.00	8.95		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.99	117	6.00	9.92		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 105 % 44.4-145

Surrogate: 1-Chlorooctadecane 109 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/28/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 35 11FT (H251241-35)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	1.96	98.1	2.00	10.8		
Toluene*	<0.050	0.050	03/05/2025	ND	2.22	111	2.00	9.48		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.30	115	2.00	8.95		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.99	117	6.00	9.92		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 116 % 44.4-145

Surrogate: 1-Chlorooctadecane 124 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/28/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS 25 - 36 0-11FT (H251241-36)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2025	ND	1.96	98.1	2.00	10.8	
Toluene*	<0.050	0.050	03/05/2025	ND	2.22	111	2.00	9.48	
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.30	115	2.00	8.95	
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.99	117	6.00	9.92	
Total BTEX	<0.300	0.300	03/05/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	03/04/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02	
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37	
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND					

Surrogate: 1-Chlorooctane 117 % 44.4-145

Surrogate: 1-Chlorooctadecane 123 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/28/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS 25 - 37 0-11FT (H251241-37)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2025	ND	1.96	98.1	2.00	10.8	
Toluene*	<0.050	0.050	03/05/2025	ND	2.22	111	2.00	9.48	
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.30	115	2.00	8.95	
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.99	117	6.00	9.92	
Total BTEX	<0.300	0.300	03/05/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	03/04/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02	
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37	
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND					

Surrogate: 1-Chlorooctane 124 % 44.4-145

Surrogate: 1-Chlorooctadecane 134 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/28/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS 25 - 38 0-11FT (H251241-38)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	1.96	98.1	2.00	10.8		
Toluene*	<0.050	0.050	03/05/2025	ND	2.22	111	2.00	9.48		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.30	115	2.00	8.95		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.99	117	6.00	9.92		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 111 % 44.4-145

Surrogate: 1-Chlorooctadecane 117 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/28/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS 25 - 39 0-11FT (H251241-39)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	1.96	98.1	2.00	10.8		
Toluene*	<0.050	0.050	03/05/2025	ND	2.22	111	2.00	9.48		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.30	115	2.00	8.95		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.99	117	6.00	9.92		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 103 % 44.4-145

Surrogate: 1-Chlorooctadecane 108 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/28/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS 25 - 40 0-11FT (H251241-40)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2025	ND	1.96	98.1	2.00	10.8	
Toluene*	<0.050	0.050	03/05/2025	ND	2.22	111	2.00	9.48	
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.30	115	2.00	8.95	
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.99	117	6.00	9.92	
Total BTEX	<0.300	0.300	03/05/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	03/04/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02	
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37	
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND					

Surrogate: 1-Chlorooctane 111 % 44.4-145

Surrogate: 1-Chlorooctadecane 118 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/01/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 41 11FT (H251241-41)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	1.96	98.1	2.00	10.8		
Toluene*	<0.050	0.050	03/05/2025	ND	2.22	111	2.00	9.48		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.30	115	2.00	8.95		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.99	117	6.00	9.92		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 101 % 44.4-145

Surrogate: 1-Chlorooctadecane 107 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	03/01/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 42 11FT (H251241-42)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	1.96	98.1	2.00	10.8		
Toluene*	<0.050	0.050	03/05/2025	ND	2.22	111	2.00	9.48		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.30	115	2.00	8.95		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.99	117	6.00	9.92		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 100 % 44.4-145

Surrogate: 1-Chlorooctadecane 104 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/01/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 43 11FT (H251241-43)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	1.96	98.1	2.00	10.8		
Toluene*	<0.050	0.050	03/05/2025	ND	2.22	111	2.00	9.48		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.30	115	2.00	8.95		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	6.99	117	6.00	9.92		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 109 % 44.4-145

Surrogate: 1-Chlorooctadecane 113 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	03/01/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 44 11FT (H251241-44)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.01	101	2.00	10.4		
Toluene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	13.5		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.34	117	2.00	13.9		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.12	119	6.00	14.4		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 115 % 44.4-145

Surrogate: 1-Chlorooctadecane 120 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	03/01/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 45 11FT (H251241-45)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.01	101	2.00	10.4		
Toluene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	13.5		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.34	117	2.00	13.9		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.12	119	6.00	14.4		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 107 % 44.4-145

Surrogate: 1-Chlorooctadecane 110 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	03/01/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 46 11FT (H251241-46)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.01	101	2.00	10.4		
Toluene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	13.5		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.34	117	2.00	13.9		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.12	119	6.00	14.4		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 118 % 44.4-145

Surrogate: 1-Chlorooctadecane 124 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/01/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 47 11FT (H251241-47)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.01	101	2.00	10.4		
Toluene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	13.5		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.34	117	2.00	13.9		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.12	119	6.00	14.4		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 115 % 44.4-145

Surrogate: 1-Chlorooctadecane 121 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/01/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 48 11FT (H251241-48)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2025	ND	2.01	101	2.00	10.4	
Toluene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	13.5	
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.34	117	2.00	13.9	
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.12	119	6.00	14.4	
Total BTEX	<0.300	0.300	03/05/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	03/04/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02	
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37	
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND					

Surrogate: 1-Chlorooctane 113 % 44.4-145

Surrogate: 1-Chlorooctadecane 118 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/01/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 49 11FT (H251241-49)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2025	ND	2.01	101	2.00	10.4	
Toluene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	13.5	
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.34	117	2.00	13.9	
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.12	119	6.00	14.4	
Total BTEX	<0.300	0.300	03/05/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	03/04/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02	
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37	
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND					

Surrogate: 1-Chlorooctane 113 % 44.4-145

Surrogate: 1-Chlorooctadecane 119 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	03/01/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 50 11FT (H251241-50)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.01	101	2.00	10.4		
Toluene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	13.5		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.34	117	2.00	13.9		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.12	119	6.00	14.4		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	200	99.9	200	4.02		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	200	100	200	3.37		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 109 % 44.4-145

Surrogate: 1-Chlorooctadecane 114 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/01/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 51 11FT (H251241-51)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.01	101	2.00	10.4		
Toluene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	13.5		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.34	117	2.00	13.9		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.12	119	6.00	14.4		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	0.290		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	207	103	200	3.66		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 76.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 78.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/03/2025	Sampling Date:	03/01/2025
Reported:	03/06/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 52 11FT (H251241-52)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2025	ND	2.01	101	2.00	10.4	
Toluene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	13.5	
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.34	117	2.00	13.9	
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.12	119	6.00	14.4	
Total BTEX	<0.300	0.300	03/05/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	03/04/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	0.290	
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	207	103	200	3.66	
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND					

Surrogate: 1-Chlorooctane 92.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 97.9 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/01/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 53 11FT (H251241-53)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.01	101	2.00	10.4		
Toluene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	13.5		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.34	117	2.00	13.9		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.12	119	6.00	14.4		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	0.290		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	207	103	200	3.66		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 118 % 44.4-145

Surrogate: 1-Chlorooctadecane 123 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/01/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 54 11FT (H251241-54)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.01	101	2.00	10.4		
Toluene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	13.5		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.34	117	2.00	13.9		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.12	119	6.00	14.4		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	0.290		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	207	103	200	3.66		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 114 % 44.4-145

Surrogate: 1-Chlorooctadecane 118 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/01/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 55 11FT (H251241-55)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.01	101	2.00	10.4		
Toluene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	13.5		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.34	117	2.00	13.9		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.12	119	6.00	14.4		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	0.290		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	207	103	200	3.66		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 123 % 44.4-145

Surrogate: 1-Chlorooctadecane 131 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/01/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 56 11FT (H251241-56)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.01	101	2.00	10.4		
Toluene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	13.5		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.34	117	2.00	13.9		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.12	119	6.00	14.4		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	384	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	0.290		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	207	103	200	3.66		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 113 % 44.4-145

Surrogate: 1-Chlorooctadecane 117 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/01/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS 25 - 57 11FT (H251241-57)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.01	101	2.00	10.4		
Toluene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	13.5		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.34	117	2.00	13.9		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.12	119	6.00	14.4		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	0.290		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	207	103	200	3.66		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 117 % 44.4-145

Surrogate: 1-Chlorooctadecane 121 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/01/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS 25 - 58 0-11FT (H251241-58)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2025	ND	2.01	101	2.00	10.4	
Toluene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	13.5	
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.34	117	2.00	13.9	
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.12	119	6.00	14.4	
Total BTEX	<0.300	0.300	03/05/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	03/04/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	0.290	
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	207	103	200	3.66	
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND					

Surrogate: 1-Chlorooctane 121 % 44.4-145

Surrogate: 1-Chlorooctadecane 126 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/01/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS 25 - 59 0-11FT (H251241-59)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2025	ND	2.01	101	2.00	10.4	
Toluene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	13.5	
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.34	117	2.00	13.9	
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.12	119	6.00	14.4	
Total BTEX	<0.300	0.300	03/05/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	03/04/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	0.290	
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	207	103	200	3.66	
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND					

Surrogate: 1-Chlorooctane 125 % 44.4-145

Surrogate: 1-Chlorooctadecane 130 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/01/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS 25 - 60 0-11FT (H251241-60)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2025	ND	2.01	101	2.00	10.4	
Toluene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	13.5	
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.34	117	2.00	13.9	
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.12	119	6.00	14.4	
Total BTEX	<0.300	0.300	03/05/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	03/04/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	0.290	
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	207	103	200	3.66	
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND					

Surrogate: 1-Chlorooctane 108 % 44.4-145

Surrogate: 1-Chlorooctadecane 113 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/01/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS 25 - 61 11-17FT (H251241-61)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.01	101	2.00	10.4		
Toluene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	13.5		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.34	117	2.00	13.9		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.12	119	6.00	14.4		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	448	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	0.290		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	207	103	200	3.66		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 99.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 101 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/03/2025  
 Reported: 03/06/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/01/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS 25 - 62 11-17FT (H251241-62)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2025	ND	2.01	101	2.00	10.4		
Toluene*	<0.050	0.050	03/05/2025	ND	2.12	106	2.00	13.5		
Ethylbenzene*	<0.050	0.050	03/05/2025	ND	2.34	117	2.00	13.9		
Total Xylenes*	<0.150	0.150	03/05/2025	ND	7.12	119	6.00	14.4		
Total BTEX	<0.300	0.300	03/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	528	16.0	03/04/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/04/2025	ND	203	101	200	0.290		
DRO >C10-C28*	<10.0	10.0	03/04/2025	ND	207	103	200	3.66		
EXT DRO >C28-C36	<10.0	10.0	03/04/2025	ND						

Surrogate: 1-Chlorooctane 79.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.4 % 40.6-153

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**Notes and Definitions**

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

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Celey D. Keene, Lab Director/Quality Manager



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: Vertex Resource Services  
 Project Manager: Michael Moffit  
 Address: 3101 Boyd Dr  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: 575-988-2691 Fax #:   
 Project #: 29E-00778 Project Owner:   
 Project Name: Hawkins GY #4  
 Project Location: Eddy County, NM  
 Sampler Name: F. Rodriguez  
 P.O. #:   
 Company: Silverback Exploration  
 Attn: Rafael Aviso  
 Address: 108 S. 4th St.  
 City: Artesia  
 State: NM Zip: 88210  
 Phone #:   
 Fax #:   
 PRESERV:   
 SAMPLING

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	TPH: (8015) EXT	BTEX (8021B)	Chloride (SM 4500)
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
HS041	WS25-01 0-7ft	C 1	1	X						2/27/25	10:00	X	X	X	
	WS25-02 0-7ft	C 1	1	X						2/27/25	10:05	X	X	X	
	WS25-03 0-7ft	C 1	1	X						2/27/25	10:10	X	X	X	
	WS25-04 7-11ft	C 1	1	X						2/27/25	10:15	X	X	X	
	WS25-05 7-11ft	C 1	1	X						2/27/25	10:20	X	X	X	
	BS25-06 7ft	C 1	1	X						2/27/25	10:25	X	X	X	
	BS25-07 7ft	C 1	1	X						2/27/25	10:30	X	X	X	
	BS25-08 7ft	C 1	1	X						2/27/25	10:35	X	X	X	
	BS25-09 7ft	C 1	1	X						2/27/25	10:40	X	X	X	
	BS25-10 7ft	C 1	1	X						2/27/25	10:45	X	X	X	
	BS25-11 7ft	C 1	1	X						2/27/25	10:50	X	X	X	
	BS25-12 7ft	C 1	1	X						2/27/25	10:55	X	X	X	
	BS25-13 7ft	C 1	1	X						2/27/25	11:00	X	X	X	

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Relinquished By: *[Signature]* Date: 2/27/25 Time: 1:38  
 Received By: *[Signature]*  
 Delivered By: (Circle One) 1-7/2/25-3:30:140  
 Sampler - UPS - Bus - Other: 2-0: #140  
 Sample Condition: Cool Intact  Yes  No  
 CHECKED BY: *[Signature]*  
 Phone Result:  Yes  No Add'l Phone #:   
 Fax Result:  Yes  No Add'l Fax #:   
 REMARKS: Direct bill to Silverback Exploration  
 Email results to: f.rodriguez@vertex.ca & mm.moffit@vertex.ca

3. Please fax with changes to 575-393-2476



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ANALYSIS REQUEST

2

<b>Company Name:</b> Vertex Resource Solutions		<b>BILL TO</b>	
<b>Project Manager:</b> Michael Moffitt	<b>Address:</b> 3101 Boyd Dr	<b>P.O. #:</b>	<b>Company:</b> Silverback Exploration
<b>City:</b> Carlsbad	<b>State:</b> NM <b>Zip:</b> 88220	<b>Attn:</b> Rafael Alvise	<b>Address:</b> 108 S. 4th St.
<b>Phone #:</b> 575-988-2681	<b>Fax #:</b>	<b>City:</b> Artesia	<b>State:</b> NM <b>Zip:</b> 88210
<b>Project #:</b> 25E-00778	<b>Project Owner:</b>	<b>Phone #:</b>	<b>Fax #:</b>
<b>Project Name:</b> Hawkins GY #4	<b>Project Location:</b> Eddy County, NM		
<b>Sampler Name:</b> F. Rodriguez			

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	TPH: (8015) EXT	BTEX (8021B)	Chloride (SM 4500)
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
ABS1241														
14	BS25-14 7ft	C	1	X						2/27/25	11:05	X	X	X
15	BS25-15 7ft	C	1	X						2/27/25	11:10	X	X	X
16	BS25-16 7ft	C	1	X						2/27/25	11:15	X	X	X
17	BS25-17 7ft	C	1	X						2/27/25	11:20	X	X	X
18	BS25-18 7ft	C	1	X						2/27/25	11:25	X	X	X

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**Relinquished By:** [Signature] **Date:** 3/3/25 **Time:** 1:38 **Received By:** F. Rodriguez

**Relinquished By:** [Signature] **Date:** [ ] **Time:** [ ] **Received By:** [ ]

**Delivered By: (Circle One)** 1-72 C+0.3

**Sampler - UPS - Bus - Other:** 2.0 - #140

**Sample Condition:** Cool  Intact  Yes  No

**CHECKED BY:** [Signature]

**REMARKS:**

Direct bill to Silverback Exploration  
 Email results to: frodriguez@vertex.ca & mmoffitt@vertex.ca

5. Please fax written changes to 575-393-2476



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO ANALYSIS REQUEST

**Company Name:** Vertex Resource Services  
**Project Manager:** Michael Moffit  
**Address:** 3101 Boyd Dr  
**City:** Carlsbad **State:** NM **Zip:** 88220  
**Phone #:** 575-988-2861 **Fax #:**  
**Project #:** 25E-00778 **Project Owner:**  
**Project Name:** Hawkins GY #4  
**Project Location:** Eddy County, NM  
**Sampler Name:** F. Rodriguez  
**P.O. #:**  
**Company:** Silverback Exploration  
**Attn:** Rafael Alvarez  
**Address:** 108 S. 4th St.  
**City:** Artesia  
**State:** NM **Zip:** 88210  
**Phone #:**  
**Fax #:**

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.	SAMPLING	DATE	TIME	TPH: (8015) EXT	BTEX (8021B)	Chloride (SM 4500)
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :							
H251241																
19	BS25-19 11ft	C	1	X								2/28/25	8:00	X	X	X
20	BS25-20 11ft	C	1	X								2/28/25	8:05	X	X	X
21	BS25-21 11ft	C	1	X								2/28/25	8:10	X	X	X
22	BS25-22 11ft	C	1	X								2/28/25	8:15	X	X	X
23	BS25-23 11ft	C	1	X								2/28/25	8:20	X	X	X
24	BS25-24 11ft	C	1	X								2/28/25	8:25	X	X	X
25	BS25-25 11ft	C	1	X								2/28/25	8:30	X	X	X
26	BS25-26 11ft	C	1	X								2/28/25	8:35	X	X	X
27	BS25-27 11ft	C	1	X								2/28/25	8:40	X	X	X
28	BS25-28 11ft	C	1	X								2/28/25	8:45	X	X	X
29	BS25-29 11ft	C	1	X								2/28/25	8:50	X	X	X
30	BS25-30 11ft	C	1	X								2/28/25	8:55	X	X	X
31	BS25-31 11ft	C	1	X								2/28/25	9:00	X	X	X

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**Relinquished By:** [Signature] **Date:** 1/23/26 **Time:** 1:38  
**Received By:** F. Rodriguez  
**Delivered By:** (Circle One) 1-72 / 210-3: [Signature] **Checked By:** [Signature]  
**Sampler - UPS - Bus - Other:** 2-0: #1140  
**Sample Condition:** Cool  Intact  Yes  No  
**Phone Result:**  Yes  No **Add'l Phone #:**  
**Fax Result:**  Yes  No **Add'l Fax #:**  
**REMARKS:** Direct bill to Silverback Exploration  
 Email results to: f.rodriguez@vertex.ca & mmoffit@vertex.ca

3. Please fax with changes to 575-393-2476



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

**BILL TO**

**ANALYSIS REQUEST**

**Company Name:** Vertex Resource Services  
**Project Manager:** Michael Moffit  
**Address:** 3101 Boyd Dr  
**City:** Carlsbad **State:** NM **Zip:** 88220  
**Phone #:** 575-988-2681 **Fax #:**  
**Project #:** 25E-00778 **Project Owner:**  
**Project Name:** Hawkins GY #4  
**Project Location:** Eddy County, NM  
**Sampler Name:** F. Rodriguez  
FOR LAB USE ONLY

**P.O. #:**  
**Company:** Silverback Exploration  
**Attn:** Rafael Alvizo  
**Address:** 108 S. 4th St.  
**City:** Artesia  
**State:** NM **Zip:** 88210  
**Phone #:**  
**Fax #:**

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	TPH: (8015) EXT	BTX (8021B)	Chloride (SM 4500)
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
185141	BS25-32 11ft	C 1	1	X						2/28/25	9:05	X	X	X
	BS25-33 11ft	C 1	1	X						2/28/25	9:10	X	X	X
	BS25-34 11ft	C 1	1	X						2/28/25	9:15	X	X	X
	BS25-35 11ft	C 1	1	X						2/28/25	9:20	X	X	X
	WS25-36 0-11ft	C 1	1	X						2/28/25	9:25	X	X	X
	WS25-37 0-11ft	C 1	1	X						2/28/25	9:30	X	X	X
	WS25-38 0-11ft	C 1	1	X						2/28/25	9:35	X	X	X
	WS25-39 0-11ft	C 1	1	X						2/28/25	9:40	X	X	X
	WS25-40 0-11ft	C 1	1	X						2/28/25	9:45	X	X	X

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**Relinquished By:** [Signature] **Date:** 3-3-25  
**Relinquished By:** [Signature] **Date:** 1/3/28  
**Received By:** [Signature] **Date:**  
**Time:**

**Sample Condition:** Cool  Intact   
**Checked By:** [Signature] (Initials)  
**REMARKS:**  
 Direct bill to Silverback Exploration  
 Email results to: frodriguez@vertex.ca & mmoffit@vertex.ca

**Delivered By: (Circle One)** 1-7:10 to 0.3-  
**Sampler - UPS - Bus - Other:** 2.0 - #140  
 Yes  No  No

5. Please fax written changes to 575-393-2476



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

5

Company Name: Verde Resource Services **BILL TO** ANALYSIS REQUEST

<b>Project Manager:</b> Michael Moffit	<b>P.O. #:</b>
<b>Address:</b> 3101 Boyd Dr	<b>Company:</b> Silverback Exploration
<b>City:</b> Carlsbad	<b>Attn:</b> Rafael Alvarez
<b>State:</b> NM <b>Zip:</b> 88220	<b>Address:</b> 108 S. 4th St.
<b>Phone #:</b> 575-988-2681	<b>City:</b> Artesia
<b>Fax #:</b>	<b>State:</b> NM <b>Zip:</b> 88210
<b>Project #:</b> 25E-00778	<b>Project Owner:</b>
<b>Project Name:</b> Hawkins GY #4	<b>Phone #:</b>
<b>Project Location:</b> Eddy County, NM	<b>Fax #:</b>
<b>Sampler Name:</b> F. Rodriguez	

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						ACID/BASE:	DATE	TIME	TPH: (8015) EXT	BTEX (8021B)	Chloride (SM 4500)
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :						
41	BS25-41 11th	C 1	X	X						3/1/25	8:00	X	X	X	
42	BS25-42 11th	C 1	X	X						3/1/25	8:05	X	X	X	
43	BS25-43 11th	C 1	X	X						3/1/25	8:10	X	X	X	
44	BS25-44 11th	C 1	X	X						3/1/25	8:15	X	X	X	
45	BS25-45 11th	C 1	X	X						3/1/25	8:20	X	X	X	
46	BS25-46 11th	C 1	X	X						3/1/25	8:25	X	X	X	
47	BS25-47 11th	C 1	X	X						3/1/25	8:30	X	X	X	
48	BS25-48 11th	C 1	X	X						3/1/25	8:35	X	X	X	
49	BS25-49 11th	C 1	X	X						3/1/25	8:40	X	X	X	
50	BS25-50 11th	C 1	X	X						3/1/25	8:45	X	X	X	
51	BS25-51 11th	C 1	X	X						3/1/25	8:50	X	X	X	
52	BS25-52 11th	C 1	X	X						3/1/25	8:55	X	X	X	
53	BS25-53 11th	C 1	X	X						3/1/25	9:00	X	X	X	

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<b>Relinquished By:</b> <i>[Signature]</i>	<b>Date:</b> 3/3/25	<b>Received By:</b> <i>[Signature]</i>	<b>Date:</b> 3/3/25
<b>Relinquished By:</b> <i>[Signature]</i>	<b>Date:</b> 1/23/25	<b>Received By:</b> <i>[Signature]</i>	<b>Date:</b>

<b>Delivered By:</b> (Circle One) <u>1-7</u> / CTO-3:	<b>Sample Condition:</b>	<b>CHECKED BY:</b> <i>[Signature]</i>
<b>Sampler - UPS - Bus - Other:</b> <u>2.0 - #1410</u>	Cool <input type="checkbox"/> Intact <input type="checkbox"/>	
	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

5. Please email any changes to 575-393-2476

REMARKS:

Direct bill to Silverback Exploration  
 Email results to: frodriguez@vertex.ca & mmoffit@vertex.ca



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

**Company Name:** Vendor Resource Services  
**Project Manager:** Michael Moffitt  
**Address:** 3101 Boyd Dr  
**City:** Carlsbad **State:** NM **Zip:** 88220  
**Phone #:** 575-988-2681 **Fax #:**  
**Project #:** 25E-00778 **Project Owner:**  
**Project Name:** Hawkins GY #4  
**Project Location:** Eddy County, NM  
**Sampler Name:** F. Rodriguez  
**P.O. #:**  
**Company:** Silverback Exploration  
**Attn:** Rafael Alvarez  
**Address:** 108 S. 4th St.  
**City:** Artesia  
**State:** NM **Zip:** 88210  
**Phone #:**  
**Fax #:**

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP, # CONTAINERS	MATRIX						DATE	TIME	TPH: (8015) EXT	BTEX (8021B)	Chloride (SM 4500)
			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
HS12411	BS25-54 11ft	C 1						3/1/25	9:05	X	X	X	
524	BS25-55 11ft	C 1	X					3/1/25	9:10	X	X	X	
525	BS25-56 11ft	C 1	X					3/1/25	9:15	X	X	X	
526	BS25-57 11ft	C 1	X					3/1/25	9:20	X	X	X	
527	WS25-58 0-11ft	C 1	X					3/1/25	9:25	X	X	X	
528	WS25-59 0-11ft	C 1	X					3/1/25	9:30	X	X	X	
529	WS25-60 0-11ft	C 1	X					3/1/25	9:35	X	X	X	
530	WS25-61 11-17ft	C 1	X					3/1/25	9:40	X	X	X	
531	WS25-62 11-17ft	C 1	X					3/1/25	9:45	X	X	X	

**PLEASE NOTE:** Liability and Damages: Customer's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruption, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

**Relinquished By:** [Signature] **Date:** 3-3-25 **Time:** 12:38  
**Received By:** [Signature] **Date:** 12-38  
**Relinquished By:** [Signature] **Time:**

**Delivered By: (Circle One)** 17C / 10T0-3 r  
**Sampler - UPS - Bus - Other:** 20: #140  
**FORM-006 R 2.0**  
**Sample Condition:** Cool Intact  
 Yes  No  
**Checked By:** [Signature]

**REMARKS:**  
 Direct bill to Silverback Exploration  
 Email results to: frodriguez@vertex.ca & mmoffitt@vertex.ca

5. Please fax written changes to 575-393-2476



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

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March 12, 2025

MICHAEL MOFFITT  
VERTEX RESOURCE  
3101 BOYD DRIVE  
CARLSBAD, NM 88220

RE: HAWKINS GY #4

Enclosed are the results of analyses for samples received by the laboratory on 03/06/25 14:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style.

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/06/2025  
 Reported: 03/12/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/03/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WS25 - 63 11-17' (H251323-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/10/2025	ND	1.95	97.4	2.00	0.965	
Toluene*	<0.050	0.050	03/10/2025	ND	2.22	111	2.00	1.45	
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.23	111	2.00	0.00597	
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.01	117	6.00	0.133	
Total BTEX	<0.300	0.300	03/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	03/07/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	216	108	200	6.58	
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	200	100	200	6.81	
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND					

Surrogate: 1-Chlorooctane 117 % 44.4-145

Surrogate: 1-Chlorooctadecane 115 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/06/2025  
 Reported: 03/12/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/03/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS25 - 64 17' (H251323-02)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/10/2025	ND	1.95	97.4	2.00	0.965		
Toluene*	<0.050	0.050	03/10/2025	ND	2.22	111	2.00	1.45		
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.23	111	2.00	0.00597		
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.01	117	6.00	0.133		
Total BTEX	<0.300	0.300	03/10/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	432	16.0	03/07/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	216	108	200	6.58		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	200	100	200	6.81		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 117 % 44.4-145

Surrogate: 1-Chlorooctadecane 117 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/06/2025	Sampling Date:	03/03/2025
Reported:	03/12/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS25 - 65 17' (H251323-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/10/2025	ND	1.95	97.4	2.00	0.965	
Toluene*	<0.050	0.050	03/10/2025	ND	2.22	111	2.00	1.45	
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.23	111	2.00	0.00597	
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.01	117	6.00	0.133	
Total BTEX	<0.300	0.300	03/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	03/07/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	216	108	200	6.58	
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	200	100	200	6.81	
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND					

Surrogate: 1-Chlorooctane 102 % 44.4-145

Surrogate: 1-Chlorooctadecane 102 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/06/2025  
 Reported: 03/12/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/03/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS25 - 66 17' (H251323-04)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/10/2025	ND	1.95	97.4	2.00	0.965		
Toluene*	<0.050	0.050	03/10/2025	ND	2.22	111	2.00	1.45		
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.23	111	2.00	0.00597		
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.01	117	6.00	0.133		
Total BTEX	<0.300	0.300	03/10/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	03/07/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	216	108	200	6.58		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	200	100	200	6.81		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 108 % 44.4-145

Surrogate: 1-Chlorooctadecane 108 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/06/2025  
 Reported: 03/12/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/03/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS25 - 67 17' (H251323-05)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/10/2025	ND	1.95	97.4	2.00	0.965		
Toluene*	<0.050	0.050	03/10/2025	ND	2.22	111	2.00	1.45		
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.23	111	2.00	0.00597		
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.01	117	6.00	0.133		
Total BTEX	<0.300	0.300	03/10/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	03/07/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	216	108	200	6.58		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	200	100	200	6.81		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 112 % 44.4-145

Surrogate: 1-Chlorooctadecane 111 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/06/2025  
 Reported: 03/12/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/03/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS25 - 68 17' (H251323-06)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/07/2025	ND	1.71	85.7	2.00	5.70		
Toluene*	<0.050	0.050	03/07/2025	ND	2.08	104	2.00	4.12		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.12	106	2.00	3.00		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.73	112	6.00	3.16		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	03/07/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	204	102	200	0.426		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	202	101	200	0.0752		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 79.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.7 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/06/2025  
 Reported: 03/12/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/03/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS25 - 69 17' (H251323-07)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/07/2025	ND	1.71	85.7	2.00	5.70		
Toluene*	<0.050	0.050	03/07/2025	ND	2.08	104	2.00	4.12		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.12	106	2.00	3.00		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.73	112	6.00	3.16		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	03/07/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	204	102	200	0.426		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	202	101	200	0.0752		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 114 % 44.4-145

Surrogate: 1-Chlorooctadecane 114 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/06/2025  
 Reported: 03/12/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/03/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS25 - 70 17' (H251323-08)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/07/2025	ND	1.71	85.7	2.00	5.70		
Toluene*	<0.050	0.050	03/07/2025	ND	2.08	104	2.00	4.12		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.12	106	2.00	3.00		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.73	112	6.00	3.16		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/07/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	204	102	200	0.426		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	202	101	200	0.0752		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 119 % 44.4-145

Surrogate: 1-Chlorooctadecane 119 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/06/2025	Sampling Date:	03/03/2025
Reported:	03/12/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS25 - 71 17' (H251323-09)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/07/2025	ND	1.71	85.7	2.00	5.70		
Toluene*	<0.050	0.050	03/07/2025	ND	2.08	104	2.00	4.12		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.12	106	2.00	3.00		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.73	112	6.00	3.16		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	03/07/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	212	106	200	1.54		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	205	102	200	1.92		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 121 % 44.4-145

Surrogate: 1-Chlorooctadecane 115 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/06/2025	Sampling Date:	03/03/2025
Reported:	03/12/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS25 - 72 17' (H251323-10)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/07/2025	ND	1.71	85.7	2.00	5.70		
Toluene*	<0.050	0.050	03/07/2025	ND	2.08	104	2.00	4.12		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.12	106	2.00	3.00		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.73	112	6.00	3.16		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	03/07/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	212	106	200	1.54		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	205	102	200	1.92		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 115 % 44.4-145

Surrogate: 1-Chlorooctadecane 108 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/06/2025  
 Reported: 03/12/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/03/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS25 - 73 17' (H251323-11)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/07/2025	ND	1.71	85.7	2.00	5.70		
Toluene*	<0.050	0.050	03/07/2025	ND	2.08	104	2.00	4.12		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.12	106	2.00	3.00		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.73	112	6.00	3.16		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	03/07/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	212	106	200	1.54		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	205	102	200	1.92		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 113 % 44.4-145

Surrogate: 1-Chlorooctadecane 107 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/06/2025  
 Reported: 03/12/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/03/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS25 - 74 17' (H251323-12)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/07/2025	ND	1.71	85.7	2.00	5.70		
Toluene*	<0.050	0.050	03/07/2025	ND	2.08	104	2.00	4.12		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.12	106	2.00	3.00		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.73	112	6.00	3.16		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	03/07/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	212	106	200	1.54		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	205	102	200	1.92		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 114 % 44.4-145

Surrogate: 1-Chlorooctadecane 107 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/06/2025  
 Reported: 03/12/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/03/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS25 - 75 17' (H251323-13)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/07/2025	ND	1.71	85.7	2.00	5.70		
Toluene*	<0.050	0.050	03/07/2025	ND	2.08	104	2.00	4.12		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.12	106	2.00	3.00		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.73	112	6.00	3.16		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	03/07/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	212	106	200	1.54		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	205	102	200	1.92		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 95.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 91.3 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/06/2025  
 Reported: 03/12/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/03/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS25 - 76 17' (H251323-14)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/07/2025	ND	1.71	85.7	2.00	5.70	
Toluene*	<0.050	0.050	03/07/2025	ND	2.08	104	2.00	4.12	
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.12	106	2.00	3.00	
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.73	112	6.00	3.16	
Total BTEX	<0.300	0.300	03/07/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	03/07/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	212	106	200	1.54	
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	205	102	200	1.92	
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND					

Surrogate: 1-Chlorooctane 99.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 97.3 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/06/2025	Sampling Date:	03/03/2025
Reported:	03/12/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS25 - 77 17' (H251323-15)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/07/2025	ND	1.71	85.7	2.00	5.70		
Toluene*	<0.050	0.050	03/07/2025	ND	2.08	104	2.00	4.12		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.12	106	2.00	3.00		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.73	112	6.00	3.16		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	03/07/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	212	106	200	1.54		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	205	102	200	1.92		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 93.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 90.8 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/06/2025	Sampling Date:	03/03/2025
Reported:	03/12/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS25 - 78 17' (H251323-16)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/07/2025	ND	1.71	85.7	2.00	5.70		
Toluene*	<0.050	0.050	03/07/2025	ND	2.08	104	2.00	4.12		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.12	106	2.00	3.00		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.73	112	6.00	3.16		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	03/07/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	212	106	200	1.54		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	205	102	200	1.92		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 116 % 44.4-145

Surrogate: 1-Chlorooctadecane 111 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/06/2025  
 Reported: 03/12/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/03/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS25 - 79 17' (H251323-17)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/07/2025	ND	1.71	85.7	2.00	5.70		
Toluene*	<0.050	0.050	03/07/2025	ND	2.08	104	2.00	4.12		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.12	106	2.00	3.00		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.73	112	6.00	3.16		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	03/07/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	212	106	200	1.54		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	205	102	200	1.92		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 89.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 86.4 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/06/2025  
 Reported: 03/12/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/03/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WS25 - 80 4-17' (H251323-18)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/07/2025	ND	1.71	85.7	2.00	5.70	
Toluene*	<0.050	0.050	03/07/2025	ND	2.08	104	2.00	4.12	
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.12	106	2.00	3.00	
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.73	112	6.00	3.16	
Total BTEX	<0.300	0.300	03/07/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	03/07/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	212	106	200	1.54	
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	205	102	200	1.92	
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND					

Surrogate: 1-Chlorooctane 93.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.1 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/06/2025	Sampling Date:	03/03/2025
Reported:	03/12/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NM		

**Sample ID: WS25 - 81 0-4' (H251323-19)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/07/2025	ND	1.71	85.7	2.00	5.70	
Toluene*	<0.050	0.050	03/07/2025	ND	2.08	104	2.00	4.12	
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.12	106	2.00	3.00	
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.73	112	6.00	3.16	
Total BTEX	<0.300	0.300	03/07/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	03/07/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	212	106	200	1.54	
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	205	102	200	1.92	
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND					

Surrogate: 1-Chlorooctane 96.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 89.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/06/2025  
 Reported: 03/12/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/03/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WS25 - 82 4-17' (H251323-20)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/07/2025	ND	1.71	85.7	2.00	5.70	
Toluene*	<0.050	0.050	03/07/2025	ND	2.08	104	2.00	4.12	
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.12	106	2.00	3.00	
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.73	112	6.00	3.16	
Total BTEX	<0.300	0.300	03/07/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	03/07/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	212	106	200	1.54	
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	205	102	200	1.92	
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND					

Surrogate: 1-Chlorooctane 94.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.0 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/06/2025	Sampling Date:	03/03/2025
Reported:	03/12/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NM		

**Sample ID: WS25 - 83 0-4' (H251323-21)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/07/2025	ND	1.71	85.7	2.00	5.70	
Toluene*	<0.050	0.050	03/07/2025	ND	2.08	104	2.00	4.12	
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.12	106	2.00	3.00	
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.73	112	6.00	3.16	
Total BTEX	<0.300	0.300	03/07/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/07/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	212	106	200	1.54	
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	205	102	200	1.92	
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND					

Surrogate: 1-Chlorooctane 97.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 93.1 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/06/2025  
 Reported: 03/12/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/03/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WS25 - 84 0-17' (H251323-22)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/10/2025	ND	1.95	97.4	2.00	0.965	
Toluene*	<0.050	0.050	03/10/2025	ND	2.22	111	2.00	1.45	
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.23	111	2.00	0.00597	
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.01	117	6.00	0.133	
Total BTEX	<0.300	0.300	03/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	03/07/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	212	106	200	1.54	
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	205	102	200	1.92	
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND					

Surrogate: 1-Chlorooctane 91.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 86.2 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/06/2025  
 Reported: 03/12/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/03/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WS25 - 85 0-17' (H251323-23)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/10/2025	ND	1.95	97.4	2.00	0.965	
Toluene*	<0.050	0.050	03/10/2025	ND	2.22	111	2.00	1.45	
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.23	111	2.00	0.00597	
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.01	117	6.00	0.133	
Total BTEX	<0.300	0.300	03/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	03/07/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	212	106	200	1.54	
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	205	102	200	1.92	
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND					

Surrogate: 1-Chlorooctane 93.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.4 % 40.6-153

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Notes and Definitions

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

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

<b>Company Name:</b> Vertex Resource Services	<b>P.O. #:</b>
<b>Project Manager:</b> Michael Moffit	<b>Company:</b> Silverback Exploration
<b>Address:</b> 3101 Boyd Dr	<b>Attn:</b> Rafael Alvizo
<b>City:</b> Carlsbad	<b>Address:</b> 108 S. 4th St.
<b>Phone #:</b> 575-988-2881	<b>City:</b> Artesia
<b>Fax #:</b>	<b>State:</b> NM <b>Zip:</b> 88210
<b>Project #:</b> 25E-00778	<b>Project Owner:</b>
<b>Project Name:</b> Hawkins GY #4	<b>Phone #:</b>
<b>Project Location:</b> Eddy County, NM	<b>Fax #:</b>
<b>Sampler Name:</b> F. Rodriguez	

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	TPH: (8015) EXT	BTEX (8021B)	Chloride (SM 4500)
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:					
HS1323	WS25-63 11-17H	C	1								3/3/25	8:00	X	X	X
	BS25-64 17H	C	1	X							3/3/25	8:05	X	X	X
	BS25-65 17H	C	1	X							3/3/25	8:10	X	X	X
	BS25-66 17H	C	1	X							3/3/25	8:15	X	X	X
	BS25-67 17H	C	1	X							3/3/25	8:20	X	X	X
	BS25-68 17H	C	1	X							3/3/25	8:25	X	X	X
	BS25-69 17H	C	1	X							3/3/25	8:30	X	X	X
	BS25-70 17H	C	1	X							3/3/25	8:35	X	X	X
	BS25-71 17H	C	1	X							3/3/25	8:40	X	X	X
	BS25-72 17H	C	1	X							3/3/25	8:45	X	X	X
	BS25-73 17H	C	1	X							3/3/25	8:50	X	X	X
	BS25-74 17H	C	1	X							3/3/25	8:55	X	X	X
	BS25-75 17H	C	1	X							3/3/25	9:00	X	X	X

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<b>Relinquished By:</b> [Signature]	<b>Date:</b> 3-6-25	<b>Received By:</b> [Signature]	<b>Date:</b> 3/6/25
<b>Relinquished By:</b> [Signature]	<b>Date:</b> 3/13/20	<b>Received By:</b> [Signature]	<b>Date:</b> 3/13/20

Delivered By: (Circle One) **UPS** *CF1030 #140*

Sampler - UPS - Bus - Other: *8.4c / 3.2c*

Sample Condition: Cool  Intact   
 Yes  No

CHECKED BY: *ao*

Phone Result:  Yes  No  Add'l Phone #: \_\_\_\_\_  
 Fax Result:  Yes  No  Add'l Fax #: \_\_\_\_\_

REMARKS: Direct bill to Silverback Exploration  
 Email results to: frodriguez@vertex.ca & mmoffit@vertex.ca

3. Please Fax with changes to 575-393-2476



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2

<b>Company Name:</b> Vertex Resource Services <b>Project Manager:</b> Michael Moffit <b>Address:</b> 3101 Boyd Dr <b>City:</b> Carlsbad <b>State:</b> NM <b>Zip:</b> 88220 <b>Phone #:</b> 575-988-2681 <b>Fax #:</b> <b>Project #:</b> 25E-00778 <b>Project Owner:</b> <b>Project Name:</b> Hawkins GY #4 <b>Project Location:</b> Eddy County, NM <b>Sampler Name:</b> F. Rodriguez		<b>P.O. #:</b> <b>Company:</b> Silverback Exploration <b>Attn:</b> Rafael Alvarez <b>Address:</b> 108 S. 4th St. <b>City:</b> Artesia <b>State:</b> NM <b>Zip:</b> 88210 <b>Phone #:</b> <b>Fax #:</b>	
<b>FOR LAB USE ONLY</b> <b>Lab I.D.:</b> HBS 1303 <b>Sample I.D.:</b>		<b>BILL TO</b> MATRIX: GROUNDWATER, WASTEWATER, SOIL, OIL, SLUDGE, OTHER: ICE / COOL, ACID/BASE, OTHER:	
(GRAB OR (C)OMP. # CONTAINERS DATE TIME		PRESERV. SAMPLING TPH: (8015) EXT BTEX (8021B) Chloride (SM 4500)	
14 BS25-76 17ft C 1 X X 3/3/25 9:05 X X 15 BS25-77 17ft C 1 X X 3/3/25 9:10 X X 16 BS25-78 17ft C 1 X X 3/3/25 9:15 X X 17 BS25-79 17ft C 1 X X 3/3/25 9:20 X X 18 WS25-80 4-17ft C 1 X X 3/3/25 9:25 X X 19 WS25-81 0-4ft C 1 X X 3/3/25 9:30 X X 20 WS25-82 4-17ft C 1 X X 3/3/25 9:35 X X 21 WS25-83 0-4ft C 1 X X 3/3/25 9:40 X X 22 WS25-84 0-17ft C 1 X X 3/3/25 9:45 X X 23 WS25-85 0-17ft C 1 X X 3/3/25 9:50 X X		ANALYSIS REQUEST	

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<b>Relinquished By:</b> [Signature] Date: 3-6-25 Time: 1:30	<b>Received By:</b> [Signature] Date: 3-6-25 Time: 1:30
<b>Delivered By: (Circle One)</b> <input checked="" type="checkbox"/> UPS <input type="checkbox"/> Other: [Signature] FORM-006 R 2.0	Sample Condition: Cool <input type="checkbox"/> Intact <input checked="" type="checkbox"/> Checked By: [Signature]

3. Please fax written changes to 575-393-2476

REMARKS: Direct bill to Silverback Exploration  
Email results to: frodriguez@vertex.ca & mmoffit@vertex.ca



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

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March 17, 2025

MICHAEL MOFFITT  
VERTEX RESOURCE  
3101 BOYD DRIVE  
CARLSBAD, NM 88220

RE: HAWKINS GY #4

Enclosed are the results of analyses for samples received by the laboratory on 03/11/25 15:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, flowing "C" at the beginning.

Celey D. Keene  
Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/11/2025  
 Reported: 03/17/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/10/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS 25 - 86 4FT (H251422-01)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931		
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424		
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19		
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841		
Total BTEX	<0.300	0.300	03/12/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>64.0</b>	16.0	03/12/2025	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	198	99.0	200	0.805		
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	197	98.7	200	0.987		
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND						

Surrogate: 1-Chlorooctane 83.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.8 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/11/2025	Sampling Date:	03/10/2025
Reported:	03/17/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 87 4FT (H251422-02)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931		
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424		
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19		
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841		
Total BTEX	<0.300	0.300	03/12/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	03/12/2025	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	198	99.0	200	0.805		
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	197	98.7	200	0.987		
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND						

Surrogate: 1-Chlorooctane 81.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 76.5 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/11/2025  
 Reported: 03/17/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/10/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS 25 - 88 4FT (H251422-03)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931		
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424		
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19		
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841		
Total BTEX	<0.300	0.300	03/12/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	03/12/2025	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	198	99.0	200	0.805		
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	197	98.7	200	0.987		
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND						

Surrogate: 1-Chlorooctane 87.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.8 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/11/2025  
 Reported: 03/17/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/10/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS 25 - 89 4FT (H251422-04)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931		
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424		
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19		
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841		
Total BTEX	<0.300	0.300	03/12/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	03/12/2025	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	198	99.0	200	0.805		
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	197	98.7	200	0.987		
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND						

Surrogate: 1-Chlorooctane 82.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 77.0 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/11/2025  
 Reported: 03/17/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/10/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS 25 - 90 4FT (H251422-05)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931		
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424		
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19		
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841		
Total BTEX	<0.300	0.300	03/12/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	03/12/2025	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	198	99.0	200	0.805		
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	197	98.7	200	0.987		
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND						

Surrogate: 1-Chlorooctane 83.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 80.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/11/2025	Sampling Date:	03/10/2025
Reported:	03/17/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 91 6FT (H251422-06)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931		
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424		
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19		
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841		
Total BTEX	<0.300	0.300	03/12/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/12/2025	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	198	99.0	200	0.805		
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	197	98.7	200	0.987		
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND						

Surrogate: 1-Chlorooctane 84.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 80.8 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/11/2025  
 Reported: 03/17/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/10/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS 25 - 92 6FT (H251422-07)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931		
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424		
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19		
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841		
Total BTEX	<0.300	0.300	03/12/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	03/12/2025	ND	480	120	400	0.00	QM-07	

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	198	99.0	200	0.805		
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	197	98.7	200	0.987		
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND						

Surrogate: 1-Chlorooctane 82.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 81.9 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/11/2025  
 Reported: 03/17/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/10/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS 25 - 93 6FT (H251422-08)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931		
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424		
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19		
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841		
Total BTEX	<0.300	0.300	03/12/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	03/12/2025	ND	480	120	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	198	99.0	200	0.805		
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	197	98.7	200	0.987		
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND						

Surrogate: 1-Chlorooctane 86.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 81.3 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/11/2025  
 Reported: 03/17/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/10/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS 25 - 94 4FT (H251422-09)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931		
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424		
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19		
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841		
Total BTEX	<0.300	0.300	03/12/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	03/12/2025	ND	480	120	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	198	99.0	200	0.805		
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	197	98.7	200	0.987		
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND						

Surrogate: 1-Chlorooctane 84.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.9 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/11/2025  
 Reported: 03/17/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/10/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS 25 - 95 14FT (H251422-10)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931		
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424		
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19		
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841		
Total BTEX	<0.300	0.300	03/12/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	03/12/2025	ND	480	120	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	198	99.0	200	0.805		
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	197	98.7	200	0.987		
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND						

Surrogate: 1-Chlorooctane 87.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 81.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/11/2025  
 Reported: 03/17/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/10/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS 25 - 96 14FT (H251422-11)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931		
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424		
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19		
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841		
Total BTEX	<0.300	0.300	03/12/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	03/12/2025	ND	480	120	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	198	99.0	200	0.805		
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	197	98.7	200	0.987		
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND						

Surrogate: 1-Chlorooctane 91.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 84.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/11/2025	Sampling Date:	03/10/2025
Reported:	03/17/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 97 14FT (H251422-12)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931	
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424	
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19	
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841	
Total BTEX	<0.300	0.300	03/12/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/12/2025	ND	480	120	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	198	99.0	200	0.805	
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	197	98.7	200	0.987	
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND					

Surrogate: 1-Chlorooctane 85.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.7 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/11/2025	Sampling Date:	03/10/2025
Reported:	03/17/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 98 25FT (H251422-13)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931		
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424		
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19		
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841		
Total BTEX	<0.300	0.300	03/12/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	03/12/2025	ND	480	120	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	198	99.0	200	0.805		
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	197	98.7	200	0.987		
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND						

Surrogate: 1-Chlorooctane 90.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 85.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/11/2025  
 Reported: 03/17/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/10/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS 25 - 99 20FT (H251422-14)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931		
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424		
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19		
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841		
Total BTEX	<0.300	0.300	03/12/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	03/12/2025	ND	480	120	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	198	99.0	200	0.805		
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	197	98.7	200	0.987		
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND						

Surrogate: 1-Chlorooctane 85.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 80.5 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/11/2025	Sampling Date:	03/10/2025
Reported:	03/17/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NM		

**Sample ID: BS 25 - 100 20FT (H251422-15)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931		
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424		
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19		
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841		
Total BTEX	<0.300	0.300	03/12/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	03/12/2025	ND	480	120	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	198	99.0	200	0.805		
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	197	98.7	200	0.987		
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND						

Surrogate: 1-Chlorooctane 69.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 65.4 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/11/2025  
 Reported: 03/17/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/10/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WS 25 - 101 4-20FT (H251422-16)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931	
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424	
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19	
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841	
Total BTEX	<0.300	0.300	03/12/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	03/12/2025	ND	480	120	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	198	99.0	200	0.805	
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	197	98.7	200	0.987	
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND					

Surrogate: 1-Chlorooctane 84.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.0 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/11/2025  
 Reported: 03/17/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/10/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WS 25 - 102 20-25FT (H251422-17)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931	
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424	
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19	
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841	
Total BTEX	<0.300	0.300	03/12/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	03/12/2025	ND	480	120	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	198	99.0	200	0.805	
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	197	98.7	200	0.987	
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND					

Surrogate: 1-Chlorooctane 83.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 78.0 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/11/2025	Sampling Date:	03/10/2025
Reported:	03/17/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NM		

**Sample ID: WS 25 - 103 14-20FT (H251422-18)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931	
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424	
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19	
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841	
Total BTEX	<0.300	0.300	03/12/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	03/12/2025	ND	480	120	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	198	99.0	200	0.805	
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	197	98.7	200	0.987	
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND					

Surrogate: 1-Chlorooctane 71.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 64.0 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/11/2025  
 Reported: 03/17/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/10/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WS 25 - 104 14-25FT (H251422-19)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931	
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424	
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19	
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841	
Total BTEX	<0.300	0.300	03/12/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	03/12/2025	ND	480	120	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	198	99.0	200	0.805	
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	197	98.7	200	0.987	
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND					

Surrogate: 1-Chlorooctane 88.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 03/11/2025  
 Reported: 03/17/2025  
 Project Name: HAWKINS GY #4  
 Project Number: 25E-00778  
 Project Location: EDDY COUNTY, NM

Sampling Date: 03/10/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WS 25 - 105 11-14FT (H251422-20)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/12/2025	ND	2.03	102	2.00	0.931	
Toluene*	<0.050	0.050	03/12/2025	ND	2.08	104	2.00	0.0424	
Ethylbenzene*	<0.050	0.050	03/12/2025	ND	2.07	104	2.00	1.19	
Total Xylenes*	<0.150	0.150	03/12/2025	ND	6.32	105	6.00	0.841	
Total BTEX	<0.300	0.300	03/12/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	03/12/2025	ND	480	120	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/12/2025	ND	207	104	200	4.72	
DRO >C10-C28*	<10.0	10.0	03/12/2025	ND	190	95.1	200	7.28	
EXT DRO >C28-C36	<10.0	10.0	03/12/2025	ND					

Surrogate: 1-Chlorooctane 80.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 74.5 % 40.6-153

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Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
\*\* Samples not received at proper temperature of 6°C or below.
\*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

**Company Name:** Vertex Resource Services  
**Project Manager:** Michael Moffit  
**Address:** 3101 Boyd Dr  
**City:** Carlsbad **State:** NM **Zip:** 88220  
**Phone #:** 575-988-2681 **Fax #:**  
**Project #:** 25E-00778 **Project Owner:**  
**Project Name:** Hawkins GY #4  
**Project Location:** Eddy County, NM  
**Sampler Name:** F. Rodriguez  
**FOR LAB USE ONLY**

**BILL TO**  
**P.O. #:**  
**Company:** Silverback Exploration  
**Attn:** Rafael Alvarez  
**Address:** 108 S. 4th St.  
**City:** Artesia  
**State:** NM **Zip:** 88210  
**Phone #:**  
**Fax #:**

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	TPH: (8015) EXT	BTEX (8021B)	Chloride (SM 4500)
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
HS1422	BS25-86 4ft	C	1	X						3/10/25	8:00	X	X	X
	BS25-87 4ft	C	1	X						3/10/25	8:05	X	X	X
	BS25-88 4ft	C	1	X						3/10/25	8:10	X	X	X
	BS25-89 4ft	C	1	X						3/10/25	8:15	X	X	X
	BS25-90 4ft	C	1	X						3/10/25	8:20	X	X	X
	BS25-91 6ft	C	1	X						3/10/25	8:25	X	X	X
	BS25-92 6ft	C	1	X						3/10/25	8:30	X	X	X
	BS25-93 6ft	C	1	X						3/10/25	8:35	X	X	X
	BS25-94 4ft	C	1	X						3/10/25	8:40	X	X	X
	BS25-95 14ft	C	1	X						3/10/25	8:45	X	X	X
	BS25-96 14ft	C	1	X						3/10/25	8:50	X	X	X
	BS25-97 14ft	C	1	X						3/10/25	8:55	X	X	X
	BS25-98 25ft	C	1	X						3/10/25	9:00	X	X	X

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**Relinquished By:** [Signature] **Date:** 3/11/25 **Received By:** [Signature] **Date:** 3/11/25  
**Relinquished By:** [Signature] **Date:** 1/5/15 **Received By:** [Signature] **Date:** 1/5/15

**Delivered By: (Circle One)**  **UPS**  **Bus**  **Other:** 1.8c/2.1c  
**Sample Condition:**  **Cool**  **Intact**  
**Checked By:** [Signature] (Initials) [Signature]  
**Phone Result:**  **Yes**  **No** **Add'l Phone #:**  
**Fax Result:**  **Yes**  **No** **Add'l Fax #:**  
**REMARKS:**  
 Direct bill to Silverback Exploration  
 Email results to: frodriguez@vertex.ca & mmoffit@vertex.ca





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

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March 25, 2025

MICHAEL MOFFITT  
VERTEX RESOURCE  
3101 BOYD DRIVE  
CARLSBAD, NM 88220

RE: HAWKINS GY #4

Enclosed are the results of analyses for samples received by the laboratory on 03/19/25 12:41.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/13/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: WS25-106 0-14FT (H251616-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975	
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09	
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17	QM-07
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89	
Total BTEX	<0.300	0.300	03/21/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	03/20/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	241	121	200	0.158	
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.483	
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND					

Surrogate: 1-Chlorooctane 116 % 44.4-145

Surrogate: 1-Chlorooctadecane 118 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/13/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: WS25-107 0-4FT (H251616-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975	
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09	
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17	
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89	
Total BTEX	<0.300	0.300	03/21/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/20/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	241	121	200	0.158	
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.483	
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND					

Surrogate: 1-Chlorooctane 106 % 44.4-145

Surrogate: 1-Chlorooctadecane 107 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/13/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: WS25-108 4-14FT (H251616-03)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975		
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09		
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17		
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89		
Total BTEX	<0.300	0.300	03/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	03/20/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	241	121	200	0.158		
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.483		
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND						

Surrogate: 1-Chlorooctane 112 % 44.4-145

Surrogate: 1-Chlorooctadecane 111 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/13/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: WS25-109 6-14FT (H251616-04)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975	
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09	
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17	
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89	
Total BTEX	<0.300	0.300	03/21/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	03/20/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	241	121	200	0.158	
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.483	
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND					

Surrogate: 1-Chlorooctane 104 % 44.4-145

Surrogate: 1-Chlorooctadecane 104 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/13/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: WS25-110 0-6FT (H251616-05)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975	
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09	
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17	
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89	
Total BTEX	<0.300	0.300	03/21/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/20/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	241	121	200	0.158	
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.483	
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND					

Surrogate: 1-Chlorooctane 110 % 44.4-145

Surrogate: 1-Chlorooctadecane 110 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/13/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: WS25-111 0-6FT (H251616-06)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975	
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09	
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17	
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89	
Total BTEX	<0.300	0.300	03/21/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/20/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	241	121	200	0.158	
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.483	
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND					

Surrogate: 1-Chlorooctane 102 % 44.4-145

Surrogate: 1-Chlorooctadecane 102 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/13/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: WS25-112 4-6 FT (H251616-07)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975		
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09		
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17		
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89		
Total BTEX	<0.300	0.300	03/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	03/20/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	241	121	200	0.158		
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.483		
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND						

Surrogate: 1-Chlorooctane 96.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 95.2 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/13/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: WS25-113 17-20FT (H251616-08)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975		
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09		
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17		
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89		
Total BTEX	<0.300	0.300	03/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/20/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	241	121	200	0.158		
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.483		
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND						

Surrogate: 1-Chlorooctane 101 % 44.4-145

Surrogate: 1-Chlorooctadecane 102 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/13/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: WS25-114 17-20FT (H251616-09)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975		
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09		
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17		
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89		
Total BTEX	<0.300	0.300	03/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	03/20/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	241	121	200	0.158		
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.483		
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND						

Surrogate: 1-Chlorooctane 110 % 44.4-145

Surrogate: 1-Chlorooctadecane 110 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/13/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: WS25-115 11-20FT (H251616-10)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975	
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09	
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17	
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89	
Total BTEX	<0.300	0.300	03/21/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	03/20/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	241	121	200	0.158	
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.483	
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND					

Surrogate: 1-Chlorooctane 109 % 44.4-145

Surrogate: 1-Chlorooctadecane 109 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/17/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: WS25-116 11-20FT (H251616-11)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975		
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09		
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17		
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89		
Total BTEX	<0.300	0.300	03/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	03/20/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	241	121	200	0.158		
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.483		
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND						

Surrogate: 1-Chlorooctane 112 % 44.4-145

Surrogate: 1-Chlorooctadecane 111 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/17/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: WS25-117 4-17FT (H251616-12)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975	
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09	
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17	
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89	
Total BTEX	<0.300	0.300	03/21/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	03/20/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	241	121	200	0.158	
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.483	
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND					

Surrogate: 1-Chlorooctane 110 % 44.4-145

Surrogate: 1-Chlorooctadecane 109 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/17/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: BS25-118 20FT (H251616-13)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975		
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09		
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17		
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89		
Total BTEX	<0.300	0.300	03/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	03/20/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	241	121	200	0.158		
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.483		
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND						

Surrogate: 1-Chlorooctane 93.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 92.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/17/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: BS25-119 20FT (H251616-14)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975		
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09		
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17		
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89		
Total BTEX	<0.300	0.300	03/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	03/20/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	241	121	200	0.158		
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.483		
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND						

Surrogate: 1-Chlorooctane 110 % 44.4-145

Surrogate: 1-Chlorooctadecane 110 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/17/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: BS25-120 20FT (H251616-15)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975		
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09		
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17		
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89		
Total BTEX	<0.300	0.300	03/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	03/20/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	241	121	200	0.158		
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.483		
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND						

Surrogate: 1-Chlorooctane 113 % 44.4-145

Surrogate: 1-Chlorooctadecane 113 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/17/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: BS25-121 20FT (H251616-16)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975		
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09		
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17		
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89		
Total BTEX	<0.300	0.300	03/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	03/20/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	241	121	200	0.158		
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.483		
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND						

Surrogate: 1-Chlorooctane 117 % 44.4-145

Surrogate: 1-Chlorooctadecane 121 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/17/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: BS25-122 20FT (H251616-17)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975		
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09		
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17		
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89		
Total BTEX	<0.300	0.300	03/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	03/20/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	241	121	200	0.158		
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.483		
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND						

Surrogate: 1-Chlorooctane 116 % 44.4-145

Surrogate: 1-Chlorooctadecane 118 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/17/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: BS25-123 20FT (H251616-18)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975	
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09	
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17	
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89	
Total BTEX	<0.300	0.300	03/21/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	03/20/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	215	107	200	1.52	
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.544	
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND					

Surrogate: 1-Chlorooctane 84.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 80.3 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/17/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: BS25-124 11FT (H251616-19)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975		
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09		
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17		
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89		
Total BTEX	<0.300	0.300	03/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	03/20/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	215	107	200	1.52		
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.544		
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND						

Surrogate: 1-Chlorooctane 82.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 78.1 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/17/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: BS25-125 11FT (H251616-20)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/21/2025	ND	2.09	104	2.00	0.975		
Toluene*	<0.050	0.050	03/21/2025	ND	2.14	107	2.00	3.09		
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.33	117	2.00	3.17		
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.91	115	6.00	3.89		
Total BTEX	<0.300	0.300	03/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	03/20/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	215	107	200	1.52		
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.544		
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND						

Surrogate: 1-Chlorooctane 86.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 80.1 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/18/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: BS25-126 11FT (H251616-21)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/21/2025	ND	2.18	109	2.00	0.274		
Toluene*	<0.050	0.050	03/21/2025	ND	2.17	109	2.00	1.48		
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.18	109	2.00	0.920		
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.32	105	6.00	1.93		
Total BTEX	<0.300	0.300	03/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	03/20/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	215	107	200	1.52		
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.544		
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND						

Surrogate: 1-Chlorooctane 81.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 75.4 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/18/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: BS25-127 11FT (H251616-22)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/21/2025	ND	2.18	109	2.00	0.274		
Toluene*	<0.050	0.050	03/21/2025	ND	2.17	109	2.00	1.48		
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.18	109	2.00	0.920		
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.32	105	6.00	1.93		
Total BTEX	<0.300	0.300	03/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	03/20/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	215	107	200	1.52		
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.544		
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND						

Surrogate: 1-Chlorooctane 81.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 75.4 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/18/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: BS25-128 11FT (H251616-23)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/21/2025	ND	2.18	109	2.00	0.274		
Toluene*	<0.050	0.050	03/21/2025	ND	2.17	109	2.00	1.48		
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.18	109	2.00	0.920		
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.32	105	6.00	1.93		
Total BTEX	<0.300	0.300	03/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	03/20/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	215	107	200	1.52		
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.544		
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND						

Surrogate: 1-Chlorooctane 74.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 67.8 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/18/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: BS25-129 11FT (H251616-24)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/21/2025	ND	2.18	109	2.00	0.274		
Toluene*	<0.050	0.050	03/21/2025	ND	2.17	109	2.00	1.48		
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.18	109	2.00	0.920		
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.32	105	6.00	1.93		
Total BTEX	<0.300	0.300	03/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	400	16.0	03/20/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	215	107	200	1.52		
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.544		
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND						

Surrogate: 1-Chlorooctane 86.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.8 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/18/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: BS25-130 7FT (H251616-25)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/21/2025	ND	2.18	109	2.00	0.274	
Toluene*	<0.050	0.050	03/21/2025	ND	2.17	109	2.00	1.48	
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.18	109	2.00	0.920	
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.32	105	6.00	1.93	
Total BTEX	<0.300	0.300	03/21/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	03/20/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	215	107	200	1.52	
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.544	
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND					

Surrogate: 1-Chlorooctane 85.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.4 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/18/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: BS25-131 7FT (H251616-26)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/21/2025	ND	2.18	109	2.00	0.274		
Toluene*	<0.050	0.050	03/21/2025	ND	2.17	109	2.00	1.48		
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.18	109	2.00	0.920		
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.32	105	6.00	1.93		
Total BTEX	<0.300	0.300	03/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	03/20/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	215	107	200	1.52		
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.544		
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND						

Surrogate: 1-Chlorooctane 89.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.6 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	03/19/2025	Sampling Date:	03/18/2025
Reported:	03/25/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Alyssa Parras
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: BS25-132 7FT (H251616-27)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/21/2025	ND	2.18	109	2.00	0.274	
Toluene*	<0.050	0.050	03/21/2025	ND	2.17	109	2.00	1.48	
Ethylbenzene*	<0.050	0.050	03/21/2025	ND	2.18	109	2.00	0.920	
Total Xylenes*	<0.150	0.150	03/21/2025	ND	6.32	105	6.00	1.93	
Total BTEX	<0.300	0.300	03/21/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	03/20/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/20/2025	ND	215	107	200	1.52	
DRO >C10-C28*	<10.0	10.0	03/20/2025	ND	217	109	200	0.544	
EXT DRO >C28-C36	<10.0	10.0	03/20/2025	ND					

Surrogate: 1-Chlorooctane 86.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 80.6 % 40.6-153

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Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
\*\* Samples not received at proper temperature of 6°C or below.
\*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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\*=Accredited Analyte

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> Vertex Resource Services <b>Project Manager:</b> Michael Moffitt <b>Address:</b> 3101 Boyd Dr <b>City:</b> Carlsbad <b>State:</b> NM <b>Zip:</b> 88220 <b>Phone #:</b> 575-988-2681 <b>Fax #:</b> <b>Project #:</b> 25E-00778 <b>Project Owner:</b> <b>Project Name:</b> Hawkins GY #4 <b>Project Location:</b> Eddy County, NM <b>Sampler Name:</b> F. Rodriguez <small>FOR LAB USE ONLY</small>		<b>P.O. #:</b> <b>Company:</b> Silverback Exploration <b>Attn:</b> Rafael Alvarez <b>Address:</b> 108 S. 4th St. <b>City:</b> Artesia <b>State:</b> NM <b>Zip:</b> 88210 <b>Phone #:</b> <b>Fax #:</b>		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>												
Lab I.D.	Sample I.D.	(G/RAB OR (C)OMP.	# CONTAINERS	MATRIX	ACID/BASE: ICE / COOL OTHER :	DATE	TIME	TPH: (8015) EXT	BTEX (8021B)	Chloride (SM 4500)								
	WS25-106 0-14ft	C	1	GROUNDWATER		3/13/25	8:00	X	X	X								
	WS25-107 0-4ft	C	1	WASTEWATER		3/13/25	8:05	X	X	X								
	WS25-108 4-14ft	C	1	SOIL		3/13/25	8:10	X	X	X								
	WS25-109 6-14ft	C	1	OIL		3/13/25	8:15	X	X	X								
	WS25-110 0-6ft	C	1	SLUDGE		3/13/25	8:20	X	X	X								
	WS25-111 0-6ft	C	1	OTHER :		3/13/25	8:25	X	X	X								
	WS25-112 4-6ft	C	1	ACID/BASE:		3/13/25	8:30	X	X	X								
	WS25-113 17-20ft	C	1	CE / COOL		3/13/25	8:35	X	X	X								
	WS25-114 17-20ft	C	1	OTHER :		3/13/25	8:40	X	X	X								
	WS25-115 11-20ft	C	1			3/13/25	8:45	X	X	X								

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Relinquished By: *[Signature]* Date: 3/19/25  
 Received By: *[Signature]* Date: 3/19/25  
 Time: 1:54 PM  
 Delivered By: (Circle One) *UPS* / *Bus* / *Other*  
 Sampler - UPS - Bus - Other:  UPS  Bus  Other  
 Sample Condition: Cool  Intact  Intact  
 Checked By: *[Signature]*  
 Phone Result:  Yes  No  No  No  
 Fax Result:  Yes  No  No  No  
 Add'l Phone #:   
 Add'l Fax #:   
 REMARKS:   
 Direct bill to Silverback Exploration  
 Email results to: frodriguez@vertex.ca & mmoffitt@vertex.ca

3. Please refer to changes to 575-393-2476



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**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

**BILL TO**

**ANALYSIS REQUEST**

**Company Name:** Vertex Resource Services  
**Project Manager:** Michael Moffit  
**Address:** 3101 Boyd Dr  
**City:** Carlsbad **State:** NM **Zip:** 88220  
**Phone #:** 575-989-2681 **Fax #:**  
**Project #:** 25E-00778 **Project Owner:**  
**Project Name:** Hawkins GY #4  
**Project Location:** Eddy County, NM  
**Sampler Name:** F. Rodriguez  
**FOR LAB USE ONLY**

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	TPH: (8015) EXT	BTEX (8021B)	Chloride (SM 4500)
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
11	WS25-116 11-20ft	C	1	X						3/17/25	13:00	X	X	X
12	WS25-117 4-17ft	C	1	X						3/17/25	13:05	X	X	X
13	BS25-118 20ft	C	1	X						3/17/25	13:10	X	X	X
14	BS25-119 20ft	C	1	X						3/17/25	13:15	X	X	X
15	BS25-120 20ft	C	1	X						3/17/25	13:20	X	X	X
16	BS25-121 20ft	C	1	X						3/17/25	13:25	X	X	X
17	BS25-122 20ft	C	1	X						3/17/25	13:30	X	X	X
18	BS25-123 20ft	C	1	X						3/17/25	13:35	X	X	X
19	BS25-124 11ft	C	1	X						3/17/25	13:40	X	X	X
20	BS25-125 11ft	C	1	X						3/17/25	13:45	X	X	X

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**Relinquished By:** [Signature] **Date:** 3-19-25  
**Time:** 1:44  
**Received By:** [Signature] **Date:** 3-19-25  
**Time:** 1:44  
**Delivered By: (Circle One)**  UPS  Bus  Other **Sample Condition:** Cool  Intact  Yes  No  
**Sampler - UPS - Bus - Other:**  No  No **Checked By:** [Signature]

**REMARKS:**  
 Direct bill to Silverback Exploration  
 Email results to: frodriguez@vertex.ca & mmoffit@vertex.ca

5. Please refer to the changes to 575-393-2476



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**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

Company Name: Vertex Resource Services		<b>BILL TO</b>		ANALYSIS REQUEST	
Project Manager: Michael Moffitt	Address: 3101 Boyd Dr	State: NM	Zip: 88220	P.O. #:	
City: Carlsbad	Phone #: 575-988-2681	Fax #: 575-988-2681	Project Owner:	Company: Silverback Exploration	
Project #: 25E-00778	Project Location: Hawkins GY #4	Project Name: Eddy County, NM	Project Location: Eddy County, NM	Attn: Rafael Alvarez	
Sampler Name: F. Rodriguez	FOR LAB USE ONLY	Matrix: GROUNDWATER, WASTEWATER, SOIL, OIL, SLUDGE, OTHER:	Preserv: ICE / COOL	Address: 108 S. 4th St.	
		Other: ACID/BASE, OTHER:	Other: OTHER:	City: Artesia	
				State: NM	
				Zip: 88210	
				Phone #:	
				Fax #:	

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	TPH: (8015) EXT	BTEX (8021B)	Chloride (SM 4500)
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:					
01	BS25-126 11ft	C	1	X						3/18/25	8:00	X	X	X
02	BS25-127 11ft	C	1	X						3/18/25	8:05	X	X	X
03	BS25-128 11ft	C	1	X						3/18/25	8:10	X	X	X
04	BS25-129 11ft	C	1	X						3/18/25	8:15	X	X	X
05	BS25-130 7ft	C	1	X						3/18/25	8:20	X	X	X
06	BS25-131 7ft	C	1	X						3/18/25	8:25	X	X	X
07	BS25-132 7ft	C	1	X						3/18/25	8:30	X	X	X

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Relinquished By: <i>[Signature]</i>	Date: 3-10-05	Received By: <i>[Signature]</i>	Time: 18:41
Relinquished By: <i>[Signature]</i>	Date: _____	Received By: _____	Time: _____

Delivered By: (Circle One)	Sample Condition	CHECKED BY: (Initials)
UPS -0.9: / 4:30-3:2	Cool Intact	<i>[Initials]</i>
Bus -0.0: / #140	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Intact <input type="checkbox"/> No <input type="checkbox"/> No	
Other: _____		

3. Please fax written changes to 575-393-2476



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---

April 21, 2025

MICHAEL MOFFITT  
VERTEX RESOURCE  
3101 BOYD DRIVE  
CARLSBAD, NM 88220

RE: HAWKINS GY #4

Enclosed are the results of analyses for samples received by the laboratory on 04/14/25 11:48.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene  
Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	04/14/2025	Sampling Date:	04/07/2025
Reported:	04/21/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: BACKFILL - 01 (H252202-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/16/2025	ND	1.86	93.0	2.00	0.576	
Toluene*	<0.050	0.050	04/16/2025	ND	1.99	99.5	2.00	0.129	
Ethylbenzene*	<0.050	0.050	04/16/2025	ND	1.98	98.8	2.00	1.07	
Total Xylenes*	<0.150	0.150	04/16/2025	ND	6.51	109	6.00	0.672	
Total BTEX	<0.300	0.300	04/16/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 130 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	04/15/2025	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/15/2025	ND	191	95.3	200	0.442	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	186	93.1	200	0.701	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 94.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 94.5 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	04/14/2025	Sampling Date:	04/07/2025
Reported:	04/21/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: BACKFILL - 02 (H252202-02)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/16/2025	ND	1.86	93.0	2.00	0.576		
Toluene*	<0.050	0.050	04/16/2025	ND	1.99	99.5	2.00	0.129		
Ethylbenzene*	<0.050	0.050	04/16/2025	ND	1.98	98.8	2.00	1.07		
Total Xylenes*	<0.150	0.150	04/16/2025	ND	6.51	109	6.00	0.672		
Total BTEX	<0.300	0.300	04/16/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 131 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/15/2025	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/15/2025	ND	191	95.3	200	0.442		
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	186	93.1	200	0.701		
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND						

Surrogate: 1-Chlorooctane 84.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.9 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	04/14/2025	Sampling Date:	04/07/2025
Reported:	04/21/2025	Sampling Type:	Soil
Project Name:	HAWKINS GY #4	Sampling Condition:	Cool & Intact
Project Number:	25E-00778	Sample Received By:	Shalyn Rodriguez
Project Location:	SILVERBACK-EDDY COUNTY, NM		

**Sample ID: BACKFILL - 03 (H252202-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/16/2025	ND	1.86	93.0	2.00	0.576	
Toluene*	<0.050	0.050	04/16/2025	ND	1.99	99.5	2.00	0.129	
Ethylbenzene*	<0.050	0.050	04/16/2025	ND	1.98	98.8	2.00	1.07	
Total Xylenes*	<0.150	0.150	04/16/2025	ND	6.51	109	6.00	0.672	
Total BTEX	<0.300	0.300	04/16/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 129 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	04/15/2025	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/15/2025	ND	191	95.3	200	0.442	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	186	93.1	200	0.701	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 88.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 90.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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

*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



## **APPENDIX F - Seed Mixture/ Application**

**SLO Seed Mix****SM Series****1 REVEGETATION PLANS**

The following Revegetation Plans were developed for revegetation of sites in southeastern New Mexico. To determine which revegetation plan is appropriate follow procedures in the section titled Determining the Revegetation Plan.

Revegetation Plans contain seed mixtures, as well as seed bed preparation and planting requirements. The detailed instructions for seedbed preparation and planting can be found in the section Revegetation Techniques.

**Table 3 - Revegetation Plans, Codes, and Soil Types for Southeastern New Mexico**

<b>REVEGETATION PLANS</b>	<b>CODE</b>	<b>SOIL TEXTURES</b>
<b>Clay</b>	C	Clay, Silty Clay, Stony Silty Clay, Clay Loam, Silty Clay Loam (including saline and sodic Clay soils)
<b>Loam</b>	L	Silty Loam, Cobbly Silt Loam, Stony Silt Loam, Silt, Loam, Sandy, Clay Loam
<b>Sandy Loam</b>	SL	Very Fine Sandy Loam, Fine Sandy Loam, Cobbly Fine Sandy Loam, Sandy Loam, Cobbly Sandy Loam, Gravelly Fine Sandy Loam, Very Gravelly Fine Sand Loam, Stony Fine Sandy Loam, Stony Sandy Loam
<b>Shallow</b>	SH	Rocky Loam, Cobbly Loam
<b>Course</b>	CS	Gravelly Loam, very Gravelly Loam, Gravelly Sandy Loam, Very Gravelly Sandy Loam, Stony Loam, Stony Sandy Loam
<b>Sandy</b>	S	Loamy Fine Sand, Loam Sand, Very Gravelly Loamy Fine Sand
<b>Blow Sand</b>	BS	Fine Sand, Sand, Coarse Sand
<b>Mountain Meadow</b>	MM	Clay, Loam
<b>Mountain Upland</b>	MU	Clay Loam, Loam



**NMSLO Seed Mix****Loamy (L)****LOAMY (L) SITES SEED MIXTURE:**

COMMON NAME	VARIETY	APPLICATION RATE (PLS/Acre)	DRILL BOX
<b>Grasses:</b>			
Black grama	VNS, Southern	1.0	D
Blue grama	Lovington	1.0	D
Sideoats grama	Vaughn, El Reno	4.0	F
Sand dropseed	VNS, Southern	2.0	S
Alkali sacaton	VNS, Southern	1.0	
Little bluestem	Cimarron, Pastura	1.5	F
<b>Forbs:</b>			
Firewheel ( <i>Gaillardia</i> )	VNS, Southern	1.0	D
<b>Shrubs:</b>			
Fourwing saltbush	Marana, Santa Rita	1.0	D
Common winterfat	VNS, Southern	0.5	F
<b>Total PLS/acre</b>		<b>18.0</b>	

S = Small seed drill box, D = Standard seed drill box, F = Fluffy seed drill box  
 VNS = Variety Not Stated, PLS = Pure Live Seed

- Seed mixes should be provided in bags separating seed types into the three categories: small (S), standard (D) and fluffy (F).
- VNS, Southern – Seed should be from a southern latitude collection of this species.
- Double seed application rate for broadcast or hydroseeding.
- If one species is not available, contact the SLO for an approved substitute; alternatively the SLO may require other species proportionately increased.
- Additional information on these seed species can be found on the USDA Plants Database website at <http://plants.usda.gov>.



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**Santa Fe, NM 87505**

QUESTIONS

Action 546394

**QUESTIONS**

Operator: RILEY PERMIAN OPERATING COMPANY, LLC 29 E Reno Avenue Oklahoma City, OK 73104	OGRID: 372290
	Action Number: 546394
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2222242315
Incident Name	NAPP2222242315 HAWKINS 4 @ 30-015-00252
Incident Type	Release Other
Incident Status	Reclamation Report Received
Incident Well	[30-015-00252] HAWKINS GY #004

<b>Location of Release Source</b>	
<i>Please answer all the questions in this group.</i>	
Site Name	HAWKINS 4
Date Release Discovered	08/10/2022
Surface Owner	Private

<b>Incident Details</b>	
<i>Please answer all the questions in this group.</i>	
Incident Type	Release Other
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

<b>Nature and Volume of Release</b>	
<i>Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.</i>	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Not answered.
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	Cause: Other   Well   Other (Specify)   Released: 0 BBL (Unknown Released Amount)   Recovered: 18,035 BBL   Lost: -18,035 BBL.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Well pre fluid and Frac fluid

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QUESTIONS, Page 2

Action 546394

**QUESTIONS (continued)**

Operator: RILEY PERMIAN OPERATING COMPANY, LLC 29 E Reno Avenue Oklahoma City, OK 73104	OGRID: 372290
	Action Number: 546394
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	<b>No, according to supplied volumes this does not appear to be a "gas only" report.</b>
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	<b>Yes</b>
Reasons why this would be considered a submission for a notification of a major release	<b>From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more; (?) reported amounts release resulting in negative volume.</b>
<i>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.</i>	

**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	<b>True</b>
The impacted area has been secured to protect human health and the environment	<b>True</b>
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	<b>True</b>
All free liquids and recoverable materials have been removed and managed appropriately	<b>True</b>
If all the actions described above have not been undertaken, explain why	<i>Not answered.</i>

*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: Fernando Rodriguez Title: SR EHS Specialist Email: fernandorodriguez@rileypermian.com Date: 01/26/2026
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QUESTIONS, Page 3

Action 546394

**QUESTIONS (continued)**

Operator: RILEY PERMIAN OPERATING COMPANY, LLC 29 E Reno Avenue Oklahoma City, OK 73104	OGRID: 372290
	Action Number: 546394
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**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 75 and 100 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
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 200 and 300 (ft.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 200 and 300 (ft.)
Any other fresh water well or spring	Between 500 and 1000 (ft.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Between 1 and 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

**Remediation Plan**

*Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
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)	20900
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	434
GRO+DRO (EPA SW-846 Method 8015M)	434
BTEX (EPA SW-846 Method 8021B or 8260B)	0.4
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 efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.*

On what estimated date will the remediation commence	01/15/2025
On what date will (or did) the final sampling or liner inspection occur	02/25/2025
On what date will (or was) the remediation complete(d)	03/01/2025
What is the estimated surface area (in square feet) that will be reclaimed	28940
What is the estimated volume (in cubic yards) that will be reclaimed	17445
What is the estimated surface area (in square feet) that will be remediated	28940
What is the estimated volume (in cubic yards) that will be remediated	17445

*These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.*

*The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.*

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QUESTIONS, Page 4

Action 546394

**QUESTIONS (continued)**

Operator: RILEY PERMIAN OPERATING COMPANY, LLC 29 E Reno Avenue Oklahoma City, OK 73104	OGRID: 372290
	Action Number: 546394
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

**Remediation Plan (continued)**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

**This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:**

(Select all answers below that apply.)

(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	FEEM0112334510 HALFWAY DISPOSAL AND LANDFILL
<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 <b>on-site</b> 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 efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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

I hereby agree and sign off to the above statement	Name: Fernando Rodriguez Title: SR EHS Specialist Email: fernandorodriguez@rileypermian.com Date: 01/26/2026
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The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 5

Action 546394

**QUESTIONS (continued)**

Operator: RILEY PERMIAN OPERATING COMPANY, LLC 29 E Reno Avenue Oklahoma City, OK 73104	OGRID: 372290
	Action Number: 546394
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

<b>Deferral Requests Only</b>	
<i>Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.</i>	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 546394

**QUESTIONS (continued)**

Operator: RILEY PERMIAN OPERATING COMPANY, LLC 29 E Reno Avenue Oklahoma City, OK 73104	OGRID: 372290
	Action Number: 546394
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

<b>Sampling Event Information</b>	
Last sampling notification (C-141N) recorded	<b>442296</b>
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	<b>03/18/2025</b>
What was the (estimated) number of samples that were to be gathered	<b>10</b>
What was the sampling surface area in square feet	<b>4000</b>

<b>Remediation Closure Request</b>	
<i>Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.</i>	
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	36636
What was the total volume (cubic yards) remediated	15876
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	101429
What was the total volume (in cubic yards) reclaimed	15876
Summarize any additional remediation activities not included by answers (above)	N/A

*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.

I hereby agree and sign off to the above statement	Name: Fernando Rodriguez Title: SR EHS Specialist Email: fernandorodriguez@rileypermian.com Date: 01/26/2026
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QUESTIONS, Page 7

Action 546394

**QUESTIONS (continued)**

Operator: RILEY PERMIAN OPERATING COMPANY, LLC 29 E Reno Avenue Oklahoma City, OK 73104	OGRID: 372290
	Action Number: 546394
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

<b>Reclamation Report</b>	
<i>Only answer the questions in this group if all reclamation steps have been completed.</i>	
Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	101429
What was the total volume of replacement material (in cubic yards) for this site	15876
<i>Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a 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.</i>	
Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseeded commence(d)	03/27/2025
Summarize any additional reclamation activities not included by answers (above)	The site was seeded with NMSLO Loamy Sites Seed Mixture @ 18 PLS/acre and included all areas disturbed during remediation activities. Bi-annual inspections will be conducted, during the growing season, to monitor site progress and assess the need for corrective actions.
<i>The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseeded plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.	
I hereby agree and sign off to the above statement	Name: Fernando Rodriguez Title: SR EHS Specialist Email: fernandorodriguez@rileypermian.com Date: 01/26/2026

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QUESTIONS, Page 8

Action 546394

**QUESTIONS (continued)**

Operator: RILEY PERMIAN OPERATING COMPANY, LLC 29 E Reno Avenue Oklahoma City, OK 73104	OGRID: 372290
	Action Number: 546394
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

<b>Revegetation Report</b>	
<i>Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.</i>	
Requesting a restoration complete approval with this submission	No
<i>Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.</i>	

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CONDITIONS

Action 546394

**CONDITIONS**

Operator: RILEY PERMIAN OPERATING COMPANY, LLC 29 E Reno Avenue Oklahoma City, OK 73104	OGRID: 372290
	Action Number: 546394
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**CONDITIONS**

Created By	Condition	Condition Date
rhamlet	We have received your reclamation/remediation closure report for Incident #nAPP2222242315 HAWKINS 4, thank you. The reclamation/remediation closure report is approved.	6/26/2026