



Incident Number: NAPP2508655288

Amended Release Assessment and Closure

Jackson B #065

Unit P, Section 01, Township 17 South, Range 30 East

API: 30-015-41191

County: Eddy

Vertex File Number: 25A-01340

Prepared for:

Mack Energy Corporation

Prepared by:

Vertex Resource Services Inc.

Date:

January 2026

Amended Release Assessment and Closure
Jackson B #065
Unit P, Section 01, Township 17 South, Range 30 East
API: 30-015-41191
County: Eddy

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January 21, 2026

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January 21, 2026

Date

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0.0 Amendment to Closure Report

The following report has been updated and includes a summary of efforts and justification to amend closure denial concerns notated by New Mexico Oil Conservation Division on November 24, 2025.

1.0 Introduction

Mack Energy Corporation (Mack) retained Vertex Resource Services Inc. (Vertex) to conduct a Release Assessment and Closure for a crude oil and produced water release that occurred on March 27, 2025, at Jackson B #065, API 30-015-41191 (hereafter referred to as the "site"). Mack submitted an initial C-141 Release Notification (Appendix A) to New Mexico Oil Conservation Division (NMOCD) District 2 on March 27, 2025. Incident ID number nAPP2508655288 was assigned to this incident.

This report provides a description of the release assessment and remediation activities associated with the site. The information presented demonstrates that closure criteria established in Table I of 19.15.29.12 of the *New Mexico Administrative Code* (NMAC; New Mexico Oil Conservation Division, 2018) related to NMOCD has been met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from NMOCD for closure of this release, with the understanding that the release site will be stabilized until such time that the area is no longer needed for production operations then restoration will commence as stated per NMAC 19.15.29.13.

2.0 Incident Description

The release occurred and was reported on March 27, 2025, due to the corrosion of a flow line. The incident involved the release of approximately 7 barrels (bbl) of produced water and 7 bbl of crude oil onto the production pad and adjacent pasture. Approximately 0 bbl of free fluid was removed during initial clean-up. Additional details relevant to the release are presented in the C-141 Report (Appendix A).

3.0 Site Characteristics

The site is located approximately 4.7 miles northeast of Loco Hills, New Mexico. The legal location for the site is Unit P, Section 01, Township 17 South and Range 30 East in Eddy County, New Mexico. The release area is located on Bureau of Land Management property. An aerial photograph and site schematic are presented on Figure 1.

The location is typical of oil and gas exploration and production sites in the Permian Basin and is currently used for oil and gas production and storage. The following sections specifically describe the release both on and west of an active production pad (Figure 1).

The Geological Map of New Mexico (New Mexico Bureau of Geology and Mineral Resources, 2025) indicates the site's surface geology primarily comprises Qep - Eolian and Piedmont and the predominant soil texture on the site is Deep Sand. Additional soil characteristics include a drainage class of well drained to excessively drained with a runoff class of negligible. The karst geology potential for the site is low (United States Department of the Interior, Bureau of Land Management, 2025).

The surrounding landscape is associated with dune topography with elevations ranging between 2,842 and 4,500 feet. The climate is semiarid with average annual precipitation ranging between 10 and 14 inches. Using information from the United States Department of Agriculture, the current dominant vegetation was determined to be shimmery oak with sub-dominates of mesquite. Historically, the area was predominantly composed of dropseeds (United States Department of Agriculture, Natural Resources Conservation Service, 2025). Limited to no vegetation is allowed to grow on the compacted production pad, while vegetation growth occurs in the pastureland west of the location.

4.0 Closure Criteria Determination

The nearest active well to the site is a New Mexico Office of the State Engineer (NMOSE) monitoring well located approximately 0.46 miles northwest of the location (United States Geological Survey, 2025). Data from 2022 shows the NMOSE borehole recorded a depth to groundwater of 75 feet below ground surface (bgs). Information pertaining to the depth to ground water determination is included in Appendix B.

There is no surface water present at the site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is an intermittent stream located approximately 0.65 miles northeast 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. The feature identified as a freshwater pond, in our professional opinion, is incorrectly mapped. The area is in dune sands and there is no evidence of vegetation indicative of a wetland. A review of historical aerial photos shows no evidence of water in this depression. A Jurisdictional Delineation Report of potential regulated waters was conducted on August 22, 2025, and is included in Appendix C.

Table 1. Closure Criteria Determination			
Site Name: Jackson B #065			
Spill Coordinates: 32.8595085,-103.9201889		X: 601033.49	Y: 3636228.77
Site Specific Conditions		Value	Unit
1	Depth to Groundwater (nearest reference)	75	feet
	Distance between release and nearest DTGW reference	2,233	feet
		0.46	miles
Date of nearest DTGW reference measurement		January 6, 2022	
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	3,458	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	3,679	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	67,394	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	6,130	feet
	ii) Within 1000 feet of any fresh water well or spring	6,130	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	feet
7	Within 300 feet of a wetland	4,931	feet
8	Within the area overlying a subsurface mine	No	feet
	Distance between release and nearest registered mine	69,836	feet
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
	Distance between release and nearest unstable area	29,621	feet
10	Within a 100-year Floodplain	100-500	year
	Distance between release and nearest FEMA Zone A (100-year Floodplain)	4,523	feet
11	Soil Type	Kermit-Berino	
12	Ecological Classification	Deep Sand	
13	Geology	Qep	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	51-100'	<50' 51-100' >100'

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

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

bgs – below ground surface

DTGW – depth to groundwater

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

BTEX – benzene, toluene, ethylbenzene and xylenes

5.0 Remedial Actions Taken

An initial site inspection of the release area was completed on March 27, 2025, which identified the area of the release specified in the initial C-141 Report, estimated the approximate volume of the release and white lined the area required for the One Call request. The impacted area was determined to be approximately 3,866 square feet. The Daily Field Report (DFR) associated with the site inspection is included in Appendix D. Characterization sampling results are provided in Table 3.

Remediation efforts began on April 4, 2025, and were finalized May 9, 2025. Vertex personnel supervised the excavation of impacted soils. Field screening was completed on a total of 39 sample points and consisted of analysis using a Photo Ionization Detector (volatile hydrocarbons), Dexsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons) and silver nitrate titration (chlorides). Field screening results were used to identify areas requiring further remediation. Soils were removed to a depth of 0 to 6 feet bgs. Impacted soil was transported by a licensed waste hauler and disposed of at an approved waste management facility as stipulated by the Form C-138 Request for Approval to Accept Solid Waste – New Mexico filed with the NMOCD. Field screening results and DFRs documenting various phases of the remediation are presented in Appendix D.

Confirmatory composite samples were collected from the base and walls of the excavation in 200 square foot increments. A total of 39 samples were collected for laboratory analysis following NMOCD soil sampling procedures. Samples were submitted to Eurofins Environmental Testing in Albuquerque, New Mexico, under chain-of-custody protocols and analyzed for BTEX (EPA Method 8021B), total petroleum hydrocarbons (GRO, DRO, MRO – EPA Method 8015D) and total chlorides (EPA Method 300.0). Laboratory results are presented in Table 4, and the laboratory data reports are included in Appendix E. All confirmatory samples collected and analyzed were below closure criteria for the site.

6.0 Closure Request

6.1 Closure Denial

Mack submitted the initial closure report to the NMOCD on June 24, 2025. The initial request was denied on June 26, 2025, with the following notations:

“1) To overturn a wetland designation, the responsible party must utilize a Professional Wetland Scientist (PWS) to conduct a Wetland Delineation Survey following the Corps of Engineers Wetlands Delineation Manual. The PWS is required to perform the review and sign off on all conducted surveys, using the Army Corps of Engineers Wetland Determination Data Sheets, Arid West Region. All parts of the wetland within 300 feet of any part of the release must be evaluated in the survey. A Wetland Delineation report is required to be included which should contain an executive summary of the survey including a description of the site location, sampling points, a scaled sampling diagram, captioned photographs of each sample point, completed Wetland Determination Data Sheets, conclusions/findings and a Curriculum Vitae from the PWS, to include their PWS Certificate Number. 2) Under the Site Characterization portion of the C-141 application, the minimum distance to the following should be updated upon application resubmission and within the report: any other significant watercourse (1000 ft-1/2 mile SE).”

The Jurisdictional Delineation Report (Wetland Delineation Survey) of potential regulated waters was conducted, following United States Environmental Protection Agency and the United States Army Corps of Engineers under Section 404 of the Clean Water Act and NMAC 20.6.4 regulations, on August 22, 2025, and signed off on by a professional wetland scientist (PWS No. 2389). The survey found no water resources that satisfy the criteria to be a regulated wetland or Waters of the United States pursuant to the United States Army Corps of Engineers' Arid West Regional Supplement and applicable guidance. The complete report is presented in Appendix C. The Site Characterization of the C-141 and research have been updated to reflect accurate minimum distances to water resources.

Mack Submitted the initial closure report to the NMOCD on October 10, 2025. The request was denied on November 24, 2025, with the following notations:

“1) As the Closure Criteria used for remediation of nAPP2508655288 relies solely on the outcome of the submitted 2025 Jurisdictional Delineation Report, The Professional Wetland Scientist (PWS), Clayton Collier, needs to white a statement that he approves and sign off on the findings of Vertex's 2025 Jurisdictional Delineation report in order for this report to be accepted, as the report's conclusions/findings are based solely on the “professional opinion of Vertex Personnel”. 2) The Curriculum Vitae of the PWS is also required to be included, verifying his professional experience. Submit report to OCD by 1/23/26.”

The report has been updated with a statement that Clayton Collier approves and signs off on the findings of Vertex's 2025 Jurisdictional Delineation report above his signature in Appendix C. The Curriculum Vitae of the PWS can be seen under Appendix C.

6.2 Closure Request

The release area was fully delineated, remediated, and backfilled with local soils. Confirmatory samples were analyzed

by the laboratory and found to be below allowable concentrations as per the NMAC Closure Criteria for Soils Impacted by a Release locations "51 to 100 feet to groundwater". Based on these findings, Mack Energy Corporation requests that this release be closed.

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

7.0 References

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8.0 Limitations

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

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

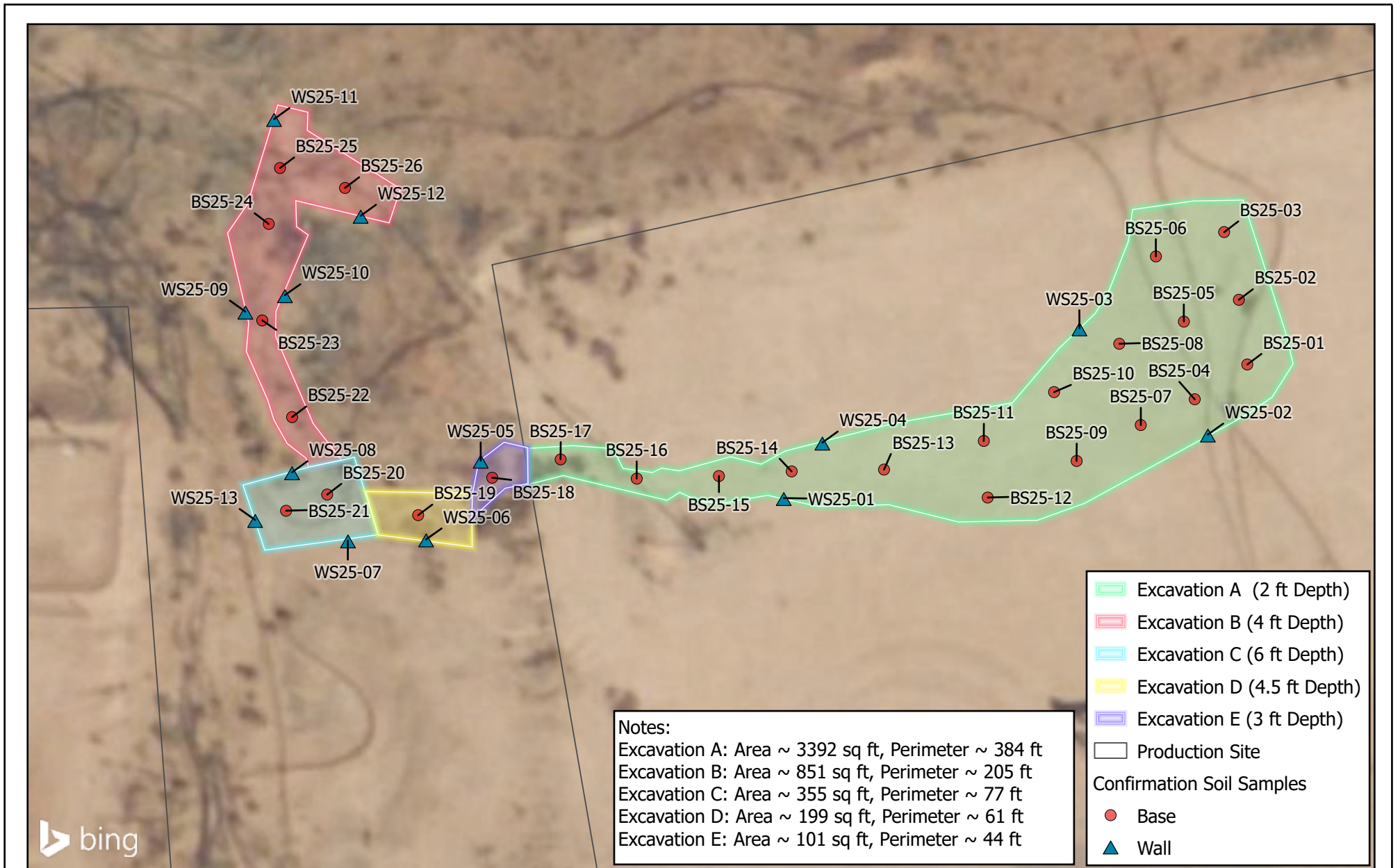
FIGURES



	<p>Map Center: Lat/Long: 32.859734°N, 103.920362°W</p> <p>Date: Jun 12/25</p> <p>NAD 1983 StatePlane New Mexico East FIPS 3001 Feet</p>	<p>Characterization Sample Site Schematic Jackson B #065</p>	<p>FIGURE: 1</p>
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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: 32.85971°N, 103.920408°W
 Date: May 10/25

0 15 30 ft
 NAD 1983 StatePlane New Mexico East FIPS 3001 Feet

N

Confirmation Sampling Site Schematic
Jackson B #065

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.

TABLES

Client Name: Mack Energy Corporation

Site Name: Jackson B #065

NMOCD Tracking #: NAPP2508655288

Project #: 25A-01340

Lab Reports: 885-22693, 885-22755, 885-22838, 885-23047, 885-23113, 885-23303, and 885-23731

Table 3. Initial Characterization Sample Laboratory Results

Sample Description			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile		Extractable					Chloride Concentration (mg/kg)
			Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
Depth to Groundwater 51-100'										
BH25-01	0	April 2, 2025	ND	ND	ND	ND	770	290	1,060	ND
	2	April 2, 2025	ND	ND	ND	ND	340	140	480	140
	3	April 14, 2025	ND	ND	ND	ND	ND	ND	ND	180
	4	April 14, 2025	ND	ND	ND	ND	ND	ND	ND	360
BH25-02	0	April 2, 2025	ND	ND	ND	ND	4,100	3,500	7,600	ND
	2	April 2, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BH25-03	0	April 2, 2025	ND	ND	ND	ND	ND	ND	ND	ND
	2	April 2, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BH25-04	0	April 2, 2025	ND	ND	ND	ND	46	11	57	170
	2	April 2, 2025	ND	ND	ND	ND	ND	ND	ND	170
BH25-05	0	April 2, 2025	ND	ND	ND	ND	100	30	130	62
	2	April 2, 2025	ND	14	340	1,800	1,300	2,140	3,440	200
	3	April 2, 2025	ND	23	500	420	1,000	920	1,920	400
	4	April 2, 2025	ND	17	460	1,800	1,200	1,260	2,460	640
	5	April 7, 2025	ND	20	540	3,700	1,500	3,700	5,200	180
	9	April 14, 2025	ND	ND	ND	ND	ND	ND	ND	560
BH25-06	2	April 2, 2025	ND	ND	ND	11	ND	11	11	280
	3	April 2, 2025	ND	ND	ND	ND	ND	ND	ND	380
	4	April 2, 2025	ND	ND	ND	ND	ND	ND	ND	630
BH25-07	2	April 2, 2025	ND	ND	ND	29	ND	29	29	3,000
	3	April 2, 2025	ND	ND	ND	49	ND	49	49	62
	4	April 2, 2025	ND	ND	ND	ND	ND	ND	ND	360
BH25-08	0	April 3, 2025	ND	ND	ND	ND	ND	ND	ND	ND
	2	April 3, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BH25-09	0	April 3, 2025	ND	ND	ND	ND	ND	ND	ND	88
	2	April 3, 2025	ND	ND	ND	ND	ND	ND	ND	380
BH25-10	0	April 3, 2025	ND	ND	ND	ND	ND	ND	ND	86
	2	April 3, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BH25-11	0	April 3, 2025	ND	ND	ND	ND	ND	ND	ND	ND
	2	April 3, 2025	ND	ND	ND	ND	250	83	333	200
	4	April 10, 2025	ND	ND	ND	60	250	60	310	1,100
	5	April 10, 2025	ND	ND	ND	ND	ND	ND	ND	360
BH25-12	2	April 3, 2025	ND	ND	ND	ND	ND	ND	ND	ND
	3	April 3, 2025	ND	ND	ND	ND	ND	ND	ND	100
	4	April 3, 2025	ND	ND	ND	ND	ND	ND	ND	88
BH25-13	0	April 4, 2025	ND	ND	ND	ND	ND	ND	ND	ND
	2	April 4, 2025	ND	ND	ND	660	480	660	1,140	190
	3	April 14, 2025	ND	ND	ND	110	170	110	280	370
	4	April 14, 2025	ND	ND	ND	ND	ND	ND	ND	650



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Table 3. Initial Characterization Sample Laboratory Results										
Sample Description			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile		Extractable					Chloride Concentration (mg/kg)
			Benzene (mg/kg)	BTEX (Total) (mg/kg)	Gasoline Range Organics (GRO) (mg/kg)	Diesel Range Organics (DRO) (mg/kg)	Motor Oil Range Organics (MRO) (mg/kg)	(GRO + DRO) (mg/kg)	Total Petroleum Hydrocarbons (TPH) (mg/kg)	
BH25-14	0	April 4, 2025	ND	ND	ND	4,900	2,200	4,900	7,100	ND
	2	April 4, 2025	ND	ND	ND	1,700	1,600	1,700	3,300	130
	3	April 10, 2025	ND	ND	ND	400	610	400	1,010	270
	4	April 10, 2025	ND	ND	ND	14	ND	14	14	810
BH25-15	2	April 4, 2025	ND	ND	ND	ND	ND	ND	ND	5,600
	3	April 4, 2025	ND	ND	ND	ND	ND	ND	ND	4,700
	4	April 4, 2025	ND	ND	ND	ND	ND	ND	ND	1,800
	6	April 9, 2025	ND	ND	ND	ND	ND	ND	ND	450
BH25-16	0	April 4, 2025	ND	ND	ND	ND	ND	ND	ND	680
	2	April 4, 2025	ND	ND	ND	ND	ND	ND	ND	120
BH25-17	0	April 4, 2025	ND	ND	ND	ND	ND	ND	ND	230
	2	April 4, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BH25-18	0	April 7, 2025	ND	ND	ND	ND	ND	ND	ND	ND
	2	April 7, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BH25-19	0	April 7, 2025	ND	ND	ND	ND	ND	ND	ND	65
	2	April 7, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BH25-20	0	April 14, 2025	ND	ND	ND	ND	ND	ND	ND	170
	2	April 14, 2025	ND	ND	ND	ND	ND	ND	ND	340
BH25-21	0	April 7, 2025	ND	ND	ND	ND	ND	ND	ND	ND
	2	April 7, 2025	ND	ND	ND	ND	ND	ND	ND	270
BH25-22	2	April 22, 2025	ND	ND	ND	ND	ND	ND	ND	970
	4	April 22, 2025	ND	ND	ND	ND	ND	ND	ND	2,800
	5	April 22, 2025	ND	ND	ND	ND	ND	ND	ND	2,100
	6	April 22, 2025	ND	ND	ND	ND	ND	ND	ND	540
	10	April 10, 2025	ND	ND	ND	ND	ND	ND	ND	200
BH25-23	0	April 9, 2025	ND	ND	ND	ND	ND	ND	ND	110
	2	April 9, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BH25-24	2	April 9, 2025	ND	ND	ND	ND	ND	ND	ND	88
	4	April 9, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BH25-25	0	April 9, 2025	ND	ND	ND	ND	ND	ND	ND	100
	2	April 9, 2025	ND	ND	ND	11	ND	11	11	95
BH25-26	2	April 22, 2025	ND	ND	ND	ND	ND	ND	ND	ND
	4	April 22, 2025	ND	ND	ND	ND	ND	ND	ND	ND

"ND" Not Detected at the Reporting Limit

"-" indicates not analyzed/assessed

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

Bold and green shaded indicates exceedance outside of NMOCD Reclamation Criteria (off-pad)



Client Name: Mack Energy Corporation
 Site Name: Jackson B #065
 NMOCD Tracking #: NAPP2508655288
 Project #: 25A-01340
 Lab Reports: 885-24124-1, 885-24287-1, 885-24755-1 and 885-26094-1

Table 4. Confirmatory Sample Laboratory Results

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
Depth to Groundwater 51-100'										
BS25-01	2	April 30, 2025	ND	ND	ND	17	ND	17	17	3800
BS25-02	2	April 30, 2025	ND	ND	ND	53	ND	53	53	4500
BS25-03	2	April 30, 2025	ND	ND	ND	ND	ND	ND	ND	2600
BS25-04	2	April 30, 2025	ND	ND	ND	ND	ND	ND	ND	2700
BS25-05	2	April 30, 2025	ND	ND	ND	79	66	79	145	5400
BS25-06	2	April 30, 2025	ND	ND	ND	49	52	49	101	2300
BS25-07	2	April 30, 2025	ND	ND	ND	ND	ND	ND	ND	4200
BS25-08	2	April 30, 2025	ND	ND	ND	ND	ND	ND	ND	4900
BS25-09	2	April 30, 2025	ND	ND	ND	13	ND	13	13	3800
BS25-10	2	April 30, 2025	ND	ND	ND	15	ND	15	15	2100
BS25-11	2	April 30, 2025	ND	ND	ND	ND	ND	ND	ND	5400
BS25-12	2	April 30, 2025	ND	ND	ND	ND	ND	ND	ND	4600
BS25-13	2	May 1, 2025	ND	ND	ND	ND	ND	ND	ND	4400
BS25-14	2	May 1, 2025	ND	ND	ND	ND	ND	ND	ND	2300
BS25-15	2	May 1, 2025	ND	ND	ND	88	66	88	154	3400
BS25-16	2	May 1, 2025	ND	ND	ND	ND	ND	ND	ND	1900
BS25-17	2	May 1, 2025	ND	ND	ND	45	53	45	98	1300
BS25-18	3	May 9, 2025	ND	ND	ND	16	ND	16	16	ND
BS25-19	4.5	May 9, 2025	ND	ND	ND	120	290	120	410	5200
BS25-20	6	May 9, 2025	ND	ND	ND	390	600	390	990	1800
BS25-21	6	May 9, 2025	ND	ND	ND	210	310	210	520	3200
BS25-22	4	May 9, 2025	ND	ND	ND	31	ND	31	31	1600
BS25-23	4	May 9, 2025	ND	ND	ND	ND	ND	ND	ND	850
BS25-24	4	May 9, 2025	ND	ND	ND	36	ND	36	36	620
BS25-25	4	May 9, 2025	ND	ND	ND	32	ND	32	32	360
BS25-26	4	May 9, 2025	ND	ND	ND	63	96	63	159	1700
WS25-01	0-2	May 1, 2025	ND	ND	ND	ND	ND	ND	ND	120
WS25-02	0-2	May 1, 2025	ND	ND	ND	ND	ND	ND	ND	400
WS25-03	0-2	May 1, 2025	ND	ND	ND	ND	ND	ND	ND	250
WS25-04	0-2	May 1, 2025	ND	ND	ND	ND	ND	ND	ND	350
WS25-05	0-3	May 9, 2025	ND	ND	ND	ND	ND	ND	ND	260
WS25-06	0-4.5	May 9, 2025	ND	ND	ND	ND	ND	ND	ND	220
WS25-07	0-4	May 9, 2025	ND	ND	ND	33	50	33	83	250
WS25-08	0-4	May 9, 2025	ND	ND	ND	33	63	33	96	130
WS25-09	0-4	May 9, 2025	ND	ND	ND	ND	ND	ND	ND	340



Client Name: Mack Energy Corporation
 Site Name: Jackson B #065
 NMOCD Tracking #: NAPP2508655288
 Project #: 25A-01340
 Lab Reports: 885-24124-1, 885-24287-1, 885-24755-1 and 885-26094-1

Table 4. Confirmatory Sample Laboratory Results										
Sample Description			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile		Extractable					Chloride Concentration (mg/kg)
			Benzene (mg/kg)	BTEX (Total) (mg/kg)	Gasoline Range Organics (GRO) (mg/kg)	Diesel Range Organics (DRO) (mg/kg)	Motor Oil Range Organics (MRO) (mg/kg)	(GRO + DRO) (mg/kg)	Total Petroleum Hydrocarbons (TPH) (mg/kg)	
WS25-10	0-4	May 9, 2025	ND	ND	ND	11	ND	11	11	550
WS25-11	0-4	May 9, 2025	ND	ND	ND	ND	ND	ND	ND	76
WS25-12	0-4	May 9, 2025	ND	ND	ND	ND	ND	ND	ND	110
WS25-13	4-6	May 9, 2025	ND	ND	ND	400	360	400	760	3300
Backfill										
Backfill Caliche	-	June 1, 2025	ND	ND	ND	ND	ND	ND	ND	ND
Backfill Topsoil	-	June 1, 2025	ND	ND	ND	ND	ND	ND	ND	ND

"ND" Not Detected at the Reporting Limit

"-" indicates not analyzed/assessed

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

Bold and green shaded indicates exceedance outside of NMOCD Reclamation Criteria (off-pad)



APPENDIX A – NMOCD C-141 Report



Liquid Volume Release Report

Liquid Release Volume Calculator						
Date:	27-Mar-25					
Site or Line Name:	Jackson B #065					
Soil Type	Porosity	Area (sq.ft.)	Depth (ft)	Cubic Feet	Estimated Barrels	Soil Type
Clay	0.15			0	0.00	Clay
Sandy Clay	0.12	4100	0.166	680.6	14.56	Sandy Clay
Silt	0.16			0	0.00	Silt
Fine Sand	0.16			0	0.00	Fine Sand
Medium Sand	0.25			0	0.00	Medium Sand
Coarse Sand	0.26			0	0.00	Coarse Sand
Gravelly Sand	0.26			0	0.00	Gravelly Sand
Fine Gravel	0.26			0	0.00	Fine Gravel
Medium Gravel	0.20			0	0.00	Medium Gravel
Coarse Gravel	0.18			0	0.00	Coarse Gravel
Sandstone	0.25			0	0.00	Sandstone
Siltstone	0.18			0	0.00	Siltstone
Limestone	0.13			0	0.00	Limestone
Basalt	0.19			0	0.00	Basalt
Standing Liquids	X			0	0.00	Standing Liquids

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

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

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

QUESTIONS

Action 447375

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 447375
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2508655288
Incident Name	NAPP2508655288 JACKSON B #065 @ 30-015-41191
Incident Type	Produced Water Release
Incident Status	Initial C-141 Received
Incident Well	[30-015-41191] JACKSON B #065

Location of Release Source

Please answer all the questions in this group.

Site Name	Jackson B #065
Date Release Discovered	03/27/2025
Surface Owner	Federal

Incident Details

Please answer all the questions in this group.

Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

Crude Oil Released (bbls) Details	Cause: Corrosion Flow Line - Production Crude Oil Released: 7 BBL Recovered: 0 BBL Lost: 7 BBL.
Produced Water Released (bbls) Details	Cause: Corrosion Flow Line - Production Produced Water Released: 7 BBL Recovered: 0 BBL Lost: 7 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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

QUESTIONS, Page 2

Action 447375

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 447375
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	No
Reasons why this would be considered a submission for a notification of a major release	<i>Unavailable.</i>
<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	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	False
All free liquids and recoverable materials have been removed and managed appropriately	False
If all the actions described above have not been undertaken, explain why	Release occurred outside of containment

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: Sally Carttar Title: Consultant Email: scarttar@vertex.ca Date: 03/31/2025
--	---

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

QUESTIONS, Page 3

Action 447375

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 447375
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

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)	Not answered.
What method was used to determine the depth to ground water	Not answered.
Did this release impact groundwater or surface water	Not answered.
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Not answered.
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Not answered.
An occupied permanent residence, school, hospital, institution, or church	Not answered.
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Not answered.
Any other fresh water well or spring	Not answered.
Incorporated municipal boundaries or a defined municipal fresh water well field	Not answered.
A wetland	Not answered.
A subsurface mine	Not answered.
An (non-karst) unstable area	Not answered.
Categorize the risk of this well / site being in a karst geology	Not answered.
A 100-year floodplain	Not answered.
Did the release impact areas not on an exploration, development, production, or storage site	Not answered.

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	No
<i>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.</i>	

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

CONDITIONS

Action 447375

CONDITIONS

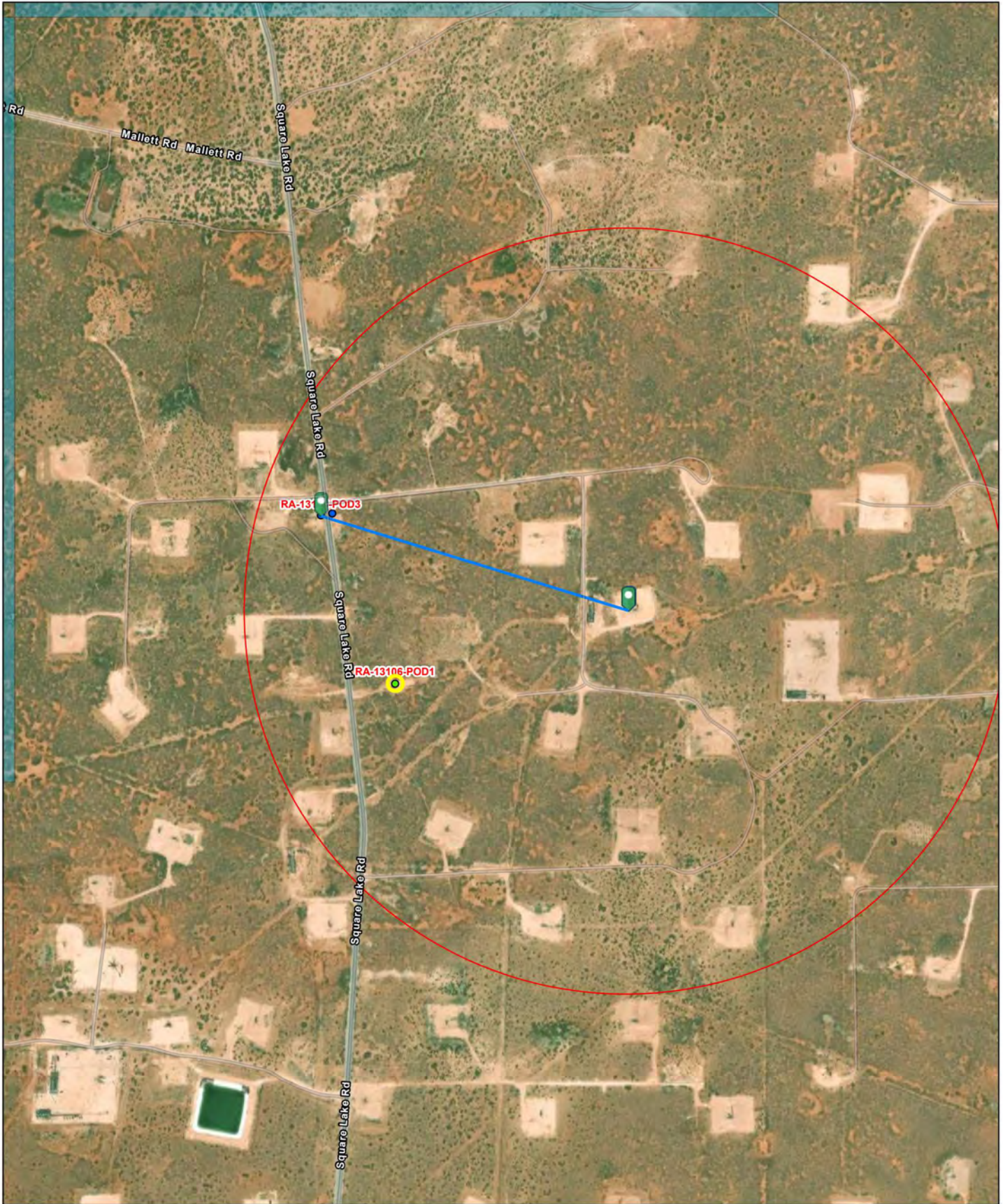
Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 447375
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	4/2/2025

APPENDIX B – Closure Criteria Research Documentation

Closure Criteria Determination			
Site Name: Jackson B #065			
Spill Coordinates: 32.8595085,-103.9201889		X: 601033.49	Y: 3636228.77
Site Specific Conditions		Value	Unit
1	Depth to Groundwater (nearest reference)	75	feet
	Distance between release and nearest DTGW reference	2,233	feet
		0.46	miles
Date of nearest DTGW reference measurement		January 6, 2022	
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	3,458	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	3,679	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	67,394	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	6,130	feet
	ii) Within 1000 feet of any fresh water well or spring	6,130	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	feet
7	Within 300 feet of a wetland	4,931	feet
8	Within the area overlying a subsurface mine	No	feet
	Distance between release and nearest registered mine	69,836	feet
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
	Distance between release and nearest unstable area	29,621	feet
10	Within a 100-year Floodplain	100-500	year
	Distance between release and nearest FEMA Zone A (100-year Floodplain)	4,523	feet
11	Soil Type	Kermit-Berino	
12	Ecological Classification	Deep Sand	
13	Geology	Qep	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	51-100'	<50' 51-100' >100'



4/10/2025, 9:38:54 AM

Override 1
GIS WATERS PODs

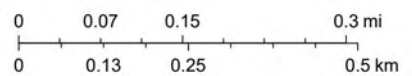
- Active
- Pending

New Mexico State Trust Lands

Released to Imaging: 2/20/2026 4:55:38 PM

Both Estates

1:9,028




Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community. Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Point of Diversion Summary

quarters are 1=NW 2=NE 3=SW 4=SE
quarters are smallest to largest

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map
NA	RA 13106 POD2	SE	NE	SW	01	17S	30E	600405.5	3636426.9	

* UTM location was derived from PLSS - see Help

Driller License:	1456	Driller Company:	WHITE DRILLING COMPANY							
Driller Name:	JOHN WHITE									
Drill Start Date:	2022-01-06	Drill Finish Date:	2022-01-06	Plug Date:						
Log File Date:	2022-01-27	PCW Rcv Date:	Source:							
Pump Type:	Pipe Discharge Size:		Estimated Yield:							
Casing Size:	Depth Well:			Depth Water:						

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

4/10/25 10:30 AM MST

Point of Diversion Summary

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Water Right Summary



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WR File Number:	RA 13106	Subbasin:	RA	Cross Reference:	
Primary Purpose:	MON MONITORING WELL				
Primary Status:	PMT Permit				
Total Acres:		Subfile:		Header:	
Total Diversion:	0.000	Cause/Case:			
Owner:	TALON LPE	Owner Class:	User		
Contact:	BRENT EBERHARD				

Documents on File

(acre-fee)

Transaction Images	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/To	Acres	Diversion
.get images	711426	EXPL	2021-11-02	PMT	APR	RA 13106 POD1-3	T	0.000	0.000

Current Points of Diversion

POD Number	Well Tag	Source	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map	Other Location Desc
RA 13106 POD1	NA		NE	SE	SW	01	17S	30E	600542.0	3636070.4		A2-1
RA 13106 POD2	NA		SE	NE	SW	01	17S	30E	600405.5	3636426.9		1C3
RA 13106 POD3	NA		SE	NE	SW	01	17S	30E	600381.2	3636421.4		2C3

* 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.

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WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER
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OSE DTI JAN 27 2022 PM 3:58

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) RA-13106 POD 2 (SB-A1)		WELL TAG ID NO.		OSE FILE NO(S) RA-13106		
	WELL OWNER NAME(S) EOG Resources Inc.				PHONE (OPTIONAL) 575-703-6537		
	WELL OWNER MAILING ADDRESS 105 S. 4th Street				CITY Artesia	STATE NM	ZIP 88210
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE	MINUTES 32	SECONDS 51	40.5	* ACCURACY REQUIRED: ONE TENTH OF A SECOND	
		LONGITUDE	103	55	36.7	* DATUM REQUIRED: WGS 84	
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE Jackson #57							

2. DRILLING & CASING INFORMATION	LICENSE NO. WD-1456	NAME OF LICENSED DRILLER John W. White			NAME OF WELL DRILLING COMPANY White Drilling Company, Inc.			
	DRILLING STARTED 1/06/2022	DRILLING ENDED 1/06/2022	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT) 75.0	DEPTH WATER FIRST ENCOUNTERED (FT) DRY			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) DRY			
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:							
	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						

3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
	FROM	TO				
	0.0	75.0	6.0	Type I Cement-Bentonite Slurry	14.72	Pump Mix w/Trimie Pipe

FOR OSE INTERNAL USE			WR-20 WELL RECORD & LOG (Version 04/30/19)		
FILE NO.	RA-13106-POD2	POD NO.	2	TRN NO.	711426
LOCATION	EAT	WELL TAG ID NO.		PAGE 1 OF 2	

Mike A. Hamman, P.E.
State Engineer



Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

**STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER**

Trn Nbr: 711426
File Nbr: RA 13106
Well File Nbr: RA 13106 POD2

Jan. 27, 2022

BRENT EBERHARD
TALON LPE
921 NORTH BIVINS STREET
AMARILLO, TX 79107

Greetings:

The above numbered permit was issued in your name on 11/02/2021.

The Well Record was received in this office on 01/27/2022, stating that it had been completed on 01/06/2022, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 11/02/2022.

If you have any questions, please feel free to contact us.

Sincerely,

A handwritten signature in cursive script, appearing to read "Maret Amaral".

Maret Amaral
(575) 622-6521

drywell



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

OSE DIT JAN 27 2022 PM 3:53

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) RA-13106 POD 3 (SB-A2)		WELL TAG ID NO.		OSE FILE NO(S) RA-13106			
	WELL OWNER NAME(S) EOG Resources Inc.				PHONE (OPTIONAL) 575-703-6537			
	WELL OWNER MAILING ADDRESS 105 S. 4th Street				CITY Artesia	STATE NM	ZIP 88210	
	WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84		
		LATITUDE	32	51				40.81
	LONGITUDE	103	55	37.99	W			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE Jackson #57								
2. DRILLING & CASING INFORMATION	LICENSE NO WD-1456		NAME OF LICENSED DRILLER John W. White			NAME OF WELL DRILLING COMPANY White Drilling Company, Inc.		
	DRILLING STARTED 1/06/2022	DRILLING ENDED 1/06/2022	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT) 50.0	DEPTH WATER FIRST ENCOUNTERED (FT) DRY			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) DRY			
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD		ADDITIVES - SPECIFY:					
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:							
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						
	0.0	50.0	6.0	Type 1 Cement-Bentonite Slurry	9.81	Pump Mix w/Trimie Pipe		

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 04/30/19)	
FILE NO. RA-13106-POD 3	POD NO. 3	TRN NO. 711426	
LOCATION Expt	WELL TAG ID NO.	PAGE 1 OF 2	

Mike A. Hamman, P.E.
State Engineer



Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

**STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER**

Trn Nbr: 711426
File Nbr: RA 13106
Well File Nbr: RA 13106 POD3

Jan. 27, 2022

BRENT EBERHARD
TALON LPE
921 NORTH BIVINS STREET
AMARILLO, TX 79107

Greetings:

The above numbered permit was issued in your name on 11/02/2021.

The Well Record was received in this office on 01/27/2022, stating that it had been completed on 01/06/2022, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 11/02/2022.

If you have any questions, please feel free to contact us.

Sincerely,

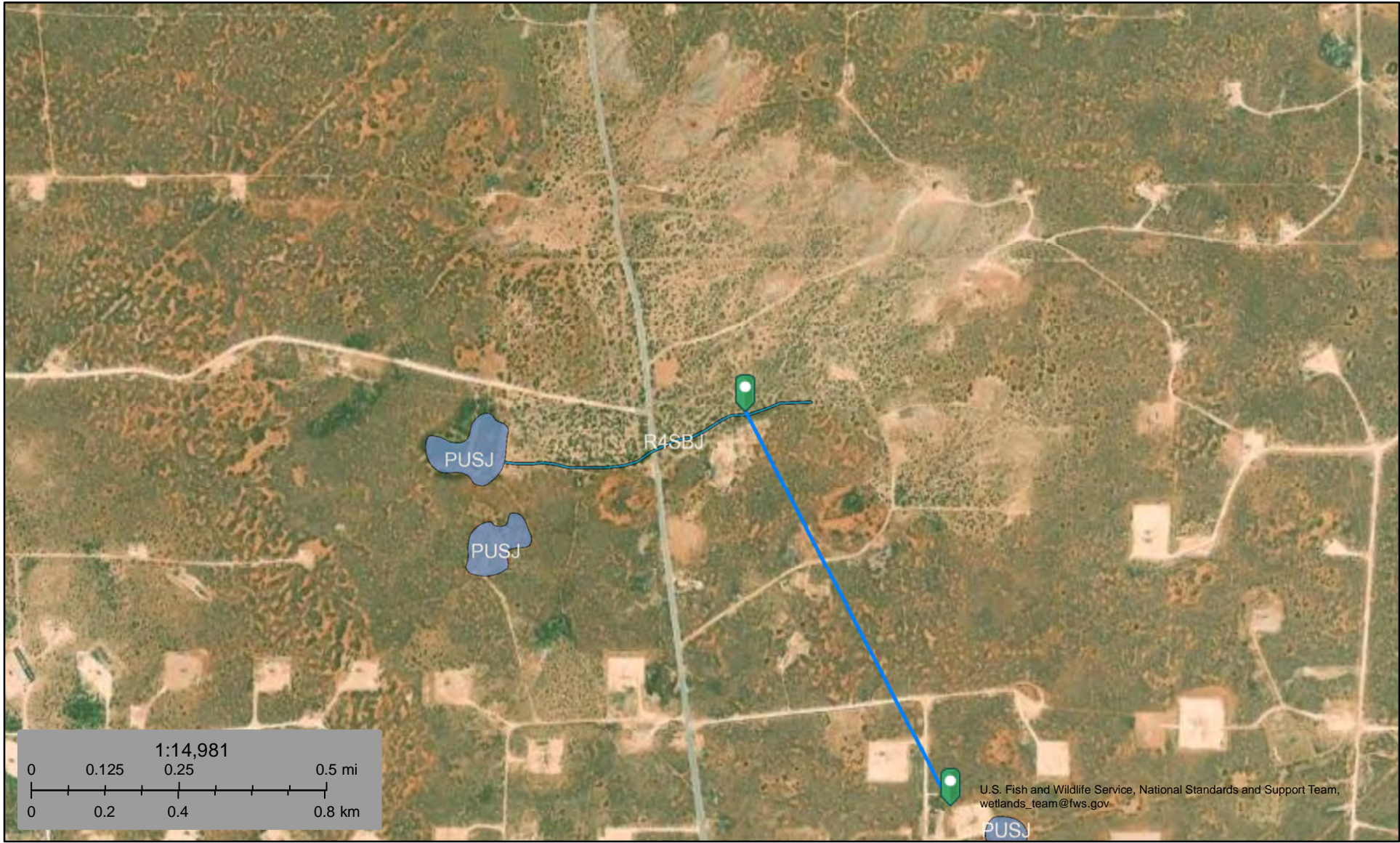
A handwritten signature in black ink, appearing to read "Maret Amaral".

Maret Amaral
(575) 622-6521

drywell



Jackson B #065 Watercourse 3,458ft



U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov

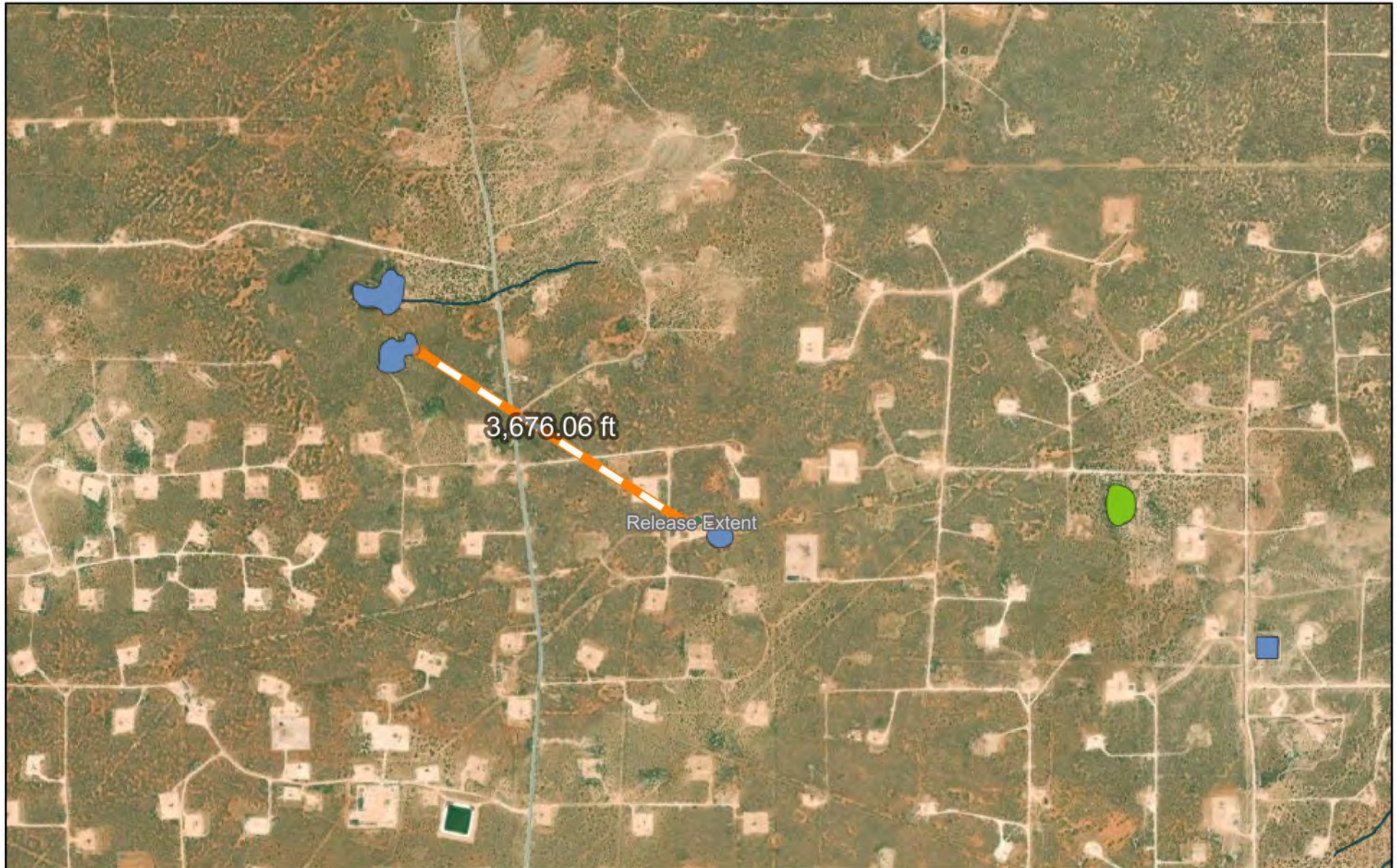
April 10, 2025

Wetlands

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

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

07 - Jackson B #065 - Pond 0.7 mi/3,676 ft

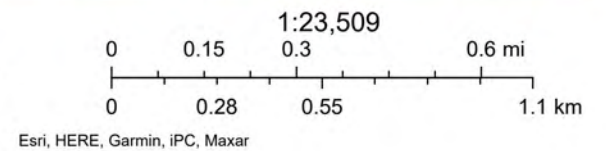


10/16/2025

- World_Boundaries_and_Places
- Release Extent
- Release Extent
- Wetlands
- Freshwater Emergent Wetland
- Freshwater Pond
- Riverine



- World Imagery
- Low Resolution 15m Imagery
- High Resolution 60cm Imagery

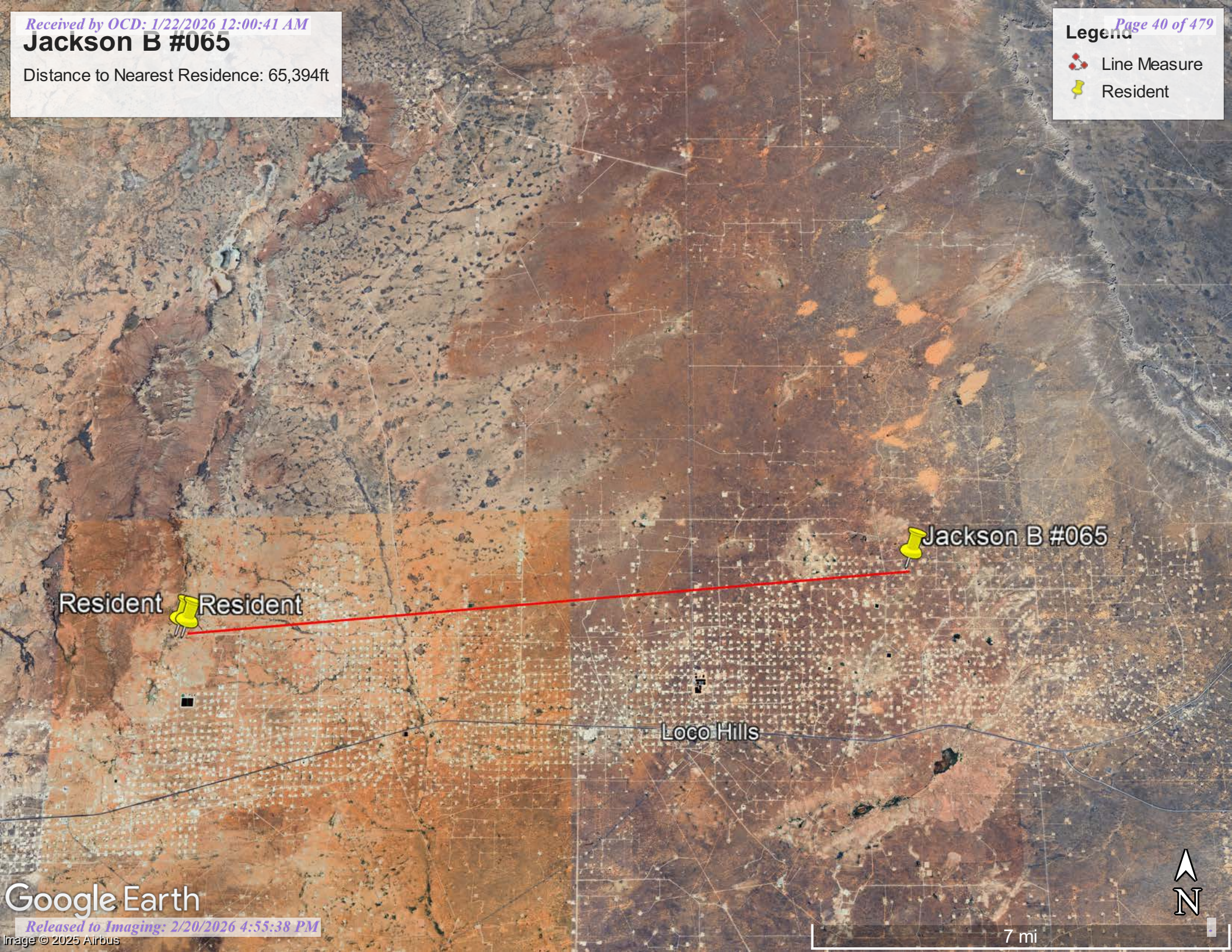
- High Resolution 30cm Imagery
- Citations
- 4.8m Resolution Metadata



Jackson B #065

Distance to Nearest Residence: 65,394ft

-  Line Measure
-  Resident



Resident



Resident

Jackson B #065

Loco Hills





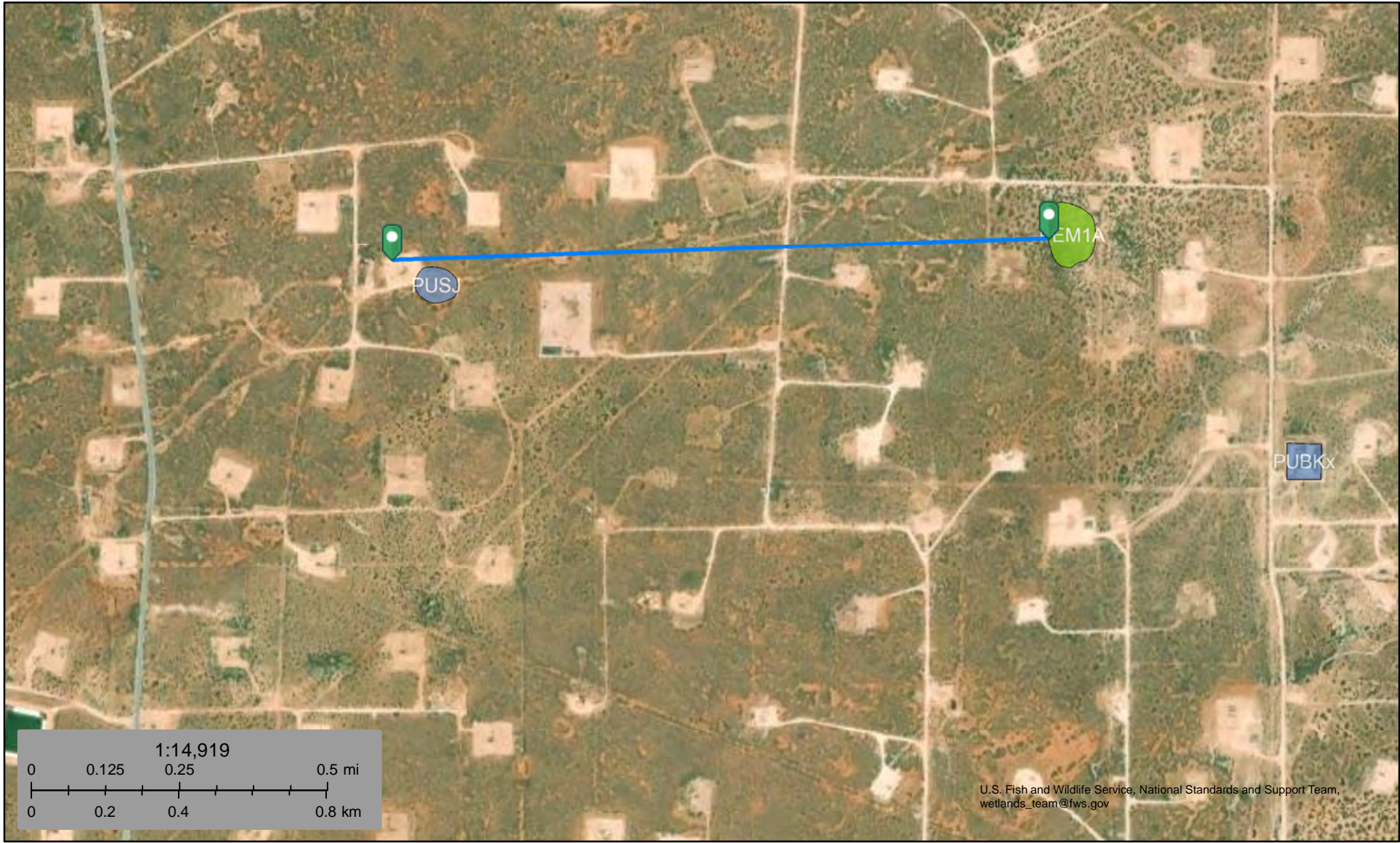
New Mexico Office of the State Engineer Active & Inactive Points of Diversion

WR File Nbr	Sub basin	Use	Diversion (acre ft per annum)	Owner	County	POD Number	Well Tag	Code	Grant	Source	(R=POD has been replaced and no longer serves this file, C=the file is closed)				(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)			(NAD83 UTM in meters)		Map	Distance (meters)
											q64	q16	q4	Sec	Tws	Range	X	Y			
RA 13106	RA	MON	0.000	TALON LPE	ED	RA 13106 POD1	NA				NE	SE	SW	01	17S	30E	600542.0	3636070.4		516.4	
					ED	RA 13106 POD2	NA				SE	NE	SW	01	17S	30E	600405.5	3636426.9		658.5	
					ED	RA 13106 POD3	NA				SE	NE	SW	01	17S	30E	600381.2	3636421.4		680.1	
LWD 03232	RA	PLS	8.000	CHARLES R MARTIN INC	ED	LWD 03232 POD1						NW	SE	36	16S	30E	600727.0	3638072.0 *		1,868.5	
RA 13289	RA	MON	0.000	BURNETT OIL CCO	ED	RA 13289 POD1	NA				NW	NW	NE	13	17S	30E	600611.0	3634171.1		2,100.6	
RA 13212	RA	EXP	0.000	BURNETTOIL CO INC	CH	RA 13212 POD1	NA				NW	SW	SE	11	17S	30E	598984.3	3634474.1		2,697.8	
RA 13319	RA	MON	0.000	SPUR ENERGY PARTNERS LLC	ED	RA 13319 POD1	NA				SW	SW	SW	02	17S	30E	598254.4	3635919.6		2,796.2	
RA 11764	RA	EXP	0.000	ROCKHOUSE WATER & BRINE, INC	ED	RA 11764 POD1					SW	NW	SE	10	17S	30E	597790.3	3634769.3		3,556.4	
RA 13213	RA	EXP	0.000	BURNETTOIL CO INC	CH	RA 13213 POD1	NA				NE	NE	NW	24	17S	30E	600489.1	3632575.7		3,693.4	
RA 13288	RA	MON	0.000	BURNETT OIL CO	ED	RA 13288 POD1	NA				NE	SW	SE	14	17S	30E	599169.4	3632911.7		3,805.0	
RA 13442	RA	MON	0.000	SPUR ENERGY PARTNERS, LLC	ED	RA 13442 POD1	NA				NW	NW	SE	15	17S	30E	597423.2	3633299.0		4,649.5	

Record Count: 11



Jackson B #065 Wetland 4,931ft



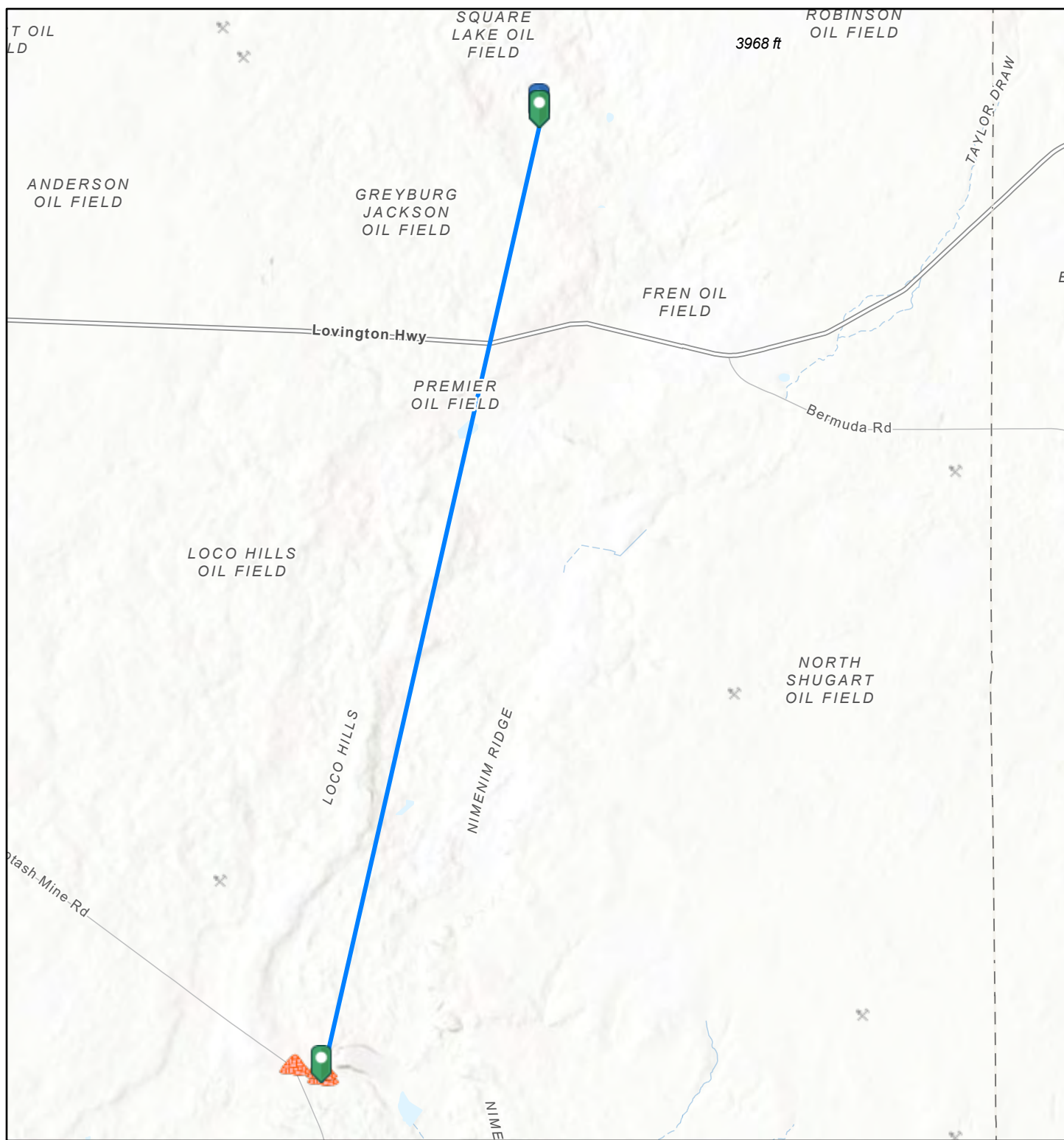
April 10, 2025

Wetlands

- Estuarine and Marine Deepwater
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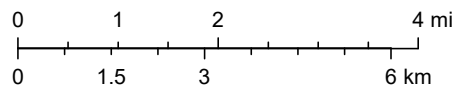
Jackson B #065 Mine 69,836ft



4/10/2025, 1:21:13 PM

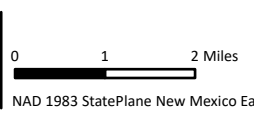
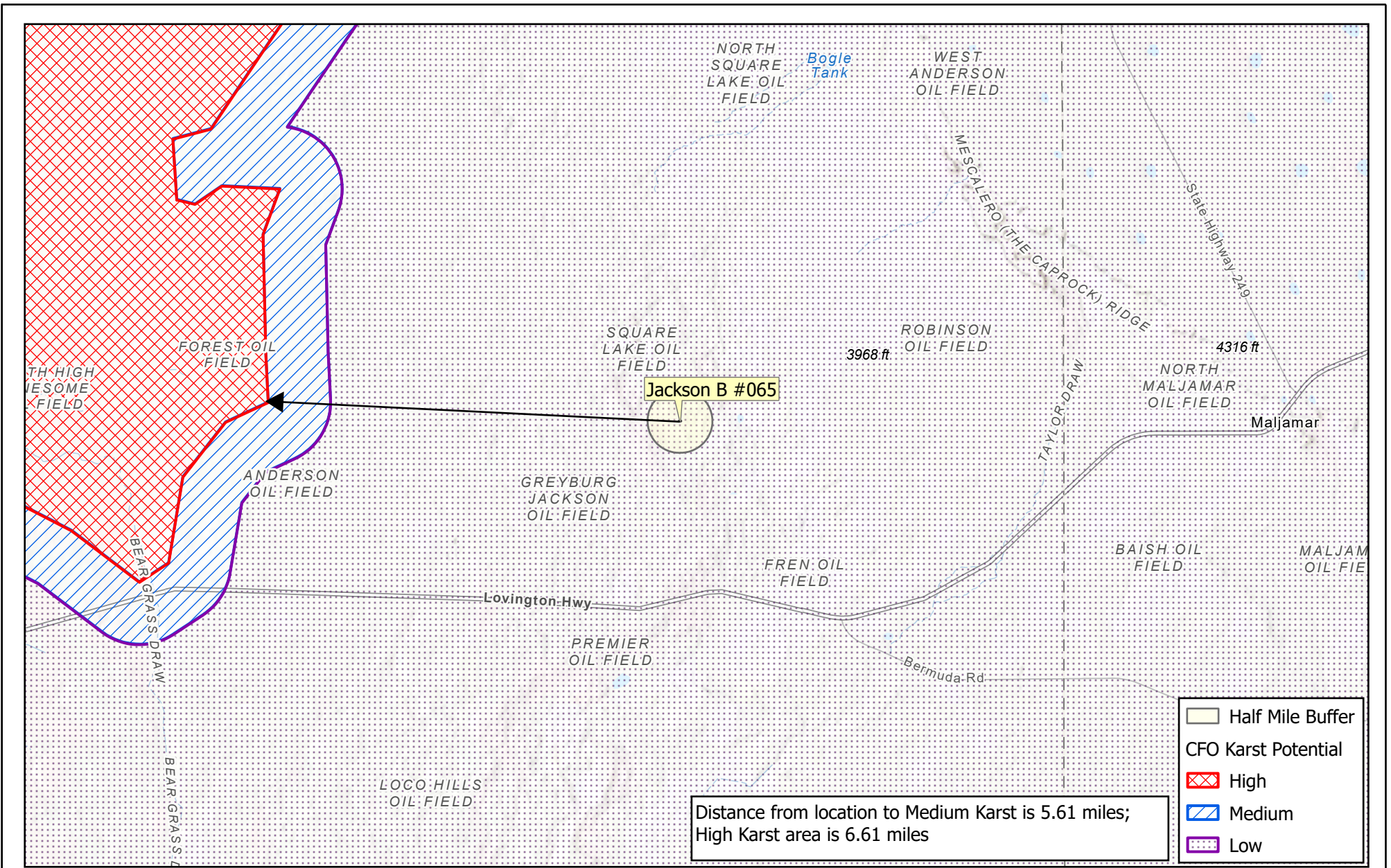
1:144,448

Registered Mines



- Aggregate, Stone etc.
- Aggregate, Stone etc.
- Potash

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



Map Center:
 Lat/Long: 32.854085°N, 103.915797°W
 Date: May 19/25
 NAD 1983 StatePlane New Mexico East FIPS 3001 Feet



**Karst Potential
 Jackson B #065**

PLATE:
9






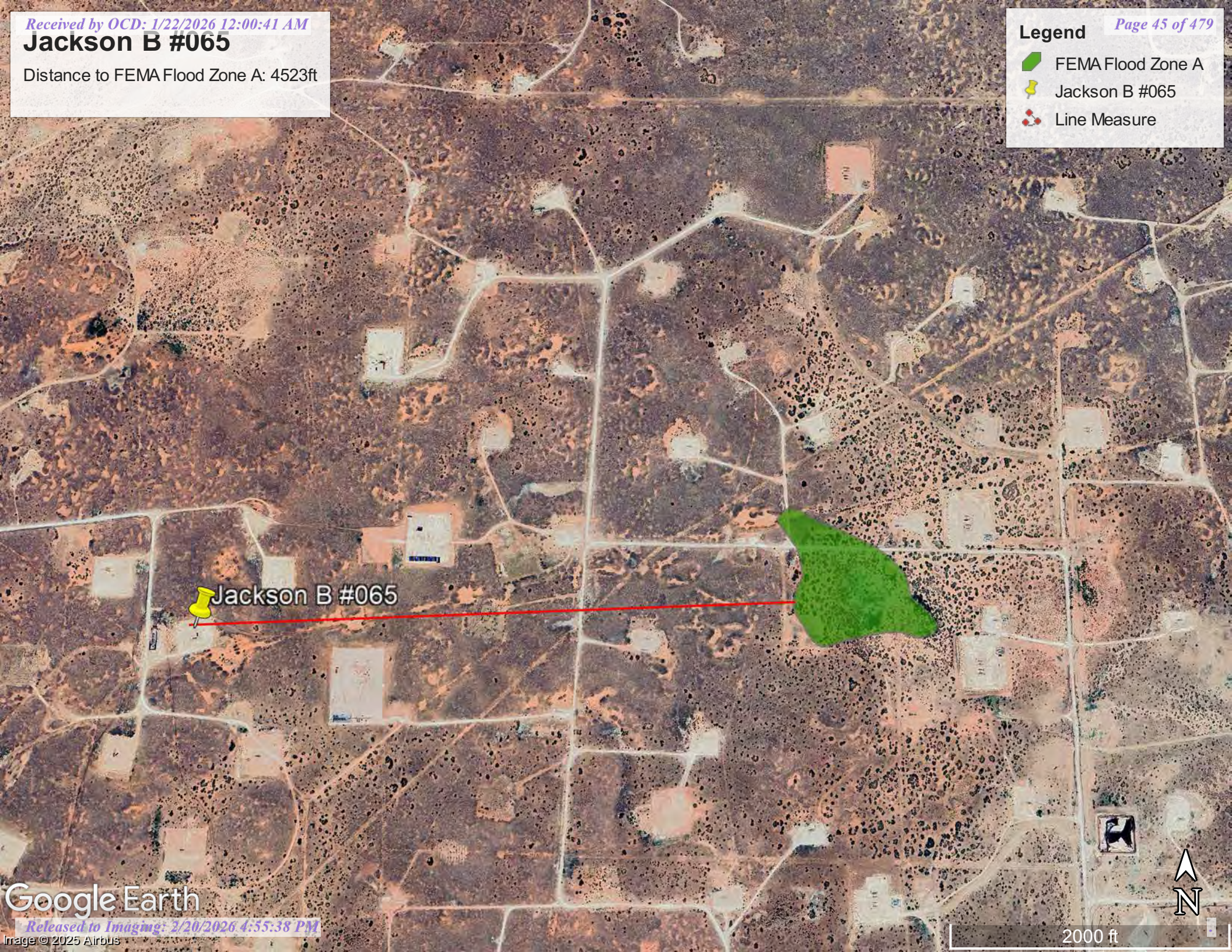
Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

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

Jackson B #065

Distance to FEMA Flood Zone A: 4523ft

-  FEMA Flood Zone A
-  Jackson B #065
-  Line Measure



Jackson B #065

National Flood Hazard Layer FIRMette



103°55'32"W 32°51'49"N



Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		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 <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
		Area of Undetermined Flood Hazard <i>Zone D</i>

GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		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.

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 4/10/2025 at 7:21 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.

Released to Imaging: 2/20/2026 4:35:38 PM

1:6,000 Basemap Imagery Source: USGS National Map 2023



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

Custom Soil Resource Report for Eddy Area, New Mexico



Preface

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

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

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

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

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

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

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How Soil Surveys Are Made

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

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

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

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

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

Custom Soil Resource Report

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

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

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

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

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

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

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

Custom Soil Resource Report

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

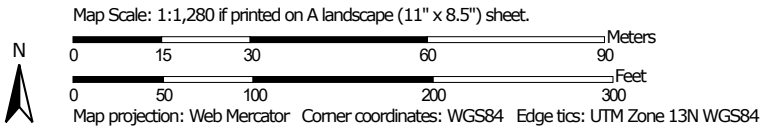
Soil Map

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

Custom Soil Resource Report Soil Map




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: Feb 7, 2020—May 12, 2020

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KM	Kermit-Berino fine sands, 0 to 3 percent slopes	6.8	100.0%
Totals for Area of Interest		6.8	100.0%

Map Unit Descriptions

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

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

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

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

Custom Soil Resource Report

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

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

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

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

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

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

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

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

Custom Soil Resource Report

Eddy Area, New Mexico**KM—Kermit-Berino fine sands, 0 to 3 percent slopes****Map Unit Setting**

National map unit symbol: 1w4q
Elevation: 3,100 to 4,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 60 to 64 degrees F
Frost-free period: 190 to 230 days
Farmland classification: Not prime farmland

Map Unit Composition

Kermit and similar soils: 50 percent
Berino and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kermit**Setting**

Landform: Plains, alluvial fans
Landform position (three-dimensional): Talf, rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 7 inches: fine sand
H2 - 7 to 60 inches: fine sand

Properties and qualities

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

Interpretive groups

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

Description of Berino**Setting**

Landform: Plains, fan piedmonts
Landform position (three-dimensional): Riser

Custom Soil Resource Report

Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 17 inches: fine sand
H2 - 17 to 50 inches: fine sandy loam
H3 - 50 to 58 inches: loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Minor Components

Active dune land

Percent of map unit: 15 percent
Hydric soil rating: No

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Ecological site R070BD005NM Deep Sand

Accessed: 04/10/2025

General information

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

Figure 1. Mapped extent

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

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

This site occurs on terraces, Piedmonts, dunes fields, or upland plains. Parent material consists of eolian deposits and alluvium derived from sandstone. Slopes range from 0 to 15 percent, usually less than 5 percent. Low, stabilized hummocks or dunes frequently occur. Elevations range from 2,842 to 4,500 feet.

Table 2. Representative physiographic features

Landforms	(1) Dune (2) Parna dune (3) Terrace
Flooding frequency	None
Ponding frequency	None
Elevation	2,842–4,500 ft
Slope	0–15%
Aspect	Aspect is not a significant factor

Climatic features

The average annual precipitation ranges from 8 to 13 inches. Variations of 5 inches, more or less, are common. Over 80 percent of the precipitation falls from April through October. Most of the summer precipitation comes in the form of high intensity – short duration thunderstorms.

Temperatures are characterized by distinct seasonal changes and large annual and diurnal temperature changes. The average annual temperature is 61 degrees with extremes of 25 degrees below zero in the winter to 112 degrees in the summer.

The average frost-free season is 207 to 220 days. The last killing frost is in late March or early April, and the first killing frost is in late October or early November.

Both temperature and moisture favor warm season perennial plant growth. During years of abundant winter and early spring moisture, cool season growth and annual forbs, make up an important component of this site. Strong winds blow from the west from January through June, which accelerates soil drying during a critical period for cool

season plant growth.

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

Table 3. Representative climatic features

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

Influencing water features

This site is not influenced from water from wetlands or streams.

Soil features

Soils are deep or very deep. Surface textures are sand loam, fine sand or loamy fine sand, Underlying material textures are loamy fine sand, fine sand, sand or fine sandy loam. Because of the coarse textures and rapid drying of the surface, the soil, if unprotected by plant cover and organic residue, becomes windblown and low hummocks or dunes are formed around shrubs.

Characteristic soils are:

Anthony
Aguena
Kermit
Likes
Pintura
Bluepoint

Table 4. Representative soil features

Surface texture	(1) Sand (2) Fine sand (3) Loamy fine sand
Family particle size	(1) Sandy
Drainage class	Well drained to excessively drained
Permeability class	Moderate to very rapid
Soil depth	60–72 in
Surface fragment cover <=3"	0–5%
Surface fragment cover >3"	0%
Available water capacity (0-40in)	3–5 in
Calcium carbonate equivalent (0-40in)	5–15%
Electrical conductivity (0-40in)	0–4 mmhos/cm
Sodium adsorption ratio (0-40in)	0–2
Soil reaction (1:1 water) (0-40in)	6.6–7.8

Subsurface fragment volume <=3" (Depth not specified)	5–10%
Subsurface fragment volume >3" (Depth not specified)	0%

Ecological dynamics

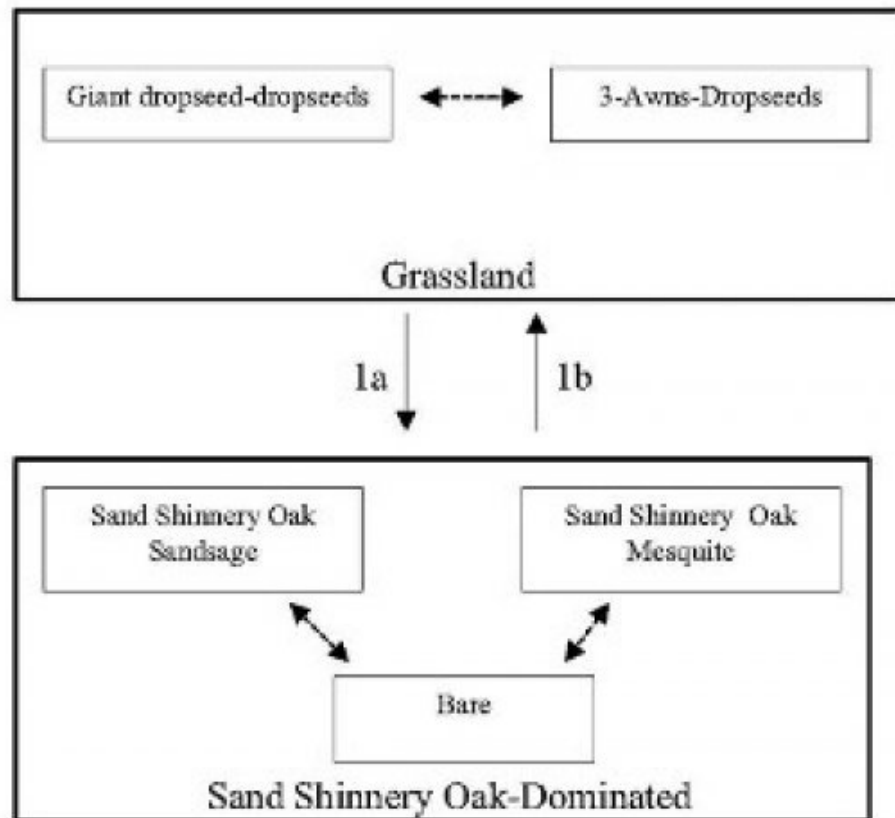
Overview

The Deep Sand site occurs adjacent to and/or intergraded with the Sandhills and Sandy sites (SD-3). The Deep Sand site can be distinguished by slopes less than eight percent (approximately five percent) and textural changes at depths greater than 40 inches. The Deep Sand site has well drained soils with a surface texture of sand or loamy fine sand. The Sandhills site has slopes greater than eight percent and textural depths greater than 60 inches. Conversely, the Sandy site has slopes less than five percent and depths to textural change commonly around 20 inches. The historic plant community of the Deep Sand site is dominated primarily by giant dropseed (*Sporobolus giganteus*) and other dropseeds (*S. flexuosus*, *S. contractus*, *S. cryptandrus*), with scattered shinnery oak (*Quercus havardii*) and soapweed yucca (*Yucca glauca*). Other herbaceous species include threeawns (*Aristida* spp.), bluestems (*Schizachyrium scoparium* and *Andropogon hallii*), and annual and perennial forbs distributed relative to precipitation occurrences. Bare ground and litter compose a significant proportion of ground cover while grasses are the remainder. Shinnery oak will increase with an associated decrease in dropseed and bluestem abundance possibly due to climatic change, fire suppression, interspecific competition, and excessive grazing. Continued grass cover loss may result in a transition to a shinnery oak dominated state with increases in sand sage (*Artemisia filifolia*) and honey mesquite (*Prosopis glandulosa*). However, brush management may restore the grassland component and reverse the shinnery oak state back toward the historic plant community.

State and transition model

Plant Communities and Transitional Pathways (diagram)

MLRA-42, SD-3, Deep Sand



1.a Climate, fire suppression, competition, over grazing

1.b Brush control, Prescribed grazing

State 1
Historic Climax Plant Community

Community 1.1 Historic Climax Plant Community

State Containing Historic Plant Community Grassland: The historic plant community is dominated by giant dropseed, other dropseeds, threeawns, and bluestems. Dominant woody plants include shinnery oak and soapweed yucca. Forb abundance and distribution varies and is dependent on annual rainfall. The Deep Sand site typically exists in sandy plains and dunes (Sosebee 1983). Grass dominance stabilizes the potentially erosive sandy soils. Historical fire suppression, however, may have contributed to increased woody plant abundance, which has reduced grass species. Further, drought conditions compounded with excessive grazing likely has driven most grass species out of competition with shrubs which has resulted in a shinnery oak dominated state with sand sage and mesquite (Young et al. 1948). Diagnosis: Grassland dominated by dropseeds, threeawns, and bluestems. Small shrubs, such as shinnery oak and soapweed yucca, and subshrubs are dispersed throughout the grassland. Other grasses that could appear on this site would include: flatsedge, almejita signalgrass, big bluestem, Indiangrass, fall witchgrass, hairy grama and red lovegrass Other shrubs include: fourwing saltbush, mesquite, ephedra and broom snakeweed. Other forbs include: wooly and scarlet gaura, wooly dalea, phlox heliotrope, scorpionweed, deerstongue, fleabane, nama, hoffmanseggia, lemon beebalm and stickleaf.

Table 5. Annual production by plant type

Plant Type	Low (Lb/Acre)	Representative Value (Lb/Acre)	High (Lb/Acre)
Grass/Grasslike	396	858	1320
Shrub/Vine	108	234	360
Forb	96	208	320
Total	600	1300	2000

Table 6. Ground cover

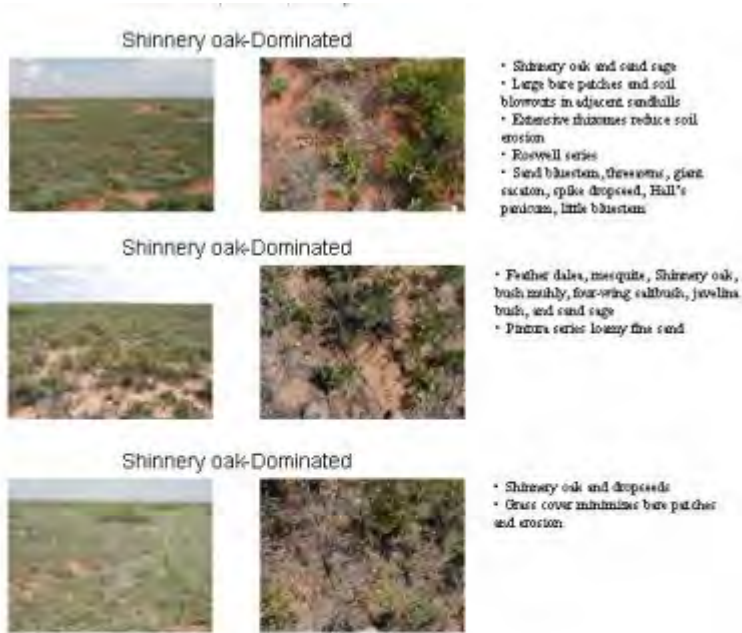
Tree foliar cover	0%
Shrub/vine/liana foliar cover	0%
Grass/grasslike foliar cover	15-20%
Forb foliar cover	0%
Non-vascular plants	0%
Biological crusts	0%
Litter	35-40%
Surface fragments >0.25" and <=3"	0%
Surface fragments >3"	0%
Bedrock	0%
Water	0%
Bare ground	35-40%

Figure 5. Plant community growth curve (percent production by month). NM2805, HCPC. SD-3 Deep Sand - Warm season plant community .

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

State 2 Shinnery Oak Dominated

Community 2.1 Shinnery Oak Dominated



Shinnery Oak Dominated: This state is dominated by shinnery oak with subdominants of sand sage or mesquite. Bare ground is a significant component in this state as well. Shinnery oak is characterized by dense stands in sandy soils; however, as clay percentage increases, shinnery oak decreases. Shinnery oak abundance and distribution increase with disturbances, such as excessive grazing and fire, due to an aggressive rhizome system. As shinnery oak abundance increases, an associated increase of mesquite, sand sage, and soapweed yucca also occurs. Shinnery oak's extensive root system allows the oak to competitively exclude grasses and forbs. Sand sage, however, stabilizes light sandy soils from wind erosion and can co-exist with herbaceous species by protecting them in heavily grazed conditions (Davis and Bonham 1979). Shinnery oak has been found primarily in very deep, excessively drained, and rapidly permeable soils. Shinnery oak is associated with landforms which are gently undulating to rolling uplands, very gently sloping to moderately steep slopes, and upland plains, alluvial fans and valley sideslopes. Shinnery oak and sand sage can be controlled with herbicide if applied in the spring with a subsequent rest from grazing (Herbel et al. 1979, Pettit 1986). In addition, repetitive seasons of goat browsing can also reduce shinnery oak abundance. Patches should be maintained during brush control, however, to prevent erosion and to provide wildlife cover and forage. Further, as shinnery oak and other shrubs increase, bare patches and erosion will increase due to a lack of herbaceous ground cover. **Diagnosis:** Shinnery oak dominated with subdominant sand sage, honey mesquite, and soapweed yucca with increasing frequency and size of bare patches. **Transition to Shinnery oak dominated state (1a):** The historic plant community begins to shift toward the shinnery oak dominated state as drivers such as climate change, fire suppression, interspecific competition, and excessive grazing contribute to alterations in soil properties and herbaceous cover. Cover loss and surface soil erosion are initial indicators of transition followed by an increase of shrub species abundance and bare patch expansion. **Key indicators of approach to transition:** • Loss of grass and forb cover • Surface soil erosion • Bare patch expansion • Increased shrub species abundance and composition **Transition to Historic Plant Community (1b):** The shinnery oak dominated state may transition back toward the historic plant community as new drivers are introduced such as prescribed grazing, brush control, and discontinued drought conditions.

Additional community tables

Table 7. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)
-------	-------------	--------	-----------------	-----------------------------	------------------

Grass/Grasslike					
1	Warm Season			450-585	
	spike dropseed	SPCO4	<i>Sporobolus contractus</i>	450-585	-
	sand dropseed	SPCR	<i>Sporobolus cryptandrus</i>	450-585	-
	mesa dropseed	SPFL2	<i>Sporobolus flexuosus</i>	450-585	-
	giant dropseed	SPGI	<i>Sporobolus giganteus</i>	450-585	-
2	Warm Season			65-104	
	sand bluestem	ANHA	<i>Andropogon hallii</i>	65-104	-
	little bluestem	SCSC	<i>Schizachyrium scoparium</i>	65-104	-
3	Warm Season			39-91	
	threeawn	ARIST	<i>Aristida</i>	39-91	-
4	Warm Season			13-39	
	thin paspalum	PASE5	<i>Paspalum setaceum</i>	13-39	-
5	Warm Season			13-39	
	black grama	BOER4	<i>Bouteloua eriopoda</i>	13-39	-
6	Warm Season			13-39	
	mat sandbur	CELO3	<i>Cenchrus longispinus</i>	13-39	-
7	Warm Season			13-39	
	Havard's panicgrass	PAHA2	<i>Panicum havardii</i>	13-39	-
8	Warm Season			13-65	
	plains bristlegrass	SEVU2	<i>Setaria vulpiseta</i>	13-65	-
9	Other Annual Grasses			13-65	
	Grass, annual	2GA	<i>Grass, annual</i>	13-65	-
Shrub/Vine					
10	Shrub			65-130	
	Havard oak	QUHA3	<i>Quercus havardii</i>	65-130	-
11	Shrub			13-39	
	sand sagebrush	ARFI2	<i>Artemisia filifolia</i>	13-39	-
12	Shrub			65-130	
	yucca	YUCCA	<i>Yucca</i>	65-130	-
13	Shrub			13-39	
	rabbitbrush	CHRY9	<i>Chrysothamnus</i>	13-39	-
14	Other Shrubs			13-39	
	Shrub (>.5m)	2SHRUB	<i>Shrub (>.5m)</i>	13-39	-
Forb					
15	Forb			39-91	
	croton	CROTO	<i>Croton</i>	39-91	-
	Indian blanket	GAPU	<i>Gaillardia pulchella</i>	39-91	-
16	Forb			39-91	
	aster	ASTER	<i>Aster</i>	39-91	-
	whitest evening primrose	OEAL	<i>Oenothera albicaulis</i>	39-91	-
	beardtongue	PENST	<i>Penstemon</i>	39-91	-
17	Forb			39-91	
	touristnlant	DIWI2	<i>Dimorphocarna wislizeni</i>	39-91	-

	buckwheat	ERIOG	<i>Eriogonum</i>	39-91	-
	sunflower	HELIA3	<i>Helianthus</i>	39-91	-
	spiny false fiddleleaf	HYSP	<i>Hydrolea spinosa</i>	39-91	-
	threadleaf ragwort	SEFLF	<i>Senecio flaccidus var. flaccidus</i>	39-91	-
18	Other Forbs			13-65	
	Forb (herbaceous, not grass nor grass-like)	2FORB	<i>Forb (herbaceous, not grass nor grass-like)</i>	13-65	-

Animal community

This site provides habitat which supports a resident animal population characterized by pronghorn, antelope, black-tailed jackrabbit, spotted ground squirrel, Ord’s kangaroo rat, northern grasshopper mouse, southern plains woodrat, badger, meadowlark, roadrunner, white-necked raven, cactus wren, lesser prairie chicken, morning dove, scaled quail, Harris hawk, side blotched lizard, marbled whiptail, Texas horned lizard, western diamondback rattlesnake and ornate box turtle. In the area called Mescalero Sands, there are white-tailed and mule deer.

Hydrological functions

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

- Hydrologic Interpretations
- Soil Series Hydrologic Group
- Anthony B
- Bluepoint A
- Kermit A
- Aguena A
- Likes A
- Pintura A

Recreational uses

This site offers limited recreation potential for hiking, horseback riding, nature observation and photography; game bird, predator, antelope, and deer hunting.

Wood products

This site has no potential for wood products.

Other products

This site is suitable for grazing by all kinds and classes of livestock during all seasons of the year. Shinnery oak is toxic in the late bud or early leaf stage. Shinnery oak will increase, as will sand sagebrush following drought. Changes in the fire return interval have also favored an increase in shrub cover. The dropseeds and bluestem will decrease. This site responds very well to brush management and deferment. This site is well suited to a grazing system that rotates the season of use. Nesting habitat for lesser prairie chicken can be improved by providing residual cover that is at least 14 inches high.

Other information

Guide to Suggested Initial Stocking Rate Acres per Animal Unit Month

- Similarity Index Ac/AUM
- 100 - 76 2.0 – 3.8
- 75 – 51 3.0 – 6.0

50 – 26 5.0 – 10.0
 25 – 0 10.1 +

Inventory data references

Other References:

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

Other references

Literature Cited

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

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Young, Vernon A., Anderwald, Frank R., McCully, Wayne G. 1948. Brush problems on Texas ranges. Miscellaneous Publication 21. College Station, TX: Texas Agricultural Experiment Station. 19 p.

Contributors

Don Sylvester
 Quinn Hodgson

Rangeland health reference sheet

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

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

Indicators

1. **Number and extent of rills:**

2. **Presence of water flow patterns:**

3. **Number and height of erosional pedestals or terracettes:**

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):**

5. **Number of gullies and erosion associated with gullies:**

6. **Extent of wind scoured, blowouts and/or depositional areas:**

7. **Amount of litter movement (describe size and distance expected to travel):**

8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):**

9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):**

10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:**

11. **Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):**

12. **Functional/Structural Groups (list in order of descending dominance by above-ground annual-production or live foliar cover using symbols: >>, >, = to indicate much greater than, greater than, and equal to):**

Dominant:

Sub-dominant:

Other:

Additional:

13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or**

decadence):

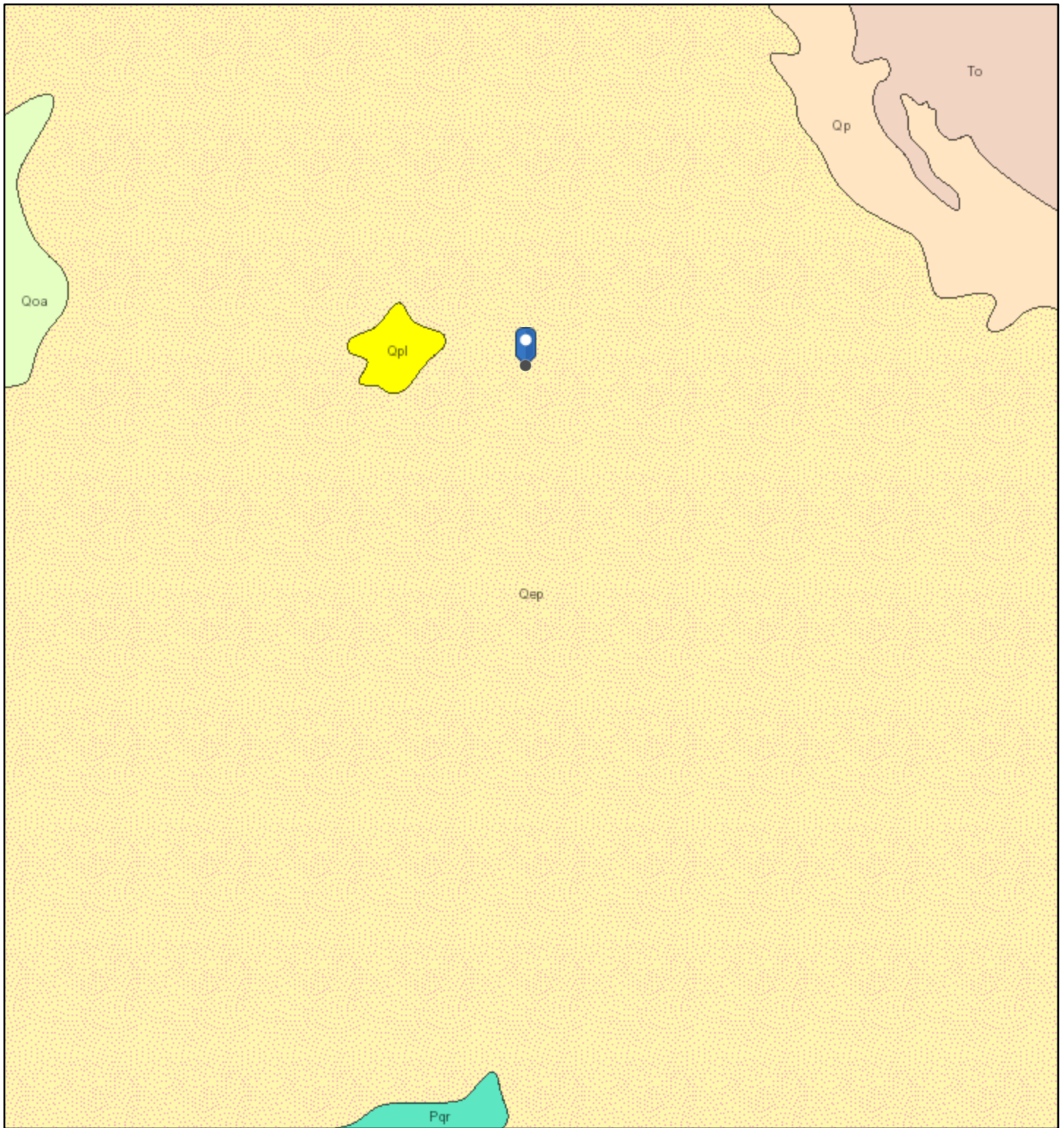
14. Average percent litter cover (%) and depth (in):

15. Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):

16. Potential invasive (including noxious) species (native and non-native). List species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, we are describing what is NOT expected in the reference state for the ecological site:

17. Perennial plant reproductive capability:

Jackson B #065 Geology

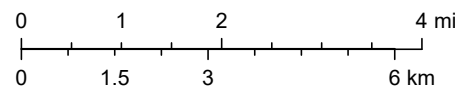


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Lithologic Units

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



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

ArcGIS Web AppBuilder

Appendix C – Jurisdictional Delineation Report



25R-04508R

2025 Jurisdictional Delineation Report

Jackson B #065
Eddy County, New Mexico

Prepared for:

Mack Energy Corporation

Prepared by:

Vertex Resource Services, Inc.

Date:

September 25, 2025

Revised: January 13, 2026

Mack Energy Corporation
Jackson B #065 (Eddy County, New Mexico)

2025 Jurisdictional Delineation Report
Project No. 25R-04508R

2025 Jurisdictional Delineation Report
Jackson B #065
Eddy County, New Mexico

Prepared for:

Mack Energy Corporation
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Artesia, New Mexico 88210

Prepared by:

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Conroe, Texas 77303

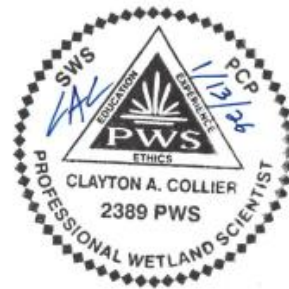
Becca Stallings

January 13, 2026

Becca Stallings, MNRS, CPESC, CESSWI
Manager – Ecology and Assessment

Date

I, Clayton Collier, Professional Wetland Scientist (PWS) No. 2389, reviewed the work and conclusions as described within this report and I approve of the findings.



Clayton Collier

1/13/26

Clayton Collier, PWS No. 2389
Report Reviewer
Senior Environmental Scientist | Hydrex Environmental

Date

Executive Summary

Mack Energy Corporation (Mack) retained Vertex Resource Services Inc. (Vertex) to conduct a Jurisdictional Delineation (hereafter referred to as “assessment”) of potential regulated waters at Jackson B #065 (GPS Location: 32.859167, -103.919444), located 0.42 miles east of Square Lake Road and 1.25 miles north of Skelly Road in Eddy County, New Mexico (hereafter referred to as “site”). The survey location consists of approximately 5.5 acres.

Waters of the United States (WOTUS) are regulated by the United States Environmental Protection Agency (EPA) and the United States Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA). The USACE may issue permits for activities that may cause the discharge of dredge or fill material into WOTUS, which includes regulated wetlands. This regulation is established to protect the nation’s waters from pollution associated with such discharges. The purpose of this Jurisdictional Delineation and associated report is to investigate the water resources at the project site and determine if the water features would be considered jurisdictional by the USACE. Additionally, this assessment considered surface waters of the state, which are protected in New Mexico under New Mexico Administrative Code (NMAC) Title 20, Chapter 6, Part 4.

Vertex personnel performed a desktop environmental records and database review to analyze soil and wetland databases. The field assessment was conducted on the following date: August 22, 2025. Site conditions, vegetative communities, soil data, and hydrology features were documented for the purpose of delineating wetland boundaries and ascertaining the likelihood of jurisdictional features within the project boundaries.

The site consists of sandy dunes and wind-swept blowouts that vary in height, depth, and length. The vegetation community present onsite was mostly shinnery oak dune habitat. Based on site conditions, the site lacks water resources and no pond is present.

In the professional opinion of Vertex personnel, the site has no water resources that satisfy the criteria to be a regulated wetland or Waters of the United States (WOTUS) pursuant to the United States Army Corps of Engineers’ Arid West Regional Supplement and applicable guidance. Additionally, there are no water resources onsite that satisfy the criteria for surface waters of the state, as described under NMAC 20.6.4.

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1.0 Introduction

Mack Energy Corporation (Mack) retained Vertex Resource Services Inc. (Vertex) to conduct Jurisdictional Delineation (hereafter referred to as “assessment”) at Jackson B #065 (GPS Location: 32.859167, -103.919444), located 0.42 miles east of Square Lake Road and 1.25 miles north of Skelly Road in Eddy County, New Mexico (hereafter referred to as “site”; Figure 1; Appendix A). Vertex personnel performed a desktop environmental records and database review to analyze existing soil and wetland data. Field assessment and jurisdictional delineation activities were conducted on the following date: August 22, 2025. This document provides a description of the site, regulatory applicability, methods used, results and interpretation of the site’s water resources.

1.1 Objective and Scope of Work

The objective of the jurisdictional delineation was to determine the type and regulatory applicability of onsite water resources to ensure compliance with Section 404 of the Clean Water Act as regulated by the United States Army Corps of Engineers (USACE). Potential wetland features were sampled in the field to determine if they meet the soil, hydrology, and vegetation criteria for wetlands. Wetlands that meet the criteria will be flagged, mapped, and assessed for regulatory applicability. This assessment and the associated report shall document the applicability of water resources subject to jurisdiction under Section 404 of the Clean Water Act and New Mexico Administrative Code (NMAC) Title 20, Chapter 6, Part 4.

The following scope of work was established for the Jurisdictional Delineation:

- Environmental records and database review
- Complete the field portion of the Jurisdictional Delineation
 - Site visit
 - Sampling and data collection
 - Flagging and mapping wetlands, if applicable
- Prepare a report with relevant findings

2.0 Applicable Regulatory Framework

2.1 Section 404 of the Clean Water Act

Waters of the United States (WOTUS) are regulated by the United States Environmental Protection Agency (EPA) and the United States Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA). Section 404 authorizes the USACE to issue permits for activities resulting in dredge and fill materials being discharged into the WOTUS, which includes regulated wetlands. The purpose of this regulation is to protect the nation’s waters from the indiscriminate discharge of pollutants associated with such activities and to restore and maintain the chemical, physical, and biological integrity of the nation’s waters. Based on the location of the site, the review and approval authority is overseen by the USACE Regulatory Department of the Albuquerque District Office.

2.1.1 Current Regulations

Current regulations have been revised following the *Sacket v EPA* ruling on May 25, 2023, which modified the scope of the EPA’s jurisdiction over wetlands previously considered jurisdictional based on significant nexus requirements. On September 8, 2023, the EPA and USACE issued a joint definition codified in the *Federal Register*, which defined WOTUS as traditional navigable waters, relatively permanent waters, and adjacent wetlands. As of writing this report, the EPA and USACE have jurisdiction over the following waters:

- (1) Waters that are:
 - (a)(1)(i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
 - (ii) The territorial seas;
 - (iii) Interstate waters;
- (2) Impoundments of waters otherwise defined as Waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;
- (3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;
- (4) Wetlands adjacent to the following waters:
 - (i) Waters identified in paragraph (a)(1) of this section;
 - (ii) Relatively permanent, standing or continuously-flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;
 - Adjacent means having continuous surface connection;
- (5) Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section.

2.1.2 Section 404 Exclusions

The following exclusions are not regulated by Section 404 of the CWA under the jurisdiction of the USACE:

- Groundwater;
- Prior converted croplands;
- Waste treatment systems;
- Ditches that do not carry a relatively permanent water flow;
- Artificially irrigated areas that would revert to dry land if the irrigation ceased;
- Artificial lakes or ponds that are created by excavating dry land and used exclusively for stock watering, irrigation, settling basins, or rice farming;
- Artificially reflecting pools or swimming pools;
- Waterfilled depressions that are created on dry land due to construction, unless construction is abandoned, and the resulting body of water meets the WOTUS definition; and
- Swales and erosional features characterized by low volume, infrequent, or short duration flow.

2.2 Surface Waters of the State

Additionally, "surface waters of the state" are protected in New Mexico under NMAC Title 20, Chapter 6, Part 4. Surface waters of the state are defined in NMAC 20.6.4.7.S.(5) to include:

- (a) all surface waters situated wholly or partly within or bordering upon the state, including the following:
 - (i) lakes;
 - (ii) rivers;
 - (iii) streams (including intermittent and ephemeral streams);
 - (iv) mudflats;
 - (v) sandflats;
 - (vi) wetlands;

- (vii) sloughs;
 - (viii) prairie potholes;
 - (ix) wet meadows;
 - (x) playa lakes;
 - (xi) reservoirs; and
 - (xii) natural ponds.
- (b) also means all tributaries of such waters, including adjacent wetlands, any manmade bodies of water that were originally created in surface waters of the state or resulted in the impoundment of surface waters of the state, and any “waters of the United States” as defined under the Clean Water Act that are not included in the preceding description.
 - (c) does not include private waters that do not combine with other surface or subsurface water or any water under tribal regulatory jurisdiction pursuant to Section 518 of the Clean Water Act. Waste treatment systems, including treatment ponds or lagoons designed and actively used to meet requirements of the Clean Water Act (other than cooling ponds as defined in 40CFR Part 423.11(m) that also meet the criteria of this definition), are not surface waters of the state, unless they were originally created in surface waters of the state or resulted in the impoundment of surface waters of the state.

3.0 Background

3.1 Site Description

The site is located 0.42 miles east of Square Lake Road and 1.25 miles north of Skelly Road in Eddy County, New Mexico (hereafter referred to as “site”). The survey area consists of approximately 5.5 acres. The site consists of oil and gas facilities, pad, access roads, and associated infrastructure. Upon reviewing available aerial imagery (Google Earth Pro, accessed 2025 August 27), the site is predominantly shinnery oak dominant sand dunes. The terrain has approximately a 18-foot elevation difference and generally slopes west of the property.

During the site visits, it was determined that the site consisted of sandy dunes, shinnery oak habitat, and wind-swept blowouts. Each potential water resource was assessed and sample locations were mapped.

3.2 Soils

A desktop survey of the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS) Database for the site location was conducted on August 19, 2025. The soil data for the site indicates that the primary soil characteristics for the proposed site are the Kermit-Berino association, undulating soil composition (Figure 3, Appendix A). This soil association is described as fine sands, creating linear across-slope and convex down-slope ridges, mixed alluvium with eolian sands throughout a majority of the site. This soil complex is excessively drained. (Figure 2; Appendix A).

3.3 Vegetative Communities

No previous site vegetation mapping data was identified during this desktop review. The site is located within the Chihuahuan Basin and Playas ecoregion, which is typically characterized by alluvial fans, basins and river valleys below 4,500 feet. These playas and basins contain high levels of saline or alkaline soils and include salt flats, dunes, and windblown sand. This ecoregion is hot and arid, supporting desert shrub and grass vegetative communities. Dominant species include creosote bush, tarbush, four-wing saltbush, acacias, gyp grama, and alkali sacaton (Griffith et al., 2006).

3.3 Hydrologic Features

The site is located within the Upper Pecos – Black River watershed (Figure 6; Appendix A). The National Wetlands Inventory Mapper (Figure 3; Appendix A) identified the potential for the following water resource: One Freshwater Pond. Due to the excessively drained, sandy soils and a high-water table, these wetland features are not expected to remain saturated most of the year.

3.4 Weather Data

The region has a hot semi-arid climate with consistently low relative humidity, characterized by hot summers and mild winters. Average annual precipitation is approximately 12-14 inches, falling mainly during the summer monsoon season (July – September), while annual snowfall averages less than 7 inches. According to the Antecedent Precipitation Tool 3.0.5, the survey dates were conducted during the dry season with mild drought, as compared to normal years.

4.0 Methods

Vertex prepared this Jurisdictional Delineation report for Mack for the purpose of mapping wetlands and determining the potential for regulatory applicability under Section 404 of the Clean Water Act and NMAC Title 20, Chapter 6, Part 4. The project included an environmental record and document review, onsite wetland sampling and mapping activities, and preparation of this report.

4.1 Environmental Records and Database Review

Vertex conducted an environmental records and database review that consisted of utilizing federal and state resources to determine the potential impacts of project activities on jurisdictional water resources within the project boundaries. Relevant data from this review informed assessment methods and are included in this report. Several agency databases were reviewed, including:

- Soil data - Natural Resources Conservation Service, USDA
- Wetlands and jurisdictional waters - National Wetlands Inventory, USFWS; USGS Watershed Viewer
- Floodplain data – National Flood Hazard Layer (NFHL) Viewer, FEMA

4.2 Field Work: Jurisdictional Delineation and Wetland Mapping

Vertex was responsible for performing wetland sampling and mapping to ensure regulatory compliance of the site during reclamation activities. The ecologist conducted site visits on the following date: August 22, 2025; took field notes to document site conditions; sampled potential wetland features; and mapped wetland boundaries. Wetlands must satisfy soil, hydrology, and vegetation criteria. The delineation was completed in accordance with the Corps of Engineers Wetlands Delineation Manual of 1987 and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), as applicable. The field delineation considered the vegetative communities, hydrology, and soils of the entire property to determine the presence of potential WOTUS and/or State-regulated waters within or adjacent to the property. Vertex personnel documented the following features, if present: 1. The average width of the ordinary high-water mark (OHWM); 2. Depth of water; 3. Substrate; 4. Bank to bank width; 5. Channel depth; 6. Presence of springs, seeps, and perched water tables; and 7. Location of wetlands and type of hydrophytic vegetation. Samples were collected and analyzed where representative vegetation changes occurred based on an assessment from walking the site. USACE Arid West Wetland Determination Data Sheets Version 2.0 were completed at sample locations (Appendix B) and locations were documented on the site map (Figure 5; Appendix A).

Data was collected in the field using an Eos Arrow 100 single-frequency GNSS receiver capable of sub-meter accuracy. Three (3) data points identifying sampling points were collected during the site visits to capture the potential water resources and representative vegetative communities, soils, and terrain of the site. Field data was recorded on the Wetland Determination Data Forms (Appendix B), in field notes as summarized within this report, and photographs were taken to represent site conditions (Appendix C).

4.2.1 Hydrology

The first parameter for determining wetland criteria consists of wetland hydrology, such as saturated or inundated soils within normal growing seasons. Areas that are seasonally saturated and/or inundated to the surface for a consecutive number of days for more than five (5) percent of the growing season pass wetland hydrology criteria, which is more than fourteen (14) days in Eddy County, New Mexico. Areas inundated or saturated to the surface for less than five (5) percent of the growing season are non-wetlands, except for during prolonged drought conditions.

Streams are typically classified as having perennial, intermittent, or ephemeral flow. Perennial streams are those with some quantity of continuous flow throughout the year and may have groundwater contributions to ensure this level of flow. Overland surface water contributions from precipitation events may feed perennial streams, potentially causing high water events. Intermittent and ephemeral streams lack year-round flow. Intermittent streams often have groundwater contributions. Ephemeral streams often contain flow less than thirty (30) days of the year, while intermittent streams maintain flow more than thirty (30) days but less than throughout the year.

The USACE Antecedent Precipitation Tool 3.0.5 (APT) was used to assess typical year conditions for the site. The APT calculates precipitation normalcy using standardized methodology based on drought indices and wet years, as developed by the USACE and utilizing National Oceanic and Atmospheric Administration (NOAA) data. The APT compares current conditions to precipitation data over thirty (30) years and provides an assessment of the comparative conditions over thirty (30) days within weather stations across a thirty (30) mile radius.

Based on calculations from the APT for the onsite assessment dates compared to the weighted 30-year precipitation calculations, the survey was conducted during a mild drought in the dry season with normal conditions present during the survey, when compared to normal precipitation averages (Appendix D). The following chart uses the Palmer Drought Severity Index (PDSI) data to convey the antecedent precipitation conditions compared to normal precipitation years (Table 1).

Table 1. Antecedent precipitation condition calculated by the NOAA APT

Date	PDSI Value	PDSI Class	Season	Antecedent Precipitation Score	Antecedent Precipitation Condition
8/22/2025	-1.99	Mild Drought	Dry Season	11	Normal

The Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) Viewer (accessed August 27, 2025) indicates that the site is within the Flood Hazard Zone X, which indicates an anticipated 100-year floodplain value of "minimal flood hazard" (Figure 4; Appendix A).

As the site was walked, hydrology was assessed and recorded at sample points on the Wetland Determination Data Forms (Appendix B). No hydrological features were identified onsite during the site visit.

4.2.2 Hydrophytic Vegetation

The second parameter for determining the adherence of a water resource to wetland criteria consists of the dominance of hydrophytic vegetation. If hydrophytic, or water-tolerant, vegetation consists of more than fifty (50) percent of the dominant plant species from all vegetative strata, the site meets the hydrophytic vegetation requirement. The hydrophytic indicator species categories include Obligate Wetland (OBL), Facultative Wetland (FACW), and Facultative (FAC). The vegetative categories are defined as follows:

- Obligate Wetland (OBL): Species that occur almost always (estimated probability >99%) under natural conditions in wetlands.
- Facultative Wetland (FACW): Species usually occur in wetlands (estimated probability 67-99%) but are occasionally found in non-wetland sites.
- Facultative (FAC): Species are equally likely to occur in wetlands or non-wetlands (estimated probability 34-66%).
- Facultative Upland (FACU): Species usually occur in non-wetlands (estimated probability 67-99%) but are occasionally found in wetlands (estimated probability 1-33%).
- Obligate Upland (UPL): Species may occur in wetlands in another region; however, occur almost always (estimated probability >99%) under natural conditions in non-wetlands in the region specified. If a species does not occur in wetlands in any region, it is not included in the National Wetland Plant List.

The species and absolute percent cover for all vegetation were estimated and documented within each sample point. Strata included trees, shrubs, herbaceous, and woody vines species that were assessed at the sampling sites to determine wetland indicator status based on the USACE Arid West Region – National Wetland Plant List 2020 Final Ratings list. The site did not pass FAC-neutral nor dominance criteria for hydrophytic vegetation, as noted in the Wetland Determination Data Forms (Appendix B).

4.2.3 Hydric Soils

The third parameter for determining wetland criteria is the presence of hydric soils. The United States Department of Agriculture (USDA) Web Soil Survey shows soil characteristics that are anticipated at the site (Figure 2; Appendix A). While the Web Soil Survey helps characterize the broad site soil profiles, the presence of non-hydric soils on the database does not mean the site's soils lack hydric soil characteristics, as hydrology and hydric vegetation may alter the soil profile. Soils that are saturated for prolonged periods of time may develop anaerobic conditions that alter soil profiles and shift vegetative communities to hydrophytic species.

To determine the presence of hydric soils, soil pits were dug to approximately 24 inches in depth at the sampling points. The 2009 Munsell Soil Color Charts (as produced in 2023) were used to evaluate the hue, value and chroma of the soil layers and associated mottling. Soil samples are collected in saturated soils with hydrophytic vegetation, when present, and are compared to soil samples collected in associated upland vegetative communities. During this site visit, samples were collected in varied geomorphic positions in the suspected pond to verify lack of saturated soils. Data was recorded on the Wetland Determination Data Forms (Appendix B).

5.0 Results and Discussion

The assessment of the site included consideration of site conditions, vegetative communities, site hydrology, and soil profiles. No water resources were identified onsite, as discussed below. Following the data review, field survey and sampling, it was determined that no wetland features, ponds, or other water resources are present onsite.

Therefore, there are no water resources that fall under the regulatory authority of either the USACE nor NMAC 20.6.4.

5.1 Site Conditions

The assessment was conducted on the following date(s):

- August 22, 2025: 74°F to 86°F, partly cloudy to mostly cloudy, wind speed ranging 3 to 12 mph

The site consists of mostly sandy dunes and some wind-swept blowouts that vary in height, depth, and length. The vegetation community present at Jackson B #065 was shinnery oak dominant, as described below and documented on the map (Figure 5; Appendix A). Select photographs from the survey are included in Appendix C.

5.2 Onsite Wetland Features

5.2.1 Freshwater Ponds

The site was identified by the National Wetlands Inventory Mapper as having the potential for a freshwater pond. Freshwater Ponds are characterized by saturated and/or inundated soils that support hydrophytic vegetation that emerges above the surface of the existing surface water and includes open water that lacks hydrophytic vegetation emerging from the surface. At the site, the concave area labeled by the NWI as a freshwater pond was actually a dune blowout. It consisted of deep sandy soils, upland vegetation, and lacked hydrology indicators. In the professional opinion of the Vertex ecologist, the site lacks water resources and no pond is present.

6.0 Conclusions

Mack Energy Corporation (Mack) retained Vertex Resource Services Inc. (Vertex) to conduct a Jurisdictional Delineation (hereafter referred to as “assessment”) of potential regulated waters at Jackson B #065 (GPS Location: 32.859167, -103.919444), located 0.42 miles east of Square Lake Road and 1.25 miles north of Skelly Road in Eddy County, New Mexico (hereafter referred to as “site”). The survey location consists of approximately 5.5 acres.

Waters of the United States (WOTUS) are regulated by the United States Environmental Protection Agency (EPA) and the United States Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA). The USACE may issue permits for activities that may cause the discharge of dredge or fill material into WOTUS, which includes regulated wetlands. This regulation is established to protect the nation’s waters from pollution associated with such discharges. The purpose of this Jurisdictional Delineation and associated report is to investigate the water resources at the project site and determine if the water features would be considered jurisdictional by the USACE. Additionally, this assessment considered surface waters of the state, which are protected in New Mexico under New Mexico Administrative Code (NMAC) Title 20, Chapter 6, Part 4.

Vertex personnel performed a desktop environmental records and database review to analyze soil and wetland databases. The field assessment was conducted on the following date: August 22, 2025. Site conditions, vegetative communities, soil data, and hydrology features were documented for the purpose of delineating wetland boundaries and ascertaining the likelihood of jurisdictional features within the project boundaries.

The site consists of sandy dunes and wind-swept blowouts that vary in height, depth, and length. The vegetation community present onsite was mostly shinnery oak dune habitat. Based on site conditions, the site lacks water resources and no pond is present.

In the professional opinion of Vertex personnel, the site has no water resources that satisfy the criteria to be a regulated wetland or Waters of the United States (WOTUS) pursuant to the United States Army Corps of Engineers' Arid West Regional Supplement and applicable guidance. Additionally, there are no water resources onsite that satisfy the criteria for surface waters of the state, as described under NMAC 20.6.4.

7.0 References

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8.0 Limitations

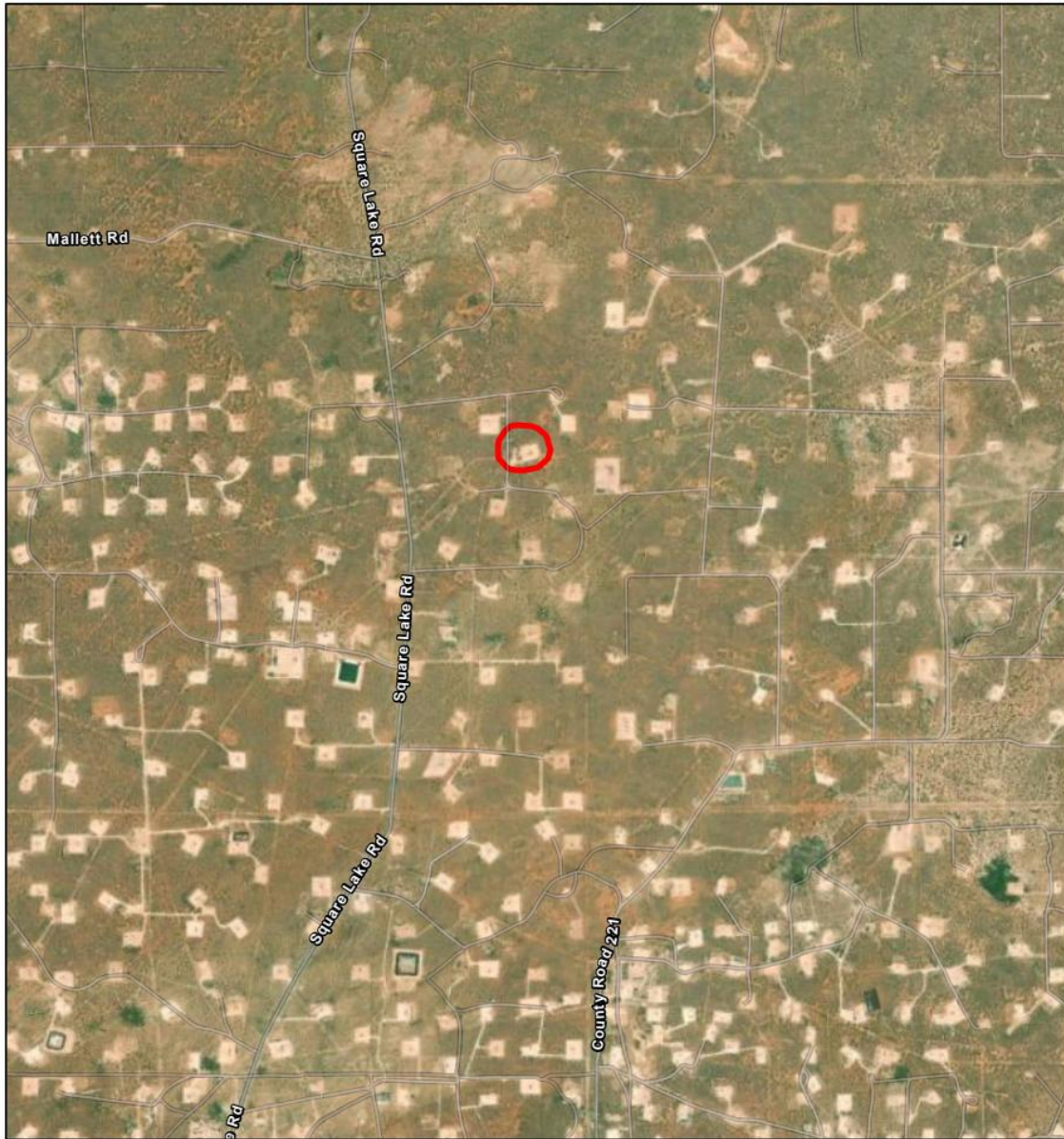
This report has been prepared for the sole benefit of Mack Energy Corporation (Mack). This document may not be used by any other person or entity, with the exception of the United States Army Corps of Engineers, without the express written consent of Vertex Resource Services Inc. (Vertex), and Mack. Any use of this report by a third party, or any reliance on decisions made based on it, or damages suffered as a result of the use of this report are the sole responsibility of the user.

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

Appendix A – Project Maps and Figures

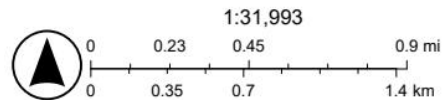
Figure 1. Jackson B #065 (Eddy County, New Mexico) Site Map

Jackson B #065



9/25/2025

- World Imagery
- Low Resolution 15m Imagery
- High Resolution 60cm Imagery
- High Resolution 30cm Imagery
- Citations



Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Maxar

Figure 2. Soil Map and Legend



Soil Map—Eddy Area, New Mexico
(Jackson B #065 (Eddy Co., NM))

MAP LEGEND		MAP INFORMATION	
Area of Interest (AOI)	Area of Interest (AOI)	Spoil Area	<p>The soil surveys that comprise your AOI were mapped at 1:20,000.</p> <p>Warning: Soil Map may not be valid at this scale.</p> <p>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.</p>
Soils	Soil Map Unit Polygons Soil Map Unit Lines Soil Map Unit Points	Stony Spot Very Stony Spot Wet Spot Other Special Line Features	
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	Water Features Streams and Canals Transportation Rails Interstate Highways US Routes Major Roads Local Roads Background Aerial Photography	<p>Please rely on the bar scale on each map sheet for map measurements.</p> <p>Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)</p> <p>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.</p> <p>This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.</p> <p>Soil Survey Area: Eddy Area, New Mexico Survey Area Data: Version 20, Sep 3, 2024</p> <p>Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.</p> <p>Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020</p> <p>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.</p>

Soil Map—Eddy Area, New Mexico

Jackson B #065 (Eddy Co., NM)

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KM	Kermit-Berino fine sands, 0 to 3 percent slopes	21.1	100.0%
Totals for Area of Interest		21.1	100.0%

Figure 3. National Wetlands Inventory Maps

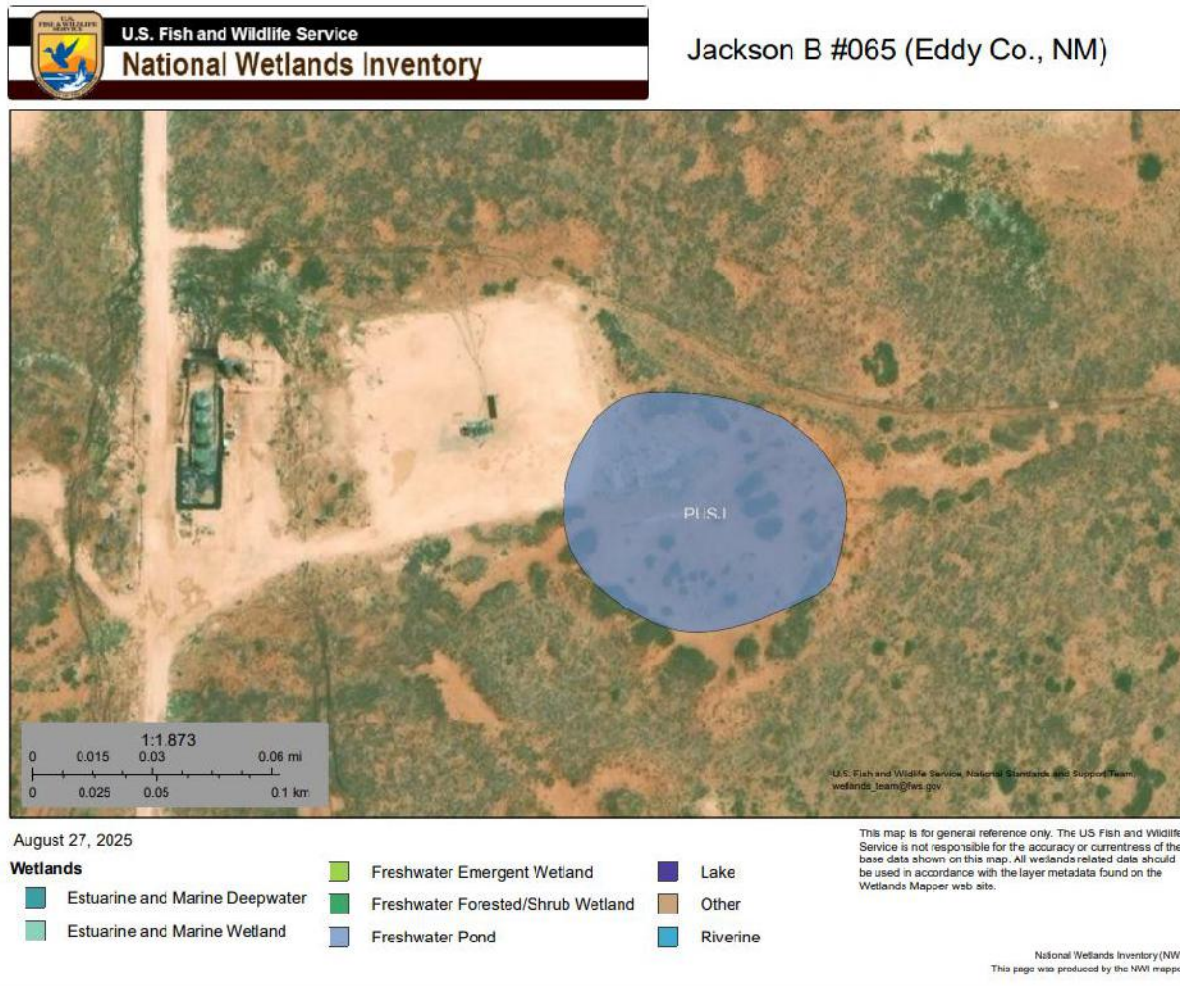


Figure 4. FEMA Flood Hazard Map

National Flood Hazard Layer FIRMette



Legend

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

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (RFE) Zone A, V, A99
- With RFE or Depth Zone AE, AH, AP, VE, AV
- Regulatory Foodway

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 I
- Future Conditions 1% Annual Chance Flood Hazard Zone I
- Area with Reduced Flood Risk due to Levee See Notes, Zone I
- 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
- Profile Baseline
- Hydrographic Feature

MAP PANELS

- Digital Data Available
- No Digital Data Available
- Unmapped

The file displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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.

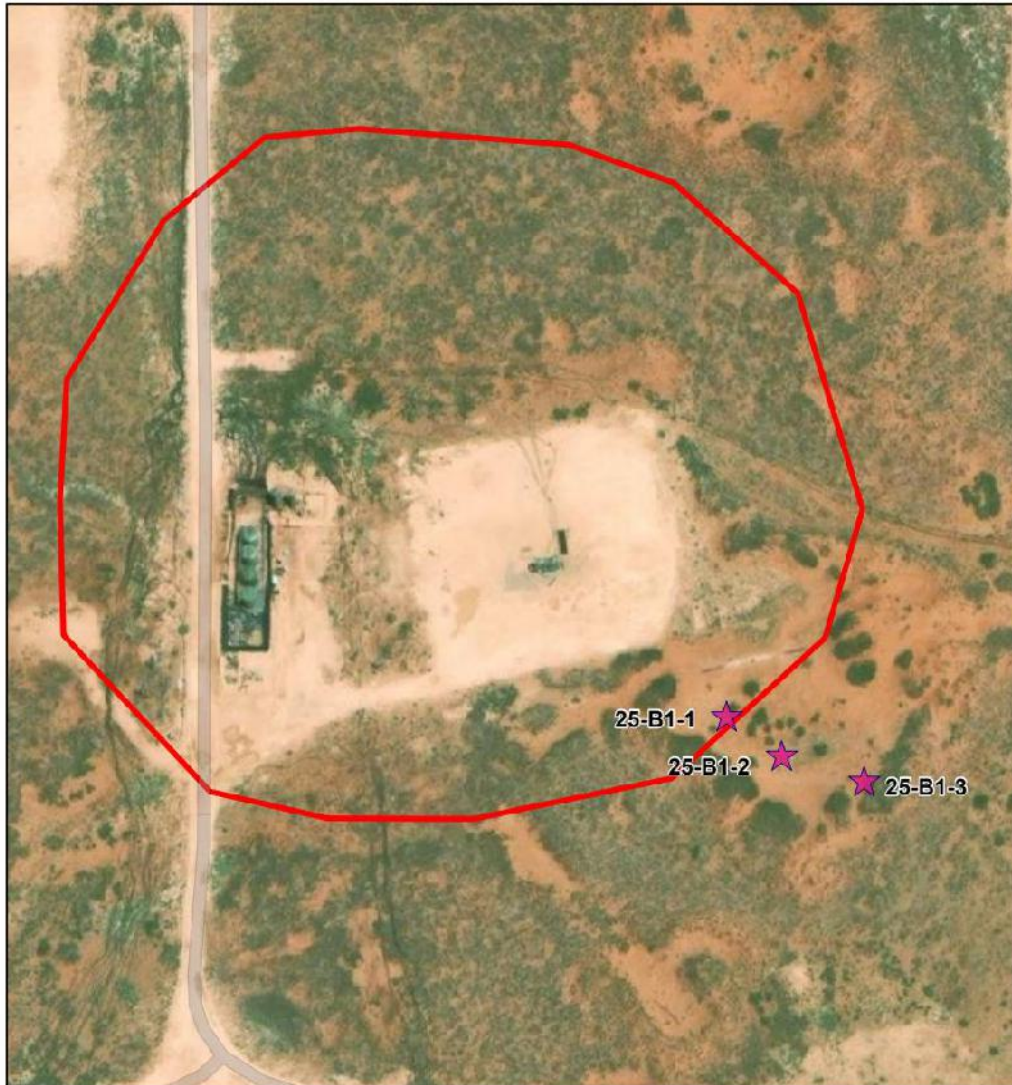
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/27/2025 at 2:36 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by 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 identifier, FRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Figure 1. Flood Hazard Details

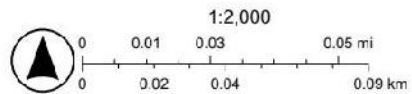
Figure 5. Wetland Delineation Map

Jackson B #065



9/25/2025

- World Imagery
- Low Resolution 15m Imagery
- High Resolution 60cm Imagery
- High Resolution 30cm Imagery
- Citations



Maxar, Microsoft, Sources: Esri, TerraMetrics, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community

Map Legend



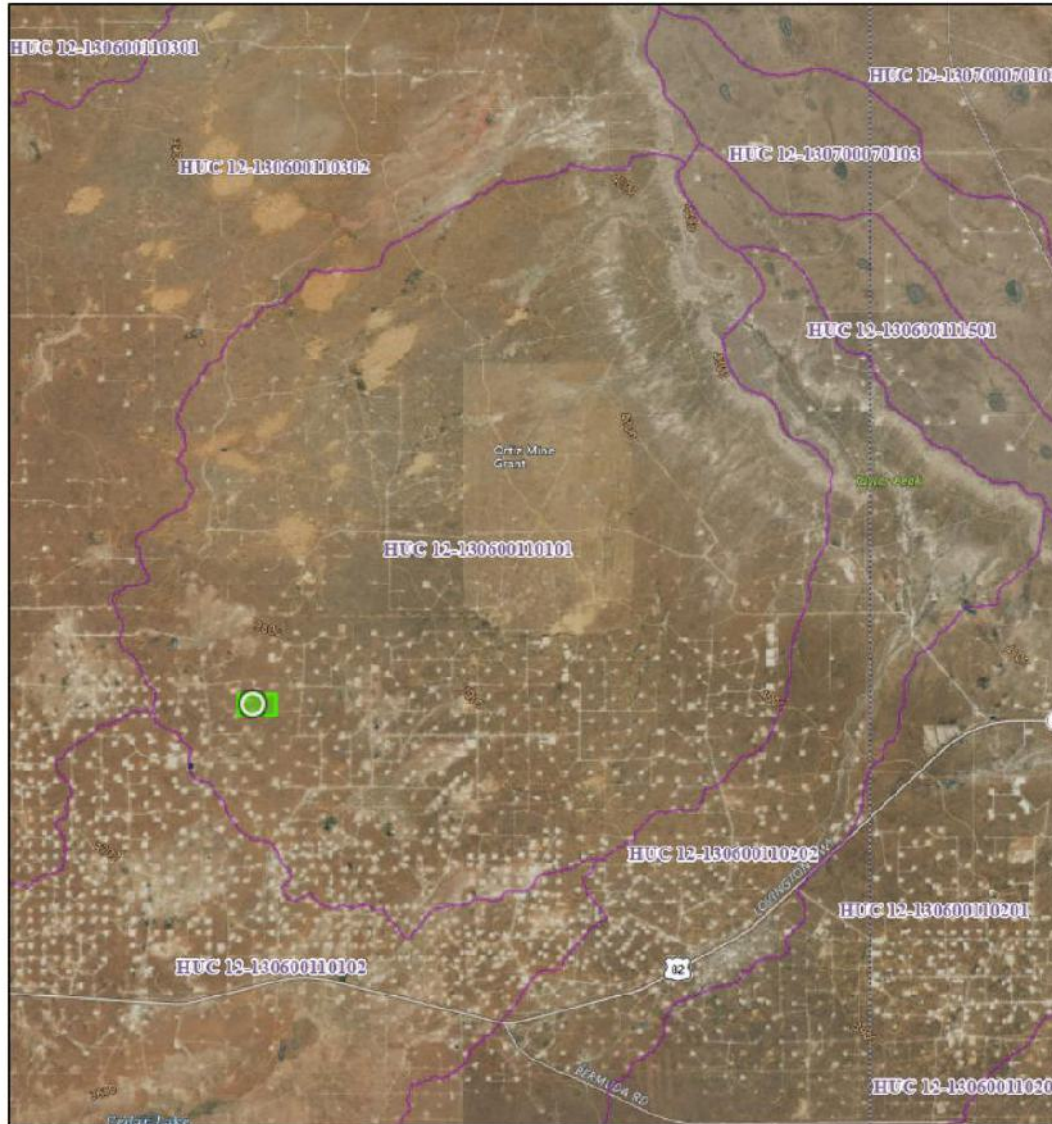
Wetland Sample Point





Survey Boundaries

Figure 6. USGS Watershed Viewer

Jackson B #065



9/25/2025

-  2-digit HU (Region)
-  12-digit HU (Subwatershed)

- Layers
-  Red: Band_1
 -  Green: Band_2
 -  Blue: Band_3



USGS The National Map: Orthimagery and US Topo. Data refreshed February, 2025. USGS WBD - Watershed Boundary Dataset. Data refreshed October, 2025.

Appendix B – Wetland Determination Data Forms

Mack Energy Corporation
Jackson B #065 (Eddy County, New Mexico)

2025 Jurisdictional Delineation Report
Project No. 25R-04508R

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Arid West Region See ERDC/EL TR-08-28; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Jackson B #065 City/County: Eddy Co. Sampling Date: 8/22/25
 Applicant/Owner: Mack Energy State: NM Sampling Point: 25-R1-1
 Investigator(s): B. Stallings, F. Rodriguez, Caulfield Phillips Section, Township, Range: 17S 30E 01SE
 Landform (hillside, terrace, etc.): Dunes Local relief (concave, convex, none): CONCAVE Slope (%): 1-5
 Subregion (LRR): D Lat: 32.859107 Long: -103.919464 Datum: WGS 1984
 Soil Map Unit Name: hermit-Berino fine sands, 0-3% slopes NWI classification: PUS5
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	
Remarks: <u>* Pipeline running through dune, 0.1 + gas development nearby, dune habitat present</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>* </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. <u> </u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
=Total Cover				
Sapling/Shrub Stratum (Plot size: <u>* </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>41</u> x 4 = <u>164</u> UPL species <u>44</u> x 5 = <u>220</u> Column Totals: <u>85</u> (A) <u>384</u> (B) Prevalence Index = B/A = <u>4.5</u>
1. <u>Nettuma glandulosa</u>	<u>35</u>	<u>Y</u>	<u>FACU</u>	
2. <u>yucca elata</u>	<u>5</u>	<u>N</u>	<u>UPL</u>	
3. <u> </u>				
4. <u> </u>				
(20% = 8, 50% = 20) =Total Cover <u>40</u>				
Herb Stratum (Plot size: <u>* </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: — Dominance Test is >50% — Prevalence Index is ≤3.0 ¹ — Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) — Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>menodora scabra</u>	<u>1</u>	<u>N</u>	<u>UPL</u>	
2. <u>Euplyca convolvulacea</u>	<u>10</u>	<u>Y</u>	<u>UPL</u>	
3. <u>Aristida spp.</u>	<u>12</u>	<u>Y</u>	<u>UPL</u>	
4. <u>Sporobolus cryptandrus</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
5. <u>Solanum elaeagnifolium</u>	<u>1</u>	<u>N</u>	<u>FACU</u>	
6. <u>Munroa squarrosa</u>	<u>1</u>	<u>N</u>	<u>UPL</u>	
7. <u>Dalea lanata</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	
8. <u> </u>				
(20% = 9, 50% = 22.5) =Total Cover <u>45</u>				
Woody Vine Stratum (Plot size: <u>* </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>
1. <u> </u>				
2. <u> </u>				
=Total Cover				
% Bare Ground in Herb Stratum <u>55</u>		% Cover of Biotic Crust <u>0</u>		
Remarks: <u>* Entire vegetative community assessed</u>				

SOIL

Sampling Point: 25-BL-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-11	5YR 4/4	100					Sa	
11-24+	5YR 4/6	100					Sa	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Iron Monosulfide (A18)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____
 Hydric Soil Present? Yes ___ No

Remarks: ~~alpha~~ alpha alpha dipyriddy used - no reaction observed

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:
 Surface Water Present? Yes ___ No Depth (inches): _____
 Water Table Present? Yes ___ No Depth (inches): _____
 Saturation Present? Yes ___ No Depth (inches): _____
 (includes capillary fringe)
 Wetland Hydrology Present? Yes ___ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: dune basin - no hydrology indicators observed

Mack Energy Corporation
Jackson B #065 (Eddy County, New Mexico)

2025 Jurisdictional Delineation Report
Project No. 25R-04508R

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Arid West Region See ERDC/EL TR-08-28; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Jackson B #065 City/County: Eddy Co Sampling Date: 8/22/25
 Applicant/Owner: Mack Energy State: NM Sampling Point: 25-B1-2
 Investigator(s): Stallings, Phillips, Caulfield, Podrinos Section, Township, Range: 17S 30E 01SE
 Landform (hillside, terrace, etc.): Dunes Local relief (concave, convex, none): CONCAVE Slope (%): 1-5
 Subregion (LRR): D Lat: 32.858997 Long: -103.919289 Datum: WGS1984
 Soil Map Unit Name: Kermit-Berino fine sands 0-3% NWI classification: PUSJ
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: <u>* Pipeline running through dune, oil + gas development nearby, dune habitat present</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>*</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. <u>—</u>					
2. <u>—</u>					
3. <u>—</u>					
4. <u>—</u>					
				=Total Cover	
Sapling/Shrub Stratum	(Plot size: <u>*</u>)				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>15</u> x 4 = <u>60</u> UPL species <u>37</u> x 5 = <u>185</u> Column Totals: <u>52</u> (A) <u>245</u> (B) Prevalence Index = B/A = <u>4.7</u>
1. <u>Neltuma glandulosa</u>		<u>3</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Yucca elata</u>		<u>1</u>	<u>N</u>	<u>UPL</u>	
3. <u>Artemisia filifolia</u>		<u>2</u>	<u>Y</u>	<u>UPL</u>	
4. <u>—</u>					
				<u>6</u> =Total Cover	
Herb Stratum	(Plot size: <u>*</u>)				Hydrophytic Vegetation Indicators: — Dominance Test is >50% — Prevalence Index is ≤3.0 ¹ — Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) — Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Aristida spp.</u>		<u>30</u>	<u>Y</u>	<u>UPL</u>	
2. <u>Euploca convolvulacea</u>		<u>3</u>	<u>N</u>	<u>UPL</u>	
3. <u>Spombolus cryptandrus</u>		<u>20</u>	<u>Y</u>	<u>FACU</u>	
4. <u>Portulaca pilosa</u>		<u>2</u>	<u>N</u>	<u>FACU</u>	
5. <u>Salsola tragus</u>		<u>1</u>	<u>N</u>	<u>FACU</u>	
6. <u>Munroa squarrosa</u>		<u>1</u>	<u>N</u>	<u>UPL</u>	
7. <u>—</u>					
8. <u>—</u>					
				<u>46</u> =Total Cover	
Woody Vine Stratum	(Plot size: <u>*</u>)				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. <u>—</u>					
2. <u>—</u>					
				=Total Cover	
% Bare Ground in Herb Stratum <u>54</u>		% Cover of Biotic Crust <u>0</u>			
Remarks: <u>* Entire vegetative community assessed</u>					

SOIL

Sampling Point: Z5-B1-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-24"	5YR	4/6						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Iron Monosulfide (A18)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ___ No

Remarks: *alpha alpha dipyrityl used - no reaction observed*

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes ___ No <input checked="" type="checkbox"/>
Water Table Present?	Yes ___	No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes ___	No <input checked="" type="checkbox"/>	Depth (inches): _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: *dune basin - no hydrology indicators observed*

Mack Energy Corporation
Jackson B #065 (Eddy County, New Mexico)

2025 Jurisdictional Delineation Report
Project No. 25R-04508R

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Arid West Region See ERDC/EL TR-08-28; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
---	---

Project/Site: Jackson B #065 City/County: Eddy Co. Sampling Date: 8/22/25
 Applicant/Owner: Mack Energy State: NM Sampling Point: 25-B1-3
 Investigator(s): Stallings, Phillip, Rodriguez, Caulfield Section, Township, Range: 17S 30E 01SE
 Landform (hillside, terrace, etc.): Dune ridge Local relief (concave, convex, none): Flat Slope (%): 0-1
 Subregion (LRR): D Lat: 32.858917 Long: -103.919.007 Datum: WGS 1984
 Soil Map Unit Name: Hermit-Berino fine sands, 0 to 3% slopes NWI classification: NIA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation —, Soil —, or Hydrology — significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation —, Soil —, or Hydrology — naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Remarks: * pipeline running through dune, top of dune, oil + gas development nearby, dune habitat present

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>Y</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B)
1. <u>—</u>				
2. <u>—</u>				
3. <u>—</u>				
4. <u>—</u>				
=Total Cover				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>10</u> x 3 = <u>30</u> FACU species <u>5</u> x 4 = <u>20</u> UPL species <u>17</u> x 5 = <u>85</u> Column Totals: <u>57</u> (A) <u>145</u> (B) Prevalence Index = B/A = <u>4.56</u>
Sapling/Shrub Stratum (Plot size: <u>X</u>)				
1. <u>Yucca elata</u>	<u>5</u>	<u>N</u>	<u>UPL</u>	
2. <u>Quercus havardii</u>	<u>25</u>	<u>Y</u>	<u>UPL</u>	
3. <u>Artemisia filifolia</u>	<u>2</u>	<u>N</u>	<u>UPL</u>	
(20% = 6.4, 50% = 16) <u>32</u> =Total Cover				
Herb Stratum (Plot size: <u>X</u>)				
1. <u>Mentzelia spp.</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Euploca convolvulacea</u>	<u>10</u>	<u>Y</u>	<u>UPL</u>	
3. <u>Palafoxia sphacelata</u>	<u>TR</u>	<u>N</u>	<u>UPL</u>	
4. <u>Aristida purpurea</u>	<u>TR</u>	<u>N</u>	<u>UPL</u>	
5. <u>Sporobolus cryptandrus</u>	<u>TR</u>	<u>N</u>	<u>FACU</u>	
6. <u>Sporobolus giganteus</u>	<u>3</u>	<u>N</u>	<u>FACU</u>	
7. <u>Helianthus petiolaris</u>	<u>TR</u>	<u>N</u>	<u>UPL</u>	
8. <u>Salsola tragus</u>	<u>2</u>	<u>N</u>	<u>FACU</u>	
(20% = 5, 50% = 12.5) <u>25</u> =Total Cover				
Woody Vine Stratum (Plot size: <u>Y</u>)				
1. <u>—</u>				
2. <u>—</u>				
=Total Cover				
% Bare Ground in Herb Stratum <u>60</u> % Cover of Biotic Crust <u>0</u>				
Remarks: <u>* Entire vegetative community sampled</u>				

SOIL

Sampling Point: Z5-B1-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-24"	5YR 7/6						Sn	

¹Type C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (F21)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (F22)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Iron Monosulfide (A18)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.				

Restrictive Layer (if observed): Type _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
---	---

Remarks: *alpha alpha dipyridyl used - no reaction observed*

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: *upland sample @ dune ridge*

Mack Energy Corporation
 Jackson B #065 (Eddy County, New Mexico)

2025 Jurisdictional Delineation Report
 Project No. 25R-04508R

VEGETATION Continued – Use scientific names of plants.

Sampling Point: 25-B1-3

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants less than 3 in. DBH, regardless of height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Woody Vine – All woody vines, regardless of height.
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
			=Total Cover	
Sapling/Shrub Stratum				
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
13. _____	_____	_____	_____	
			=Total Cover	
Herb Stratum				
9. <u>Setaria leucopila</u>	<u>TR</u>	<u>N</u>	<u>UPL</u>	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
13. _____	_____	_____	_____	
14. _____	_____	_____	_____	
15. _____	_____	_____	_____	
16. _____	_____	_____	_____	
17. _____	_____	_____	_____	
18. _____	_____	_____	_____	
19. _____	_____	_____	_____	
20. _____	_____	_____	_____	
			<u>25</u> =Total Cover	
Woody Vine Stratum				
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
			=Total Cover	
Remarks:				

Appendix C – Site Photographs



Figure 1. Sample 25-B1-1, sample soil pit



Figure 2. Sample 25-B1-1, sample soil pit



Figure 3. Sample 25-B1-2, sample soil pit



Figure 4. Sample 25-B1-2, sample soil pit



Figure 5. Sample 25-B1-3, sample soil pit



Figure 6. Sample 25-B1-3, sample soil pit



Figure 7. Vegetation and landscape present at site



Figure 8. Access road leading to Jackson B #065 with nearby vegetation



Figure 9. Sandy dune with vegetation at site



Figure 10. Sandy dune blowout with sparse vegetation



Figure 11. Sandy dune blowout with exposed pipeline



Figure 12. View of oil and gas facility in relation to nearby landscape



Figure 13. Sandy dunes within anticipated freshwater pond location – no water resources onsite



Figure 14. Sandy dune blowout with vegetation



Figure 15. Representative site vegetation



Figure 16. Oil and gas facility and infrastructure



Figure 17. Pipelines, powerlines, and vegetation at site



Figure 18. Exposed oil pipeline within dune blowout



Figure 19. Sparse herbaceous vegetation on sandy dune

Appendix D – Antecedent Precipitation Conditions

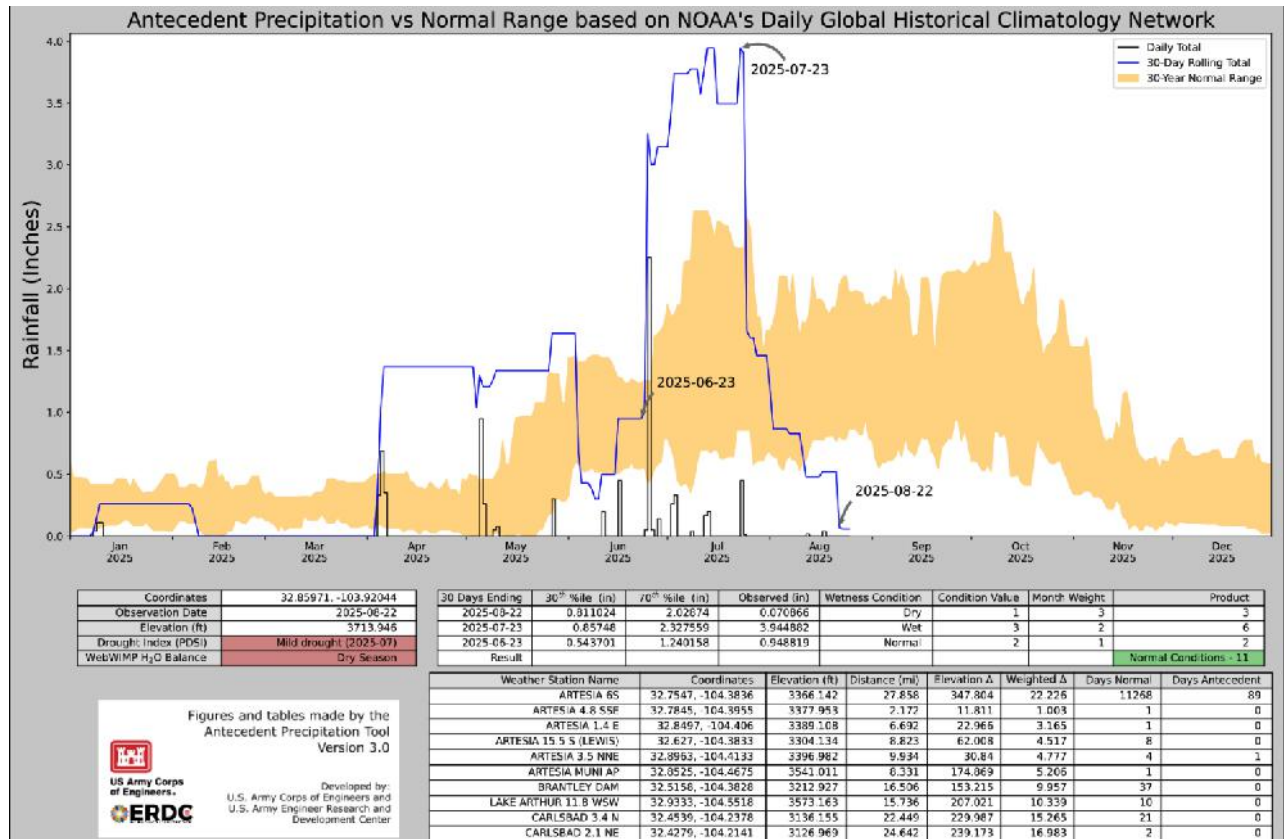


Exhibit 1. Antecedent Precipitation for August 22, 2025

Appendix E – Team Qualifications

Figure 7. Vertex Ecologist Qualifications



RESUME

MANAGER – ECOLOGY & ASSESSMENT

Becca Stallings
MNRS, CPESC, CESSWI

Becca is an environmental professional with 15 years experience and a strong background in ecological restoration, regulatory compliance, and environmental consulting. With expertise in biological surveys, habitat assessments, stormwater compliance, and environmental permitting, Becca has worked across multiple industries, including land development, resource management, and regulatory enforcement. As a CPESC and CESSWI, she has led environmental compliance programs, developed corporate sustainability policies, and conducted technical inspections for air and water quality.

Expertise	Education	Appointments	Certifications/ Training
<ul style="list-style-type: none"> Environmental compliance & regulations Biological surveys & assessments Restoration planning & mitigation Stormwater & water quality Environmental site assessments Regulatory agency coordination Training & program development Project management & strategy Wetland delineations 	<ul style="list-style-type: none"> Master of Natural Resources Stewardship (MNRS), Ecological Restoration, Colorado State University, Fort Collins, Colorado (2024) Global Sustainability Certificate, Environmental Law and Policy, UCLA (2013) Bachelor of Science (BS), Animal Sciences, University of California, Davis (UC Davis), Davis, California (2008) 	<ul style="list-style-type: none"> Certified Professional in Erosion and Sediment Control (CPESC), EnviroCert International, No. 13303 Certified Erosion, Sediment and Stormwater Inspector (CESSWI), EnviroCert International, No. 10055 Vice President of the Board, Friends of Cameron Park Waco Board Member, Sustainable Resource Practices Advisory Board for the City of Waco Volunteer, Bracken Preserve Bat Research 	<ul style="list-style-type: none"> First Aid and CPR 10-Hour OSHA Construction 40-Hour OSHA HAZWOPER Phase I & Phase II Environmental Site Assessment Processes: ASTM International Wetland Delineation Training: Richard Chinn Wetland Delineation with Emphasis on Soils and Hydrology: Wetland Training Institute Combined Field Survey Techniques for Bats Workshop: BSS Introduction to Desert Tortoise Surveying, Monitoring, and Handling Techniques Workshop, Desert Tortoise Council

Key Experience & Achievements

Environmental Compliance & Regulatory | 2010 to Present: Biologist/ Environmental Compliance Manager managing regulatory compliance related to environmental laws, permits, and industry best practices. Consulting on NPDES, WOTUS, ESA, wetlands, air quality, stormwater, and cultural/ historic site regulations. Preparing environmental compliance audits, reporting deviations, and ensuring adherence to state and federal regulations. Developing and delivering environmental training programs and coordinating with corporate legal teams, regulatory agencies, and consultants to ensure compliance.

Biological Surveys & Habitat Assessments | 2007 to Present: Biologist performing/ managing biological assessments (special-status species surveys, nesting bird surveys, habitat assessments, bat acoustic monitoring, and biological monitoring). Vegetation mapping and wetland delineations in accordance with USACE, CWA, CEQA, NEPA, and MBTA regulations. Preparing biological technical reports, mitigation plans, and compliance documentation to support regulatory requirements and conservation objectives.

VERSATILITY. EXPERTISE.



RESUME
MANAGER – ECOLOGY & ASSESSMENT
Becca Stallings
MNRS, CPESC, CESSWI

Environmental Site Assessments (ESAs) & Restoration Planning | 2010 to Present: Biologist conducting/ managing Phase I ESAs to support due diligence in land development and industrial projects. Restoration planning responsibilities include planning and implementing habitat restoration efforts and impact mitigation strategies. Regulatory coordination for environmental permitting, developing compliance strategies, and providing guidance on restoration initiatives to ensure project success and environmental sustainability.

Water Quality, Stormwater Compliance & Spill Response | 2017 to Present: Environmental Compliance Manager and Natural Resource Specialist managing water quality monitoring, stormwater compliance, and emergency spill response for development and industry projects. Responsibilities include developing and implementing SWPPPs to ensure compliance with stormwater regulations and providing training to project teams on best management practices. Work involves coordinating with regulatory agencies, conducting site inspections, and overseeing emergency response efforts to mitigate environmental risks and ensure compliance with industry standards.

Employment History

- Manager – Ecology and Assessment | Vertex Resource Services Inc. | Conroe, TX | 2025 to Present
- Owner and Principal Ecologist | Raven Ecology LLC | Waco, TX | 2024 to 2025
- Regional Environmental Program Manager | Forestar Group Inc. | Austin, TX | 2022 to 2024
- Environmental Compliance Manager | PulteGroup | Austin, TX | 2019 to 2022
- Natural Resources Specialist | Texas Commission on Environmental Quality | Austin and Waco, TX | 2017 to 2019
- Environmental Project Manager | BioChem Lab | West, TX | 2016 to 2019
- Aquaponics Intern | Seattle Tilth | Seattle, WA | 2012 to 2013
- Biologist | BonTerra Consulting | Pasadena, CA | 2011 to 2012
- Biologist | Garcia and Associates | Auburn, CA | 2010 to 2011
- Research Assistant | University of California, Davis Aquatic Toxicology Laboratory | Davis, CA | 2007 to 2008

VERSATILITY. EXPERTISE.

2

Figure 8. Hydrex Environmental PWS Reviewer Qualifications

Clayton A. Collier, REM, PWS General Manager Sr. Environmental Scientist



DISCIPLINE: Environmental Science

EXPERIENCE: 26 Years

EDUCATION: Stephen F. Austin State University
Nacogdoches, Texas
B.S. Environmental Science, Geology minor
Graduation – 2005

Stephen F. Austin State University
Nacogdoches, Texas
Graduate Studies
Aquatic Vascular Plants
Water Resource Management
Geographic Information Systems

CERTIFICATIONS AND CONTINUING EDUCATION:

- Registered Environmental Professional (REM) No. 918302383
- Professional Wetland Scientist (PWS) No. 2389
- NEPA and Environmental Review Training (HUD)
- Wetlands Delineation Course (1987 USACE Manual)
- Wetlands Delineation Course (Regional Supplement)
- Wetlands Permitting Course (USACE)
- Wetland Plant Identification
- Rosgen's Level I Applied Fluvial Geomorphology
- Rosgen's Level II River Morphology and Application
- Rosgen's Level III River Assessment and Monitoring
- Applied Groundwater Statistics Course
- Texas Risk Reduction Program Training
- SafeLand USA Certification
- 2012-2013 Leadership Nacogdoches Program
- Certified Small Unmanned Aircraft System (sUAS) Remote Pilot
- Member of the ATOCOFA Advisory Council
- Hydrex Mussel Survey Methodology and Identification Training

PROFESSIONAL EXPERIENCE:

Over twenty-five years have been dedicated to a range of environmental projects for government, commercial, industrial, and private entities. During these years, experience has been gained in a wide variety of projects pertaining to environmental sampling and analysis techniques for soil, gas, and water. Attention has been paid to the development of skills in the areas of wetlands delineation, permitting and mitigation, installation of monitoring systems, environmental site assessments, and geographic information system (GIS) mapping.

PROJECT EXPERIENCE:

- Tiger Creek Detention Pond, Orange County Drainage District, Vidor (Orange County): NEPA Environmental Assessment, delineation of WOTUS, threatened and endangered species habitat surveys, USACE A/JD for a proposed detention pond. Role: Project Supervisor
- Baileys Fish Camp, Sabine River Authority and Orange County, Orange County: Under contract for



(continued)

Clayton A. Collier, REM, PWS
General Manager, Senior Environmental Scientist

- the delineation of WOTUS, threatened and endangered species habitat surveys, and USACE coordination and permitting for proposed pier re-establishment. Role: Project Supervisor
- Cow Bayou Boat Launch, Sabine River Authority, Orange County: Under contract for the delineation of WOTUS, threatened and endangered species habitat surveys, functional assessment, USACE coordination and permitting, for proposed boat launch area improvements. Role: Project Supervisor
 - Bluebird Recreation Area, Sabine River Authority and Orange County, Orange County: Delineation of WOTUS, threatened and endangered species habitat surveys, USACE coordination and permitting, and coordination with Texas General Land Office for the bank stabilization and a floating kayak launch. Role: Project Supervisor
 - North County Landfill, 120 ac., Republic Services, League City (Galveston County): Delineation of WOTUS and AJD for a potential landfill expansion. Role: Project Supervisor
 - 1000-acre tract for development, Stedman West Interests, Inc., League City (Galveston County): Delineation of WOTUS and AJD for potential development. Role: Project Supervisor
 - Liberty County Drainage Ditch Improvements (CDBG-DR), Schaumburg and Polk, Inc., Liberty County: NEPA Environmental Assessment, delineation of WOTUS, threatened and endangered species habitat surveys, USACE NMP permitting, and construction monitoring for stream, ditch, and road crossing drainage improvements. Role: Project Supervisor
 - North Silsbee Drainage Improvements, 15 ac. (CDBG-DR), KSA Engineers, Inc., Hardin County: Delineation of WOTUS and endangered species habitat survey for the construction of a detention pond and associated drainage channel. Role: Project Supervisor
 - Mill Creek Drainage Improvements, 9.5 mi (CDBG-DR), KSA Engineers, Inc., Hardin County: Delineation of WOTUS, endangered species habitat survey, construction monitoring, freshwater mussel survey. Role: Project Supervisor
 - Westland Ranch Subdivision, 740 ac., Dannenbaum Engineering Corporation and Forestar (USA) Real Estate Group, Inc., League City (Galveston County): Delineation of WOTUS and AJD for potential development. Role: Project Supervisor
 - Angelina County Waste Management Center, 372 ac., Angelina County, Lufkin (Angelina County): Delineation of WOTUS, AJD, and USACE permitting for potential landfill expansion. Role: Project Supervisor
 - 700+ Drone Flights, Various Clients (TX, LA, OK, MS, AL, FL, GA, MO, TN): Performed drone flights for: the calculation of product volume at aggregate facilities and lumber mills; the calculation of volume at mines and landfills; to aid in the delineation of WOTUS, monitoring of stream restoration, and mitigation banks; the monitoring of construction projects; and for vegetation analysis. Role: Pilot, Logistics Coordinator

PROFESSIONAL SOCIETIES:

- Society of Wetland Scientists
- National Registry of Environmental Professionals
- Texas Association of Environmental Professionals
- 2012-2015 Nacogdoches County Chamber of Commerce Board of Directors
- 2016-2017 City of Nacogdoches Parks Master Plan Steering Committee
- 2016-2021 Chairman of Lanana and Banita Creek Trail Project



APPENDIX D – Daily Field and Sampling Reports



Daily Site Visit Report

Client:	<u>Mack Energy Corporation</u>	Inspection Date:	<u>4/2/2025</u>
Site Location Name:	<u>Jackson B #065</u>	Report Run Date:	<u>4/3/2025 1:03 AM</u>
Client Contact Name:	<u>Matt Buckles</u>	API #:	<u>30-015-41191</u>
Client Contact Phone #:	<u>575-748-1288</u>		
Unique Project ID	<u></u>	Project Owner:	<u></u>
Project Reference #	<u></u>	Project Manager:	<u></u>

Summary of Times

Arrived at Site	<u>4/2/2025 8:45 AM</u>
Departed Site	<u>4/2/2025 4:00 PM</u>

Daily Site Visit Report



Site Sketch

Site Sketch



Daily Site Visit Report

Field Notes

9:36 Completed dagger paperwork and tailgate with Bullseye operators upon arrival to site

9:36 On site to delineate release

12:58 Upon arrival to site, Bullseye had already commenced initial scrape efforts in the ditch area / western portion of release, between well pad and tank battery, to a depth of 2' which was instructed by a Mack Energy rep to go that deep to start

13:00 Confirmed multiple times with forman on site as well as backhoe operator, that the initial dig to remove contamination was to start at 2' bgs.

13:10 Obtained:

BH25-01 @ 0' and 2' bgs

BH25-02 @ 0' and 2' bgs

BH25-03 @ 0' and 2' bgs

BH25-04 @ 0' and 2' bgs

BH25-05 @ 0' , 2' & 4' bgs

BH25-06 @ 2' , 3' & 4' bgs

BH25-07 @ 2' , 3' & 4' bgs

Next Steps & Recommendations

1 Continue characterization



Daily Site Visit Report

Site Photos

Viewing Direction: West



Descriptive Photo - 1
Viewing Direction: West
Desc: Spoil material piled on top of release area to East
Created: 4/2/2025 8:38:44 AM
Lat:32.886776, Long:-103.820184

Spoil material piled on top of release area to East

Viewing Direction: North



Descriptive Photo - 2
Viewing Direction: North
Desc: Approximately 150 yards of spoil material has been pulled from west end of
Created: 4/2/2025 8:39:22 AM
Lat:32.886599, Long:-103.820184

Approximately 150 yards of spoil material has been pulled from west end of release

Viewing Direction: East



Descriptive Photo - 3
Viewing Direction: East
Desc: Release area to East and spoil pile
Created: 4/2/2025 8:40:59 AM
Lat:32.886599, Long:-103.820184

Release area to East and spoil pile

Viewing Direction: West



Descriptive Photo - 4
Viewing Direction: West
Desc: North end of west toe already dug out to 2' depth
Created: 4/2/2025 8:40:59 AM
Lat:32.886599, Long:-103.820184

North end of west toe already dug out to 2' depth



Daily Site Visit Report

Viewing Direction: East

North end of west toe already dug out to 2' depth

Viewing Direction: South

Western area of release between pads

Viewing Direction: Southeast

Electrical conduit was exposed and dug around with spotted aid

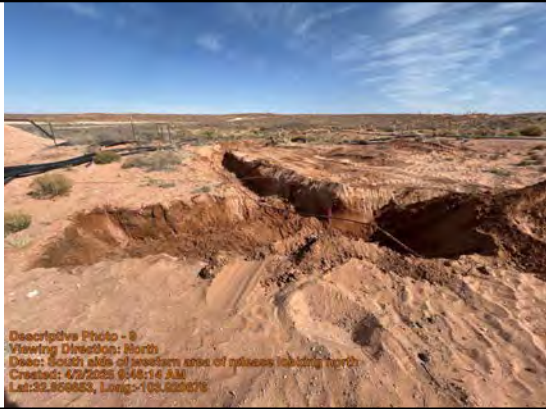
Viewing Direction: East

South end of western area of release that slightly juts west. Stainless steel supply gas line seen running east to flare.



Daily Site Visit Report

Viewing Direction: North



Descriptive Photo - 8
Viewing Direction: North
Desc: South side of western area of release looking north
Created: 4/2/2025 9:48:14 AM
Lat:32.850653, Long:-103.620675

South side of western area of release looking north

Viewing Direction: West



Descriptive Photo - 10
Viewing Direction: West
Desc: On east side of toe, at end of western area of release
Created: 4/2/2025 10:42:17 AM
Lat:32.850653, Long:-103.620675

BH25-01
0' & 2' depth samples
On east side of toe, at end of western area of release



Daily Site Visit Report

Viewing Direction: South
BH25-02 0' & 2' depth samples On far north end of toe in western area of release
Viewing Direction: South
Area immediately south of release is covered in old paraffin

Viewing Direction: East
BH25-03 0' & 2' depth samples West side of North toe of western area of release
Viewing Direction: South
BH25-04 on far west side of Western area of release



Daily Site Visit Report

Viewing Direction: East



BH25-05 in far southwest corner of Western area of release.
At 2' bgs, soil material is coming out black even with keeping horizontal points tight to release footprint.
BH25-05 taken to 4' bgs.

Viewing Direction: West



Inside initial excavation effort in southwest area. Assumed historical contamination at approximately 2' bgs



Daily Site Visit Report

Viewing Direction: North

Descriptive Photo - 17
Viewing Direction: North
Sample represents assumed historical contamination at approximately 2' bgs
Created: 1/22/2026 11:09:41 AM
Latitude: 33.111111 Longitude: -112.00696

Inside initial excavation, assumed historical contamination at approximately 2' bgs

Viewing Direction: East

Descriptive Photo 18
Viewing Direction: East
Sample represents vertical delineation location at 2' north of the
Created: 1/22/2026 11:09:58 PM
Latitude: 33.111111 Longitude: -112.00748

BH25-06
Sample represents vertical delineation location at far north of the toe of western area of release.
No surface data as this area was excavated before arriving on site.

Taken to 4' bgs, starting at 2', grabbed 3' and went to 4'.



Daily Site Visit Report

Viewing Direction: South

DESCRIPTION: BH25-07 in west area taken to 4' bgs, starting at 2', grabbed 3' and went to 4'.
Viewing Direction: South
Desc: BH25-07 in west area taken to 4' bgs, starting at 2', grabbed 3' and went to 4'.
Created: 01/22/2026 12:00:41 PM
Lat: 32.592916, Lon: -113.927795

BH25-07 in west area taken to 4' bgs, starting at 2', grabbed 3' and went to 4'.

The image shows a long, narrow trench dug into reddish-brown soil. A vertical rod or pipe is visible in the center of the trench. A green circle is drawn around the rod in the middle of the trench. The background shows a flat, open area with some sparse vegetation and utility poles under a clear blue sky.

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Austin Harris

Signature:

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

Signature



Daily Site Visit Report

Client:	<u>Mack Energy Corporation</u>	Inspection Date:	<u>4/14/2025</u>
Site Location Name:	<u>Jackson B #065</u>	Report Run Date:	<u>4/14/2025 10:37 PM</u>
Client Contact Name:	<u>Matt Buckles</u>	API #:	<u>30-015-41191</u>
Client Contact Phone #:	<u>575-748-1288</u>		
Unique Project ID	<u></u>	Project Owner:	<u></u>
Project Reference #	<u></u>	Project Manager:	<u></u>

Summary of Times

Arrived at Site	<u>4/14/2025 8:30 AM</u>
Departed Site	<u>4/14/2025 2:30 PM</u>

Field Notes

- 8:31** Arrived on site at 8:30 AM and completed safety assessment and paperwork.
- 13:50** Collected discrete samples BH25-01 at 3 and 4ft, BH25-05 at 5 and 9 ft, BH25-13 at 3 and 4 ft and BH25-020 at 0 and 2 ft.
- 13:52** Field screened sample for chlorides with EC meter and silver nitrate and hydrocarbons. Results at deepest vertical and farthest horizontal extent were below criteria limits.
- 13:52** Prepared samples for lab per standards.

Next Steps & Recommendations

- 1 Collect lab analytics
- 2 Compose work plan



Daily Site Visit Report

Site Photos

Viewing Direction: West



Descriptive Photo - 1
Viewing Direction: West
Date: 4/14/2025 11:41:51 AM
Created: 4/14/2025 11:41:51 AM
Lat: 32.859877, Long: -103.920594

BH25-01 at 3 and 4 ft

Viewing Direction: West



Descriptive Photo - 1
Viewing Direction: West
Date: 4/14/2025 11:41:51 AM
Created: 4/14/2025 11:41:51 AM
Lat: 32.859877, Long: -103.920594

BH25-13 at 3 and 4 ft

Viewing Direction: East



Descriptive Photo - 1
Viewing Direction: East
Date: 4/14/2025 2:00:04 PM
Created: 4/14/2025 2:00:04 PM
Lat: 32.859727, Long: -103.920787

BH25-05 at 9 ft

Viewing Direction: East



Descriptive Photo - 4
Viewing Direction: East
Date: 4/14/2025 2:00:04 PM
Created: 4/14/2025 2:00:04 PM
Lat: 32.859727, Long: -103.920787

BH25-20 at 0 and 2 ft



Daily Site Visit Report



Daily Site Visit Report



Daily Site Visit Signature

Inspector: Stephanie McCartyM

Signature:

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



Daily Site Visit Report

Client:	<u>Mack Energy Corporation</u>	Inspection Date:	<u>4/22/2025</u>
Site Location Name:	<u>Jackson B #065</u>	Report Run Date:	<u>4/22/2025 7:37 PM</u>
Client Contact Name:	<u>Matt Buckles</u>	API #:	<u>30-015-41191</u>
Client Contact Phone #:	<u>575-748-1288</u>		
Unique Project ID	<u></u>	Project Owner:	<u></u>
Project Reference #	<u></u>	Project Manager:	<u></u>

Summary of Times

Arrived at Site	<u>4/22/2025 8:45 AM</u>
Departed Site	<u>4/22/2025 12:30 PM</u>

Field Notes

- 10:05** Arrived on site at 8:45 AM and completed safety assessment and paperwork.
- 10:48** Collected discrete samples BH25-22 at 2, 4, 5 and 6 ft and BH25-26 at 0 and 2 ft.
- 10:49** Field screened sample for chlorides with EC meter and silver nitrate and hydrocarbons. Results at deepest vertical and farthest horizontal extent were below criteria limits.
- 12:12** Prepared samples for lab analysis per standards.

Next Steps & Recommendations

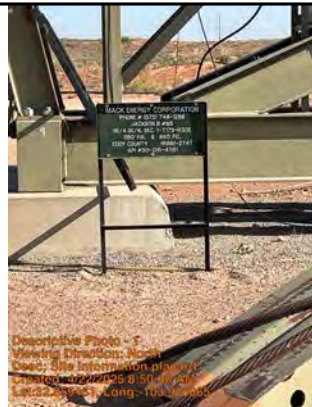
- 1 Work plan



Daily Site Visit Report

Site Photos

Viewing Direction: North



Descriptive Photo - 1
Viewing Direction: North
Event: Site information placard
Created: 4/22/2025 8:50:41 AM
Lat:32.820014 Long:-103.820014

Site information placard

Viewing Direction: Southwest



Descriptive Photo - 2
Viewing Direction: Southwest
Event: BH25-26 at 0 and 2 ft
Created: 4/22/2025 8:51:41 AM
Lat:32.820014 Long:-103.820014

BH25-26 at 0 and 2 ft

Viewing Direction: South



Descriptive Photo - 3
Viewing Direction: South
Event: BH25-22 at 2, 4, 5 and 6 ft
Created: 4/22/2025 12:24:21 PM
Lat:32.820014 Long:-103.820014

BH25-22 at 2, 4, 5 and 6 ft

Viewing Direction: West



Descriptive Photo - 4
Viewing Direction: West
Event: Sample and release area in current excavation
Created: 4/22/2025 12:24:21 PM
Lat:32.820014 Long:-103.820014

Sample and release area in current excavation

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Stephanie McCartyM

Signature:

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



Daily Site Visit Report

Client:	<u>Mack Energy Corporation</u>	Inspection Date:	<u>4/30/2025</u>
Site Location Name:	<u>Jackson B #065</u>	Report Run Date:	<u>4/30/2025 10:22 PM</u>
Client Contact Name:	<u>Matt Buckles</u>	API #:	<u>30-015-41191</u>
Client Contact Phone #:	<u>575-748-1288</u>		
Unique Project ID	<u></u>	Project Owner:	<u></u>
Project Reference #	<u></u>	Project Manager:	<u></u>

Summary of Times

Arrived at Site	<u>4/30/2025 8:30 AM</u>
Departed Site	<u>4/30/2025 3:00 PM</u>

Field Notes

- 10:18** Completed safety paperwork upon arrival
- 10:19** Collected base samples 1-12
- 14:45** Ran collected samples on petroflag and titrations

Next Steps & Recommendations

1

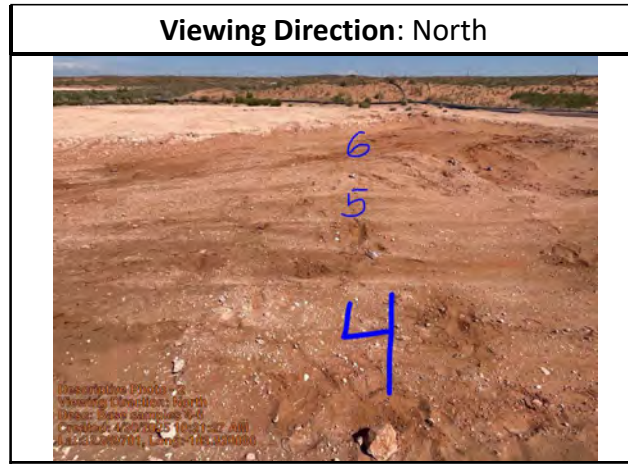
Daily Site Visit Report



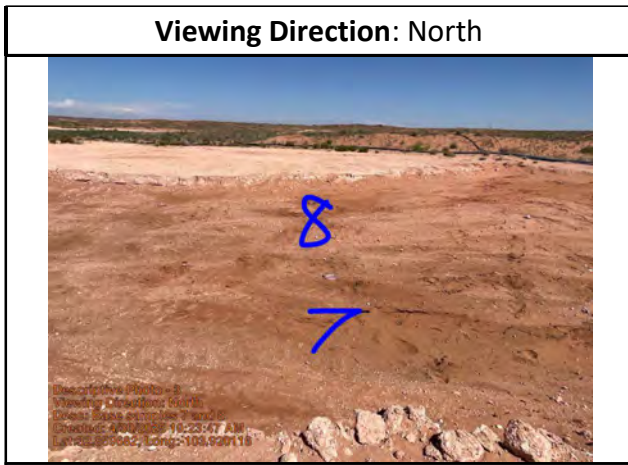
Site Photos



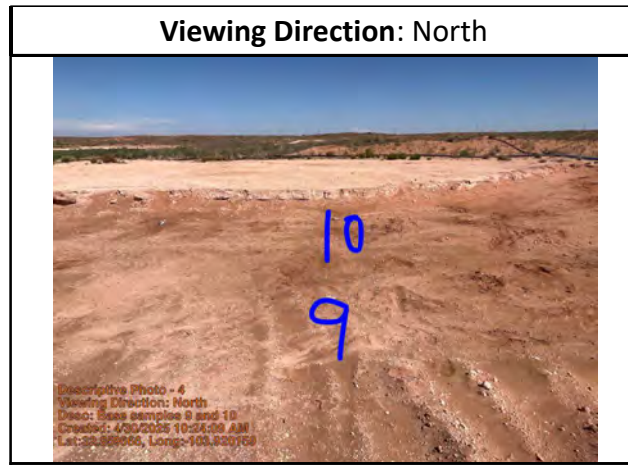
Base samples 1-3 to the east most area of the excavation



Base samples 4-6, west of base samples 1-3



Base samples 7 and 8, west of base samples 4-6



Base samples 9 and 10, west of base samples 7 and 8

Daily Site Visit Report



Viewing Direction: North

Descriptive Photo - 5
 Viewing Direction: North
 Desc: Base samples 10 and 11 west of base samples 8 and 10
 Created: 4/30/2025 10:28:55 AM
 Lat:32.858958, Long:-103.820214

Base samples 11 and 12, west of base samples 8 and 10

Viewing Direction: East

Descriptive Photo - 6
 Viewing Direction: East
 Desc: From the west of sample point 11 looking east at the samples
 Created: 4/30/2025 10:27:01 AM
 Lat:32.858972, Long:-103.820280

From the west of sample point 11 looking east at the samples

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Katrina Taylor

Signature:

A handwritten signature in black ink, appearing to be 'KT' with a large loop at the top and a vertical stroke on the right.

Signature



Daily Site Visit Report

Client:	<u>Mack Energy Corporation</u>	Inspection Date:	<u>5/1/2025</u>
Site Location Name:	<u>Jackson B #065</u>	Report Run Date:	<u>5/1/2025 8:41 PM</u>
Client Contact Name:	<u>Matt Buckles</u>	API #:	<u>30-015-41191</u>
Client Contact Phone #:	<u>575-748-1288</u>		
Unique Project ID	<u></u>	Project Owner:	<u></u>
Project Reference #	<u></u>	Project Manager:	<u></u>

Summary of Times

Arrived at Site	<u>5/1/2025 8:30 AM</u>
Departed Site	<u>5/1/2025 1:30 PM</u>

Field Notes

- 12:26** Completed safety paperwork upon arrival
- 12:27** Collected base samples 13-17
- 12:27** Collected wall samples 1-4
- 13:14** Marked out the off pad excavation area

Next Steps & Recommendations

1



Daily Site Visit Report

Site Photos

Viewing Direction: West



Describe Photo - 1
Viewing Direction: West
Date: Base samples 13-17
Created: 5/1/2025 12:34:19 PM
Lat:32.859294, Long:-103.920187

Base samples 13-17 west of base samples 1-12

Viewing Direction: Northwest



Describe Photo - 2
Viewing Direction: West
Date: Base samples 15-17
Created: 5/1/2025 12:39:40 PM
Lat:32.859289, Long:-103.920290

Base samples 15-17

Viewing Direction: Southeast



Describe Photo - 3
Viewing Direction: Southeast
Date: WS25-01 on the southwest edge of the on-pad excavation
Created: 5/1/2025 12:34:01 PM
Lat:32.859741, Long:-103.920433

WS25-01 on the southwest edge of the on-pad excavation

Viewing Direction: Northeast



Describe Photo - 4
Viewing Direction: Northeast
Date: WS25-04 on the northwest edge of the on-pad excavation
Created: 5/1/2025 12:34:15 PM
Lat:32.859714, Long:-103.920366

WS25-04 on the northwest edge of the on-pad excavation



Daily Site Visit Report

Viewing Direction: East



*Descriptive Photo - 6
Viewing Direction: East
Photo: WS25-02 on the eastern area of the on-pad excavation
Created: 01/22/2026 12:00:41 PM
Lat: 33.88765, Long: -103.52885*

WS25-02 on the eastern area of the on-pad excavation

Viewing Direction: North



*Descriptive Photo - 6
Viewing Direction: North
Photo: WS25-03 on the northern area of the on-pad excavation
Created: 01/22/2026 12:00:41 PM
Lat: 33.88765, Long: -103.52885*

WS25-03 on the northern area of the on-pad excavation


Viewing Direction: North



*Descriptive Photo - 7
Viewing Direction: North
Photo: 2.5' area to the west
Created: 01/22/2026 01:25:25 PM
Lat: 33.88765, Long: -103.52885*

2.5' area to the west

Viewing Direction: Southeast



*Descriptive Photo - 8
Viewing Direction: Southeast
Photo: 6' area to the southwest
Created: 01/22/2026 01:28:10 PM
Lat: 33.88765, Long: -103.52885*

6' area to the southwest



Daily Site Visit Report

Viewing Direction: East	
 A photograph showing a desert landscape with reddish-brown soil. In the foreground, a small area is marked with white flags. In the background, there is a large piece of machinery, possibly a crane or drilling rig, and some sparse vegetation under a clear blue sky.	
<small>Photo taken from Viewing Direction: East Date: 4/20/2025 10:00 AM Created: 5/1/2025 1:18:24 PM Lat: 33.888776, Long: -112.454225</small>	
4.5' area flagged	

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Katrina Taylor

Signature:

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



Daily Site Visit Report

Client:	<u>Mack Energy Corporation</u>	Incident ID #:	_____
Site Location Name:	<u>Jackson B #065</u>	API #:	<u>30-015-41191</u>
Inspection Date:	<u>5/6/2025</u>		_____

Summary of Times

Arrived at Site	<u>5/6/2025 8:15 AM</u>
Departed Site	<u>5/6/2025 2:45 PM</u>

Field Notes

- 14:26** Completed safety paperwork upon arrival
- 14:26** Completed a secondary sweep of the area before work began
- 14:27** Stayed cognizant of above ground polylines while operating
- 14:29** Sampled walls 05, 09, 10, 11 and base 18. The majority of the bases exposed were initially flooded from rain the prior day. As such the decision to wait until the area dried was made.
- 14:32** The 2.5ft area of the off pad excavation was excavated out

Next Steps & Recommendations

- 1 Step out wall 11, base 18, and wall 5
- 2 Continue to the 4.5ft and 6ft excavation area



Daily Site Visit Report

Site Photos

Viewing Direction: North



WS25-11, in the northwest area of the excavation. This wall was stepped out 1ft midday.

Viewing Direction: Southwest



WS25-09, in the western area of the excavation

Viewing Direction: Southeast



WS25-10, in the western area of the excavation

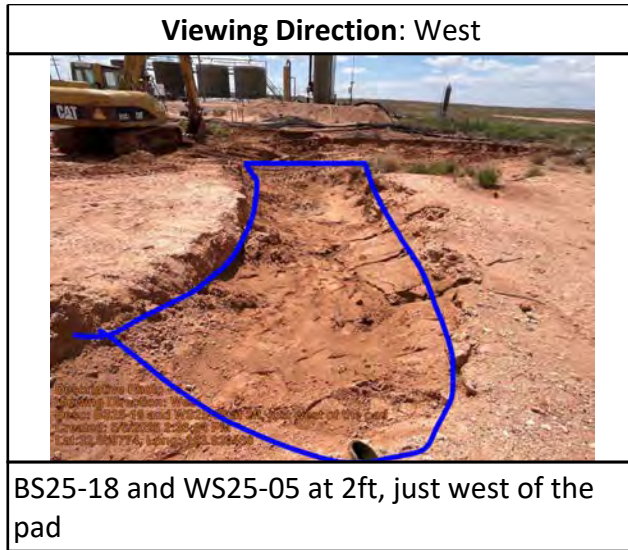
Viewing Direction: North



Area excavated (2.5ft excavation)



Daily Site Visit Report



Daily Site Visit Report



Daily Site Visit Signature

Inspector: Katrina Taylor

Signature:


Signature



Daily Site Visit Report

Client:	<u>Mack Energy Corporation</u>	Incident ID #:	_____
Site Location Name:	<u>Jackson B #065</u>	API #:	<u>30-015-41191</u>
Inspection Date:	<u>5/8/2025</u>		_____

Summary of Times

Arrived at Site	<u>5/8/2025 7:40 AM</u>
Departed Site	<u>5/8/2025 2:50 PM</u>

Field Notes

- 14:33** Completed safety paperwork upon arrival
- 14:34** Sampled the base of the whole excavation to determine if we are at depths compliant with reclamation criteria
- 14:37** Excavated the 6ft section, the 4.5ft section, and excavated the 2ft section down to 3ft
- 14:36** Sampled the walls in the newly excavated area

Next Steps & Recommendations

- 1** Excavate the walls to the north in the 4.5ft excavation area



Daily Site Visit Report

Site Photos

Viewing Direction: North



4ft excavation area off pad to the northwest area of the excavation. Field screened in compliance of criteria

Viewing Direction: Southwest



4ft excavation area off pad to the northwest area of the excavation. Field screened in compliance of criteria



Daily Site Visit Report

Viewing Direction: Southwest



6ft excavation area benced at 4ft. Field screens in compliance of criteria

Viewing Direction: Northwest



4.5ft excavation area excavated. The base field screens bellow criteria and the walls need further action

Viewing Direction: East



2ft area just west of the pad excavated to 3ft

Viewing Direction: West



Area fenced off at the end of day

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Katrina Taylor

Signature:

A handwritten signature in black ink, appearing to be 'KTaylor', written over a horizontal line. Below the line, the word 'Signature' is printed in a small font.



Daily Site Visit Report

Client:	<u>Mack Energy Corporation</u>	Incident ID #:	_____
Site Location Name:	<u>Jackson B #065</u>	API #:	<u>30-015-41191</u>
Inspection Date:	<u>5/9/2025</u>		_____

Summary of Times

Arrived at Site	<u>5/9/2025 7:40 AM</u>
Departed Site	<u>5/9/2025 12:21 PM</u>

Field Notes

- 11:34** Completed safety paperwork upon arrival
- 11:35** Addressed some flooding in the excavation and removed enough liquid with the backhoe to be able to sample
- 11:35** Sampled the off pad excavation area including wall samples 5-13 and base samples 18-26
- 11:36** Dug 1ft north on wall 5 to achieve a clean wall
- 12:04** Photographs of the entire site are also included
- 12:08** Puddles of liquid in the excavation is free standing fresh water from precipitation

Next Steps & Recommendations

- 1 Send samples to lab and begin on closure report



Daily Site Visit Report

Site Photos

Viewing Direction: Northwest



BS25-26 and BS25-25 @4' in the pasture area of the excavation

Viewing Direction: South



BS25-22, BS25-23, BS25-24 at 4' in the pasture area of the excavation

Viewing Direction: Southwest



BS25-20 and BS25-21 at 6'

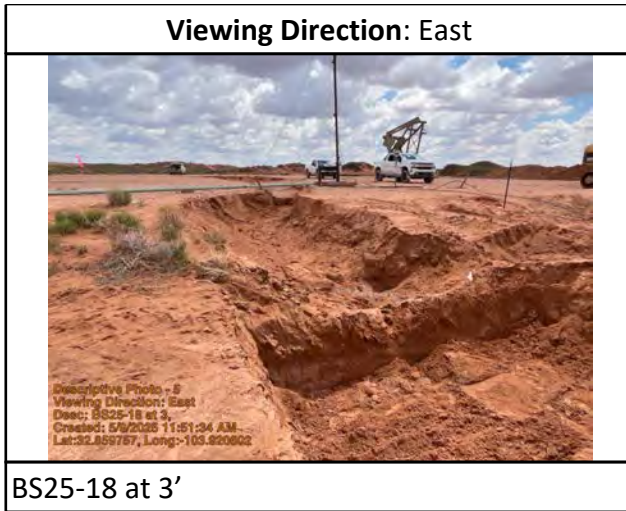
Viewing Direction: Southeast



BS25-19 at 4.5'



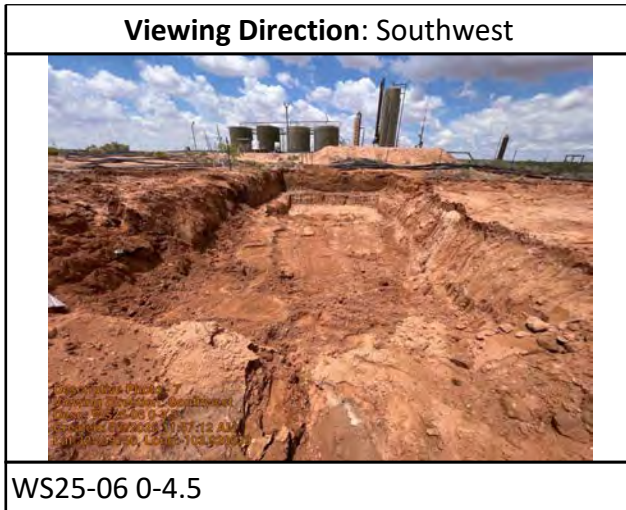
Daily Site Visit Report



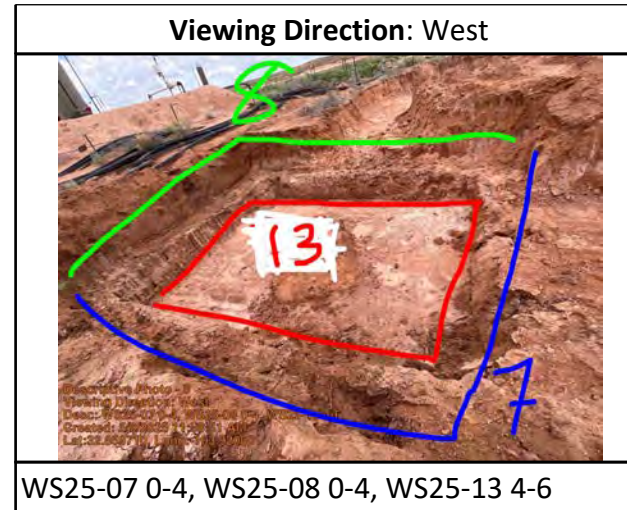
BS25-18 at 3'



WS25-05 0-3'



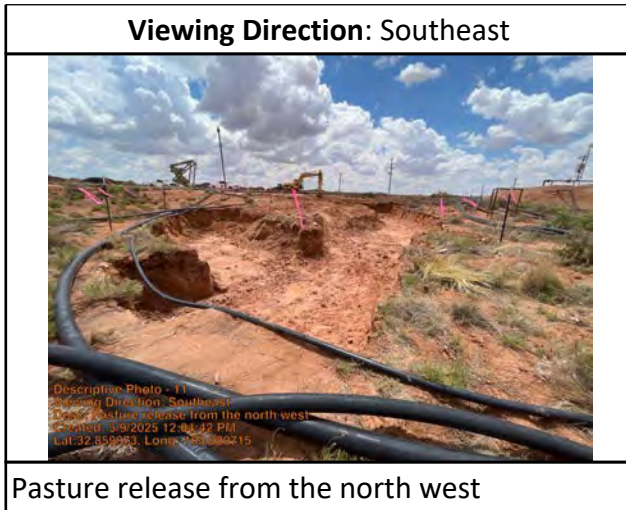
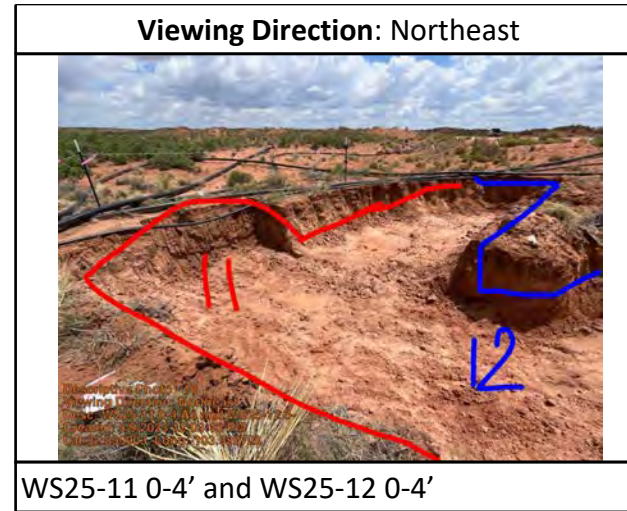
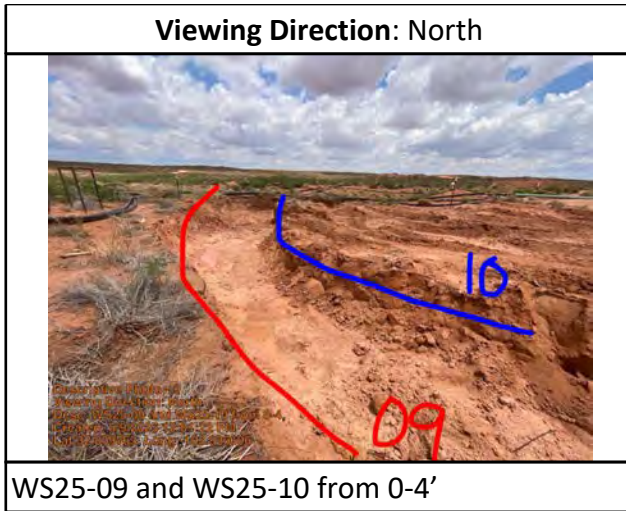
WS25-06 0-4.5



WS25-07 0-4, WS25-08 0-4, WS25-13 4-6

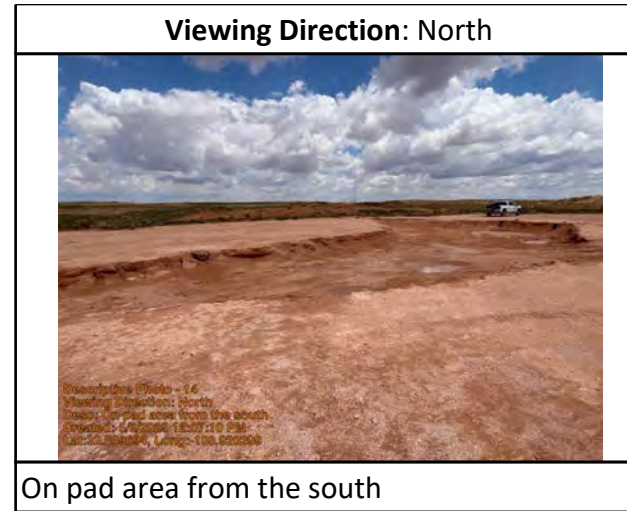
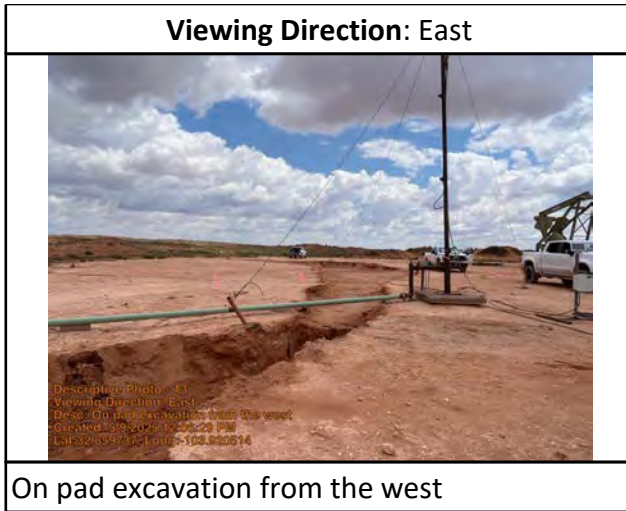


Daily Site Visit Report





Daily Site Visit Report



Daily Site Visit Report



Daily Site Visit Signature

Inspector: Katrina Taylor

Signature:


Signature

APPENDIX E – Laboratory Data Reports and Chain of Custody Forms



Environment Testing

- 1
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ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 4/16/2025 3:19:20 PM

JOB DESCRIPTION

Jackson B #065

JOB NUMBER

885-22693-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109



Eurofins Albuquerque

Job Notes

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

Authorization



Generated
4/16/2025 3:19:20 PM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)338-8812

Client: Vertex
Project/Site: Jackson B #065

Laboratory Job ID: 885-22693-1



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Certification Summary	60
Chain of Custody	61
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Definitions/Glossary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
S1-	Surrogate recovery exceeds control limits, low biased.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

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

Eurofins Albuquerque

Case Narrative

Client: Vertex
Project: Jackson B #065

Job ID: 885-22693-1

Job ID: 885-22693-1

Eurofins Albuquerque

Job Narrative 885-22693-1

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

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

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

Receipt

The samples were received on 4/5/2025 8:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.3°C.

Gasoline Range Organics

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

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: BH25-05 2' (885-22693-10), BH25-05 3' (885-22693-11) and BH25-05 4' (885-22693-12). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: BH25-05 2' (885-22693-10). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

Diesel Range Organics

Method 8015D_DRO: The following samples were diluted due to the nature of the sample matrix: BH25-01 0' (885-22693-1) and BH25-02 0' (885-22693-3)

Method 8015D_DRO: The following sample was diluted due to the nature of the sample matrix: BH25-05 3' (885-22693-11)

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

HPLC/IC

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

Eurofins Albuquerque

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-01 0'

Lab Sample ID: 885-22693-1

Date Collected: 04/02/25 09:00

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/08/25 11:06	04/09/25 12:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		35 - 166			04/08/25 11:06	04/09/25 12:24	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/08/25 11:06	04/09/25 12:24	1
Ethylbenzene	ND		0.050	mg/Kg		04/08/25 11:06	04/09/25 12:24	1
Toluene	ND		0.050	mg/Kg		04/08/25 11:06	04/09/25 12:24	1
Xylenes, Total	ND		0.099	mg/Kg		04/08/25 11:06	04/09/25 12:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		48 - 145			04/08/25 11:06	04/09/25 12:24	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	290		94	mg/Kg		04/09/25 10:23	04/09/25 16:41	10
Motor Oil Range Organics [C28-C40]	770		470	mg/Kg		04/09/25 10:23	04/09/25 16:41	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	0	D S1-	62 - 134			04/09/25 10:23	04/09/25 16:41	10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/08/25 13:24	04/08/25 15:56	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-01 2'

Lab Sample ID: 885-22693-2

Date Collected: 04/02/25 09:10

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/08/25 11:06	04/09/25 13:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		35 - 166			04/08/25 11:06	04/09/25 13:30	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/08/25 11:06	04/09/25 13:30	1
Ethylbenzene	ND		0.050	mg/Kg		04/08/25 11:06	04/09/25 13:30	1
Toluene	ND		0.050	mg/Kg		04/08/25 11:06	04/09/25 13:30	1
Xylenes, Total	ND		0.099	mg/Kg		04/08/25 11:06	04/09/25 13:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		48 - 145			04/08/25 11:06	04/09/25 13:30	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	140		19	mg/Kg		04/09/25 10:23	04/10/25 21:18	2
Motor Oil Range Organics [C28-C40]	340		93	mg/Kg		04/09/25 10:23	04/10/25 21:18	2
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	124		62 - 134			04/09/25 10:23	04/10/25 21:18	2

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	140		60	mg/Kg		04/08/25 13:24	04/08/25 16:27	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-02 0'

Lab Sample ID: 885-22693-3

Date Collected: 04/02/25 09:20

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/08/25 11:06	04/09/25 14:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		35 - 166			04/08/25 11:06	04/09/25 14:35	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/08/25 11:06	04/09/25 14:35	1
Ethylbenzene	ND		0.049	mg/Kg		04/08/25 11:06	04/09/25 14:35	1
Toluene	ND		0.049	mg/Kg		04/08/25 11:06	04/09/25 14:35	1
Xylenes, Total	ND		0.099	mg/Kg		04/08/25 11:06	04/09/25 14:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		48 - 145			04/08/25 11:06	04/09/25 14:35	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	3500		200	mg/Kg		04/09/25 10:23	04/09/25 17:28	20
Motor Oil Range Organics [C28-C40]	4100		990	mg/Kg		04/09/25 10:23	04/09/25 17:28	20
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	0	D S1-	62 - 134			04/09/25 10:23	04/09/25 17:28	20

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/08/25 13:24	04/08/25 17:19	20

Client Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-02 2'

Lab Sample ID: 885-22693-4

Date Collected: 04/02/25 09:30

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/08/25 11:06	04/09/25 14:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		35 - 166			04/08/25 11:06	04/09/25 14:57	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/08/25 11:06	04/09/25 14:57	1
Ethylbenzene	ND		0.047	mg/Kg		04/08/25 11:06	04/09/25 14:57	1
Toluene	ND		0.047	mg/Kg		04/08/25 11:06	04/09/25 14:57	1
Xylenes, Total	ND		0.094	mg/Kg		04/08/25 11:06	04/09/25 14:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		48 - 145			04/08/25 11:06	04/09/25 14:57	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8	mg/Kg		04/09/25 10:23	04/09/25 17:51	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		04/09/25 10:23	04/09/25 17:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	123		62 - 134			04/09/25 10:23	04/09/25 17:51	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/08/25 13:24	04/08/25 17:29	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-03 0'

Lab Sample ID: 885-22693-5

Date Collected: 04/02/25 09:40

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/08/25 11:06	04/09/25 15:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		35 - 166			04/08/25 11:06	04/09/25 15:18	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/08/25 11:06	04/09/25 15:18	1
Ethylbenzene	ND		0.049	mg/Kg		04/08/25 11:06	04/09/25 15:18	1
Toluene	ND		0.049	mg/Kg		04/08/25 11:06	04/09/25 15:18	1
Xylenes, Total	ND		0.099	mg/Kg		04/08/25 11:06	04/09/25 15:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		48 - 145			04/08/25 11:06	04/09/25 15:18	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3	mg/Kg		04/09/25 10:23	04/09/25 18:15	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		04/09/25 10:23	04/09/25 18:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	115		62 - 134			04/09/25 10:23	04/09/25 18:15	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/08/25 13:24	04/08/25 17:40	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-03 2'

Lab Sample ID: 885-22693-6

Date Collected: 04/02/25 09:50

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/08/25 11:06	04/09/25 15:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		35 - 166			04/08/25 11:06	04/09/25 15:40	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/08/25 11:06	04/09/25 15:40	1
Ethylbenzene	ND		0.048	mg/Kg		04/08/25 11:06	04/09/25 15:40	1
Toluene	ND		0.048	mg/Kg		04/08/25 11:06	04/09/25 15:40	1
Xylenes, Total	ND		0.096	mg/Kg		04/08/25 11:06	04/09/25 15:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		48 - 145			04/08/25 11:06	04/09/25 15:40	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6	mg/Kg		04/09/25 10:23	04/09/25 17:14	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/09/25 10:23	04/09/25 17:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	116		62 - 134			04/09/25 10:23	04/09/25 17:14	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/08/25 13:24	04/08/25 17:50	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-04 0'

Lab Sample ID: 885-22693-7

Date Collected: 04/02/25 10:00

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/08/25 11:06	04/09/25 16:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		35 - 166			04/08/25 11:06	04/09/25 16:02	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/08/25 11:06	04/09/25 16:02	1
Ethylbenzene	ND		0.050	mg/Kg		04/08/25 11:06	04/09/25 16:02	1
Toluene	ND		0.050	mg/Kg		04/08/25 11:06	04/09/25 16:02	1
Xylenes, Total	ND		0.10	mg/Kg		04/08/25 11:06	04/09/25 16:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		48 - 145			04/08/25 11:06	04/09/25 16:02	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	11		9.3	mg/Kg		04/09/25 10:23	04/09/25 17:26	1
Motor Oil Range Organics [C28-C40]	46		46	mg/Kg		04/09/25 10:23	04/09/25 17:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	120		62 - 134			04/09/25 10:23	04/09/25 17:26	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	170		60	mg/Kg		04/08/25 13:24	04/08/25 18:00	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-04 2'

Lab Sample ID: 885-22693-8

Date Collected: 04/02/25 10:10

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/08/25 11:06	04/09/25 16:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		35 - 166			04/08/25 11:06	04/09/25 16:24	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/08/25 11:06	04/09/25 16:24	1
Ethylbenzene	ND		0.049	mg/Kg		04/08/25 11:06	04/09/25 16:24	1
Toluene	ND		0.049	mg/Kg		04/08/25 11:06	04/09/25 16:24	1
Xylenes, Total	ND		0.099	mg/Kg		04/08/25 11:06	04/09/25 16:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		48 - 145			04/08/25 11:06	04/09/25 16:24	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6	mg/Kg		04/09/25 10:23	04/09/25 17:38	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/09/25 10:23	04/09/25 17:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	99		62 - 134			04/09/25 10:23	04/09/25 17:38	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	170		60	mg/Kg		04/08/25 13:24	04/08/25 18:11	20

Client Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-05 0'

Lab Sample ID: 885-22693-9

Date Collected: 04/02/25 10:20

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6	mg/Kg		04/08/25 11:06	04/09/25 16:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		35 - 166			04/08/25 11:06	04/09/25 16:46	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/08/25 11:06	04/09/25 16:46	1
Ethylbenzene	ND		0.046	mg/Kg		04/08/25 11:06	04/09/25 16:46	1
Toluene	ND		0.046	mg/Kg		04/08/25 11:06	04/09/25 16:46	1
Xylenes, Total	ND		0.092	mg/Kg		04/08/25 11:06	04/09/25 16:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		48 - 145			04/08/25 11:06	04/09/25 16:46	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	30		19	mg/Kg		04/09/25 10:23	04/09/25 17:50	2
Motor Oil Range Organics [C28-C40]	100		93	mg/Kg		04/09/25 10:23	04/09/25 17:50	2
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	115		62 - 134			04/09/25 10:23	04/09/25 17:50	2

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62		60	mg/Kg		04/08/25 13:24	04/08/25 18:21	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-05 2'

Lab Sample ID: 885-22693-10

Date Collected: 04/02/25 10:30

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	340		4.8	mg/Kg		04/08/25 11:06	04/09/25 17:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	777	S1+	35 - 166			04/08/25 11:06	04/09/25 17:07	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/08/25 11:06	04/09/25 17:07	1
Ethylbenzene	6.4		0.48	mg/Kg		04/08/25 11:06	04/12/25 07:38	10
Toluene	0.56		0.048	mg/Kg		04/08/25 11:06	04/09/25 17:07	1
Xylenes, Total	14		0.95	mg/Kg		04/08/25 11:06	04/12/25 07:38	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	333	S1+	48 - 145			04/08/25 11:06	04/09/25 17:07	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1800		19	mg/Kg		04/09/25 10:23	04/09/25 18:02	2
Motor Oil Range Organics [C28-C40]	1300		94	mg/Kg		04/09/25 10:23	04/09/25 18:02	2
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	100		62 - 134			04/09/25 10:23	04/09/25 18:02	2

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	200		60	mg/Kg		04/08/25 13:24	04/08/25 18:31	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-05 3'

Lab Sample ID: 885-22693-11

Date Collected: 04/02/25 10:40

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	500		480	mg/Kg		04/08/25 11:06	04/10/25 12:05	100
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	140		35 - 166			04/08/25 11:06	04/10/25 12:05	100

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/08/25 11:06	04/09/25 17:51	1
Ethylbenzene	10		4.8	mg/Kg		04/08/25 11:06	04/10/25 12:05	100
Toluene	1.6		0.048	mg/Kg		04/08/25 11:06	04/09/25 17:51	1
Xylenes, Total	23		9.5	mg/Kg		04/08/25 11:06	04/10/25 12:05	100
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	525	S1+	48 - 145			04/08/25 11:06	04/09/25 17:51	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	420		95	mg/Kg		04/09/25 10:23	04/15/25 05:16	10
Motor Oil Range Organics [C28-C40]	1000		480	mg/Kg		04/09/25 10:23	04/15/25 05:16	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	0	D S1-	62 - 134			04/09/25 10:23	04/15/25 05:16	10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	400		60	mg/Kg		04/08/25 13:24	04/08/25 18:42	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-05 4'

Lab Sample ID: 885-22693-12

Date Collected: 04/02/25 10:50

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	460		47	mg/Kg		04/08/25 11:06	04/12/25 08:00	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	262	S1+	35 - 166			04/08/25 11:06	04/12/25 08:00	10

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/08/25 11:06	04/09/25 18:12	1
Ethylbenzene	7.7		4.7	mg/Kg		04/08/25 11:06	04/10/25 12:27	100
Toluene	1.0		0.047	mg/Kg		04/08/25 11:06	04/09/25 18:12	1
Xylenes, Total	17		9.4	mg/Kg		04/08/25 11:06	04/10/25 12:27	100
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	431	S1+	48 - 145			04/08/25 11:06	04/09/25 18:12	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1800		19	mg/Kg		04/09/25 10:23	04/09/25 18:26	2
Motor Oil Range Organics [C28-C40]	1200		95	mg/Kg		04/09/25 10:23	04/09/25 18:26	2
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	108		62 - 134			04/09/25 10:23	04/09/25 18:26	2

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	640		60	mg/Kg		04/08/25 13:24	04/08/25 18:52	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-06 2'

Lab Sample ID: 885-22693-13

Date Collected: 04/02/25 11:00

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/08/25 11:06	04/10/25 12:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		35 - 166			04/08/25 11:06	04/10/25 12:49	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/08/25 11:06	04/09/25 18:34	1
Ethylbenzene	ND		0.050	mg/Kg		04/08/25 11:06	04/09/25 18:34	1
Toluene	ND		0.050	mg/Kg		04/08/25 11:06	04/09/25 18:34	1
Xylenes, Total	ND		0.099	mg/Kg		04/08/25 11:06	04/09/25 18:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		48 - 145			04/08/25 11:06	04/09/25 18:34	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	11		10	mg/Kg		04/09/25 10:23	04/10/25 19:43	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		04/09/25 10:23	04/10/25 19:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	129		62 - 134			04/09/25 10:23	04/10/25 19:43	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	280		61	mg/Kg		04/08/25 13:24	04/08/25 19:23	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-06 3'

Lab Sample ID: 885-22693-14

Date Collected: 04/02/25 11:10

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/08/25 11:06	04/09/25 18:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		35 - 166			04/08/25 11:06	04/09/25 18:56	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/08/25 11:06	04/09/25 18:56	1
Ethylbenzene	ND		0.047	mg/Kg		04/08/25 11:06	04/09/25 18:56	1
Toluene	ND		0.047	mg/Kg		04/08/25 11:06	04/09/25 18:56	1
Xylenes, Total	ND		0.093	mg/Kg		04/08/25 11:06	04/09/25 18:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		48 - 145			04/08/25 11:06	04/09/25 18:56	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		04/09/25 10:23	04/10/25 20:07	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/09/25 10:23	04/10/25 20:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	124		62 - 134			04/09/25 10:23	04/10/25 20:07	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	380		60	mg/Kg		04/08/25 13:24	04/08/25 19:33	20

Client Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-06 4'

Lab Sample ID: 885-22693-15

Date Collected: 04/02/25 11:20

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/08/25 11:06	04/09/25 19:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		35 - 166			04/08/25 11:06	04/09/25 19:18	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/08/25 11:06	04/09/25 19:18	1
Ethylbenzene	ND		0.049	mg/Kg		04/08/25 11:06	04/09/25 19:18	1
Toluene	ND		0.049	mg/Kg		04/08/25 11:06	04/09/25 19:18	1
Xylenes, Total	ND		0.098	mg/Kg		04/08/25 11:06	04/09/25 19:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		48 - 145			04/08/25 11:06	04/09/25 19:18	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4	mg/Kg		04/09/25 10:23	04/09/25 19:03	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		04/09/25 10:23	04/09/25 19:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	118		62 - 134			04/09/25 10:23	04/09/25 19:03	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	630		60	mg/Kg		04/08/25 13:24	04/08/25 19:44	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-07 2'

Lab Sample ID: 885-22693-16

Date Collected: 04/02/25 11:30

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/08/25 11:06	04/09/25 19:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		35 - 166			04/08/25 11:06	04/09/25 19:40	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/08/25 11:06	04/09/25 19:40	1
Ethylbenzene	ND		0.047	mg/Kg		04/08/25 11:06	04/09/25 19:40	1
Toluene	ND		0.047	mg/Kg		04/08/25 11:06	04/09/25 19:40	1
Xylenes, Total	ND		0.093	mg/Kg		04/08/25 11:06	04/09/25 19:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		48 - 145			04/08/25 11:06	04/09/25 19:40	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	29		9.5	mg/Kg		04/09/25 10:23	04/09/25 19:15	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/09/25 10:23	04/09/25 19:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	101		62 - 134			04/09/25 10:23	04/09/25 19:15	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3000		59	mg/Kg		04/08/25 13:24	04/08/25 19:54	20

Client Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-07 3'

Lab Sample ID: 885-22693-17

Date Collected: 04/02/25 11:40

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/08/25 11:06	04/09/25 20:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		35 - 166			04/08/25 11:06	04/09/25 20:01	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/08/25 11:06	04/09/25 20:01	1
Ethylbenzene	ND		0.048	mg/Kg		04/08/25 11:06	04/09/25 20:01	1
Toluene	ND		0.048	mg/Kg		04/08/25 11:06	04/09/25 20:01	1
Xylenes, Total	ND		0.096	mg/Kg		04/08/25 11:06	04/09/25 20:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		48 - 145			04/08/25 11:06	04/09/25 20:01	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8	mg/Kg		04/09/25 10:23	04/09/25 19:28	1
Motor Oil Range Organics [C28-C40]	49		49	mg/Kg		04/09/25 10:23	04/09/25 19:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	107		62 - 134			04/09/25 10:23	04/09/25 19:28	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62		60	mg/Kg		04/08/25 13:24	04/08/25 20:04	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-07 4'

Lab Sample ID: 885-22693-18

Date Collected: 04/02/25 11:50

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/08/25 13:29	04/10/25 15:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		35 - 166			04/08/25 13:29	04/10/25 15:00	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/08/25 13:29	04/10/25 15:00	1
Ethylbenzene	ND		0.049	mg/Kg		04/08/25 13:29	04/10/25 15:00	1
Toluene	ND		0.049	mg/Kg		04/08/25 13:29	04/10/25 15:00	1
Xylenes, Total	ND		0.099	mg/Kg		04/08/25 13:29	04/10/25 15:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		48 - 145			04/08/25 13:29	04/10/25 15:00	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1	mg/Kg		04/09/25 11:12	04/09/25 20:41	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		04/09/25 11:12	04/09/25 20:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	94		62 - 134			04/09/25 11:12	04/09/25 20:41	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	360		60	mg/Kg		04/08/25 14:54	04/09/25 10:40	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-08 0'

Lab Sample ID: 885-22693-19

Date Collected: 04/03/25 09:00

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/08/25 13:29	04/10/25 16:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		35 - 166			04/08/25 13:29	04/10/25 16:06	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/08/25 13:29	04/10/25 16:06	1
Ethylbenzene	ND		0.050	mg/Kg		04/08/25 13:29	04/10/25 16:06	1
Toluene	ND		0.050	mg/Kg		04/08/25 13:29	04/10/25 16:06	1
Xylenes, Total	ND		0.10	mg/Kg		04/08/25 13:29	04/10/25 16:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		48 - 145			04/08/25 13:29	04/10/25 16:06	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3	mg/Kg		04/09/25 11:12	04/09/25 21:17	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		04/09/25 11:12	04/09/25 21:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	103		62 - 134			04/09/25 11:12	04/09/25 21:17	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/08/25 14:54	04/09/25 11:23	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-08 2'

Lab Sample ID: 885-22693-20

Date Collected: 04/03/25 09:10

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/08/25 13:29	04/10/25 17:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		35 - 166			04/08/25 13:29	04/10/25 17:11	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/08/25 13:29	04/10/25 17:11	1
Ethylbenzene	ND		0.049	mg/Kg		04/08/25 13:29	04/10/25 17:11	1
Toluene	ND		0.049	mg/Kg		04/08/25 13:29	04/10/25 17:11	1
Xylenes, Total	ND		0.098	mg/Kg		04/08/25 13:29	04/10/25 17:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		48 - 145			04/08/25 13:29	04/10/25 17:11	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4	mg/Kg		04/09/25 11:12	04/09/25 21:30	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		04/09/25 11:12	04/09/25 21:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	112		62 - 134			04/09/25 11:12	04/09/25 21:30	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/08/25 14:54	04/09/25 11:37	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-09 0'

Lab Sample ID: 885-22693-21

Date Collected: 04/03/25 09:20

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/08/25 13:29	04/10/25 17:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		35 - 166			04/08/25 13:29	04/10/25 17:33	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/08/25 13:29	04/10/25 17:33	1
Ethylbenzene	ND		0.047	mg/Kg		04/08/25 13:29	04/10/25 17:33	1
Toluene	ND		0.047	mg/Kg		04/08/25 13:29	04/10/25 17:33	1
Xylenes, Total	ND		0.094	mg/Kg		04/08/25 13:29	04/10/25 17:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		48 - 145			04/08/25 13:29	04/10/25 17:33	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		04/09/25 11:12	04/09/25 21:42	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/09/25 11:12	04/09/25 21:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	113		62 - 134			04/09/25 11:12	04/09/25 21:42	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	88		60	mg/Kg		04/08/25 14:54	04/09/25 11:51	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-09 2'

Lab Sample ID: 885-22693-22

Date Collected: 04/03/25 09:30

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/08/25 13:29	04/10/25 17:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		35 - 166			04/08/25 13:29	04/10/25 17:55	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/08/25 13:29	04/10/25 17:55	1
Ethylbenzene	ND		0.048	mg/Kg		04/08/25 13:29	04/10/25 17:55	1
Toluene	ND		0.048	mg/Kg		04/08/25 13:29	04/10/25 17:55	1
Xylenes, Total	ND		0.095	mg/Kg		04/08/25 13:29	04/10/25 17:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		48 - 145			04/08/25 13:29	04/10/25 17:55	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		04/09/25 11:12	04/09/25 21:54	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		04/09/25 11:12	04/09/25 21:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	107		62 - 134			04/09/25 11:12	04/09/25 21:54	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	380		60	mg/Kg		04/08/25 14:54	04/09/25 12:05	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-10 0'

Lab Sample ID: 885-22693-23

Date Collected: 04/03/25 09:40

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/08/25 13:29	04/10/25 18:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		35 - 166			04/08/25 13:29	04/10/25 18:17	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/08/25 13:29	04/10/25 18:17	1
Ethylbenzene	ND		0.050	mg/Kg		04/08/25 13:29	04/10/25 18:17	1
Toluene	ND		0.050	mg/Kg		04/08/25 13:29	04/10/25 18:17	1
Xylenes, Total	ND		0.10	mg/Kg		04/08/25 13:29	04/10/25 18:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		48 - 145			04/08/25 13:29	04/10/25 18:17	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		04/09/25 11:12	04/09/25 22:06	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/09/25 11:12	04/09/25 22:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	107		62 - 134			04/09/25 11:12	04/09/25 22:06	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	86		60	mg/Kg		04/08/25 14:54	04/09/25 12:20	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-10 2'

Lab Sample ID: 885-22693-24

Date Collected: 04/03/25 09:50

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/08/25 13:29	04/10/25 18:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		35 - 166			04/08/25 13:29	04/10/25 18:39	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/08/25 13:29	04/10/25 18:39	1
Ethylbenzene	ND		0.048	mg/Kg		04/08/25 13:29	04/10/25 18:39	1
Toluene	ND		0.048	mg/Kg		04/08/25 13:29	04/10/25 18:39	1
Xylenes, Total	ND		0.095	mg/Kg		04/08/25 13:29	04/10/25 18:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		48 - 145			04/08/25 13:29	04/10/25 18:39	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		04/09/25 11:12	04/09/25 22:30	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		04/09/25 11:12	04/09/25 22:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	112		62 - 134			04/09/25 11:12	04/09/25 22:30	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/08/25 14:54	04/09/25 13:02	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-11 0'

Lab Sample ID: 885-22693-25

Date Collected: 04/03/25 10:00

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/08/25 13:29	04/10/25 19:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		35 - 166			04/08/25 13:29	04/10/25 19:00	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/08/25 13:29	04/10/25 19:00	1
Ethylbenzene	ND		0.048	mg/Kg		04/08/25 13:29	04/10/25 19:00	1
Toluene	ND		0.048	mg/Kg		04/08/25 13:29	04/10/25 19:00	1
Xylenes, Total	ND		0.095	mg/Kg		04/08/25 13:29	04/10/25 19:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		48 - 145			04/08/25 13:29	04/10/25 19:00	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4	mg/Kg		04/09/25 11:12	04/10/25 20:31	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		04/09/25 11:12	04/10/25 20:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	125		62 - 134			04/09/25 11:12	04/10/25 20:31	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/08/25 14:54	04/09/25 13:16	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-11 2'

Lab Sample ID: 885-22693-26

Date Collected: 04/03/25 10:10

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/08/25 13:29	04/10/25 19:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		35 - 166			04/08/25 13:29	04/10/25 19:22	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/08/25 13:29	04/10/25 19:22	1
Ethylbenzene	ND		0.047	mg/Kg		04/08/25 13:29	04/10/25 19:22	1
Toluene	ND		0.047	mg/Kg		04/08/25 13:29	04/10/25 19:22	1
Xylenes, Total	ND		0.094	mg/Kg		04/08/25 13:29	04/10/25 19:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		48 - 145			04/08/25 13:29	04/10/25 19:22	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	83		9.3	mg/Kg		04/09/25 11:12	04/10/25 20:54	1
Motor Oil Range Organics [C28-C40]	250		46	mg/Kg		04/09/25 11:12	04/10/25 20:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	102		62 - 134			04/09/25 11:12	04/10/25 20:54	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	200		60	mg/Kg		04/08/25 14:54	04/09/25 13:30	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-12 2'

Lab Sample ID: 885-22693-27

Date Collected: 04/03/25 10:20

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/08/25 13:29	04/10/25 19:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		35 - 166			04/08/25 13:29	04/10/25 19:44	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/08/25 13:29	04/10/25 19:44	1
Ethylbenzene	ND		0.050	mg/Kg		04/08/25 13:29	04/10/25 19:44	1
Toluene	ND		0.050	mg/Kg		04/08/25 13:29	04/10/25 19:44	1
Xylenes, Total	ND		0.10	mg/Kg		04/08/25 13:29	04/10/25 19:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		48 - 145			04/08/25 13:29	04/10/25 19:44	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4	mg/Kg		04/09/25 11:12	04/09/25 23:06	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		04/09/25 11:12	04/09/25 23:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	125		62 - 134			04/09/25 11:12	04/09/25 23:06	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/08/25 14:54	04/09/25 13:44	20

Client Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-12 3'

Lab Sample ID: 885-22693-28

Date Collected: 04/03/25 10:30

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6	mg/Kg		04/08/25 13:29	04/10/25 20:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		35 - 166			04/08/25 13:29	04/10/25 20:27	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/08/25 13:29	04/10/25 20:27	1
Ethylbenzene	ND		0.046	mg/Kg		04/08/25 13:29	04/10/25 20:27	1
Toluene	ND		0.046	mg/Kg		04/08/25 13:29	04/10/25 20:27	1
Xylenes, Total	ND		0.092	mg/Kg		04/08/25 13:29	04/10/25 20:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		48 - 145			04/08/25 13:29	04/10/25 20:27	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		04/09/25 11:12	04/09/25 23:18	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/09/25 11:12	04/09/25 23:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	115		62 - 134			04/09/25 11:12	04/09/25 23:18	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	100		60	mg/Kg		04/08/25 14:54	04/09/25 13:58	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-12 4'

Lab Sample ID: 885-22693-29

Date Collected: 04/03/25 10:40

Matrix: Solid

Date Received: 04/05/25 08:20

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/08/25 13:29	04/10/25 20:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		35 - 166			04/08/25 13:29	04/10/25 20:49	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/08/25 13:29	04/10/25 20:49	1
Ethylbenzene	ND		0.048	mg/Kg		04/08/25 13:29	04/10/25 20:49	1
Toluene	ND		0.048	mg/Kg		04/08/25 13:29	04/10/25 20:49	1
Xylenes, Total	ND		0.096	mg/Kg		04/08/25 13:29	04/10/25 20:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		48 - 145			04/08/25 13:29	04/10/25 20:49	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6	mg/Kg		04/09/25 11:12	04/09/25 23:30	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/09/25 11:12	04/09/25 23:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	119		62 - 134			04/09/25 11:12	04/09/25 23:30	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	88		60	mg/Kg		04/08/25 14:54	04/09/25 14:41	20

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

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

Lab Sample ID: MB 885-23843/1-A
Matrix: Solid
Analysis Batch: 23898

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23843

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/08/25 11:06	04/09/25 12:02	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		35 - 166			04/08/25 11:06	04/09/25 12:02	1

Lab Sample ID: LCS 885-23843/2-A
Matrix: Solid
Analysis Batch: 23898

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23843

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	25.6		mg/Kg		103	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	226		35 - 166				

Lab Sample ID: 885-22693-1 MS
Matrix: Solid
Analysis Batch: 23898

Client Sample ID: BH25-01 0'
Prep Type: Total/NA
Prep Batch: 23843

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	ND		24.9	26.4		mg/Kg		106	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	218		35 - 166						

Lab Sample ID: 885-22693-1 MSD
Matrix: Solid
Analysis Batch: 23898

Client Sample ID: BH25-01 0'
Prep Type: Total/NA
Prep Batch: 23843

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		25.0	26.4		mg/Kg		106	70 - 130	0	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	217		35 - 166								

Lab Sample ID: MB 885-23862/1-A
Matrix: Solid
Analysis Batch: 24081

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23862

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/08/25 13:29	04/10/25 14:39	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		35 - 166			04/08/25 13:29	04/10/25 14:39	1

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QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

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

Lab Sample ID: LCS 885-23862/2-A
Matrix: Solid
Analysis Batch: 24081

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23862

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	26.3		mg/Kg		105	70 - 130
Surrogate		LCS %Recovery	LCS Qualifier				Limits
4-Bromofluorobenzene (Surr)		207					35 - 166

Lab Sample ID: 885-22693-18 MS
Matrix: Solid
Analysis Batch: 24081

Client Sample ID: BH25-07 4'
Prep Type: Total/NA
Prep Batch: 23862

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	ND		24.9	25.9		mg/Kg		104	70 - 130
Surrogate		MS %Recovery	MS Qualifier						Limits
4-Bromofluorobenzene (Surr)		205							35 - 166

Lab Sample ID: 885-22693-18 MSD
Matrix: Solid
Analysis Batch: 24081

Client Sample ID: BH25-07 4'
Prep Type: Total/NA
Prep Batch: 23862

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.6	26.5		mg/Kg		108	70 - 130	2	20
Surrogate		MSD %Recovery	MSD Qualifier						Limits		
4-Bromofluorobenzene (Surr)		208							35 - 166		

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-23843/1-A
Matrix: Solid
Analysis Batch: 23899

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23843

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/08/25 11:06	04/09/25 12:02	1
Ethylbenzene	ND		0.050	mg/Kg		04/08/25 11:06	04/09/25 12:02	1
Toluene	ND		0.050	mg/Kg		04/08/25 11:06	04/09/25 12:02	1
Xylenes, Total	ND		0.10	mg/Kg		04/08/25 11:06	04/09/25 12:02	1
Surrogate		MB %Recovery	MB Qualifier			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)		105				04/08/25 11:06	04/09/25 12:02	1

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QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

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

Lab Sample ID: LCS 885-23843/3-A
Matrix: Solid
Analysis Batch: 23899

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23843

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Benzene	1.00	0.956		mg/Kg		96	70 - 130	
Ethylbenzene	1.00	0.956		mg/Kg		96	70 - 130	
m,p-Xylene	2.00	1.92		mg/Kg		96	70 - 130	
o-Xylene	1.00	0.969		mg/Kg		97	70 - 130	
Toluene	1.00	0.944		mg/Kg		94	70 - 130	
Xylenes, Total	3.00	2.89		mg/Kg		96	70 - 130	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		48 - 145

Lab Sample ID: 885-22693-2 MS
Matrix: Solid
Analysis Batch: 23899

Client Sample ID: BH25-01 2'
Prep Type: Total/NA
Prep Batch: 23843

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
Benzene	ND		0.997	1.03		mg/Kg		103	70 - 130	
Ethylbenzene	ND		0.997	1.05		mg/Kg		105	70 - 130	
m,p-Xylene	ND		1.99	2.07		mg/Kg		104	70 - 130	
o-Xylene	ND		0.997	1.04		mg/Kg		104	70 - 130	
Toluene	ND		0.997	1.02		mg/Kg		103	70 - 130	
Xylenes, Total	ND		2.99	3.12		mg/Kg		104	70 - 130	

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		48 - 145

Lab Sample ID: 885-22693-2 MSD
Matrix: Solid
Analysis Batch: 23899

Client Sample ID: BH25-01 2'
Prep Type: Total/NA
Prep Batch: 23843

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits		RPD	
											RPD	Limit
Benzene	ND		0.998	1.04		mg/Kg		105	70 - 130	2	20	
Ethylbenzene	ND		0.998	1.06		mg/Kg		106	70 - 130	1	20	
m,p-Xylene	ND		2.00	2.15		mg/Kg		108	70 - 130	4	20	
o-Xylene	ND		0.998	1.07		mg/Kg		107	70 - 130	2	20	
Toluene	ND		0.998	1.03		mg/Kg		104	70 - 130	1	20	
Xylenes, Total	ND		2.99	3.22		mg/Kg		108	70 - 130	3	20	

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		48 - 145

Lab Sample ID: MB 885-23862/1-A
Matrix: Solid
Analysis Batch: 24080

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23862

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.050	mg/Kg		04/08/25 13:29	04/10/25 14:39	1
Toluene	ND		0.050	mg/Kg		04/08/25 13:29	04/10/25 14:39	1

Eurofins Albuquerque

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

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

Lab Sample ID: MB 885-23862/1-A
Matrix: Solid
Analysis Batch: 24080

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23862

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Xylenes, Total	ND		0.10	mg/Kg		04/08/25 13:29	04/10/25 14:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		48 - 145			04/08/25 13:29	04/10/25 14:39	1

Lab Sample ID: LCS 885-23862/3-A
Matrix: Solid
Analysis Batch: 24080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23862

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Benzene	1.00	1.00		mg/Kg		100	70 - 130
Ethylbenzene	1.00	0.999		mg/Kg		100	70 - 130
m,p-Xylene	2.00	2.00		mg/Kg		100	70 - 130
o-Xylene	1.00	1.01		mg/Kg		101	70 - 130
Toluene	1.00	0.983		mg/Kg		98	70 - 130
Xylenes, Total	3.00	3.01		mg/Kg		100	70 - 130
Surrogate	%Recovery	Qualifier	Limits				
4-Bromofluorobenzene (Surr)	104		48 - 145				

Lab Sample ID: 885-22693-19 MS
Matrix: Solid
Analysis Batch: 24080

Client Sample ID: BH25-08 0'
Prep Type: Total/NA
Prep Batch: 23862

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier		Result	Qualifier				
Benzene	ND		0.996	1.05		mg/Kg		106	70 - 130
Ethylbenzene	ND		0.996	1.06		mg/Kg		107	70 - 130
m,p-Xylene	ND		1.99	2.13		mg/Kg		107	70 - 130
o-Xylene	ND		0.996	1.07		mg/Kg		108	70 - 130
Toluene	ND		0.996	1.05		mg/Kg		106	70 - 130
Xylenes, Total	ND		2.99	3.20		mg/Kg		107	70 - 130
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene (Surr)	102		48 - 145						

Lab Sample ID: 885-22693-19 MSD
Matrix: Solid
Analysis Batch: 24080

Client Sample ID: BH25-08 0'
Prep Type: Total/NA
Prep Batch: 23862

Analyte	Sample	Sample	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzene	ND		0.996	1.01		mg/Kg		101	70 - 130	4	20
Ethylbenzene	ND		0.996	1.01		mg/Kg		101	70 - 130	5	20
m,p-Xylene	ND		1.99	2.05		mg/Kg		103	70 - 130	4	20
o-Xylene	ND		0.996	1.03		mg/Kg		103	70 - 130	4	20
Toluene	ND		0.996	1.00		mg/Kg		101	70 - 130	4	20
Xylenes, Total	ND		2.99	3.07		mg/Kg		103	70 - 130	4	20

Eurofins Albuquerque

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

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

Lab Sample ID: 885-22693-19 MSD
Matrix: Solid
Analysis Batch: 24080

Client Sample ID: BH25-08 0'
Prep Type: Total/NA
Prep Batch: 23862

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		48 - 145

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

Lab Sample ID: MB 885-23913/1-A
Matrix: Solid
Analysis Batch: 23891

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23913

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		04/09/25 10:23	04/09/25 14:42	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		04/09/25 10:23	04/09/25 14:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	114		62 - 134	04/09/25 10:23	04/09/25 14:42	1

Lab Sample ID: LCS 885-23913/2-A
Matrix: Solid
Analysis Batch: 23891

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23913

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	43.0		mg/Kg		86	60 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	82		62 - 134

Lab Sample ID: 885-22693-17 MS
Matrix: Solid
Analysis Batch: 23890

Client Sample ID: BH25-07 3'
Prep Type: Total/NA
Prep Batch: 23913

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	ND		48.6	47.6		mg/Kg		98	44 - 136

Surrogate	MS %Recovery	MS Qualifier	Limits
Di-n-octyl phthalate (Surr)	91		62 - 134

Lab Sample ID: 885-22693-17 MSD
Matrix: Solid
Analysis Batch: 23890

Client Sample ID: BH25-07 3'
Prep Type: Total/NA
Prep Batch: 23913

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		46.4	37.6		mg/Kg		81	44 - 136	24	32

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Di-n-octyl phthalate (Surr)	95		62 - 134

Eurofins Albuquerque

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

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

Lab Sample ID: MB 885-23922/1-A
Matrix: Solid
Analysis Batch: 23890

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23922

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		04/09/25 11:12	04/09/25 20:16	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		04/09/25 11:12	04/09/25 20:16	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	108		62 - 134			04/09/25 11:12	04/09/25 20:16	1

Lab Sample ID: LCS 885-23922/2-A
Matrix: Solid
Analysis Batch: 23890

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	45.1		mg/Kg		90	60 - 135
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Di-n-octyl phthalate (Surr)	83		62 - 134				

Lab Sample ID: 885-22693-18 MS
Matrix: Solid
Analysis Batch: 23890

Client Sample ID: BH25-07 4'
Prep Type: Total/NA
Prep Batch: 23922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	ND		47.0	41.5		mg/Kg		88	44 - 136
Surrogate	MS %Recovery	MS Qualifier	Limits						
Di-n-octyl phthalate (Surr)	68		62 - 134						

Lab Sample ID: 885-22693-18 MSD
Matrix: Solid
Analysis Batch: 23890

Client Sample ID: BH25-07 4'
Prep Type: Total/NA
Prep Batch: 23922

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		47.9	39.4		mg/Kg		82	44 - 136	5	32
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Di-n-octyl phthalate (Surr)	71		62 - 134								

Lab Sample ID: MB 885-23934/1-A
Matrix: Solid
Analysis Batch: 23890

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23934

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.50	mg/Kg		04/09/25 12:14	04/09/25 14:49	1
Motor Oil Range Organics [C28-C40]	ND		2.5	mg/Kg		04/09/25 12:14	04/09/25 14:49	1

Eurofins Albuquerque

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

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

Lab Sample ID: MB 885-23934/1-A
Matrix: Solid
Analysis Batch: 23890

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23934

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	111		62 - 134	04/09/25 12:14	04/09/25 14:49	1

Lab Sample ID: LCS 885-23934/2-A
Matrix: Solid
Analysis Batch: 23890

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23934

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	2.50	3.11		mg/Kg		124	60 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	106		62 - 134

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-23860/1-A
Matrix: Solid
Analysis Batch: 23867

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23860

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5	mg/Kg		04/08/25 13:24	04/08/25 15:15	1

Lab Sample ID: LCS 885-23860/2-A
Matrix: Solid
Analysis Batch: 23867

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23860

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	15.0	14.4		mg/Kg		96	90 - 110

Lab Sample ID: 885-22693-1 MS
Matrix: Solid
Analysis Batch: 23867

Client Sample ID: BH25-01 0'
Prep Type: Total/NA
Prep Batch: 23860

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	ND		30.0	88.5		mg/Kg		NC	50 - 150

Lab Sample ID: 885-22693-1 MSD
Matrix: Solid
Analysis Batch: 23867

Client Sample ID: BH25-01 0'
Prep Type: Total/NA
Prep Batch: 23860

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		29.9	81.9		mg/Kg		NC	50 - 150	8	20

Lab Sample ID: 885-22693-2 MS
Matrix: Solid
Analysis Batch: 23867

Client Sample ID: BH25-01 2'
Prep Type: Total/NA
Prep Batch: 23860

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	140		29.8	172	4	mg/Kg		95	50 - 150

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QC Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 885-23872/1-A
 Matrix: Solid
 Analysis Batch: 23904

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 23872

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5	mg/Kg		04/08/25 14:54	04/09/25 10:12	1

Lab Sample ID: LCS 885-23872/2-A
 Matrix: Solid
 Analysis Batch: 23904

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 23872

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	15.0	14.6		mg/Kg		98	90 - 110

Lab Sample ID: 885-22693-28 MS
 Matrix: Solid
 Analysis Batch: 23904

Client Sample ID: BH25-12 3'
 Prep Type: Total/NA
 Prep Batch: 23872

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	100		29.9	131		mg/Kg		99	50 - 150

Lab Sample ID: 885-22693-28 MSD
 Matrix: Solid
 Analysis Batch: 23904

Client Sample ID: BH25-12 3'
 Prep Type: Total/NA
 Prep Batch: 23872

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	100		29.8	144		mg/Kg		145	50 - 150	10	20

QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

GC VOA

Prep Batch: 23843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-1	BH25-01 0'	Total/NA	Solid	5030C	
885-22693-2	BH25-01 2'	Total/NA	Solid	5030C	
885-22693-3	BH25-02 0'	Total/NA	Solid	5030C	
885-22693-4	BH25-02 2'	Total/NA	Solid	5030C	
885-22693-5	BH25-03 0'	Total/NA	Solid	5030C	
885-22693-6	BH25-03 2'	Total/NA	Solid	5030C	
885-22693-7	BH25-04 0'	Total/NA	Solid	5030C	
885-22693-8	BH25-04 2'	Total/NA	Solid	5030C	
885-22693-9	BH25-05 0'	Total/NA	Solid	5030C	
885-22693-10	BH25-05 2'	Total/NA	Solid	5030C	
885-22693-11	BH25-05 3'	Total/NA	Solid	5030C	
885-22693-12	BH25-05 4'	Total/NA	Solid	5030C	
885-22693-13	BH25-06 2'	Total/NA	Solid	5030C	
885-22693-14	BH25-06 3'	Total/NA	Solid	5030C	
885-22693-15	BH25-06 4'	Total/NA	Solid	5030C	
885-22693-16	BH25-07 2'	Total/NA	Solid	5030C	
885-22693-17	BH25-07 3'	Total/NA	Solid	5030C	
MB 885-23843/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-23843/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-23843/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-22693-1 MS	BH25-01 0'	Total/NA	Solid	5030C	
885-22693-1 MSD	BH25-01 0'	Total/NA	Solid	5030C	
885-22693-2 MS	BH25-01 2'	Total/NA	Solid	5030C	
885-22693-2 MSD	BH25-01 2'	Total/NA	Solid	5030C	

Prep Batch: 23862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-18	BH25-07 4'	Total/NA	Solid	5030C	
885-22693-19	BH25-08 0'	Total/NA	Solid	5030C	
885-22693-20	BH25-08 2'	Total/NA	Solid	5030C	
885-22693-21	BH25-09 0'	Total/NA	Solid	5030C	
885-22693-22	BH25-09 2'	Total/NA	Solid	5030C	
885-22693-23	BH25-10 0'	Total/NA	Solid	5030C	
885-22693-24	BH25-10 2'	Total/NA	Solid	5030C	
885-22693-25	BH25-11 0'	Total/NA	Solid	5030C	
885-22693-26	BH25-11 2'	Total/NA	Solid	5030C	
885-22693-27	BH25-12 2'	Total/NA	Solid	5030C	
885-22693-28	BH25-12 3'	Total/NA	Solid	5030C	
885-22693-29	BH25-12 4'	Total/NA	Solid	5030C	
MB 885-23862/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-23862/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-23862/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-22693-18 MS	BH25-07 4'	Total/NA	Solid	5030C	
885-22693-18 MSD	BH25-07 4'	Total/NA	Solid	5030C	
885-22693-19 MS	BH25-08 0'	Total/NA	Solid	5030C	
885-22693-19 MSD	BH25-08 0'	Total/NA	Solid	5030C	

Analysis Batch: 23898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-1	BH25-01 0'	Total/NA	Solid	8015M/D	23843
885-22693-2	BH25-01 2'	Total/NA	Solid	8015M/D	23843

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QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

GC VOA (Continued)

Analysis Batch: 23898 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-3	BH25-02 0'	Total/NA	Solid	8015M/D	23843
885-22693-4	BH25-02 2'	Total/NA	Solid	8015M/D	23843
885-22693-5	BH25-03 0'	Total/NA	Solid	8015M/D	23843
885-22693-6	BH25-03 2'	Total/NA	Solid	8015M/D	23843
885-22693-7	BH25-04 0'	Total/NA	Solid	8015M/D	23843
885-22693-8	BH25-04 2'	Total/NA	Solid	8015M/D	23843
885-22693-9	BH25-05 0'	Total/NA	Solid	8015M/D	23843
885-22693-10	BH25-05 2'	Total/NA	Solid	8015M/D	23843
885-22693-14	BH25-06 3'	Total/NA	Solid	8015M/D	23843
885-22693-15	BH25-06 4'	Total/NA	Solid	8015M/D	23843
885-22693-16	BH25-07 2'	Total/NA	Solid	8015M/D	23843
885-22693-17	BH25-07 3'	Total/NA	Solid	8015M/D	23843
MB 885-23843/1-A	Method Blank	Total/NA	Solid	8015M/D	23843
LCS 885-23843/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	23843
885-22693-1 MS	BH25-01 0'	Total/NA	Solid	8015M/D	23843
885-22693-1 MSD	BH25-01 0'	Total/NA	Solid	8015M/D	23843

Analysis Batch: 23899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-1	BH25-01 0'	Total/NA	Solid	8021B	23843
885-22693-2	BH25-01 2'	Total/NA	Solid	8021B	23843
885-22693-3	BH25-02 0'	Total/NA	Solid	8021B	23843
885-22693-4	BH25-02 2'	Total/NA	Solid	8021B	23843
885-22693-5	BH25-03 0'	Total/NA	Solid	8021B	23843
885-22693-6	BH25-03 2'	Total/NA	Solid	8021B	23843
885-22693-7	BH25-04 0'	Total/NA	Solid	8021B	23843
885-22693-8	BH25-04 2'	Total/NA	Solid	8021B	23843
885-22693-9	BH25-05 0'	Total/NA	Solid	8021B	23843
885-22693-10	BH25-05 2'	Total/NA	Solid	8021B	23843
885-22693-11	BH25-05 3'	Total/NA	Solid	8021B	23843
885-22693-12	BH25-05 4'	Total/NA	Solid	8021B	23843
885-22693-13	BH25-06 2'	Total/NA	Solid	8021B	23843
885-22693-14	BH25-06 3'	Total/NA	Solid	8021B	23843
885-22693-15	BH25-06 4'	Total/NA	Solid	8021B	23843
885-22693-16	BH25-07 2'	Total/NA	Solid	8021B	23843
885-22693-17	BH25-07 3'	Total/NA	Solid	8021B	23843
MB 885-23843/1-A	Method Blank	Total/NA	Solid	8021B	23843
LCS 885-23843/3-A	Lab Control Sample	Total/NA	Solid	8021B	23843
885-22693-2 MS	BH25-01 2'	Total/NA	Solid	8021B	23843
885-22693-2 MSD	BH25-01 2'	Total/NA	Solid	8021B	23843

Analysis Batch: 23996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-11	BH25-05 3'	Total/NA	Solid	8015M/D	23843
885-22693-13	BH25-06 2'	Total/NA	Solid	8015M/D	23843

Analysis Batch: 23997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-11	BH25-05 3'	Total/NA	Solid	8021B	23843
885-22693-12	BH25-05 4'	Total/NA	Solid	8021B	23843

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

GC VOA

Analysis Batch: 24080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-18	BH25-07 4'	Total/NA	Solid	8021B	23862
885-22693-19	BH25-08 0'	Total/NA	Solid	8021B	23862
885-22693-20	BH25-08 2'	Total/NA	Solid	8021B	23862
885-22693-21	BH25-09 0'	Total/NA	Solid	8021B	23862
885-22693-22	BH25-09 2'	Total/NA	Solid	8021B	23862
885-22693-23	BH25-10 0'	Total/NA	Solid	8021B	23862
885-22693-24	BH25-10 2'	Total/NA	Solid	8021B	23862
885-22693-25	BH25-11 0'	Total/NA	Solid	8021B	23862
885-22693-26	BH25-11 2'	Total/NA	Solid	8021B	23862
885-22693-27	BH25-12 2'	Total/NA	Solid	8021B	23862
885-22693-28	BH25-12 3'	Total/NA	Solid	8021B	23862
885-22693-29	BH25-12 4'	Total/NA	Solid	8021B	23862
MB 885-23862/1-A	Method Blank	Total/NA	Solid	8021B	23862
LCS 885-23862/3-A	Lab Control Sample	Total/NA	Solid	8021B	23862
885-22693-19 MS	BH25-08 0'	Total/NA	Solid	8021B	23862
885-22693-19 MSD	BH25-08 0'	Total/NA	Solid	8021B	23862

Analysis Batch: 24081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-18	BH25-07 4'	Total/NA	Solid	8015M/D	23862
885-22693-19	BH25-08 0'	Total/NA	Solid	8015M/D	23862
885-22693-20	BH25-08 2'	Total/NA	Solid	8015M/D	23862
885-22693-21	BH25-09 0'	Total/NA	Solid	8015M/D	23862
885-22693-22	BH25-09 2'	Total/NA	Solid	8015M/D	23862
885-22693-23	BH25-10 0'	Total/NA	Solid	8015M/D	23862
885-22693-24	BH25-10 2'	Total/NA	Solid	8015M/D	23862
885-22693-25	BH25-11 0'	Total/NA	Solid	8015M/D	23862
885-22693-26	BH25-11 2'	Total/NA	Solid	8015M/D	23862
885-22693-27	BH25-12 2'	Total/NA	Solid	8015M/D	23862
885-22693-28	BH25-12 3'	Total/NA	Solid	8015M/D	23862
885-22693-29	BH25-12 4'	Total/NA	Solid	8015M/D	23862
MB 885-23862/1-A	Method Blank	Total/NA	Solid	8015M/D	23862
LCS 885-23862/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	23862
885-22693-18 MS	BH25-07 4'	Total/NA	Solid	8015M/D	23862
885-22693-18 MSD	BH25-07 4'	Total/NA	Solid	8015M/D	23862

Analysis Batch: 24181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-10	BH25-05 2'	Total/NA	Solid	8021B	23843

Analysis Batch: 24182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-12	BH25-05 4'	Total/NA	Solid	8015M/D	23843

GC Semi VOA

Analysis Batch: 23890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-6	BH25-03 2'	Total/NA	Solid	8015M/D	23913
885-22693-7	BH25-04 0'	Total/NA	Solid	8015M/D	23913
885-22693-8	BH25-04 2'	Total/NA	Solid	8015M/D	23913

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

GC Semi VOA (Continued)

Analysis Batch: 23890 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-9	BH25-05 0'	Total/NA	Solid	8015M/D	23913
885-22693-10	BH25-05 2'	Total/NA	Solid	8015M/D	23913
885-22693-12	BH25-05 4'	Total/NA	Solid	8015M/D	23913
885-22693-15	BH25-06 4'	Total/NA	Solid	8015M/D	23913
885-22693-16	BH25-07 2'	Total/NA	Solid	8015M/D	23913
885-22693-17	BH25-07 3'	Total/NA	Solid	8015M/D	23913
885-22693-18	BH25-07 4'	Total/NA	Solid	8015M/D	23922
885-22693-19	BH25-08 0'	Total/NA	Solid	8015M/D	23922
885-22693-20	BH25-08 2'	Total/NA	Solid	8015M/D	23922
885-22693-21	BH25-09 0'	Total/NA	Solid	8015M/D	23922
885-22693-22	BH25-09 2'	Total/NA	Solid	8015M/D	23922
885-22693-23	BH25-10 0'	Total/NA	Solid	8015M/D	23922
885-22693-24	BH25-10 2'	Total/NA	Solid	8015M/D	23922
885-22693-27	BH25-12 2'	Total/NA	Solid	8015M/D	23922
885-22693-28	BH25-12 3'	Total/NA	Solid	8015M/D	23922
885-22693-29	BH25-12 4'	Total/NA	Solid	8015M/D	23922
MB 885-23922/1-A	Method Blank	Total/NA	Solid	8015M/D	23922
MB 885-23934/1-A	Method Blank	Total/NA	Solid	8015M/D	23934
LCS 885-23922/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	23922
LCS 885-23934/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	23934
885-22693-17 MS	BH25-07 3'	Total/NA	Solid	8015M/D	23913
885-22693-17 MSD	BH25-07 3'	Total/NA	Solid	8015M/D	23913
885-22693-18 MS	BH25-07 4'	Total/NA	Solid	8015M/D	23922
885-22693-18 MSD	BH25-07 4'	Total/NA	Solid	8015M/D	23922

Analysis Batch: 23891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-1	BH25-01 0'	Total/NA	Solid	8015M/D	23913
885-22693-3	BH25-02 0'	Total/NA	Solid	8015M/D	23913
885-22693-4	BH25-02 2'	Total/NA	Solid	8015M/D	23913
885-22693-5	BH25-03 0'	Total/NA	Solid	8015M/D	23913
MB 885-23913/1-A	Method Blank	Total/NA	Solid	8015M/D	23913
LCS 885-23913/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	23913

Prep Batch: 23913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-1	BH25-01 0'	Total/NA	Solid	SHAKE	
885-22693-2	BH25-01 2'	Total/NA	Solid	SHAKE	
885-22693-3	BH25-02 0'	Total/NA	Solid	SHAKE	
885-22693-4	BH25-02 2'	Total/NA	Solid	SHAKE	
885-22693-5	BH25-03 0'	Total/NA	Solid	SHAKE	
885-22693-6	BH25-03 2'	Total/NA	Solid	SHAKE	
885-22693-7	BH25-04 0'	Total/NA	Solid	SHAKE	
885-22693-8	BH25-04 2'	Total/NA	Solid	SHAKE	
885-22693-9	BH25-05 0'	Total/NA	Solid	SHAKE	
885-22693-10	BH25-05 2'	Total/NA	Solid	SHAKE	
885-22693-11	BH25-05 3'	Total/NA	Solid	SHAKE	
885-22693-12	BH25-05 4'	Total/NA	Solid	SHAKE	
885-22693-13	BH25-06 2'	Total/NA	Solid	SHAKE	
885-22693-14	BH25-06 3'	Total/NA	Solid	SHAKE	
885-22693-15	BH25-06 4'	Total/NA	Solid	SHAKE	

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

GC Semi VOA (Continued)

Prep Batch: 23913 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-16	BH25-07 2'	Total/NA	Solid	SHAKE	
885-22693-17	BH25-07 3'	Total/NA	Solid	SHAKE	
MB 885-23913/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-23913/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-22693-17 MS	BH25-07 3'	Total/NA	Solid	SHAKE	
885-22693-17 MSD	BH25-07 3'	Total/NA	Solid	SHAKE	

Prep Batch: 23922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-18	BH25-07 4'	Total/NA	Solid	SHAKE	
885-22693-19	BH25-08 0'	Total/NA	Solid	SHAKE	
885-22693-20	BH25-08 2'	Total/NA	Solid	SHAKE	
885-22693-21	BH25-09 0'	Total/NA	Solid	SHAKE	
885-22693-22	BH25-09 2'	Total/NA	Solid	SHAKE	
885-22693-23	BH25-10 0'	Total/NA	Solid	SHAKE	
885-22693-24	BH25-10 2'	Total/NA	Solid	SHAKE	
885-22693-25	BH25-11 0'	Total/NA	Solid	SHAKE	
885-22693-26	BH25-11 2'	Total/NA	Solid	SHAKE	
885-22693-27	BH25-12 2'	Total/NA	Solid	SHAKE	
885-22693-28	BH25-12 3'	Total/NA	Solid	SHAKE	
885-22693-29	BH25-12 4'	Total/NA	Solid	SHAKE	
MB 885-23922/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-23922/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-22693-18 MS	BH25-07 4'	Total/NA	Solid	SHAKE	
885-22693-18 MSD	BH25-07 4'	Total/NA	Solid	SHAKE	

Prep Batch: 23934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-23934/1-A	Method Blank	Total/NA	Solid	3511	
LCS 885-23934/2-A	Lab Control Sample	Total/NA	Solid	3511	

Analysis Batch: 23982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-2	BH25-01 2'	Total/NA	Solid	8015M/D	23913
885-22693-13	BH25-06 2'	Total/NA	Solid	8015M/D	23913
885-22693-14	BH25-06 3'	Total/NA	Solid	8015M/D	23913
885-22693-25	BH25-11 0'	Total/NA	Solid	8015M/D	23922
885-22693-26	BH25-11 2'	Total/NA	Solid	8015M/D	23922

Analysis Batch: 24185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-11	BH25-05 3'	Total/NA	Solid	8015M/D	23913

HPLC/IC

Prep Batch: 23860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-1	BH25-01 0'	Total/NA	Solid	300_Prep	
885-22693-2	BH25-01 2'	Total/NA	Solid	300_Prep	
885-22693-3	BH25-02 0'	Total/NA	Solid	300_Prep	
885-22693-4	BH25-02 2'	Total/NA	Solid	300_Prep	

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

HPLC/IC (Continued)

Prep Batch: 23860 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-5	BH25-03 0'	Total/NA	Solid	300_Prep	
885-22693-6	BH25-03 2'	Total/NA	Solid	300_Prep	
885-22693-7	BH25-04 0'	Total/NA	Solid	300_Prep	
885-22693-8	BH25-04 2'	Total/NA	Solid	300_Prep	
885-22693-9	BH25-05 0'	Total/NA	Solid	300_Prep	
885-22693-10	BH25-05 2'	Total/NA	Solid	300_Prep	
885-22693-11	BH25-05 3'	Total/NA	Solid	300_Prep	
885-22693-12	BH25-05 4'	Total/NA	Solid	300_Prep	
885-22693-13	BH25-06 2'	Total/NA	Solid	300_Prep	
885-22693-14	BH25-06 3'	Total/NA	Solid	300_Prep	
885-22693-15	BH25-06 4'	Total/NA	Solid	300_Prep	
885-22693-16	BH25-07 2'	Total/NA	Solid	300_Prep	
885-22693-17	BH25-07 3'	Total/NA	Solid	300_Prep	
MB 885-23860/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-23860/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-22693-1 MS	BH25-01 0'	Total/NA	Solid	300_Prep	
885-22693-1 MSD	BH25-01 0'	Total/NA	Solid	300_Prep	
885-22693-2 MS	BH25-01 2'	Total/NA	Solid	300_Prep	

Analysis Batch: 23867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-1	BH25-01 0'	Total/NA	Solid	300.0	23860
885-22693-2	BH25-01 2'	Total/NA	Solid	300.0	23860
885-22693-3	BH25-02 0'	Total/NA	Solid	300.0	23860
885-22693-4	BH25-02 2'	Total/NA	Solid	300.0	23860
885-22693-5	BH25-03 0'	Total/NA	Solid	300.0	23860
885-22693-6	BH25-03 2'	Total/NA	Solid	300.0	23860
885-22693-7	BH25-04 0'	Total/NA	Solid	300.0	23860
885-22693-8	BH25-04 2'	Total/NA	Solid	300.0	23860
885-22693-9	BH25-05 0'	Total/NA	Solid	300.0	23860
885-22693-10	BH25-05 2'	Total/NA	Solid	300.0	23860
885-22693-11	BH25-05 3'	Total/NA	Solid	300.0	23860
885-22693-12	BH25-05 4'	Total/NA	Solid	300.0	23860
885-22693-13	BH25-06 2'	Total/NA	Solid	300.0	23860
885-22693-14	BH25-06 3'	Total/NA	Solid	300.0	23860
885-22693-15	BH25-06 4'	Total/NA	Solid	300.0	23860
885-22693-16	BH25-07 2'	Total/NA	Solid	300.0	23860
885-22693-17	BH25-07 3'	Total/NA	Solid	300.0	23860
MB 885-23860/1-A	Method Blank	Total/NA	Solid	300.0	23860
LCS 885-23860/2-A	Lab Control Sample	Total/NA	Solid	300.0	23860
885-22693-1 MS	BH25-01 0'	Total/NA	Solid	300.0	23860
885-22693-1 MSD	BH25-01 0'	Total/NA	Solid	300.0	23860
885-22693-2 MS	BH25-01 2'	Total/NA	Solid	300.0	23860

Prep Batch: 23872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-18	BH25-07 4'	Total/NA	Solid	300_Prep	
885-22693-19	BH25-08 0'	Total/NA	Solid	300_Prep	
885-22693-20	BH25-08 2'	Total/NA	Solid	300_Prep	
885-22693-21	BH25-09 0'	Total/NA	Solid	300_Prep	
885-22693-22	BH25-09 2'	Total/NA	Solid	300_Prep	

Eurofins Albuquerque

QC Association Summary

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

HPLC/IC (Continued)

Prep Batch: 23872 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-23	BH25-10 0'	Total/NA	Solid	300_Prep	
885-22693-24	BH25-10 2'	Total/NA	Solid	300_Prep	
885-22693-25	BH25-11 0'	Total/NA	Solid	300_Prep	
885-22693-26	BH25-11 2'	Total/NA	Solid	300_Prep	
885-22693-27	BH25-12 2'	Total/NA	Solid	300_Prep	
885-22693-28	BH25-12 3'	Total/NA	Solid	300_Prep	
885-22693-29	BH25-12 4'	Total/NA	Solid	300_Prep	
MB 885-23872/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-23872/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-22693-28 MS	BH25-12 3'	Total/NA	Solid	300_Prep	
885-22693-28 MSD	BH25-12 3'	Total/NA	Solid	300_Prep	

Analysis Batch: 23904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22693-18	BH25-07 4'	Total/NA	Solid	300.0	23872
885-22693-19	BH25-08 0'	Total/NA	Solid	300.0	23872
885-22693-20	BH25-08 2'	Total/NA	Solid	300.0	23872
885-22693-21	BH25-09 0'	Total/NA	Solid	300.0	23872
885-22693-22	BH25-09 2'	Total/NA	Solid	300.0	23872
885-22693-23	BH25-10 0'	Total/NA	Solid	300.0	23872
885-22693-24	BH25-10 2'	Total/NA	Solid	300.0	23872
885-22693-25	BH25-11 0'	Total/NA	Solid	300.0	23872
885-22693-26	BH25-11 2'	Total/NA	Solid	300.0	23872
885-22693-27	BH25-12 2'	Total/NA	Solid	300.0	23872
885-22693-28	BH25-12 3'	Total/NA	Solid	300.0	23872
885-22693-29	BH25-12 4'	Total/NA	Solid	300.0	23872
MB 885-23872/1-A	Method Blank	Total/NA	Solid	300.0	23872
LCS 885-23872/2-A	Lab Control Sample	Total/NA	Solid	300.0	23872
885-22693-28 MS	BH25-12 3'	Total/NA	Solid	300.0	23872
885-22693-28 MSD	BH25-12 3'	Total/NA	Solid	300.0	23872

Lab Chronicle

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-01 0'

Lab Sample ID: 885-22693-1

Date Collected: 04/02/25 09:00

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8015M/D		1	23898	AT	EET ALB	04/09/25 12:24
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		1	23899	AT	EET ALB	04/09/25 12:24
Total/NA	Prep	SHAKE			23913	MI	EET ALB	04/09/25 10:23
Total/NA	Analysis	8015M/D		10	23891	MI	EET ALB	04/09/25 16:41
Total/NA	Prep	300_Prep			23860	DL	EET ALB	04/08/25 13:24
Total/NA	Analysis	300.0		20	23867	DL	EET ALB	04/08/25 15:56

Client Sample ID: BH25-01 2'

Lab Sample ID: 885-22693-2

Date Collected: 04/02/25 09:10

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8015M/D		1	23898	AT	EET ALB	04/09/25 13:30
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		1	23899	AT	EET ALB	04/09/25 13:30
Total/NA	Prep	SHAKE			23913	MI	EET ALB	04/09/25 10:23
Total/NA	Analysis	8015M/D		2	23982	MI	EET ALB	04/10/25 21:18
Total/NA	Prep	300_Prep			23860	DL	EET ALB	04/08/25 13:24
Total/NA	Analysis	300.0		20	23867	DL	EET ALB	04/08/25 16:27

Client Sample ID: BH25-02 0'

Lab Sample ID: 885-22693-3

Date Collected: 04/02/25 09:20

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8015M/D		1	23898	AT	EET ALB	04/09/25 14:35
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		1	23899	AT	EET ALB	04/09/25 14:35
Total/NA	Prep	SHAKE			23913	MI	EET ALB	04/09/25 10:23
Total/NA	Analysis	8015M/D		20	23891	MI	EET ALB	04/09/25 17:28
Total/NA	Prep	300_Prep			23860	DL	EET ALB	04/08/25 13:24
Total/NA	Analysis	300.0		20	23867	DL	EET ALB	04/08/25 17:19

Client Sample ID: BH25-02 2'

Lab Sample ID: 885-22693-4

Date Collected: 04/02/25 09:30

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8015M/D		1	23898	AT	EET ALB	04/09/25 14:57

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-02 2'

Lab Sample ID: 885-22693-4

Date Collected: 04/02/25 09:30

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		1	23899	AT	EET ALB	04/09/25 14:57
Total/NA	Prep	SHAKE			23913	MI	EET ALB	04/09/25 10:23
Total/NA	Analysis	8015M/D		1	23891	MI	EET ALB	04/09/25 17:51
Total/NA	Prep	300_Prep			23860	DL	EET ALB	04/08/25 13:24
Total/NA	Analysis	300.0		20	23867	DL	EET ALB	04/08/25 17:29

Client Sample ID: BH25-03 0'

Lab Sample ID: 885-22693-5

Date Collected: 04/02/25 09:40

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8015M/D		1	23898	AT	EET ALB	04/09/25 15:18
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		1	23899	AT	EET ALB	04/09/25 15:18
Total/NA	Prep	SHAKE			23913	MI	EET ALB	04/09/25 10:23
Total/NA	Analysis	8015M/D		1	23891	MI	EET ALB	04/09/25 18:15
Total/NA	Prep	300_Prep			23860	DL	EET ALB	04/08/25 13:24
Total/NA	Analysis	300.0		20	23867	DL	EET ALB	04/08/25 17:40

Client Sample ID: BH25-03 2'

Lab Sample ID: 885-22693-6

Date Collected: 04/02/25 09:50

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8015M/D		1	23898	AT	EET ALB	04/09/25 15:40
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		1	23899	AT	EET ALB	04/09/25 15:40
Total/NA	Prep	SHAKE			23913	MI	EET ALB	04/09/25 10:23
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/09/25 17:14
Total/NA	Prep	300_Prep			23860	DL	EET ALB	04/08/25 13:24
Total/NA	Analysis	300.0		20	23867	DL	EET ALB	04/08/25 17:50

Client Sample ID: BH25-04 0'

Lab Sample ID: 885-22693-7

Date Collected: 04/02/25 10:00

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8015M/D		1	23898	AT	EET ALB	04/09/25 16:02
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		1	23899	AT	EET ALB	04/09/25 16:02

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-04 0'

Lab Sample ID: 885-22693-7

Date Collected: 04/02/25 10:00

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			23913	MI	EET ALB	04/09/25 10:23
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/09/25 17:26
Total/NA	Prep	300_Prep			23860	DL	EET ALB	04/08/25 13:24
Total/NA	Analysis	300.0		20	23867	DL	EET ALB	04/08/25 18:00

Client Sample ID: BH25-04 2'

Lab Sample ID: 885-22693-8

Date Collected: 04/02/25 10:10

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8015M/D		1	23898	AT	EET ALB	04/09/25 16:24
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		1	23899	AT	EET ALB	04/09/25 16:24
Total/NA	Prep	SHAKE			23913	MI	EET ALB	04/09/25 10:23
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/09/25 17:38
Total/NA	Prep	300_Prep			23860	DL	EET ALB	04/08/25 13:24
Total/NA	Analysis	300.0		20	23867	DL	EET ALB	04/08/25 18:11

Client Sample ID: BH25-05 0'

Lab Sample ID: 885-22693-9

Date Collected: 04/02/25 10:20

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8015M/D		1	23898	AT	EET ALB	04/09/25 16:46
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		1	23899	AT	EET ALB	04/09/25 16:46
Total/NA	Prep	SHAKE			23913	MI	EET ALB	04/09/25 10:23
Total/NA	Analysis	8015M/D		2	23890	MI	EET ALB	04/09/25 17:50
Total/NA	Prep	300_Prep			23860	DL	EET ALB	04/08/25 13:24
Total/NA	Analysis	300.0		20	23867	DL	EET ALB	04/08/25 18:21

Client Sample ID: BH25-05 2'

Lab Sample ID: 885-22693-10

Date Collected: 04/02/25 10:30

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8015M/D		1	23898	AT	EET ALB	04/09/25 17:07
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		1	23899	AT	EET ALB	04/09/25 17:07
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		10	24181	AT	EET ALB	04/12/25 07:38

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-05 2'

Lab Sample ID: 885-22693-10

Date Collected: 04/02/25 10:30

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			23913	MI	EET ALB	04/09/25 10:23
Total/NA	Analysis	8015M/D		2	23890	MI	EET ALB	04/09/25 18:02
Total/NA	Prep	300_Prep			23860	DL	EET ALB	04/08/25 13:24
Total/NA	Analysis	300.0		20	23867	DL	EET ALB	04/08/25 18:31

Client Sample ID: BH25-05 3'

Lab Sample ID: 885-22693-11

Date Collected: 04/02/25 10:40

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8015M/D		100	23996	AT	EET ALB	04/10/25 12:05
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		1	23899	AT	EET ALB	04/09/25 17:51
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		100	23997	AT	EET ALB	04/10/25 12:05
Total/NA	Prep	SHAKE			23913	MI	EET ALB	04/09/25 10:23
Total/NA	Analysis	8015M/D		10	24185	MI	EET ALB	04/15/25 05:16
Total/NA	Prep	300_Prep			23860	DL	EET ALB	04/08/25 13:24
Total/NA	Analysis	300.0		20	23867	DL	EET ALB	04/08/25 18:42

Client Sample ID: BH25-05 4'

Lab Sample ID: 885-22693-12

Date Collected: 04/02/25 10:50

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8015M/D		10	24182	AT	EET ALB	04/12/25 08:00
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		1	23899	AT	EET ALB	04/09/25 18:12
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		100	23997	AT	EET ALB	04/10/25 12:27
Total/NA	Prep	SHAKE			23913	MI	EET ALB	04/09/25 10:23
Total/NA	Analysis	8015M/D		2	23890	MI	EET ALB	04/09/25 18:26
Total/NA	Prep	300_Prep			23860	DL	EET ALB	04/08/25 13:24
Total/NA	Analysis	300.0		20	23867	DL	EET ALB	04/08/25 18:52

Client Sample ID: BH25-06 2'

Lab Sample ID: 885-22693-13

Date Collected: 04/02/25 11:00

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8015M/D		1	23996	AT	EET ALB	04/10/25 12:49

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-06 2'

Lab Sample ID: 885-22693-13

Date Collected: 04/02/25 11:00

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		1	23899	AT	EET ALB	04/09/25 18:34
Total/NA	Prep	SHAKE			23913	MI	EET ALB	04/09/25 10:23
Total/NA	Analysis	8015M/D		1	23982	MI	EET ALB	04/10/25 19:43
Total/NA	Prep	300_Prep			23860	DL	EET ALB	04/08/25 13:24
Total/NA	Analysis	300.0		20	23867	DL	EET ALB	04/08/25 19:23

Client Sample ID: BH25-06 3'

Lab Sample ID: 885-22693-14

Date Collected: 04/02/25 11:10

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8015M/D		1	23898	AT	EET ALB	04/09/25 18:56
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		1	23899	AT	EET ALB	04/09/25 18:56
Total/NA	Prep	SHAKE			23913	MI	EET ALB	04/09/25 10:23
Total/NA	Analysis	8015M/D		1	23982	MI	EET ALB	04/10/25 20:07
Total/NA	Prep	300_Prep			23860	DL	EET ALB	04/08/25 13:24
Total/NA	Analysis	300.0		20	23867	DL	EET ALB	04/08/25 19:33

Client Sample ID: BH25-06 4'

Lab Sample ID: 885-22693-15

Date Collected: 04/02/25 11:20

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8015M/D		1	23898	AT	EET ALB	04/09/25 19:18
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		1	23899	AT	EET ALB	04/09/25 19:18
Total/NA	Prep	SHAKE			23913	MI	EET ALB	04/09/25 10:23
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/09/25 19:03
Total/NA	Prep	300_Prep			23860	DL	EET ALB	04/08/25 13:24
Total/NA	Analysis	300.0		20	23867	DL	EET ALB	04/08/25 19:44

Client Sample ID: BH25-07 2'

Lab Sample ID: 885-22693-16

Date Collected: 04/02/25 11:30

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8015M/D		1	23898	AT	EET ALB	04/09/25 19:40
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		1	23899	AT	EET ALB	04/09/25 19:40

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Lab Chronicle

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-07 2'

Lab Sample ID: 885-22693-16

Date Collected: 04/02/25 11:30

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			23913	MI	EET ALB	04/09/25 10:23
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/09/25 19:15
Total/NA	Prep	300_Prep			23860	DL	EET ALB	04/08/25 13:24
Total/NA	Analysis	300.0		20	23867	DL	EET ALB	04/08/25 19:54

Client Sample ID: BH25-07 3'

Lab Sample ID: 885-22693-17

Date Collected: 04/02/25 11:40

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8015M/D		1	23898	AT	EET ALB	04/09/25 20:01
Total/NA	Prep	5030C			23843	AT	EET ALB	04/08/25 11:06
Total/NA	Analysis	8021B		1	23899	AT	EET ALB	04/09/25 20:01
Total/NA	Prep	SHAKE			23913	MI	EET ALB	04/09/25 10:23
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/09/25 19:28
Total/NA	Prep	300_Prep			23860	DL	EET ALB	04/08/25 13:24
Total/NA	Analysis	300.0		20	23867	DL	EET ALB	04/08/25 20:04

Client Sample ID: BH25-07 4'

Lab Sample ID: 885-22693-18

Date Collected: 04/02/25 11:50

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 15:00
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 15:00
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/09/25 20:41
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 10:40

Client Sample ID: BH25-08 0'

Lab Sample ID: 885-22693-19

Date Collected: 04/03/25 09:00

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 16:06
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 16:06
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/09/25 21:17

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Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-08 0'

Lab Sample ID: 885-22693-19

Date Collected: 04/03/25 09:00

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 11:23

Client Sample ID: BH25-08 2'

Lab Sample ID: 885-22693-20

Date Collected: 04/03/25 09:10

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 17:11
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 17:11
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/09/25 21:30
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 11:37

Client Sample ID: BH25-09 0'

Lab Sample ID: 885-22693-21

Date Collected: 04/03/25 09:20

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 17:33
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 17:33
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/09/25 21:42
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 11:51

Client Sample ID: BH25-09 2'

Lab Sample ID: 885-22693-22

Date Collected: 04/03/25 09:30

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 17:55
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 17:55
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/09/25 21:54
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 12:05

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Lab Chronicle

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-10 0'

Lab Sample ID: 885-22693-23

Date Collected: 04/03/25 09:40

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 18:17
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 18:17
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/09/25 22:06
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 12:20

Client Sample ID: BH25-10 2'

Lab Sample ID: 885-22693-24

Date Collected: 04/03/25 09:50

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 18:39
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 18:39
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/09/25 22:30
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 13:02

Client Sample ID: BH25-11 0'

Lab Sample ID: 885-22693-25

Date Collected: 04/03/25 10:00

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 19:00
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 19:00
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		1	23982	MI	EET ALB	04/10/25 20:31
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 13:16

Client Sample ID: BH25-11 2'

Lab Sample ID: 885-22693-26

Date Collected: 04/03/25 10:10

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 19:22

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-11 2'

Lab Sample ID: 885-22693-26

Date Collected: 04/03/25 10:10

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 19:22
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		1	23982	MI	EET ALB	04/10/25 20:54
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 13:30

Client Sample ID: BH25-12 2'

Lab Sample ID: 885-22693-27

Date Collected: 04/03/25 10:20

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 19:44
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 19:44
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/09/25 23:06
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 13:44

Client Sample ID: BH25-12 3'

Lab Sample ID: 885-22693-28

Date Collected: 04/03/25 10:30

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 20:27
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 20:27
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/09/25 23:18
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 13:58

Client Sample ID: BH25-12 4'

Lab Sample ID: 885-22693-29

Date Collected: 04/03/25 10:40

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 20:49
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 20:49

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22693-1

Client Sample ID: BH25-12 4'

Lab Sample ID: 885-22693-29

Date Collected: 04/03/25 10:40

Matrix: Solid

Date Received: 04/05/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/09/25 23:30
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 14:41

Laboratory References:

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



Accreditation/Certification Summary

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22693-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-27-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total
Oregon	NELAP	NM100001	02-26-26

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HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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



855-22693 COC

Turn-Around Time:
 X Standard *1/3* *5 Day*
 Project Name:
Jackson B #065
 Project #:
25A-01340

Project Manager:
Sally Carttar
SCarttar@vertexresource.com
 Sampler: A. Harris
 On Ice: Yes No
 # of Coolers: *1*
 Cooler Temp (including CF): *3.1 + 0.2 = 3.3°C*

Client: **Vertex (bill to Mack Energy, Matt Buckles)**
 Mailing Address: (On File)
 Phone #:
 email or Fax#:
 QA/QC Package:
 Standard Level 4 (Full Validation)
 Accreditation: Az Compliance NELAC Other
 EDD (Type)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
04.02.25	9:00	Soil	BH25-01 0'	1, 4oz jar	ICE	
04.02.25	9:10	Soil	BH25-01 2'	1, 4oz jar	ICE	
04.02.25	9:20	Soil	BH25-02 0'	1, 4oz jar	ICE	
04.02.25	9:30	Soil	BH25-02 2'	1, 4oz jar	ICE	
04.02.25	9:40	Soil	BH25-03 0'	1, 4oz jar	ICE	
04.02.25	9:50	Soil	BH25-03 2'	1, 4oz jar	ICE	
04.02.25	10:00	Soil	BH25-04 0'	1, 4oz jar	ICE	
04.02.25	10:10	Soil	BH25-04 2'	1, 4oz jar	ICE	
04.02.25	10:20	Soil	BH25-05 0'	1, 4oz jar	ICE	
04.02.25	10:30	Soil	BH25-05 2'	1, 4oz jar	ICE	
04.02.25	10:40	Soil	BH25-05 3'	1, 4oz jar	ICE	
04.02.25	10:50	Soil	BH25-05 4'	1, 4oz jar	ICE	

TPH/8015D(GRO / DRO / MRO) X
 8081 Pesticides/8082 PCBs X
 EDB (Method 504.1) X
 PAHs by 8310 or 8270SIMS X
 RCRA 8 Metals X
 Cl, F, Br, NO₃, NO₂, PO₄, SO X
 8260 (VOA) X
 8270 (Semi-VOA) X
 Total Coliform (Present/Absent) X

Remarks:
 Direct Bill to Mack Energy: ATTN: Matt Buckles
 CC:Sally Carttar (SCarttar@vertexresource.com), Austin Harris
 (aharris@vertexresource.com) for Final Report.

Received by: *Carttar* Date: *4/4/25* Time: *10:15*
 Relinquished by: *Austin Harris*
 Received by: *SCN* Date: *4/5/25* Time: *08:20*
 Relinquished by: *Carttar*





HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109 *2/3*

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

Turn-Around Time:
 X Standard *N Rush 5 Day*

Project Name:
Jackson B #065

Project #:
25A-01340

Project Manager:
Sally Carttar
SCarttar@vertexresource.com

Sampler: A. Harris
 On Ice: Yes No
 # of Coolers: *4050*
 Cooler Temp (including CF): *3.1 + 0.2 = 3.3°C*

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
04.02.25	11:00	Soil	BH25-06 2'	1, 4oz jar	ICE	
04.02.25	11:10	Soil	BH25-06 3'	1, 4oz jar	ICE	
04.02.25	11:20	Soil	BH25-06 4'	1, 4oz jar	ICE	
04.02.25	11:30	Soil	BH25-07 2'	1, 4oz jar	ICE	
04.02.25	11:40	Soil	BH25-07 3'	1, 4oz jar	ICE	
04.02.25	11:50	Soil	BH25-07 4'	1, 4oz jar	ICE	
04.03.25	9:00	Soil	BH25-08 0'	1, 4oz jar	ICE	
04.03.25	9:10	Soil	BH25-08 2'	1, 4oz jar	ICE	
04.03.25	9:20	Soil	BH25-09 0'	1, 4oz jar	ICE	
04.03.25	9:30	Soil	BH25-09 2'	1, 4oz jar	ICE	
04.03.25	9:40	Soil	BH25-10 0'	1, 4oz jar	ICE	
04.03.25	9:50	Soil	BH25-10 2'	1, 4oz jar	ICE	

Client: **Vertex (bill to Mack Energy, Matt Buckles)**

Mailing Address:
 (On File)

Phone #:

email or Fax#:
 QA/QC Package:
 Standard Level 4 (Full Validation)

Accreditation: Az Compliance NELAC Other
 EDD (Type)

Date	Time	Relinquished by:	Date	Time
4-3-25	1900	<i>AK</i>	4/4/25	1015
4/3/25	1910	<i>AK</i>	4/5/25	0820

Released to Imaging: 2/20/2026 4:55:38 PM

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4-1-25

4/16/2025

Received by: *AK* Date: *4/4/25* Time: *1015*

Received by: *SEM COURIER* Date: *4/5/25* Time: *0820*

Remarks: Direct Bill to Mack Energy: ATTN: Matt Buckles
 CC: Sally Carttar (SCarttar@vertexresource.com), Austin Harris
 (aharris@vertexresource.com) for Final Report.

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





HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

3/3

Turn-Around Time:

X Standard *N Rush 5 Day*

Project Name:

Jackson B #065

Project #:

25A-01340

Project Manager:

Sally Carttar

SCarttar@vertexresource.com

Sampler: A. Harris

On Ice: Yes No

of Coolers: *1*

Cooler Temp (including CF): *3.1 + 0.2 = 3.3°C*

HEAL No. *M0J0*

Container Type and #

Preservative Type

ICE

ICE

ICE

ICE

ICE

Chain-of-Custody Record

Client: Vertex (bill to Mack Energy, Matt Buckles)

Mailing Address: (On File)

Phone #:

email or Fax#:

QA/QC Package:

Standard Level 4 (Full Validation)

Accreditation: Az Compliance

NELAC Other

EDD (Type)

Date	Time	Matrix	Sample Name
04.03.25	10:00	Soil	BH25-11 0'
04.03.25	10:10	Soil	BH25-11 2'
04.03.25	10:20	Soil	BH25-12 2'
04.03.25	10:30	Soil	BH25-12 3'
04.03.25	10:40	Soil	BH25-12 4'

Date: 4-3-25 1900
 Relinquished by: *[Signature]*

Date: 4/4/25 1910
 Relinquished by: *[Signature]*

Received by: *[Signature]* Date: 4/4/25 Time: 1015
 Received by: *SCM COURIER* Date: 4/5/25 Time: 0820

Remarks:
 Direct Bill to Mack Energy: ATTN: Matt Buckles
 CC: Sally Carttar (SCarttar@vertexresource.com), Austin Harris
 (aharris@vertexresource.com) for Final Report.

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



Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-22693-1

Login Number: 22693

List Source: Eurofins Albuquerque

List Number: 1

Creator: Dominguez, Desiree

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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	





Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 4/16/2025 3:19:13 PM

JOB DESCRIPTION

Jackson B #065

JOB NUMBER

885-22755-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109



Eurofins Albuquerque

Job Notes

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

Authorization



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4/16/2025 3:19:13 PM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)338-8812

Client: Vertex
Project/Site: Jackson B #065

Laboratory Job ID: 885-22755-1



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Definitions/Glossary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22755-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

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

Case Narrative

Client: Vertex
Project: Jackson B #065

Job ID: 885-22755-1

Job ID: 885-22755-1

Eurofins Albuquerque

Job Narrative 885-22755-1

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

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

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

Receipt

The samples were received on 4/8/2025 8:05 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C.

Gasoline Range Organics

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

GC VOA

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

Diesel Range Organics

Method 8015D_DRO: The following samples were diluted due to the nature of the sample matrix: BH25-14 0' (885-22755-3) and BH25-14 2' (885-22755-4)

Method 8015D_DRO: The following sample was diluted due to the nature of the sample matrix: BH25-14 0' (885-22755-3)

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

HPLC/IC

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

Eurofins Albuquerque



Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22755-1

Client Sample ID: BH25-13 0'

Lab Sample ID: 885-22755-1

Date Collected: 04/04/25 10:00

Matrix: Solid

Date Received: 04/08/25 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/08/25 13:29	04/10/25 21:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		35 - 166			04/08/25 13:29	04/10/25 21:10	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/08/25 13:29	04/10/25 21:10	1
Ethylbenzene	ND		0.048	mg/Kg		04/08/25 13:29	04/10/25 21:10	1
Toluene	ND		0.048	mg/Kg		04/08/25 13:29	04/10/25 21:10	1
Xylenes, Total	ND		0.095	mg/Kg		04/08/25 13:29	04/10/25 21:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		48 - 145			04/08/25 13:29	04/10/25 21:10	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2	mg/Kg		04/09/25 11:12	04/09/25 23:42	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		04/09/25 11:12	04/09/25 23:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	120		62 - 134			04/09/25 11:12	04/09/25 23:42	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		59	mg/Kg		04/08/25 14:54	04/09/25 14:55	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22755-1

Client Sample ID: BH25-13 2'

Lab Sample ID: 885-22755-2

Date Collected: 04/04/25 10:10

Matrix: Solid

Date Received: 04/08/25 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/08/25 13:29	04/10/25 21:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		35 - 166			04/08/25 13:29	04/10/25 21:32	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/08/25 13:29	04/10/25 21:32	1
Ethylbenzene	ND		0.049	mg/Kg		04/08/25 13:29	04/10/25 21:32	1
Toluene	ND		0.049	mg/Kg		04/08/25 13:29	04/10/25 21:32	1
Xylenes, Total	ND		0.098	mg/Kg		04/08/25 13:29	04/10/25 21:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		48 - 145			04/08/25 13:29	04/10/25 21:32	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	660		18	mg/Kg		04/09/25 11:12	04/09/25 23:54	2
Motor Oil Range Organics [C28-C40]	480		91	mg/Kg		04/09/25 11:12	04/09/25 23:54	2
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	123		62 - 134			04/09/25 11:12	04/09/25 23:54	2

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	190		60	mg/Kg		04/08/25 14:54	04/09/25 15:09	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22755-1

Client Sample ID: BH25-14 0'

Lab Sample ID: 885-22755-3

Date Collected: 04/04/25 10:20

Matrix: Solid

Date Received: 04/08/25 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6	mg/Kg		04/08/25 13:29	04/10/25 21:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		35 - 166			04/08/25 13:29	04/10/25 21:54	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/08/25 13:29	04/10/25 21:54	1
Ethylbenzene	ND		0.046	mg/Kg		04/08/25 13:29	04/10/25 21:54	1
Toluene	ND		0.046	mg/Kg		04/08/25 13:29	04/10/25 21:54	1
Xylenes, Total	ND		0.092	mg/Kg		04/08/25 13:29	04/10/25 21:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		48 - 145			04/08/25 13:29	04/10/25 21:54	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	4900		93	mg/Kg		04/09/25 11:12	04/15/25 05:05	10
Motor Oil Range Organics [C28-C40]	2200		460	mg/Kg		04/09/25 11:12	04/15/25 05:05	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	0	D S1-	62 - 134			04/09/25 11:12	04/15/25 05:05	10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/08/25 14:54	04/09/25 15:51	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22755-1

Client Sample ID: BH25-14 2'

Lab Sample ID: 885-22755-4

Date Collected: 04/04/25 10:30

Matrix: Solid

Date Received: 04/08/25 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/08/25 13:29	04/10/25 22:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		35 - 166			04/08/25 13:29	04/10/25 22:15	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/08/25 13:29	04/10/25 22:15	1
Ethylbenzene	ND		0.047	mg/Kg		04/08/25 13:29	04/10/25 22:15	1
Toluene	ND		0.047	mg/Kg		04/08/25 13:29	04/10/25 22:15	1
Xylenes, Total	ND		0.094	mg/Kg		04/08/25 13:29	04/10/25 22:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		48 - 145			04/08/25 13:29	04/10/25 22:15	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1700		190	mg/Kg		04/09/25 11:12	04/10/25 00:18	20
Motor Oil Range Organics [C28-C40]	1600		950	mg/Kg		04/09/25 11:12	04/10/25 00:18	20
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	0	D S1-	62 - 134			04/09/25 11:12	04/10/25 00:18	20

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	130		60	mg/Kg		04/08/25 14:54	04/09/25 16:06	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22755-1

Client Sample ID: BH25-15 2'

Lab Sample ID: 885-22755-5

Date Collected: 04/04/25 10:40

Matrix: Solid

Date Received: 04/08/25 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/08/25 13:29	04/10/25 22:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		35 - 166			04/08/25 13:29	04/10/25 22:37	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/08/25 13:29	04/10/25 22:37	1
Ethylbenzene	ND		0.047	mg/Kg		04/08/25 13:29	04/10/25 22:37	1
Toluene	ND		0.047	mg/Kg		04/08/25 13:29	04/10/25 22:37	1
Xylenes, Total	ND		0.094	mg/Kg		04/08/25 13:29	04/10/25 22:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		48 - 145			04/08/25 13:29	04/10/25 22:37	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6	mg/Kg		04/09/25 11:12	04/10/25 00:30	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/09/25 11:12	04/10/25 00:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	111		62 - 134			04/09/25 11:12	04/10/25 00:30	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5600		60	mg/Kg		04/08/25 14:54	04/09/25 16:20	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22755-1

Client Sample ID: BH25-15 3'

Lab Sample ID: 885-22755-6

Date Collected: 04/04/25 10:50

Matrix: Solid

Date Received: 04/08/25 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/08/25 13:29	04/10/25 22:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		35 - 166			04/08/25 13:29	04/10/25 22:59	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/08/25 13:29	04/10/25 22:59	1
Ethylbenzene	ND		0.048	mg/Kg		04/08/25 13:29	04/10/25 22:59	1
Toluene	ND		0.048	mg/Kg		04/08/25 13:29	04/10/25 22:59	1
Xylenes, Total	ND		0.095	mg/Kg		04/08/25 13:29	04/10/25 22:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		48 - 145			04/08/25 13:29	04/10/25 22:59	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		04/09/25 11:12	04/10/25 00:42	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/09/25 11:12	04/10/25 00:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	118		62 - 134			04/09/25 11:12	04/10/25 00:42	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4700		60	mg/Kg		04/08/25 14:54	04/09/25 16:34	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22755-1

Client Sample ID: BH25-15 4'

Lab Sample ID: 885-22755-7

Date Collected: 04/04/25 11:00

Matrix: Solid

Date Received: 04/08/25 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/08/25 13:29	04/10/25 23:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		35 - 166			04/08/25 13:29	04/10/25 23:20	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/08/25 13:29	04/10/25 23:20	1
Ethylbenzene	ND		0.048	mg/Kg		04/08/25 13:29	04/10/25 23:20	1
Toluene	ND		0.048	mg/Kg		04/08/25 13:29	04/10/25 23:20	1
Xylenes, Total	ND		0.096	mg/Kg		04/08/25 13:29	04/10/25 23:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		48 - 145			04/08/25 13:29	04/10/25 23:20	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		04/09/25 11:12	04/10/25 00:54	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/09/25 11:12	04/10/25 00:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	121		62 - 134			04/09/25 11:12	04/10/25 00:54	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1800		60	mg/Kg		04/08/25 14:54	04/09/25 16:48	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22755-1

Client Sample ID: BH25-16 0'

Lab Sample ID: 885-22755-8

Date Collected: 04/04/25 11:10

Matrix: Solid

Date Received: 04/08/25 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/08/25 13:29	04/10/25 23:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		35 - 166			04/08/25 13:29	04/10/25 23:42	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/08/25 13:29	04/10/25 23:42	1
Ethylbenzene	ND		0.048	mg/Kg		04/08/25 13:29	04/10/25 23:42	1
Toluene	ND		0.048	mg/Kg		04/08/25 13:29	04/10/25 23:42	1
Xylenes, Total	ND		0.096	mg/Kg		04/08/25 13:29	04/10/25 23:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		48 - 145			04/08/25 13:29	04/10/25 23:42	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4	mg/Kg		04/09/25 11:12	04/10/25 01:06	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		04/09/25 11:12	04/10/25 01:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	121		62 - 134			04/09/25 11:12	04/10/25 01:06	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	680		60	mg/Kg		04/08/25 14:54	04/09/25 17:02	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22755-1

Client Sample ID: BH25-16 2'

Lab Sample ID: 885-22755-9

Date Collected: 04/04/25 11:20

Matrix: Solid

Date Received: 04/08/25 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/09/25 10:08	04/11/25 13:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		35 - 166			04/09/25 10:08	04/11/25 13:49	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/09/25 10:08	04/11/25 13:49	1
Ethylbenzene	ND		0.049	mg/Kg		04/09/25 10:08	04/11/25 13:49	1
Toluene	ND		0.049	mg/Kg		04/09/25 10:08	04/11/25 13:49	1
Xylenes, Total	ND		0.098	mg/Kg		04/09/25 10:08	04/11/25 13:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		48 - 145			04/09/25 10:08	04/11/25 13:49	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9	mg/Kg		04/10/25 10:50	04/10/25 14:24	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		04/10/25 10:50	04/10/25 14:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	119		62 - 134			04/10/25 10:50	04/10/25 14:24	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	120		60	mg/Kg		04/09/25 14:12	04/09/25 21:31	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22755-1

Client Sample ID: BH25-17 0'

Lab Sample ID: 885-22755-10

Date Collected: 04/04/25 11:30

Matrix: Solid

Date Received: 04/08/25 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/09/25 10:08	04/11/25 15:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		35 - 166			04/09/25 10:08	04/11/25 15:00	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/09/25 10:08	04/11/25 15:00	1
Ethylbenzene	ND		0.049	mg/Kg		04/09/25 10:08	04/11/25 15:00	1
Toluene	ND		0.049	mg/Kg		04/09/25 10:08	04/11/25 15:00	1
Xylenes, Total	ND		0.099	mg/Kg		04/09/25 10:08	04/11/25 15:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		48 - 145			04/09/25 10:08	04/11/25 15:00	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3	mg/Kg		04/10/25 10:50	04/10/25 15:00	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		04/10/25 10:50	04/10/25 15:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	116		62 - 134			04/10/25 10:50	04/10/25 15:00	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	230		61	mg/Kg		04/09/25 14:12	04/09/25 22:14	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22755-1

Client Sample ID: BH25-17 2'

Lab Sample ID: 885-22755-11

Date Collected: 04/04/25 11:40

Matrix: Solid

Date Received: 04/08/25 08:05

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/09/25 10:08	04/11/25 16:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		35 - 166			04/09/25 10:08	04/11/25 16:12	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/09/25 10:08	04/11/25 16:12	1
Ethylbenzene	ND		0.049	mg/Kg		04/09/25 10:08	04/11/25 16:12	1
Toluene	ND		0.049	mg/Kg		04/09/25 10:08	04/11/25 16:12	1
Xylenes, Total	ND		0.098	mg/Kg		04/09/25 10:08	04/11/25 16:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		48 - 145			04/09/25 10:08	04/11/25 16:12	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		04/10/25 10:50	04/10/25 15:13	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/10/25 10:50	04/10/25 15:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	111		62 - 134			04/10/25 10:50	04/10/25 15:13	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/09/25 14:12	04/09/25 22:28	20

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22755-1

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

Lab Sample ID: MB 885-23862/1-A
Matrix: Solid
Analysis Batch: 24081

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23862

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/08/25 13:29	04/10/25 14:39	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		35 - 166			04/08/25 13:29	04/10/25 14:39	1

Lab Sample ID: LCS 885-23862/2-A
Matrix: Solid
Analysis Batch: 24081

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23862

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	26.3		mg/Kg		105	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	207		35 - 166				

Lab Sample ID: MB 885-23910/1-A
Matrix: Solid
Analysis Batch: 24123

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23910

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/09/25 10:07	04/11/25 13:25	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		35 - 166			04/09/25 10:07	04/11/25 13:25	1

Lab Sample ID: LCS 885-23910/2-A
Matrix: Solid
Analysis Batch: 24123

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23910

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	30.7		mg/Kg		123	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	236		35 - 166				

Lab Sample ID: 885-22755-9 MS
Matrix: Solid
Analysis Batch: 24123

Client Sample ID: BH25-16 2'
Prep Type: Total/NA
Prep Batch: 23910

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	ND		24.5	31.7		mg/Kg		129	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	233		35 - 166						

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QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22755-1

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

Lab Sample ID: 885-22755-9 MSD
Matrix: Solid
Analysis Batch: 24123

Client Sample ID: BH25-16 2'
Prep Type: Total/NA
Prep Batch: 23910

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.5	30.6		mg/Kg		125	70 - 130	3	20
Surrogate	%Recovery		MSD Qualifier	Limits							
4-Bromofluorobenzene (Surr)	237			35 - 166							

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-23862/1-A
Matrix: Solid
Analysis Batch: 24080

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23862

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/08/25 13:29	04/10/25 14:39	1
Ethylbenzene	ND		0.050	mg/Kg		04/08/25 13:29	04/10/25 14:39	1
Toluene	ND		0.050	mg/Kg		04/08/25 13:29	04/10/25 14:39	1
Xylenes, Total	ND		0.10	mg/Kg		04/08/25 13:29	04/10/25 14:39	1
Surrogate	%Recovery		MB Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101			48 - 145		04/08/25 13:29	04/10/25 14:39	1

Lab Sample ID: LCS 885-23862/3-A
Matrix: Solid
Analysis Batch: 24080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23862

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	1.00		mg/Kg		100	70 - 130
Ethylbenzene	1.00	0.999		mg/Kg		100	70 - 130
m,p-Xylene	2.00	2.00		mg/Kg		100	70 - 130
o-Xylene	1.00	1.01		mg/Kg		101	70 - 130
Toluene	1.00	0.983		mg/Kg		98	70 - 130
Xylenes, Total	3.00	3.01		mg/Kg		100	70 - 130
Surrogate	%Recovery		LCS Qualifier	Limits			
4-Bromofluorobenzene (Surr)	104			48 - 145			

Lab Sample ID: MB 885-23910/1-A
Matrix: Solid
Analysis Batch: 24124

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23910

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/09/25 10:07	04/11/25 13:25	1
Ethylbenzene	ND		0.050	mg/Kg		04/09/25 10:07	04/11/25 13:25	1
Toluene	ND		0.050	mg/Kg		04/09/25 10:07	04/11/25 13:25	1
Xylenes, Total	ND		0.10	mg/Kg		04/09/25 10:07	04/11/25 13:25	1
Surrogate	%Recovery		MB Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111			48 - 145		04/09/25 10:07	04/11/25 13:25	1

Eurofins Albuquerque

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22755-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: LCS 885-23910/3-A
Matrix: Solid
Analysis Batch: 24124

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23910

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	1.00	1.07		mg/Kg		107	70 - 130		
Ethylbenzene	1.00	1.10		mg/Kg		110	70 - 130		
m,p-Xylene	2.00	2.30		mg/Kg		115	70 - 130		
o-Xylene	1.00	1.12		mg/Kg		112	70 - 130		
Toluene	1.00	1.09		mg/Kg		109	70 - 130		
Xylenes, Total	3.00	3.42		mg/Kg		114	70 - 130		
		LCS	LCS						
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene (Surr)	115		48 - 145						

Lab Sample ID: 885-22755-10 MS
Matrix: Solid
Analysis Batch: 24124

Client Sample ID: BH25-17 0'
Prep Type: Total/NA
Prep Batch: 23910

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
Benzene	ND		0.986	1.09		mg/Kg		110	70 - 130	
Ethylbenzene	ND		0.986	1.13		mg/Kg		114	70 - 130	
m,p-Xylene	ND		1.97	2.38		mg/Kg		121	70 - 130	
o-Xylene	ND		0.986	1.13		mg/Kg		115	70 - 130	
Toluene	ND		0.986	1.09		mg/Kg		110	70 - 130	
Xylenes, Total	ND		2.96	3.51		mg/Kg		119	70 - 130	
		MS	MS							
Surrogate	%Recovery	Qualifier	Limits							
4-Bromofluorobenzene (Surr)	111		48 - 145							

Lab Sample ID: 885-22755-10 MSD
Matrix: Solid
Analysis Batch: 24124

Client Sample ID: BH25-17 0'
Prep Type: Total/NA
Prep Batch: 23910

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits		RPD Limit	
Benzene	ND		0.985	1.08		mg/Kg		109	70 - 130	1	20	
Ethylbenzene	ND		0.985	1.09		mg/Kg		111	70 - 130	3	20	
m,p-Xylene	ND		1.97	2.31		mg/Kg		117	70 - 130	3	20	
o-Xylene	ND		0.985	1.12		mg/Kg		113	70 - 130	2	20	
Toluene	ND		0.985	1.08		mg/Kg		110	70 - 130	1	20	
Xylenes, Total	ND		2.96	3.42		mg/Kg		116	70 - 130	3	20	
		MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits									
4-Bromofluorobenzene (Surr)	112		48 - 145									

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

Lab Sample ID: MB 885-23922/1-A
Matrix: Solid
Analysis Batch: 23890

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23922

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Eurofins Albuquerque

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22755-1

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

Lab Sample ID: MB 885-23922/1-A
Matrix: Solid
Analysis Batch: 23890

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23922

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		04/09/25 11:12	04/09/25 20:16	1
Surrogate	%Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	108		62 - 134			04/09/25 11:12	04/09/25 20:16	1

Lab Sample ID: LCS 885-23922/2-A
Matrix: Solid
Analysis Batch: 23890

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	45.1		mg/Kg		90	60 - 135
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Di-n-octyl phthalate (Surr)	83		62 - 134				

Lab Sample ID: MB 885-24003/1-A
Matrix: Solid
Analysis Batch: 23979

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24003

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		04/10/25 10:50	04/10/25 14:01	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		04/10/25 10:50	04/10/25 14:01	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	110		62 - 134			04/10/25 10:50	04/10/25 14:01	1

Lab Sample ID: LCS 885-24003/2-A
Matrix: Solid
Analysis Batch: 23979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24003

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	40.6		mg/Kg		81	60 - 135
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Di-n-octyl phthalate (Surr)	76		62 - 134				

Lab Sample ID: 885-22755-9 MS
Matrix: Solid
Analysis Batch: 23979

Client Sample ID: BH25-16 2'
Prep Type: Total/NA
Prep Batch: 24003

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	ND		48.8	48.0		mg/Kg		98	44 - 136
Surrogate	MS %Recovery	MS Qualifier	Limits						
Di-n-octyl phthalate (Surr)	101		62 - 134						

Eurofins Albuquerque

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22755-1

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

Lab Sample ID: 885-22755-9 MSD
Matrix: Solid
Analysis Batch: 23979

Client Sample ID: BH25-16 2'
Prep Type: Total/NA
Prep Batch: 24003

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		45.8	39.1		mg/Kg		85	44 - 136	20	32
Surrogate	%Recovery	MSD Qualifier	MSD Limits								
Di-n-octyl phthalate (Surr)	93		62 - 134								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-23872/1-A
Matrix: Solid
Analysis Batch: 23904

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23872

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5	mg/Kg		04/08/25 14:54	04/09/25 10:12	1

Lab Sample ID: LCS 885-23872/2-A
Matrix: Solid
Analysis Batch: 23904

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23872

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	15.0	14.6		mg/Kg		98	90 - 110

Lab Sample ID: MB 885-23901/1-A
Matrix: Solid
Analysis Batch: 23904

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23901

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5	mg/Kg		04/09/25 09:07	04/09/25 17:16	1

Lab Sample ID: LCS 885-23901/2-A
Matrix: Solid
Analysis Batch: 23904

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23901

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	15.0	14.9		mg/Kg		99	90 - 110

Lab Sample ID: 885-22755-9 MS
Matrix: Solid
Analysis Batch: 23904

Client Sample ID: BH25-16 2'
Prep Type: Total/NA
Prep Batch: 23901

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	120		29.9	150		mg/Kg		105	50 - 150

Lab Sample ID: 885-22755-9 MSD
Matrix: Solid
Analysis Batch: 23904

Client Sample ID: BH25-16 2'
Prep Type: Total/NA
Prep Batch: 23901

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	120		29.9	150		mg/Kg		105	50 - 150	0	20

Eurofins Albuquerque

QC Association Summary

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22755-1

GC VOA

Prep Batch: 23862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22755-1	BH25-13 0'	Total/NA	Solid	5030C	
885-22755-2	BH25-13 2'	Total/NA	Solid	5030C	
885-22755-3	BH25-14 0'	Total/NA	Solid	5030C	
885-22755-4	BH25-14 2'	Total/NA	Solid	5030C	
885-22755-5	BH25-15 2'	Total/NA	Solid	5030C	
885-22755-6	BH25-15 3'	Total/NA	Solid	5030C	
885-22755-7	BH25-15 4'	Total/NA	Solid	5030C	
885-22755-8	BH25-16 0'	Total/NA	Solid	5030C	
MB 885-23862/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-23862/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-23862/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Prep Batch: 23910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22755-9	BH25-16 2'	Total/NA	Solid	5030C	
885-22755-10	BH25-17 0'	Total/NA	Solid	5030C	
885-22755-11	BH25-17 2'	Total/NA	Solid	5030C	
MB 885-23910/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-23910/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-23910/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-22755-9 MS	BH25-16 2'	Total/NA	Solid	5030C	
885-22755-9 MSD	BH25-16 2'	Total/NA	Solid	5030C	
885-22755-10 MS	BH25-17 0'	Total/NA	Solid	5030C	
885-22755-10 MSD	BH25-17 0'	Total/NA	Solid	5030C	

Analysis Batch: 24080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22755-1	BH25-13 0'	Total/NA	Solid	8021B	23862
885-22755-2	BH25-13 2'	Total/NA	Solid	8021B	23862
885-22755-3	BH25-14 0'	Total/NA	Solid	8021B	23862
885-22755-4	BH25-14 2'	Total/NA	Solid	8021B	23862
885-22755-5	BH25-15 2'	Total/NA	Solid	8021B	23862
885-22755-6	BH25-15 3'	Total/NA	Solid	8021B	23862
885-22755-7	BH25-15 4'	Total/NA	Solid	8021B	23862
885-22755-8	BH25-16 0'	Total/NA	Solid	8021B	23862
MB 885-23862/1-A	Method Blank	Total/NA	Solid	8021B	23862
LCS 885-23862/3-A	Lab Control Sample	Total/NA	Solid	8021B	23862

Analysis Batch: 24081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22755-1	BH25-13 0'	Total/NA	Solid	8015M/D	23862
885-22755-2	BH25-13 2'	Total/NA	Solid	8015M/D	23862
885-22755-3	BH25-14 0'	Total/NA	Solid	8015M/D	23862
885-22755-4	BH25-14 2'	Total/NA	Solid	8015M/D	23862
885-22755-5	BH25-15 2'	Total/NA	Solid	8015M/D	23862
885-22755-6	BH25-15 3'	Total/NA	Solid	8015M/D	23862
885-22755-7	BH25-15 4'	Total/NA	Solid	8015M/D	23862
885-22755-8	BH25-16 0'	Total/NA	Solid	8015M/D	23862
MB 885-23862/1-A	Method Blank	Total/NA	Solid	8015M/D	23862
LCS 885-23862/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	23862

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22755-1

GC VOA

Analysis Batch: 24123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22755-9	BH25-16 2'	Total/NA	Solid	8015M/D	23910
885-22755-10	BH25-17 0'	Total/NA	Solid	8015M/D	23910
885-22755-11	BH25-17 2'	Total/NA	Solid	8015M/D	23910
MB 885-23910/1-A	Method Blank	Total/NA	Solid	8015M/D	23910
LCS 885-23910/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	23910
885-22755-9 MS	BH25-16 2'	Total/NA	Solid	8015M/D	23910
885-22755-9 MSD	BH25-16 2'	Total/NA	Solid	8015M/D	23910

Analysis Batch: 24124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22755-9	BH25-16 2'	Total/NA	Solid	8021B	23910
885-22755-10	BH25-17 0'	Total/NA	Solid	8021B	23910
885-22755-11	BH25-17 2'	Total/NA	Solid	8021B	23910
MB 885-23910/1-A	Method Blank	Total/NA	Solid	8021B	23910
LCS 885-23910/3-A	Lab Control Sample	Total/NA	Solid	8021B	23910
885-22755-10 MS	BH25-17 0'	Total/NA	Solid	8021B	23910
885-22755-10 MSD	BH25-17 0'	Total/NA	Solid	8021B	23910

GC Semi VOA

Analysis Batch: 23890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22755-1	BH25-13 0'	Total/NA	Solid	8015M/D	23922
885-22755-2	BH25-13 2'	Total/NA	Solid	8015M/D	23922
885-22755-4	BH25-14 2'	Total/NA	Solid	8015M/D	23922
885-22755-5	BH25-15 2'	Total/NA	Solid	8015M/D	23922
885-22755-6	BH25-15 3'	Total/NA	Solid	8015M/D	23922
885-22755-7	BH25-15 4'	Total/NA	Solid	8015M/D	23922
885-22755-8	BH25-16 0'	Total/NA	Solid	8015M/D	23922
MB 885-23922/1-A	Method Blank	Total/NA	Solid	8015M/D	23922
LCS 885-23922/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	23922

Prep Batch: 23922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22755-1	BH25-13 0'	Total/NA	Solid	SHAKE	
885-22755-2	BH25-13 2'	Total/NA	Solid	SHAKE	
885-22755-3	BH25-14 0'	Total/NA	Solid	SHAKE	
885-22755-4	BH25-14 2'	Total/NA	Solid	SHAKE	
885-22755-5	BH25-15 2'	Total/NA	Solid	SHAKE	
885-22755-6	BH25-15 3'	Total/NA	Solid	SHAKE	
885-22755-7	BH25-15 4'	Total/NA	Solid	SHAKE	
885-22755-8	BH25-16 0'	Total/NA	Solid	SHAKE	
MB 885-23922/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-23922/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 23979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22755-9	BH25-16 2'	Total/NA	Solid	8015M/D	24003
885-22755-10	BH25-17 0'	Total/NA	Solid	8015M/D	24003
885-22755-11	BH25-17 2'	Total/NA	Solid	8015M/D	24003
MB 885-24003/1-A	Method Blank	Total/NA	Solid	8015M/D	24003

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22755-1

GC Semi VOA (Continued)

Analysis Batch: 23979 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 885-24003/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24003
885-22755-9 MS	BH25-16 2'	Total/NA	Solid	8015M/D	24003
885-22755-9 MSD	BH25-16 2'	Total/NA	Solid	8015M/D	24003

Prep Batch: 24003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22755-9	BH25-16 2'	Total/NA	Solid	SHAKE	
885-22755-10	BH25-17 0'	Total/NA	Solid	SHAKE	
885-22755-11	BH25-17 2'	Total/NA	Solid	SHAKE	
MB 885-24003/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-24003/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-22755-9 MS	BH25-16 2'	Total/NA	Solid	SHAKE	
885-22755-9 MSD	BH25-16 2'	Total/NA	Solid	SHAKE	

Analysis Batch: 24185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22755-3	BH25-14 0'	Total/NA	Solid	8015M/D	23922

HPLC/IC

Prep Batch: 23872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22755-1	BH25-13 0'	Total/NA	Solid	300_Prep	
885-22755-2	BH25-13 2'	Total/NA	Solid	300_Prep	
885-22755-3	BH25-14 0'	Total/NA	Solid	300_Prep	
885-22755-4	BH25-14 2'	Total/NA	Solid	300_Prep	
885-22755-5	BH25-15 2'	Total/NA	Solid	300_Prep	
885-22755-6	BH25-15 3'	Total/NA	Solid	300_Prep	
885-22755-7	BH25-15 4'	Total/NA	Solid	300_Prep	
885-22755-8	BH25-16 0'	Total/NA	Solid	300_Prep	
MB 885-23872/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-23872/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Prep Batch: 23901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22755-9	BH25-16 2'	Total/NA	Solid	300_Prep	
885-22755-10	BH25-17 0'	Total/NA	Solid	300_Prep	
885-22755-11	BH25-17 2'	Total/NA	Solid	300_Prep	
MB 885-23901/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-23901/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-22755-9 MS	BH25-16 2'	Total/NA	Solid	300_Prep	
885-22755-9 MSD	BH25-16 2'	Total/NA	Solid	300_Prep	

Analysis Batch: 23904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22755-1	BH25-13 0'	Total/NA	Solid	300.0	23872
885-22755-2	BH25-13 2'	Total/NA	Solid	300.0	23872
885-22755-3	BH25-14 0'	Total/NA	Solid	300.0	23872
885-22755-4	BH25-14 2'	Total/NA	Solid	300.0	23872
885-22755-5	BH25-15 2'	Total/NA	Solid	300.0	23872
885-22755-6	BH25-15 3'	Total/NA	Solid	300.0	23872

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22755-1

HPLC/IC (Continued)

Analysis Batch: 23904 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22755-7	BH25-15 4'	Total/NA	Solid	300.0	23872
885-22755-8	BH25-16 0'	Total/NA	Solid	300.0	23872
885-22755-9	BH25-16 2'	Total/NA	Solid	300.0	23901
885-22755-10	BH25-17 0'	Total/NA	Solid	300.0	23901
885-22755-11	BH25-17 2'	Total/NA	Solid	300.0	23901
MB 885-23872/1-A	Method Blank	Total/NA	Solid	300.0	23872
MB 885-23901/1-A	Method Blank	Total/NA	Solid	300.0	23901
LCS 885-23872/2-A	Lab Control Sample	Total/NA	Solid	300.0	23872
LCS 885-23901/2-A	Lab Control Sample	Total/NA	Solid	300.0	23901
885-22755-9 MS	BH25-16 2'	Total/NA	Solid	300.0	23901
885-22755-9 MSD	BH25-16 2'	Total/NA	Solid	300.0	23901



Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22755-1

Client Sample ID: BH25-13 0'

Lab Sample ID: 885-22755-1

Date Collected: 04/04/25 10:00

Matrix: Solid

Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 21:10
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 21:10
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/09/25 23:42
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 14:55

Client Sample ID: BH25-13 2'

Lab Sample ID: 885-22755-2

Date Collected: 04/04/25 10:10

Matrix: Solid

Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 21:32
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 21:32
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		2	23890	MI	EET ALB	04/09/25 23:54
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 15:09

Client Sample ID: BH25-14 0'

Lab Sample ID: 885-22755-3

Date Collected: 04/04/25 10:20

Matrix: Solid

Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 21:54
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 21:54
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		10	24185	MI	EET ALB	04/15/25 05:05
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 15:51

Client Sample ID: BH25-14 2'

Lab Sample ID: 885-22755-4

Date Collected: 04/04/25 10:30

Matrix: Solid

Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 22:15

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22755-1

Client Sample ID: BH25-14 2'

Lab Sample ID: 885-22755-4

Date Collected: 04/04/25 10:30

Matrix: Solid

Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 22:15
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		20	23890	MI	EET ALB	04/10/25 00:18
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 16:06

Client Sample ID: BH25-15 2'

Lab Sample ID: 885-22755-5

Date Collected: 04/04/25 10:40

Matrix: Solid

Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 22:37
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 22:37
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/10/25 00:30
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 16:20

Client Sample ID: BH25-15 3'

Lab Sample ID: 885-22755-6

Date Collected: 04/04/25 10:50

Matrix: Solid

Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 22:59
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 22:59
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/10/25 00:42
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 16:34

Client Sample ID: BH25-15 4'

Lab Sample ID: 885-22755-7

Date Collected: 04/04/25 11:00

Matrix: Solid

Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 23:20
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 23:20

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Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22755-1

Client Sample ID: BH25-15 4'

Lab Sample ID: 885-22755-7

Date Collected: 04/04/25 11:00

Matrix: Solid

Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/10/25 00:54
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 16:48

Client Sample ID: BH25-16 0'

Lab Sample ID: 885-22755-8

Date Collected: 04/04/25 11:10

Matrix: Solid

Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8015M/D		1	24081	AT	EET ALB	04/10/25 23:42
Total/NA	Prep	5030C			23862	JP	EET ALB	04/08/25 13:29
Total/NA	Analysis	8021B		1	24080	AT	EET ALB	04/10/25 23:42
Total/NA	Prep	SHAKE			23922	MI	EET ALB	04/09/25 11:12
Total/NA	Analysis	8015M/D		1	23890	MI	EET ALB	04/10/25 01:06
Total/NA	Prep	300_Prep			23872	DL	EET ALB	04/08/25 14:54
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 17:02

Client Sample ID: BH25-16 2'

Lab Sample ID: 885-22755-9

Date Collected: 04/04/25 11:20

Matrix: Solid

Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23910	JP	EET ALB	04/09/25 10:08
Total/NA	Analysis	8015M/D		1	24123	JP	EET ALB	04/11/25 13:49
Total/NA	Prep	5030C			23910	JP	EET ALB	04/09/25 10:08
Total/NA	Analysis	8021B		1	24124	JP	EET ALB	04/11/25 13:49
Total/NA	Prep	SHAKE			24003	MI	EET ALB	04/10/25 10:50
Total/NA	Analysis	8015M/D		1	23979	MI	EET ALB	04/10/25 14:24
Total/NA	Prep	300_Prep			23901	DL	EET ALB	04/09/25 14:12
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 21:31

Client Sample ID: BH25-17 0'

Lab Sample ID: 885-22755-10

Date Collected: 04/04/25 11:30

Matrix: Solid

Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23910	JP	EET ALB	04/09/25 10:08
Total/NA	Analysis	8015M/D		1	24123	JP	EET ALB	04/11/25 15:00
Total/NA	Prep	5030C			23910	JP	EET ALB	04/09/25 10:08
Total/NA	Analysis	8021B		1	24124	JP	EET ALB	04/11/25 15:00
Total/NA	Prep	SHAKE			24003	MI	EET ALB	04/10/25 10:50
Total/NA	Analysis	8015M/D		1	23979	MI	EET ALB	04/10/25 15:00

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22755-1

Client Sample ID: BH25-17 0'

Lab Sample ID: 885-22755-10

Date Collected: 04/04/25 11:30

Matrix: Solid

Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			23901	DL	EET ALB	04/09/25 14:12
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 22:14

Client Sample ID: BH25-17 2'

Lab Sample ID: 885-22755-11

Date Collected: 04/04/25 11:40

Matrix: Solid

Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23910	JP	EET ALB	04/09/25 10:08
Total/NA	Analysis	8015M/D		1	24123	JP	EET ALB	04/11/25 16:12
Total/NA	Prep	5030C			23910	JP	EET ALB	04/09/25 10:08
Total/NA	Analysis	8021B		1	24124	JP	EET ALB	04/11/25 16:12
Total/NA	Prep	SHAKE			24003	MI	EET ALB	04/10/25 10:50
Total/NA	Analysis	8015M/D		1	23979	MI	EET ALB	04/10/25 15:13
Total/NA	Prep	300_Prep			23901	DL	EET ALB	04/09/25 14:12
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/09/25 22:28

Laboratory References:

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

Accreditation/Certification Summary

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22755-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-27-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total
Oregon	NELAP	NM100001	02-26-26



Chain-of-Custody Record

Client: **Vertex (bill to Mack Energy, Matt Buckles)**
 Mailing Address: _____ (On File)

Turn-Around Time:
 Standard *X* **Within 5 Day**
 Project Name:

Project #:
25A-01340

Project Manager:
Sally Carttar
SCarttar@vertexresource.com

Sampler: **A. Harris**
 On Ice: Yes No
 # of Coolers: **1**

Cooler Temp (including CF): **2.6 to 2 = 2.8 °C**

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
04/25	10:00	Soil	BH25-13 0'	1, 4oz jar	ICE	
04/25	10:10	Soil	BH25-13 2'	1, 4oz jar	ICE	
04/25	10:20	Soil	BH25-14 0'	1, 4oz jar	ICE	
04/25	10:30	Soil	BH25-14 2'	1, 4oz jar	ICE	
04/25	10:40	Soil	BH25-15 2'	1, 4oz jar	ICE	
04/25	10:50	Soil	BH25-15 3'	1, 4oz jar	ICE	
04/25	11:00	Soil	BH25-15 4'	1, 4oz jar	ICE	
04/25	11:10	Soil	BH25-16 0'	1, 4oz jar	ICE	
04/25	11:20	Soil	BH25-16 2'	1, 4oz jar	ICE	
04/25	11:30	Soil	BH25-17 0'	1, 4oz jar	ICE	
04/25	11:40	Soil	BH25-17 2'	1, 4oz jar	ICE	

Date: **4-25-25** Time: **1300**
 Relinquished by: *Austin Harris*
 Date: **4/17/25** Time: **1900**
 Relinquished by: *Carttar*

Received by: *Carttar* Date: **4-17-25** Time: **1000**
 Received by: *Carttar* Date: **4-8-25** Time: **8:05**



HALL ENVIRONMENTAL ANALYSIS LAB
 www.hallenvironmental.com 885-22755 COC

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

TPH: 015D (GRO / DRO / MRO)	BTEX / MTBE / TMBs (8021)	8081 Pesticides/8082 PCBs	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl ⁻ , Br ⁻ , NO ₃ ⁻ , NO ₂ ⁻ , PO ₄ ⁻ , SO ₄ ⁻	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			

Remarks:
 Direct Bill to Mack Energy: ATTN: Matt Buckles
 CC: Sally Carttar (SCarttar@vertexresource.com), Austin Harris
 (aharris@vertexresource.com) for Final Report.



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

Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-22755-1

Login Number: 22755

List Number: 1

Creator: Alderette, Joseph

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	





Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 4/15/2025 11:58:50 AM

JOB DESCRIPTION

Jackson B #065

JOB NUMBER

885-22838-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109



Eurofins Albuquerque

Job Notes

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

Authorization



Generated
4/15/2025 11:58:50 AM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)338-8812

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Client: Vertex
Project/Site: Jackson B #065

Laboratory Job ID: 885-22838-1



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Definitions/Glossary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22838-1

Glossary

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

Case Narrative

Client: Vertex
Project: Jackson B #065

Job ID: 885-22838-1

Job ID: 885-22838-1

Eurofins Albuquerque

Job Narrative 885-22838-1

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

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

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

Receipt

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

Gasoline Range Organics

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

GC VOA

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

Diesel Range Organics

Method 8015D_DRO: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 885-24120 and analytical batch 885-24076 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.

Method 8015D_DRO: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 885-24120 and analytical batch 885-24076 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

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

HPLC/IC

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

Eurofins Albuquerque



Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22838-1

Client Sample ID: BH25-18 0'

Lab Sample ID: 885-22838-1

Date Collected: 04/07/25 10:15

Matrix: Solid

Date Received: 04/09/25 07:40

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/09/25 18:09	04/11/25 21:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		35 - 166			04/09/25 18:09	04/11/25 21:21	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/09/25 18:09	04/11/25 21:21	1
Ethylbenzene	ND		0.048	mg/Kg		04/09/25 18:09	04/11/25 21:21	1
Toluene	ND		0.048	mg/Kg		04/09/25 18:09	04/11/25 21:21	1
Xylenes, Total	ND		0.096	mg/Kg		04/09/25 18:09	04/11/25 21:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		48 - 145			04/09/25 18:09	04/11/25 21:21	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6	mg/Kg		04/11/25 12:27	04/12/25 01:29	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/11/25 12:27	04/12/25 01:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	120		62 - 134			04/11/25 12:27	04/12/25 01:29	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/11/25 10:14	04/11/25 12:38	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22838-1

Client Sample ID: BH25-18 2'

Lab Sample ID: 885-22838-2

Date Collected: 04/07/25 10:20

Matrix: Solid

Date Received: 04/09/25 07:40

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/09/25 18:09	04/11/25 21:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		35 - 166			04/09/25 18:09	04/11/25 21:45	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/09/25 18:09	04/11/25 21:45	1
Ethylbenzene	ND		0.049	mg/Kg		04/09/25 18:09	04/11/25 21:45	1
Toluene	ND		0.049	mg/Kg		04/09/25 18:09	04/11/25 21:45	1
Xylenes, Total	ND		0.098	mg/Kg		04/09/25 18:09	04/11/25 21:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		48 - 145			04/09/25 18:09	04/11/25 21:45	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		04/11/25 12:27	04/12/25 01:41	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/11/25 12:27	04/12/25 01:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	116		62 - 134			04/11/25 12:27	04/12/25 01:41	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/11/25 10:14	04/11/25 13:09	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22838-1

Client Sample ID: BH25-19 0'

Lab Sample ID: 885-22838-3

Date Collected: 04/07/25 10:25

Matrix: Solid

Date Received: 04/09/25 07:40

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/09/25 18:09	04/11/25 22:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		35 - 166			04/09/25 18:09	04/11/25 22:09	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/09/25 18:09	04/11/25 22:09	1
Ethylbenzene	ND		0.049	mg/Kg		04/09/25 18:09	04/11/25 22:09	1
Toluene	ND		0.049	mg/Kg		04/09/25 18:09	04/11/25 22:09	1
Xylenes, Total	ND		0.097	mg/Kg		04/09/25 18:09	04/11/25 22:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		48 - 145			04/09/25 18:09	04/11/25 22:09	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1	mg/Kg		04/11/25 12:27	04/12/25 01:53	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		04/11/25 12:27	04/12/25 01:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	98		62 - 134			04/11/25 12:27	04/12/25 01:53	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	65		60	mg/Kg		04/11/25 10:14	04/11/25 13:20	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22838-1

Client Sample ID: BH25-19 2'

Lab Sample ID: 885-22838-4

Date Collected: 04/07/25 10:27

Matrix: Solid

Date Received: 04/09/25 07:40

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/09/25 18:09	04/11/25 22:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		35 - 166			04/09/25 18:09	04/11/25 22:33	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/09/25 18:09	04/11/25 22:33	1
Ethylbenzene	ND		0.047	mg/Kg		04/09/25 18:09	04/11/25 22:33	1
Toluene	ND		0.047	mg/Kg		04/09/25 18:09	04/11/25 22:33	1
Xylenes, Total	ND		0.094	mg/Kg		04/09/25 18:09	04/11/25 22:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		48 - 145			04/09/25 18:09	04/11/25 22:33	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		04/11/25 12:27	04/12/25 02:05	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		04/11/25 12:27	04/12/25 02:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	123		62 - 134			04/11/25 12:27	04/12/25 02:05	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/11/25 10:14	04/11/25 13:30	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22838-1

Client Sample ID: BH25-21 0'

Lab Sample ID: 885-22838-5

Date Collected: 04/07/25 10:45

Matrix: Solid

Date Received: 04/09/25 07:40

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/09/25 18:09	04/11/25 22:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		35 - 166			04/09/25 18:09	04/11/25 22:58	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/09/25 18:09	04/11/25 22:58	1
Ethylbenzene	ND		0.050	mg/Kg		04/09/25 18:09	04/11/25 22:58	1
Toluene	ND		0.050	mg/Kg		04/09/25 18:09	04/11/25 22:58	1
Xylenes, Total	ND		0.10	mg/Kg		04/09/25 18:09	04/11/25 22:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		48 - 145			04/09/25 18:09	04/11/25 22:58	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6	mg/Kg		04/11/25 12:27	04/12/25 02:17	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/11/25 12:27	04/12/25 02:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	106		62 - 134			04/11/25 12:27	04/12/25 02:17	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		59	mg/Kg		04/11/25 10:14	04/11/25 13:41	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22838-1

Client Sample ID: BH25-21 2'

Lab Sample ID: 885-22838-6

Date Collected: 04/07/25 10:50

Matrix: Solid

Date Received: 04/09/25 07:40

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/09/25 18:09	04/11/25 23:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		35 - 166			04/09/25 18:09	04/11/25 23:22	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/09/25 18:09	04/11/25 23:22	1
Ethylbenzene	ND		0.049	mg/Kg		04/09/25 18:09	04/11/25 23:22	1
Toluene	ND		0.049	mg/Kg		04/09/25 18:09	04/11/25 23:22	1
Xylenes, Total	ND		0.098	mg/Kg		04/09/25 18:09	04/11/25 23:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		48 - 145			04/09/25 18:09	04/11/25 23:22	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		04/11/25 12:27	04/12/25 02:29	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/11/25 12:27	04/12/25 02:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	101		62 - 134			04/11/25 12:27	04/12/25 02:29	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	270		60	mg/Kg		04/11/25 10:14	04/11/25 13:51	20

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22838-1

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

Lab Sample ID: MB 885-23910/1-A
Matrix: Solid
Analysis Batch: 24123

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23910

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/09/25 10:07	04/11/25 13:25	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		35 - 166			04/09/25 10:07	04/11/25 13:25	1

Lab Sample ID: LCS 885-23910/2-A
Matrix: Solid
Analysis Batch: 24123

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23910

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	30.7		mg/Kg		123	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	236		35 - 166				

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-23910/1-A
Matrix: Solid
Analysis Batch: 24124

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23910

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/09/25 10:07	04/11/25 13:25	1
Ethylbenzene	ND		0.050	mg/Kg		04/09/25 10:07	04/11/25 13:25	1
Toluene	ND		0.050	mg/Kg		04/09/25 10:07	04/11/25 13:25	1
Xylenes, Total	ND		0.10	mg/Kg		04/09/25 10:07	04/11/25 13:25	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		48 - 145			04/09/25 10:07	04/11/25 13:25	1

Lab Sample ID: LCS 885-23910/3-A
Matrix: Solid
Analysis Batch: 24124

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23910

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	1.07		mg/Kg		107	70 - 130
Ethylbenzene	1.00	1.10		mg/Kg		110	70 - 130
m,p-Xylene	2.00	2.30		mg/Kg		115	70 - 130
o-Xylene	1.00	1.12		mg/Kg		112	70 - 130
Toluene	1.00	1.09		mg/Kg		109	70 - 130
Xylenes, Total	3.00	3.42		mg/Kg		114	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	115		48 - 145				

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QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22838-1

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

Lab Sample ID: MB 885-24120/1-A
Matrix: Solid
Analysis Batch: 24076

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24120

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		04/11/25 12:27	04/11/25 21:40	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		04/11/25 12:27	04/11/25 21:40	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	127		62 - 134			04/11/25 12:27	04/11/25 21:40	1

Lab Sample ID: LCS 885-24120/2-A
Matrix: Solid
Analysis Batch: 24076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24120

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	44.5		mg/Kg		89	60 - 135
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Di-n-octyl phthalate (Surr)	88		62 - 134				

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-24097/1-A
Matrix: Solid
Analysis Batch: 24098

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24097

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5	mg/Kg		04/11/25 10:14	04/11/25 11:04	1
Surrogate	MB %Recovery	MB Qualifier	Limits					
Chloride	15.0		14.3	mg/Kg		96	90 - 110	

QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-22838-1

GC VOA

Prep Batch: 23910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22838-1	BH25-18 0'	Total/NA	Solid	5030C	
885-22838-2	BH25-18 2'	Total/NA	Solid	5030C	
885-22838-3	BH25-19 0'	Total/NA	Solid	5030C	
885-22838-4	BH25-19 2'	Total/NA	Solid	5030C	
885-22838-5	BH25-21 0'	Total/NA	Solid	5030C	
885-22838-6	BH25-21 2'	Total/NA	Solid	5030C	
MB 885-23910/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-23910/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-23910/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 24123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22838-1	BH25-18 0'	Total/NA	Solid	8015M/D	23910
885-22838-2	BH25-18 2'	Total/NA	Solid	8015M/D	23910
885-22838-3	BH25-19 0'	Total/NA	Solid	8015M/D	23910
885-22838-4	BH25-19 2'	Total/NA	Solid	8015M/D	23910
885-22838-5	BH25-21 0'	Total/NA	Solid	8015M/D	23910
885-22838-6	BH25-21 2'	Total/NA	Solid	8015M/D	23910
MB 885-23910/1-A	Method Blank	Total/NA	Solid	8015M/D	23910
LCS 885-23910/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	23910

Analysis Batch: 24124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22838-1	BH25-18 0'	Total/NA	Solid	8021B	23910
885-22838-2	BH25-18 2'	Total/NA	Solid	8021B	23910
885-22838-3	BH25-19 0'	Total/NA	Solid	8021B	23910
885-22838-4	BH25-19 2'	Total/NA	Solid	8021B	23910
885-22838-5	BH25-21 0'	Total/NA	Solid	8021B	23910
885-22838-6	BH25-21 2'	Total/NA	Solid	8021B	23910
MB 885-23910/1-A	Method Blank	Total/NA	Solid	8021B	23910
LCS 885-23910/3-A	Lab Control Sample	Total/NA	Solid	8021B	23910

GC Semi VOA

Analysis Batch: 24076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22838-1	BH25-18 0'	Total/NA	Solid	8015M/D	24120
885-22838-2	BH25-18 2'	Total/NA	Solid	8015M/D	24120
885-22838-3	BH25-19 0'	Total/NA	Solid	8015M/D	24120
885-22838-4	BH25-19 2'	Total/NA	Solid	8015M/D	24120
885-22838-5	BH25-21 0'	Total/NA	Solid	8015M/D	24120
885-22838-6	BH25-21 2'	Total/NA	Solid	8015M/D	24120
MB 885-24120/1-A	Method Blank	Total/NA	Solid	8015M/D	24120
LCS 885-24120/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24120

Prep Batch: 24120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22838-1	BH25-18 0'	Total/NA	Solid	SHAKE	
885-22838-2	BH25-18 2'	Total/NA	Solid	SHAKE	
885-22838-3	BH25-19 0'	Total/NA	Solid	SHAKE	
885-22838-4	BH25-19 2'	Total/NA	Solid	SHAKE	

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QC Association Summary

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22838-1

GC Semi VOA (Continued)

Prep Batch: 24120 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22838-5	BH25-21 0'	Total/NA	Solid	SHAKE	
885-22838-6	BH25-21 2'	Total/NA	Solid	SHAKE	
MB 885-24120/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-24120/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

HPLC/IC

Prep Batch: 24097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22838-1	BH25-18 0'	Total/NA	Solid	300_Prep	
885-22838-2	BH25-18 2'	Total/NA	Solid	300_Prep	
885-22838-3	BH25-19 0'	Total/NA	Solid	300_Prep	
885-22838-4	BH25-19 2'	Total/NA	Solid	300_Prep	
885-22838-5	BH25-21 0'	Total/NA	Solid	300_Prep	
885-22838-6	BH25-21 2'	Total/NA	Solid	300_Prep	
MB 885-24097/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-24097/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 24098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22838-1	BH25-18 0'	Total/NA	Solid	300.0	24097
885-22838-2	BH25-18 2'	Total/NA	Solid	300.0	24097
885-22838-3	BH25-19 0'	Total/NA	Solid	300.0	24097
885-22838-4	BH25-19 2'	Total/NA	Solid	300.0	24097
885-22838-5	BH25-21 0'	Total/NA	Solid	300.0	24097
885-22838-6	BH25-21 2'	Total/NA	Solid	300.0	24097
MB 885-24097/1-A	Method Blank	Total/NA	Solid	300.0	24097
LCS 885-24097/2-A	Lab Control Sample	Total/NA	Solid	300.0	24097

Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22838-1

Client Sample ID: BH25-18 0'

Lab Sample ID: 885-22838-1

Date Collected: 04/07/25 10:15

Matrix: Solid

Date Received: 04/09/25 07:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23910	JP	EET ALB	04/09/25 18:09
Total/NA	Analysis	8015M/D		1	24123	JP	EET ALB	04/11/25 21:21
Total/NA	Prep	5030C			23910	JP	EET ALB	04/09/25 18:09
Total/NA	Analysis	8021B		1	24124	JP	EET ALB	04/11/25 21:21
Total/NA	Prep	SHAKE			24120	MI	EET ALB	04/11/25 12:27
Total/NA	Analysis	8015M/D		1	24076	MI	EET ALB	04/12/25 01:29
Total/NA	Prep	300_Prep			24097	DL	EET ALB	04/11/25 10:14
Total/NA	Analysis	300.0		20	24098	JT	EET ALB	04/11/25 12:38

Client Sample ID: BH25-18 2'

Lab Sample ID: 885-22838-2

Date Collected: 04/07/25 10:20

Matrix: Solid

Date Received: 04/09/25 07:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23910	JP	EET ALB	04/09/25 18:09
Total/NA	Analysis	8015M/D		1	24123	JP	EET ALB	04/11/25 21:45
Total/NA	Prep	5030C			23910	JP	EET ALB	04/09/25 18:09
Total/NA	Analysis	8021B		1	24124	JP	EET ALB	04/11/25 21:45
Total/NA	Prep	SHAKE			24120	MI	EET ALB	04/11/25 12:27
Total/NA	Analysis	8015M/D		1	24076	MI	EET ALB	04/12/25 01:41
Total/NA	Prep	300_Prep			24097	DL	EET ALB	04/11/25 10:14
Total/NA	Analysis	300.0		20	24098	JT	EET ALB	04/11/25 13:09

Client Sample ID: BH25-19 0'

Lab Sample ID: 885-22838-3

Date Collected: 04/07/25 10:25

Matrix: Solid

Date Received: 04/09/25 07:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23910	JP	EET ALB	04/09/25 18:09
Total/NA	Analysis	8015M/D		1	24123	JP	EET ALB	04/11/25 22:09
Total/NA	Prep	5030C			23910	JP	EET ALB	04/09/25 18:09
Total/NA	Analysis	8021B		1	24124	JP	EET ALB	04/11/25 22:09
Total/NA	Prep	SHAKE			24120	MI	EET ALB	04/11/25 12:27
Total/NA	Analysis	8015M/D		1	24076	MI	EET ALB	04/12/25 01:53
Total/NA	Prep	300_Prep			24097	DL	EET ALB	04/11/25 10:14
Total/NA	Analysis	300.0		20	24098	JT	EET ALB	04/11/25 13:20

Client Sample ID: BH25-19 2'

Lab Sample ID: 885-22838-4

Date Collected: 04/07/25 10:27

Matrix: Solid

Date Received: 04/09/25 07:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23910	JP	EET ALB	04/09/25 18:09
Total/NA	Analysis	8015M/D		1	24123	JP	EET ALB	04/11/25 22:33

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22838-1

Client Sample ID: BH25-19 2'

Lab Sample ID: 885-22838-4

Date Collected: 04/07/25 10:27

Matrix: Solid

Date Received: 04/09/25 07:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23910	JP	EET ALB	04/09/25 18:09
Total/NA	Analysis	8021B		1	24124	JP	EET ALB	04/11/25 22:33
Total/NA	Prep	SHAKE			24120	MI	EET ALB	04/11/25 12:27
Total/NA	Analysis	8015M/D		1	24076	MI	EET ALB	04/12/25 02:05
Total/NA	Prep	300_Prep			24097	DL	EET ALB	04/11/25 10:14
Total/NA	Analysis	300.0		20	24098	JT	EET ALB	04/11/25 13:30

Client Sample ID: BH25-21 0'

Lab Sample ID: 885-22838-5

Date Collected: 04/07/25 10:45

Matrix: Solid

Date Received: 04/09/25 07:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23910	JP	EET ALB	04/09/25 18:09
Total/NA	Analysis	8015M/D		1	24123	JP	EET ALB	04/11/25 22:58
Total/NA	Prep	5030C			23910	JP	EET ALB	04/09/25 18:09
Total/NA	Analysis	8021B		1	24124	JP	EET ALB	04/11/25 22:58
Total/NA	Prep	SHAKE			24120	MI	EET ALB	04/11/25 12:27
Total/NA	Analysis	8015M/D		1	24076	MI	EET ALB	04/12/25 02:17
Total/NA	Prep	300_Prep			24097	DL	EET ALB	04/11/25 10:14
Total/NA	Analysis	300.0		20	24098	JT	EET ALB	04/11/25 13:41

Client Sample ID: BH25-21 2'

Lab Sample ID: 885-22838-6

Date Collected: 04/07/25 10:50

Matrix: Solid

Date Received: 04/09/25 07:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			23910	JP	EET ALB	04/09/25 18:09
Total/NA	Analysis	8015M/D		1	24123	JP	EET ALB	04/11/25 23:22
Total/NA	Prep	5030C			23910	JP	EET ALB	04/09/25 18:09
Total/NA	Analysis	8021B		1	24124	JP	EET ALB	04/11/25 23:22
Total/NA	Prep	SHAKE			24120	MI	EET ALB	04/11/25 12:27
Total/NA	Analysis	8015M/D		1	24076	MI	EET ALB	04/12/25 02:29
Total/NA	Prep	300_Prep			24097	DL	EET ALB	04/11/25 10:14
Total/NA	Analysis	300.0		20	24098	JT	EET ALB	04/11/25 13:51

Laboratory References:

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

Accreditation/Certification Summary

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-22838-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date																																				
New Mexico	State	NM9425, NM0901	02-27-26																																				
<p>The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.</p> <table border="1"> <thead> <tr> <th>Analysis Method</th> <th>Prep Method</th> <th>Matrix</th> <th>Analyte</th> </tr> </thead> <tbody> <tr> <td>300.0</td> <td>300_Prep</td> <td>Solid</td> <td>Chloride</td> </tr> <tr> <td>8015M/D</td> <td>5030C</td> <td>Solid</td> <td>Gasoline Range Organics [C6 - C10]</td> </tr> <tr> <td>8015M/D</td> <td>SHAKE</td> <td>Solid</td> <td>Diesel Range Organics [C10-C28]</td> </tr> <tr> <td>8015M/D</td> <td>SHAKE</td> <td>Solid</td> <td>Motor Oil Range Organics [C28-C40]</td> </tr> <tr> <td>8021B</td> <td>5030C</td> <td>Solid</td> <td>Benzene</td> </tr> <tr> <td>8021B</td> <td>5030C</td> <td>Solid</td> <td>Ethylbenzene</td> </tr> <tr> <td>8021B</td> <td>5030C</td> <td>Solid</td> <td>Toluene</td> </tr> <tr> <td>8021B</td> <td>5030C</td> <td>Solid</td> <td>Xylenes, Total</td> </tr> </tbody> </table>				Analysis Method	Prep Method	Matrix	Analyte	300.0	300_Prep	Solid	Chloride	8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]	8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]	8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]	8021B	5030C	Solid	Benzene	8021B	5030C	Solid	Ethylbenzene	8021B	5030C	Solid	Toluene	8021B	5030C	Solid	Xylenes, Total
Analysis Method	Prep Method	Matrix	Analyte																																				
300.0	300_Prep	Solid	Chloride																																				
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]																																				
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]																																				
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]																																				
8021B	5030C	Solid	Benzene																																				
8021B	5030C	Solid	Ethylbenzene																																				
8021B	5030C	Solid	Toluene																																				
8021B	5030C	Solid	Xylenes, Total																																				
Oregon	NELAP	NM100001	02-26-26																																				

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HALL ENVIRONMENTAL ANALYSIS LABORATORY
 www.hallenvironmental.com 885-22838 COC
 4901 Hawkins NE - Albuquerque, NM 87112
 Tel. 505-345-3975 Fax 505-345-4107

Turn-Around Time: **5 Business Days**

X Standard **Push 5 Day**

Project Name: **Jackson B #065**

Project #: **25A-01340**

Project Manager: **Sally Carttar**

Sampler: **S. McCarty**

On Ice: Yes No

of Coolers: **1**

Cooler Temp (including CF): **0.3 to 2 to 5**

Client: **Vertex (bill to Mack Energy, Matt Buckles)**

Mailing Address: **(On File)**

Phone #: **25A-01340**

email or Fax#: **25A-01340**

QA/QC Package: Level 4 (Full Validation)

Accreditation: Az Compliance

NELAC Other

EDD (Type)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
04.07.25	10:15	Soil	BH25-18 0'	1, 4oz jar	ICE	
04.07.25	10:20	Soil	BH25-18 2'	1, 4oz jar	ICE	
04.07.25	10:25	Soil	BH25-19 0'	1, 4oz jar	ICE	
04.07.25	10:27	Soil	BH25-19 2'	1, 4oz jar	ICE	
04.07.25	10:45	Soil	BH25-21 0'	1, 4oz jar	ICE	
04.07.25	10:50	Soil	BH25-21 2'	1, 4oz jar	ICE	

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

Relinquished by: **Steph McCarty** Date: **5/18/25 18:00**

Relinquished by: **Steph McCarty** Date: **4/18/25 9:00**

Received by: **[Signature]** Date: **4/18/25 7:40**

Received by: **[Signature]** Date: **4/18/25 9:00**

Remarks:
 Direct Bill to Mack Energy: ATTN: Matt Buckles
 CC: Sally Carttar (SCarttar@vertexresource.com), Austin Harris
 (aharris@vertexresource.com), Stephanie McCarty
 (smccarty@vertexresource.com) for Final Report.



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

Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-22838-1

Login Number: 22838

List Source: Eurofins Albuquerque

List Number: 1

Creator: Rojas, Juan

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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	





Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
 Vertex
 3101 Boyd Dr
 Carlsbad, New Mexico 88220

Generated 4/23/2025 3:33:25 PM

JOB DESCRIPTION

Jackson B #065

JOB NUMBER

885-23113-1

Eurofins Albuquerque
 4901 Hawkins NE
 Albuquerque NM 87109



Eurofins Albuquerque

Job Notes

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

Authorization



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4/23/2025 3:33:25 PM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)338-8812

Client: Vertex
Project/Site: Jackson B #065

Laboratory Job ID: 885-23113-1



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Definitions/Glossary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23113-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

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

Case Narrative

Client: Vertex
Project: Jackson B #065

Job ID: 885-23113-1

Job ID: 885-23113-1

Eurofins Albuquerque

Job Narrative 885-23113-1

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

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

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

Receipt

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

Gasoline Range Organics

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

GC VOA

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

Diesel Range Organics

Method 8015D_DRO: Surrogate recovery for the following sample was outside the upper control limit: (MB 885-24387/1-A). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8015D_DRO: The following sample was diluted due to the nature of the sample matrix: BH25-14 3' (885-23113-3)

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

HPLC/IC

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

Eurofins Albuquerque



Client Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23113-1

Client Sample ID: BH25-11 4'

Lab Sample ID: 885-23113-1

Date Collected: 04/10/25 12:40

Matrix: Solid

Date Received: 04/12/25 07:55

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/15/25 10:22	04/17/25 15:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		35 - 166			04/15/25 10:22	04/17/25 15:02	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/15/25 10:22	04/17/25 15:02	1
Ethylbenzene	ND		0.049	mg/Kg		04/15/25 10:22	04/17/25 15:02	1
Toluene	ND		0.049	mg/Kg		04/15/25 10:22	04/17/25 15:02	1
Xylenes, Total	ND		0.098	mg/Kg		04/15/25 10:22	04/17/25 15:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		48 - 145			04/15/25 10:22	04/17/25 15:02	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	60		9.6	mg/Kg		04/23/25 11:56	04/23/25 14:06	1
Motor Oil Range Organics [C28-C40]	250		48	mg/Kg		04/23/25 11:56	04/23/25 14:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	110		62 - 134			04/23/25 11:56	04/23/25 14:06	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1100		61	mg/Kg		04/16/25 09:52	04/16/25 17:46	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23113-1

Client Sample ID: BH25-11 5'

Lab Sample ID: 885-23113-2

Date Collected: 04/10/25 13:30

Matrix: Solid

Date Received: 04/12/25 07:55

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/15/25 10:22	04/17/25 15:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		35 - 166			04/15/25 10:22	04/17/25 15:28	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/15/25 10:22	04/17/25 15:28	1
Ethylbenzene	ND		0.049	mg/Kg		04/15/25 10:22	04/17/25 15:28	1
Toluene	ND		0.049	mg/Kg		04/15/25 10:22	04/17/25 15:28	1
Xylenes, Total	ND		0.098	mg/Kg		04/15/25 10:22	04/17/25 15:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		48 - 145			04/15/25 10:22	04/17/25 15:28	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		04/16/25 13:17	04/17/25 16:48	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		04/16/25 13:17	04/17/25 16:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	116		62 - 134			04/16/25 13:17	04/17/25 16:48	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	360		61	mg/Kg		04/16/25 09:52	04/16/25 18:00	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23113-1

Client Sample ID: BH25-14 3'

Lab Sample ID: 885-23113-3

Date Collected: 04/10/25 12:15

Matrix: Solid

Date Received: 04/12/25 07:55

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6	mg/Kg		04/15/25 10:22	04/17/25 15:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		35 - 166			04/15/25 10:22	04/17/25 15:53	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/15/25 10:22	04/17/25 15:53	1
Ethylbenzene	ND		0.046	mg/Kg		04/15/25 10:22	04/17/25 15:53	1
Toluene	ND		0.046	mg/Kg		04/15/25 10:22	04/17/25 15:53	1
Xylenes, Total	ND		0.092	mg/Kg		04/15/25 10:22	04/17/25 15:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		48 - 145			04/15/25 10:22	04/17/25 15:53	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	400		99	mg/Kg		04/16/25 13:17	04/17/25 17:12	10
Motor Oil Range Organics [C28-C40]	610		500	mg/Kg		04/16/25 13:17	04/17/25 17:12	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	0	D S1-	62 - 134			04/16/25 13:17	04/17/25 17:12	10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	270		60	mg/Kg		04/16/25 09:52	04/16/25 18:14	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23113-1

Client Sample ID: BH25-14 4'

Lab Sample ID: 885-23113-4

Date Collected: 04/10/25 12:20

Matrix: Solid

Date Received: 04/12/25 07:55

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/15/25 10:22	04/17/25 16:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		35 - 166			04/15/25 10:22	04/17/25 16:18	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/15/25 10:22	04/17/25 16:18	1
Ethylbenzene	ND		0.050	mg/Kg		04/15/25 10:22	04/17/25 16:18	1
Toluene	ND		0.050	mg/Kg		04/15/25 10:22	04/17/25 16:18	1
Xylenes, Total	ND		0.10	mg/Kg		04/15/25 10:22	04/17/25 16:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		48 - 145			04/15/25 10:22	04/17/25 16:18	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	14		9.6	mg/Kg		04/16/25 13:17	04/17/25 17:48	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/16/25 13:17	04/17/25 17:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	121		62 - 134			04/16/25 13:17	04/17/25 17:48	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	810		60	mg/Kg		04/16/25 09:52	04/16/25 18:28	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23113-1

Client Sample ID: BH25-22 10'

Lab Sample ID: 885-23113-5

Date Collected: 04/10/25 09:30

Matrix: Solid

Date Received: 04/12/25 07:55

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/15/25 10:22	04/17/25 16:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		35 - 166			04/15/25 10:22	04/17/25 16:43	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/15/25 10:22	04/17/25 16:43	1
Ethylbenzene	ND		0.047	mg/Kg		04/15/25 10:22	04/17/25 16:43	1
Toluene	ND		0.047	mg/Kg		04/15/25 10:22	04/17/25 16:43	1
Xylenes, Total	ND		0.093	mg/Kg		04/15/25 10:22	04/17/25 16:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		48 - 145			04/15/25 10:22	04/17/25 16:43	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		04/16/25 13:17	04/17/25 18:00	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		04/16/25 13:17	04/17/25 18:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	122		62 - 134			04/16/25 13:17	04/17/25 18:00	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	200		60	mg/Kg		04/16/25 09:52	04/16/25 18:42	20

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23113-1

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

Lab Sample ID: MB 885-24279/1-A
Matrix: Solid
Analysis Batch: 24454

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24279

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/15/25 10:22	04/17/25 12:32	1
Surrogate	%Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		35 - 166			04/15/25 10:22	04/17/25 12:32	1

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

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

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

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-24279/1-A
Matrix: Solid
Analysis Batch: 24455

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24279

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/15/25 10:22	04/17/25 12:32	1
Ethylbenzene	ND		0.050	mg/Kg		04/15/25 10:22	04/17/25 12:32	1
Toluene	ND		0.050	mg/Kg		04/15/25 10:22	04/17/25 12:32	1
Xylenes, Total	ND		0.10	mg/Kg		04/15/25 10:22	04/17/25 12:32	1
Surrogate	%Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		48 - 145			04/15/25 10:22	04/17/25 12:32	1

Lab Sample ID: LCS 885-24279/3-A
Matrix: Solid
Analysis Batch: 24455

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.993		mg/Kg		99	70 - 130
Ethylbenzene	1.00	0.997		mg/Kg		100	70 - 130
m,p-Xylene	2.00	2.14		mg/Kg		107	70 - 130
o-Xylene	1.00	1.02		mg/Kg		102	70 - 130
Toluene	1.00	0.998		mg/Kg		100	70 - 130
Xylenes, Total	3.00	3.16		mg/Kg		105	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	118		48 - 145				

Eurofins Albuquerque

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23113-1

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

Lab Sample ID: MB 885-24387/1-A
Matrix: Solid
Analysis Batch: 24440

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24387

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		04/16/25 13:17	04/17/25 13:17	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		04/16/25 13:17	04/17/25 13:17	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
Di-n-octyl phthalate (Surr)	159	S1+	62 - 134			04/16/25 13:17	04/17/25 13:17	1

Lab Sample ID: LCS 885-24387/2-A
Matrix: Solid
Analysis Batch: 24440

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24387

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Diesel Range Organics [C10-C28]	50.0	60.3		mg/Kg		121	60 - 135
Surrogate	LCS LCS		Limits				
	%Recovery	Qualifier					
Di-n-octyl phthalate (Surr)	125		62 - 134				

Lab Sample ID: MB 885-24814/1-A
Matrix: Solid
Analysis Batch: 24778

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24814

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		04/23/25 11:56	04/23/25 13:41	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		04/23/25 11:56	04/23/25 13:41	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
Di-n-octyl phthalate (Surr)	112		62 - 134			04/23/25 11:56	04/23/25 13:41	1

Lab Sample ID: LCS 885-24814/2-A
Matrix: Solid
Analysis Batch: 24778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24814

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Diesel Range Organics [C10-C28]	50.0	46.2		mg/Kg		92	51 - 148
Surrogate	LCS LCS		Limits				
	%Recovery	Qualifier					
Di-n-octyl phthalate (Surr)	106		62 - 134				

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-24356/1-A
Matrix: Solid
Analysis Batch: 24362

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24356

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	ND		1.5	mg/Kg		04/16/25 09:52	04/16/25 12:06	1

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QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23113-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 885-24356/2-A
Matrix: Solid
Analysis Batch: 24362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24356

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	15.0	14.9		mg/Kg		99	90 - 110

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QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23113-1

GC VOA

Prep Batch: 24279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23113-1	BH25-11 4'	Total/NA	Solid	5030C	
885-23113-2	BH25-11 5'	Total/NA	Solid	5030C	
885-23113-3	BH25-14 3'	Total/NA	Solid	5030C	
885-23113-4	BH25-14 4'	Total/NA	Solid	5030C	
885-23113-5	BH25-22 10'	Total/NA	Solid	5030C	
MB 885-24279/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-24279/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-24279/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 24454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23113-1	BH25-11 4'	Total/NA	Solid	8015M/D	24279
885-23113-2	BH25-11 5'	Total/NA	Solid	8015M/D	24279
885-23113-3	BH25-14 3'	Total/NA	Solid	8015M/D	24279
885-23113-4	BH25-14 4'	Total/NA	Solid	8015M/D	24279
885-23113-5	BH25-22 10'	Total/NA	Solid	8015M/D	24279
MB 885-24279/1-A	Method Blank	Total/NA	Solid	8015M/D	24279
LCS 885-24279/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24279

Analysis Batch: 24455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23113-1	BH25-11 4'	Total/NA	Solid	8021B	24279
885-23113-2	BH25-11 5'	Total/NA	Solid	8021B	24279
885-23113-3	BH25-14 3'	Total/NA	Solid	8021B	24279
885-23113-4	BH25-14 4'	Total/NA	Solid	8021B	24279
885-23113-5	BH25-22 10'	Total/NA	Solid	8021B	24279
MB 885-24279/1-A	Method Blank	Total/NA	Solid	8021B	24279
LCS 885-24279/3-A	Lab Control Sample	Total/NA	Solid	8021B	24279

GC Semi VOA

Prep Batch: 24387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23113-2	BH25-11 5'	Total/NA	Solid	SHAKE	
885-23113-3	BH25-14 3'	Total/NA	Solid	SHAKE	
885-23113-4	BH25-14 4'	Total/NA	Solid	SHAKE	
885-23113-5	BH25-22 10'	Total/NA	Solid	SHAKE	
MB 885-24387/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-24387/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 24440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23113-2	BH25-11 5'	Total/NA	Solid	8015M/D	24387
885-23113-3	BH25-14 3'	Total/NA	Solid	8015M/D	24387
885-23113-4	BH25-14 4'	Total/NA	Solid	8015M/D	24387
885-23113-5	BH25-22 10'	Total/NA	Solid	8015M/D	24387
MB 885-24387/1-A	Method Blank	Total/NA	Solid	8015M/D	24387
LCS 885-24387/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24387

Eurofins Albuquerque

QC Association Summary

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23113-1

GC Semi VOA

Analysis Batch: 24778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23113-1	BH25-11 4'	Total/NA	Solid	8015M/D	24814
MB 885-24814/1-A	Method Blank	Total/NA	Solid	8015M/D	24814
LCS 885-24814/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24814

Prep Batch: 24814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23113-1	BH25-11 4'	Total/NA	Solid	SHAKE	
MB 885-24814/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-24814/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

HPLC/IC

Prep Batch: 24356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23113-1	BH25-11 4'	Total/NA	Solid	300_Prep	
885-23113-2	BH25-11 5'	Total/NA	Solid	300_Prep	
885-23113-3	BH25-14 3'	Total/NA	Solid	300_Prep	
885-23113-4	BH25-14 4'	Total/NA	Solid	300_Prep	
885-23113-5	BH25-22 10'	Total/NA	Solid	300_Prep	
MB 885-24356/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-24356/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 24362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23113-1	BH25-11 4'	Total/NA	Solid	300.0	24356
885-23113-2	BH25-11 5'	Total/NA	Solid	300.0	24356
885-23113-3	BH25-14 3'	Total/NA	Solid	300.0	24356
885-23113-4	BH25-14 4'	Total/NA	Solid	300.0	24356
885-23113-5	BH25-22 10'	Total/NA	Solid	300.0	24356
MB 885-24356/1-A	Method Blank	Total/NA	Solid	300.0	24356
LCS 885-24356/2-A	Lab Control Sample	Total/NA	Solid	300.0	24356

Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23113-1

Client Sample ID: BH25-11 4'

Lab Sample ID: 885-23113-1

Date Collected: 04/10/25 12:40

Matrix: Solid

Date Received: 04/12/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24279	AT	EET ALB	04/15/25 10:22
Total/NA	Analysis	8015M/D		1	24454	JP	EET ALB	04/17/25 15:02
Total/NA	Prep	5030C			24279	AT	EET ALB	04/15/25 10:22
Total/NA	Analysis	8021B		1	24455	JP	EET ALB	04/17/25 15:02
Total/NA	Prep	SHAKE			24814	MI	EET ALB	04/23/25 11:56
Total/NA	Analysis	8015M/D		1	24778	EM	EET ALB	04/23/25 14:06
Total/NA	Prep	300_Prep			24356	DL	EET ALB	04/16/25 09:52
Total/NA	Analysis	300.0		20	24362	ES	EET ALB	04/16/25 17:46

Client Sample ID: BH25-11 5'

Lab Sample ID: 885-23113-2

Date Collected: 04/10/25 13:30

Matrix: Solid

Date Received: 04/12/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24279	AT	EET ALB	04/15/25 10:22
Total/NA	Analysis	8015M/D		1	24454	JP	EET ALB	04/17/25 15:28
Total/NA	Prep	5030C			24279	AT	EET ALB	04/15/25 10:22
Total/NA	Analysis	8021B		1	24455	JP	EET ALB	04/17/25 15:28
Total/NA	Prep	SHAKE			24387	MI	EET ALB	04/16/25 13:17
Total/NA	Analysis	8015M/D		1	24440	EM	EET ALB	04/17/25 16:48
Total/NA	Prep	300_Prep			24356	DL	EET ALB	04/16/25 09:52
Total/NA	Analysis	300.0		20	24362	ES	EET ALB	04/16/25 18:00

Client Sample ID: BH25-14 3'

Lab Sample ID: 885-23113-3

Date Collected: 04/10/25 12:15

Matrix: Solid

Date Received: 04/12/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24279	AT	EET ALB	04/15/25 10:22
Total/NA	Analysis	8015M/D		1	24454	JP	EET ALB	04/17/25 15:53
Total/NA	Prep	5030C			24279	AT	EET ALB	04/15/25 10:22
Total/NA	Analysis	8021B		1	24455	JP	EET ALB	04/17/25 15:53
Total/NA	Prep	SHAKE			24387	MI	EET ALB	04/16/25 13:17
Total/NA	Analysis	8015M/D		10	24440	EM	EET ALB	04/17/25 17:12
Total/NA	Prep	300_Prep			24356	DL	EET ALB	04/16/25 09:52
Total/NA	Analysis	300.0		20	24362	ES	EET ALB	04/16/25 18:14

Client Sample ID: BH25-14 4'

Lab Sample ID: 885-23113-4

Date Collected: 04/10/25 12:20

Matrix: Solid

Date Received: 04/12/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24279	AT	EET ALB	04/15/25 10:22
Total/NA	Analysis	8015M/D		1	24454	JP	EET ALB	04/17/25 16:18

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23113-1

Client Sample ID: BH25-14 4'

Lab Sample ID: 885-23113-4

Date Collected: 04/10/25 12:20

Matrix: Solid

Date Received: 04/12/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24279	AT	EET ALB	04/15/25 10:22
Total/NA	Analysis	8021B		1	24455	JP	EET ALB	04/17/25 16:18
Total/NA	Prep	SHAKE			24387	MI	EET ALB	04/16/25 13:17
Total/NA	Analysis	8015M/D		1	24440	EM	EET ALB	04/17/25 17:48
Total/NA	Prep	300_Prep			24356	DL	EET ALB	04/16/25 09:52
Total/NA	Analysis	300.0		20	24362	ES	EET ALB	04/16/25 18:28

Client Sample ID: BH25-22 10'

Lab Sample ID: 885-23113-5

Date Collected: 04/10/25 09:30

Matrix: Solid

Date Received: 04/12/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24279	AT	EET ALB	04/15/25 10:22
Total/NA	Analysis	8015M/D		1	24454	JP	EET ALB	04/17/25 16:43
Total/NA	Prep	5030C			24279	AT	EET ALB	04/15/25 10:22
Total/NA	Analysis	8021B		1	24455	JP	EET ALB	04/17/25 16:43
Total/NA	Prep	SHAKE			24387	MI	EET ALB	04/16/25 13:17
Total/NA	Analysis	8015M/D		1	24440	EM	EET ALB	04/17/25 18:00
Total/NA	Prep	300_Prep			24356	DL	EET ALB	04/16/25 09:52
Total/NA	Analysis	300.0		20	24362	ES	EET ALB	04/16/25 18:42

Laboratory References:

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

Accreditation/Certification Summary

Client: Vertex
 Project/Site: Jackson B #065

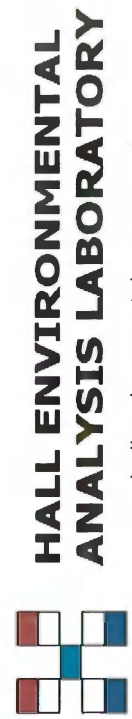
Job ID: 885-23113-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-27-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total
Oregon	NELAP	NM100001	02-26-26

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HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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



885-23113 COC

Turn-Around Time: X Rush 5 Day

Project Name: Jackson B #065

Project #: 25A-01340

Project Manager: Sally Carttar

Sampler: S. McCarty

On Ice: Yes No mojo

of Coolers: 1

Cooler Temp (including CF): 2.3 + 0.2 = 2.5 °C

Project Manager: Sally Carttar

Sampler: S. McCarty

On Ice: Yes No mojo

of Coolers: 1

Cooler Temp (including CF): 2.3 + 0.2 = 2.5 °C

Client: Vertex (bill to Mack Energy, Matt Buckles)

Mailing Address: (On File)

Phone #: _____

email or Fax#: _____

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

Accreditation: Az Compliance NELAC Other _____

EDD (Type) _____

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
04.10.25	12:40	Soil	BH25-11 4'	1, 4oz jar	ICE	
04.10.25	13:30	Soil	BH25-11 5'	1, 4oz jar	ICE	
04.10.25	12:15	Soil	BH25-14 3'	1, 4oz jar	ICE	
04.10.25	12:20	Soil	BH25-14 4'	1, 4oz jar	ICE	
04.10.25	9:30	Soil	BH25-22 10'	1, 4oz jar	ICE	

TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	

Relinquished by: [Signature] Date: 4/10/25 Time: 18:00

Relinquished by: [Signature] Date: 4/11/25 Time: 19:00

Received by: [Signature] Date: 4/10/25 Time: 10:15

Received by: [Signature] Date: 4/12/25 Time: 7:55

Remarks: Direct Bill to Mack Energy: ATTN: Matt Buckles
 CC: Sally Carttar (sCarttar@vertexresource.com), Austin Harris (aharris@vertexresource.com), Stephanie McCarty (smccarty@vertexresource.com) for Final Report.

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



Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-23113-1

Login Number: 23113

List Source: Eurofins Albuquerque

List Number: 1

Creator: Casarrubias, Tracy

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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	





Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 4/23/2025 10:30:18 AM

JOB DESCRIPTION

Jackson B #065

JOB NUMBER

885-23303-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109



Eurofins Albuquerque

Job Notes

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

Authorization



Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)338-8812

Generated
4/23/2025 10:30:18 AM

Client: Vertex
Project/Site: Jackson B #065

Laboratory Job ID: 885-23303-1



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Definitions/Glossary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23303-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
S1-	Surrogate recovery exceeds control limits, low biased.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

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

Eurofins Albuquerque

Case Narrative

Client: Vertex
Project: Jackson B #065

Job ID: 885-23303-1

Job ID: 885-23303-1

Eurofins Albuquerque

Job Narrative 885-23303-1

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

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

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

Receipt

The samples were received on 4/16/2025 7:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.6°C.

Gasoline Range Organics

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

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: BH25-05 5' (885-23303-8). Evidence of matrix interference is present.

Method 8021B: Surrogate recovery for the following sample was outside control limits: BH25-05 5' (885-23303-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

Diesel Range Organics

Method 8015D_DRO: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 885-24457 and analytical batch 885-24440 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.

Method 8015D_DRO: Surrogate recovery for the following sample is outside the upper control limit: (CCV 885-24693/3). Reporting all samples with passing surrogate recovery.

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

HPLC/IC

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

Eurofins Albuquerque



Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23303-1

Client Sample ID: BH25-01 3'

Lab Sample ID: 885-23303-1

Date Collected: 04/14/25 09:00

Matrix: Solid

Date Received: 04/16/25 07:55

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/16/25 15:49	04/18/25 02:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		35 - 166			04/16/25 15:49	04/18/25 02:17	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/16/25 15:49	04/18/25 02:17	1
Ethylbenzene	ND		0.050	mg/Kg		04/16/25 15:49	04/18/25 02:17	1
Toluene	ND		0.050	mg/Kg		04/16/25 15:49	04/18/25 02:17	1
Xylenes, Total	ND		0.10	mg/Kg		04/16/25 15:49	04/18/25 02:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		48 - 145			04/16/25 15:49	04/18/25 02:17	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3	mg/Kg		04/17/25 10:25	04/18/25 09:04	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		04/17/25 10:25	04/18/25 09:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	105		62 - 134			04/17/25 10:25	04/18/25 09:04	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	180		60	mg/Kg		04/17/25 08:43	04/17/25 18:32	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23303-1

Client Sample ID: BH25-01 4'

Lab Sample ID: 885-23303-2

Date Collected: 04/14/25 09:05

Matrix: Solid

Date Received: 04/16/25 07:55

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/16/25 15:49	04/18/25 02:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		35 - 166			04/16/25 15:49	04/18/25 02:39	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/16/25 15:49	04/18/25 02:39	1
Ethylbenzene	ND		0.047	mg/Kg		04/16/25 15:49	04/18/25 02:39	1
Toluene	ND		0.047	mg/Kg		04/16/25 15:49	04/18/25 02:39	1
Xylenes, Total	ND		0.093	mg/Kg		04/16/25 15:49	04/18/25 02:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		48 - 145			04/16/25 15:49	04/18/25 02:39	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		04/17/25 10:25	04/18/25 09:15	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		04/17/25 10:25	04/18/25 09:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	116		62 - 134			04/17/25 10:25	04/18/25 09:15	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	360		60	mg/Kg		04/17/25 08:43	04/17/25 18:46	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23303-1

Client Sample ID: BH25-13 3'

Lab Sample ID: 885-23303-3

Date Collected: 04/14/25 09:15

Matrix: Solid

Date Received: 04/16/25 07:55

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/16/25 15:49	04/18/25 03:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		35 - 166			04/16/25 15:49	04/18/25 03:00	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/16/25 15:49	04/18/25 03:00	1
Ethylbenzene	ND		0.049	mg/Kg		04/16/25 15:49	04/18/25 03:00	1
Toluene	ND		0.049	mg/Kg		04/16/25 15:49	04/18/25 03:00	1
Xylenes, Total	ND		0.098	mg/Kg		04/16/25 15:49	04/18/25 03:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		48 - 145			04/16/25 15:49	04/18/25 03:00	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	110		9.3	mg/Kg		04/17/25 10:25	04/18/25 09:27	1
Motor Oil Range Organics [C28-C40]	170		46	mg/Kg		04/17/25 10:25	04/18/25 09:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	124		62 - 134			04/17/25 10:25	04/18/25 09:27	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	370		60	mg/Kg		04/17/25 08:43	04/17/25 19:00	20

Client Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23303-1

Client Sample ID: BH25-13 4'

Lab Sample ID: 885-23303-4

Date Collected: 04/14/25 09:20

Matrix: Solid

Date Received: 04/16/25 07:55

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/16/25 15:49	04/18/25 03:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		35 - 166			04/16/25 15:49	04/18/25 03:22	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/16/25 15:49	04/18/25 03:22	1
Ethylbenzene	ND		0.049	mg/Kg		04/16/25 15:49	04/18/25 03:22	1
Toluene	ND		0.049	mg/Kg		04/16/25 15:49	04/18/25 03:22	1
Xylenes, Total	ND		0.098	mg/Kg		04/16/25 15:49	04/18/25 03:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		48 - 145			04/16/25 15:49	04/18/25 03:22	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9	mg/Kg		04/17/25 10:25	04/18/25 09:39	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		04/17/25 10:25	04/18/25 09:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	109		62 - 134			04/17/25 10:25	04/18/25 09:39	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	650		60	mg/Kg		04/17/25 09:22	04/17/25 19:14	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23303-1

Client Sample ID: BH25-20 0'

Lab Sample ID: 885-23303-5

Date Collected: 04/14/25 12:00

Matrix: Solid

Date Received: 04/16/25 07:55

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/16/25 15:49	04/18/25 03:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		35 - 166			04/16/25 15:49	04/18/25 03:44	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/16/25 15:49	04/18/25 03:44	1
Ethylbenzene	ND		0.048	mg/Kg		04/16/25 15:49	04/18/25 03:44	1
Toluene	ND		0.048	mg/Kg		04/16/25 15:49	04/18/25 03:44	1
Xylenes, Total	ND		0.096	mg/Kg		04/16/25 15:49	04/18/25 03:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		48 - 145			04/16/25 15:49	04/18/25 03:44	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		04/17/25 10:25	04/18/25 09:51	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/17/25 10:25	04/18/25 09:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	112		62 - 134			04/17/25 10:25	04/18/25 09:51	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	170		60	mg/Kg		04/17/25 09:22	04/17/25 20:25	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23303-1

Client Sample ID: BH25-20 2'

Lab Sample ID: 885-23303-6

Date Collected: 04/14/25 12:05

Matrix: Solid

Date Received: 04/16/25 07:55

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6	mg/Kg		04/16/25 15:49	04/18/25 04:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		35 - 166			04/16/25 15:49	04/18/25 04:06	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/16/25 15:49	04/18/25 04:06	1
Ethylbenzene	ND		0.046	mg/Kg		04/16/25 15:49	04/18/25 04:06	1
Toluene	ND		0.046	mg/Kg		04/16/25 15:49	04/18/25 04:06	1
Xylenes, Total	ND		0.093	mg/Kg		04/16/25 15:49	04/18/25 04:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		48 - 145			04/16/25 15:49	04/18/25 04:06	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		04/17/25 10:25	04/18/25 10:03	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		04/17/25 10:25	04/18/25 10:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	111		62 - 134			04/17/25 10:25	04/18/25 10:03	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	340		60	mg/Kg		04/17/25 09:22	04/17/25 21:07	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23303-1

Client Sample ID: BH25-05 9'

Lab Sample ID: 885-23303-7

Date Collected: 04/14/25 10:10

Matrix: Solid

Date Received: 04/16/25 07:55

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/17/25 17:17	04/18/25 18:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		35 - 166			04/17/25 17:17	04/18/25 18:30	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/17/25 17:17	04/18/25 18:30	1
Ethylbenzene	ND		0.050	mg/Kg		04/17/25 17:17	04/18/25 18:30	1
Toluene	ND		0.050	mg/Kg		04/17/25 17:17	04/18/25 18:30	1
Xylenes, Total	ND		0.10	mg/Kg		04/17/25 17:17	04/18/25 18:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		48 - 145			04/17/25 17:17	04/18/25 18:30	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		04/22/25 13:55	04/22/25 19:38	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		04/22/25 13:55	04/22/25 19:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	117		62 - 134			04/22/25 13:55	04/22/25 19:38	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	560		60	mg/Kg		04/17/25 09:22	04/17/25 21:21	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23303-1

Client Sample ID: BH25-05 5'

Lab Sample ID: 885-23303-8

Date Collected: 04/14/25 10:00

Matrix: Solid

Date Received: 04/16/25 07:55

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	540		49	mg/Kg		04/17/25 17:17	04/21/25 20:21	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	297	S1+	35 - 166			04/17/25 17:17	04/21/25 20:21	10

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/17/25 17:17	04/18/25 18:54	1
Ethylbenzene	7.6		0.49	mg/Kg		04/17/25 17:17	04/21/25 20:21	10
Toluene	0.41		0.049	mg/Kg		04/17/25 17:17	04/18/25 18:54	1
Xylenes, Total	20		0.98	mg/Kg		04/17/25 17:17	04/21/25 20:21	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	466	S1+	48 - 145			04/17/25 17:17	04/18/25 18:54	1
4-Bromofluorobenzene (Surr)	151	S1+	48 - 145			04/17/25 17:17	04/21/25 20:21	10

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	3700		99	mg/Kg		04/22/25 13:55	04/22/25 20:02	10
Motor Oil Range Organics [C28-C40]	1500		490	mg/Kg		04/22/25 13:55	04/22/25 20:02	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	0	S1- D	62 - 134			04/22/25 13:55	04/22/25 20:02	10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	180		60	mg/Kg		04/17/25 09:22	04/17/25 21:36	20

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23303-1

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

Lab Sample ID: MB 885-24415/1-A
Matrix: Solid
Analysis Batch: 24571

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24415

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/16/25 15:49	04/17/25 18:41	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		35 - 166			04/16/25 15:49	04/17/25 18:41	1

Lab Sample ID: LCS 885-24415/2-A
Matrix: Solid
Analysis Batch: 24571

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24415

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	29.2		mg/Kg		117	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	222		35 - 166				

Lab Sample ID: MB 885-24514/1-A
Matrix: Solid
Analysis Batch: 24565

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24514

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/17/25 17:17	04/18/25 12:29	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		35 - 166			04/17/25 17:17	04/18/25 12:29	1

Lab Sample ID: LCS 885-24514/2-A
Matrix: Solid
Analysis Batch: 24565

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24514

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	31.3		mg/Kg		125	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	231		35 - 166				

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-24415/1-A
Matrix: Solid
Analysis Batch: 24572

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24415

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/16/25 15:49	04/17/25 18:41	1
Ethylbenzene	ND		0.050	mg/Kg		04/16/25 15:49	04/17/25 18:41	1
Toluene	ND		0.050	mg/Kg		04/16/25 15:49	04/17/25 18:41	1
Xylenes, Total	ND		0.10	mg/Kg		04/16/25 15:49	04/17/25 18:41	1

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QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23303-1

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

Lab Sample ID: MB 885-24415/1-A
Matrix: Solid
Analysis Batch: 24572

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24415

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		48 - 145	04/16/25 15:49	04/17/25 18:41	1

Lab Sample ID: LCS 885-24415/3-A
Matrix: Solid
Analysis Batch: 24572

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24415

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Benzene	1.00	1.03		mg/Kg		103	70 - 130	
Ethylbenzene	1.00	1.01		mg/Kg		101	70 - 130	
m,p-Xylene	2.00	2.04		mg/Kg		102	70 - 130	
o-Xylene	1.00	1.04		mg/Kg		104	70 - 130	
Toluene	1.00	1.01		mg/Kg		101	70 - 130	
Xylenes, Total	3.00	3.08		mg/Kg		103	70 - 130	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		48 - 145

Lab Sample ID: MB 885-24514/1-A
Matrix: Solid
Analysis Batch: 24564

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24514

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/17/25 17:17	04/18/25 12:29	1
Ethylbenzene	ND		0.050	mg/Kg		04/17/25 17:17	04/18/25 12:29	1
Toluene	ND		0.050	mg/Kg		04/17/25 17:17	04/18/25 12:29	1
Xylenes, Total	ND		0.10	mg/Kg		04/17/25 17:17	04/18/25 12:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		48 - 145	04/17/25 17:17	04/18/25 12:29	1

Lab Sample ID: LCS 885-24514/3-A
Matrix: Solid
Analysis Batch: 24564

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24514

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Benzene	1.00	1.11		mg/Kg		111	70 - 130	
Ethylbenzene	1.00	1.08		mg/Kg		108	70 - 130	
m,p-Xylene	2.00	2.31		mg/Kg		116	70 - 130	
o-Xylene	1.00	1.10		mg/Kg		110	70 - 130	
Toluene	1.00	1.09		mg/Kg		109	70 - 130	
Xylenes, Total	3.00	3.42		mg/Kg		114	70 - 130	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		48 - 145

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QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23303-1

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

Lab Sample ID: MB 885-24457/1-A
Matrix: Solid
Analysis Batch: 24440

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24457

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		04/17/25 10:25	04/18/25 05:24	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		04/17/25 10:25	04/18/25 05:24	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	112		62 - 134			04/17/25 10:25	04/18/25 05:24	1

Lab Sample ID: LCS 885-24457/2-A
Matrix: Solid
Analysis Batch: 24440

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24457

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	45.9		mg/Kg		92	60 - 135
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Di-n-octyl phthalate (Surr)	95		62 - 134				

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-24443/1-A
Matrix: Solid
Analysis Batch: 24448

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24443

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	mg/Kg		04/17/25 08:43	04/17/25 11:41	1
Lab Sample ID: LCS 885-24443/2-A	Matrix: Solid	Analysis Batch: 24448	Client Sample ID: Lab Control Sample	Prep Type: Total/NA	Prep Batch: 24443			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Chloride	30.0	30.2		mg/Kg		101	90 - 110	

Lab Sample ID: MB 885-24447/1-A
Matrix: Solid
Analysis Batch: 24448

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24447

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	mg/Kg		04/17/25 09:22	04/17/25 12:10	1
Lab Sample ID: LCS 885-24447/2-A	Matrix: Solid	Analysis Batch: 24448	Client Sample ID: Lab Control Sample	Prep Type: Total/NA	Prep Batch: 24447			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Chloride	30.0	30.1		mg/Kg		100	90 - 110	

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QC Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23303-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 885-23303-4 MS
Matrix: Solid
Analysis Batch: 24448

Client Sample ID: BH25-13 4'
Prep Type: Total/NA
Prep Batch: 24447

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	650		30.0	680	4	mg/Kg		84	50 - 150

Lab Sample ID: 885-23303-4 MSD
Matrix: Solid
Analysis Batch: 24448

Client Sample ID: BH25-13 4'
Prep Type: Total/NA
Prep Batch: 24447

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Chloride	650		29.9	672	4	mg/Kg		59	50 - 150	1	20

Lab Sample ID: 885-23303-5 MS
Matrix: Solid
Analysis Batch: 24448

Client Sample ID: BH25-20 0'
Prep Type: Total/NA
Prep Batch: 24447

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	170		30.1	204	4	mg/Kg		101	50 - 150

Lab Sample ID: 885-23303-5 MSD
Matrix: Solid
Analysis Batch: 24448

Client Sample ID: BH25-20 0'
Prep Type: Total/NA
Prep Batch: 24447

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Chloride	170		29.7	205	4	mg/Kg		104	50 - 150	0	20

QC Association Summary

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23303-1

GC VOA

Prep Batch: 24415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23303-1	BH25-01 3'	Total/NA	Solid	5030C	
885-23303-2	BH25-01 4'	Total/NA	Solid	5030C	
885-23303-3	BH25-13 3'	Total/NA	Solid	5030C	
885-23303-4	BH25-13 4'	Total/NA	Solid	5030C	
885-23303-5	BH25-20 0'	Total/NA	Solid	5030C	
885-23303-6	BH25-20 2'	Total/NA	Solid	5030C	
MB 885-24415/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-24415/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-24415/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Prep Batch: 24514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23303-7	BH25-05 9'	Total/NA	Solid	5030C	
885-23303-8	BH25-05 5'	Total/NA	Solid	5030C	
MB 885-24514/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-24514/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-24514/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 24564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23303-7	BH25-05 9'	Total/NA	Solid	8021B	24514
885-23303-8	BH25-05 5'	Total/NA	Solid	8021B	24514
MB 885-24514/1-A	Method Blank	Total/NA	Solid	8021B	24514
LCS 885-24514/3-A	Lab Control Sample	Total/NA	Solid	8021B	24514

Analysis Batch: 24565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23303-7	BH25-05 9'	Total/NA	Solid	8015M/D	24514
MB 885-24514/1-A	Method Blank	Total/NA	Solid	8015M/D	24514
LCS 885-24514/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24514

Analysis Batch: 24571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23303-1	BH25-01 3'	Total/NA	Solid	8015M/D	24415
885-23303-2	BH25-01 4'	Total/NA	Solid	8015M/D	24415
885-23303-3	BH25-13 3'	Total/NA	Solid	8015M/D	24415
885-23303-4	BH25-13 4'	Total/NA	Solid	8015M/D	24415
885-23303-5	BH25-20 0'	Total/NA	Solid	8015M/D	24415
885-23303-6	BH25-20 2'	Total/NA	Solid	8015M/D	24415
MB 885-24415/1-A	Method Blank	Total/NA	Solid	8015M/D	24415
LCS 885-24415/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24415

Analysis Batch: 24572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23303-1	BH25-01 3'	Total/NA	Solid	8021B	24415
885-23303-2	BH25-01 4'	Total/NA	Solid	8021B	24415
885-23303-3	BH25-13 3'	Total/NA	Solid	8021B	24415
885-23303-4	BH25-13 4'	Total/NA	Solid	8021B	24415
885-23303-5	BH25-20 0'	Total/NA	Solid	8021B	24415
885-23303-6	BH25-20 2'	Total/NA	Solid	8021B	24415
MB 885-24415/1-A	Method Blank	Total/NA	Solid	8021B	24415

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QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23303-1

GC VOA (Continued)

Analysis Batch: 24572 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 885-24415/3-A	Lab Control Sample	Total/NA	Solid	8021B	24415

Analysis Batch: 24668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23303-8	BH25-05 5'	Total/NA	Solid	8015M/D	24514

Analysis Batch: 24669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23303-8	BH25-05 5'	Total/NA	Solid	8021B	24514

GC Semi VOA

Analysis Batch: 24440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23303-1	BH25-01 3'	Total/NA	Solid	8015M/D	24457
885-23303-2	BH25-01 4'	Total/NA	Solid	8015M/D	24457
885-23303-3	BH25-13 3'	Total/NA	Solid	8015M/D	24457
885-23303-4	BH25-13 4'	Total/NA	Solid	8015M/D	24457
885-23303-5	BH25-20 0'	Total/NA	Solid	8015M/D	24457
885-23303-6	BH25-20 2'	Total/NA	Solid	8015M/D	24457
MB 885-24457/1-A	Method Blank	Total/NA	Solid	8015M/D	24457
LCS 885-24457/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24457

Prep Batch: 24457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23303-1	BH25-01 3'	Total/NA	Solid	SHAKE	
885-23303-2	BH25-01 4'	Total/NA	Solid	SHAKE	
885-23303-3	BH25-13 3'	Total/NA	Solid	SHAKE	
885-23303-4	BH25-13 4'	Total/NA	Solid	SHAKE	
885-23303-5	BH25-20 0'	Total/NA	Solid	SHAKE	
885-23303-6	BH25-20 2'	Total/NA	Solid	SHAKE	
MB 885-24457/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-24457/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 24693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23303-7	BH25-05 9'	Total/NA	Solid	8015M/D	24714
885-23303-8	BH25-05 5'	Total/NA	Solid	8015M/D	24714

Prep Batch: 24714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23303-7	BH25-05 9'	Total/NA	Solid	SHAKE	
885-23303-8	BH25-05 5'	Total/NA	Solid	SHAKE	

HPLC/IC

Prep Batch: 24443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23303-1	BH25-01 3'	Total/NA	Solid	300_Prep	
885-23303-2	BH25-01 4'	Total/NA	Solid	300_Prep	
885-23303-3	BH25-13 3'	Total/NA	Solid	300_Prep	
MB 885-24443/1-A	Method Blank	Total/NA	Solid	300_Prep	

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QC Association Summary

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23303-1

HPLC/IC (Continued)

Prep Batch: 24443 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 885-24443/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Prep Batch: 24447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23303-4	BH25-13 4'	Total/NA	Solid	300_Prep	
885-23303-5	BH25-20 0'	Total/NA	Solid	300_Prep	
885-23303-6	BH25-20 2'	Total/NA	Solid	300_Prep	
885-23303-7	BH25-05 9'	Total/NA	Solid	300_Prep	
885-23303-8	BH25-05 5'	Total/NA	Solid	300_Prep	
MB 885-24447/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-24447/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-23303-4 MS	BH25-13 4'	Total/NA	Solid	300_Prep	
885-23303-4 MSD	BH25-13 4'	Total/NA	Solid	300_Prep	
885-23303-5 MS	BH25-20 0'	Total/NA	Solid	300_Prep	
885-23303-5 MSD	BH25-20 0'	Total/NA	Solid	300_Prep	

Analysis Batch: 24448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23303-1	BH25-01 3'	Total/NA	Solid	300.0	24443
885-23303-2	BH25-01 4'	Total/NA	Solid	300.0	24443
885-23303-3	BH25-13 3'	Total/NA	Solid	300.0	24443
885-23303-4	BH25-13 4'	Total/NA	Solid	300.0	24447
885-23303-5	BH25-20 0'	Total/NA	Solid	300.0	24447
885-23303-6	BH25-20 2'	Total/NA	Solid	300.0	24447
885-23303-7	BH25-05 9'	Total/NA	Solid	300.0	24447
885-23303-8	BH25-05 5'	Total/NA	Solid	300.0	24447
MB 885-24443/1-A	Method Blank	Total/NA	Solid	300.0	24443
MB 885-24447/1-A	Method Blank	Total/NA	Solid	300.0	24447
LCS 885-24443/2-A	Lab Control Sample	Total/NA	Solid	300.0	24443
LCS 885-24447/2-A	Lab Control Sample	Total/NA	Solid	300.0	24447
885-23303-4 MS	BH25-13 4'	Total/NA	Solid	300.0	24447
885-23303-4 MSD	BH25-13 4'	Total/NA	Solid	300.0	24447
885-23303-5 MS	BH25-20 0'	Total/NA	Solid	300.0	24447
885-23303-5 MSD	BH25-20 0'	Total/NA	Solid	300.0	24447

Lab Chronicle

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23303-1

Client Sample ID: BH25-01 3'

Lab Sample ID: 885-23303-1

Date Collected: 04/14/25 09:00

Matrix: Solid

Date Received: 04/16/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24415	JP	EET ALB	04/16/25 15:49
Total/NA	Analysis	8015M/D		1	24571	AT	EET ALB	04/18/25 02:17
Total/NA	Prep	5030C			24415	JP	EET ALB	04/16/25 15:49
Total/NA	Analysis	8021B		1	24572	AT	EET ALB	04/18/25 02:17
Total/NA	Prep	SHAKE			24457	MI	EET ALB	04/17/25 10:25
Total/NA	Analysis	8015M/D		1	24440	EM	EET ALB	04/18/25 09:04
Total/NA	Prep	300_Prep			24443	JT	EET ALB	04/17/25 08:43
Total/NA	Analysis	300.0		20	24448	DL	EET ALB	04/17/25 18:32

Client Sample ID: BH25-01 4'

Lab Sample ID: 885-23303-2

Date Collected: 04/14/25 09:05

Matrix: Solid

Date Received: 04/16/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24415	JP	EET ALB	04/16/25 15:49
Total/NA	Analysis	8015M/D		1	24571	AT	EET ALB	04/18/25 02:39
Total/NA	Prep	5030C			24415	JP	EET ALB	04/16/25 15:49
Total/NA	Analysis	8021B		1	24572	AT	EET ALB	04/18/25 02:39
Total/NA	Prep	SHAKE			24457	MI	EET ALB	04/17/25 10:25
Total/NA	Analysis	8015M/D		1	24440	EM	EET ALB	04/18/25 09:15
Total/NA	Prep	300_Prep			24443	JT	EET ALB	04/17/25 08:43
Total/NA	Analysis	300.0		20	24448	DL	EET ALB	04/17/25 18:46

Client Sample ID: BH25-13 3'

Lab Sample ID: 885-23303-3

Date Collected: 04/14/25 09:15

Matrix: Solid

Date Received: 04/16/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24415	JP	EET ALB	04/16/25 15:49
Total/NA	Analysis	8015M/D		1	24571	AT	EET ALB	04/18/25 03:00
Total/NA	Prep	5030C			24415	JP	EET ALB	04/16/25 15:49
Total/NA	Analysis	8021B		1	24572	AT	EET ALB	04/18/25 03:00
Total/NA	Prep	SHAKE			24457	MI	EET ALB	04/17/25 10:25
Total/NA	Analysis	8015M/D		1	24440	EM	EET ALB	04/18/25 09:27
Total/NA	Prep	300_Prep			24443	JT	EET ALB	04/17/25 08:43
Total/NA	Analysis	300.0		20	24448	DL	EET ALB	04/17/25 19:00

Client Sample ID: BH25-13 4'

Lab Sample ID: 885-23303-4

Date Collected: 04/14/25 09:20

Matrix: Solid

Date Received: 04/16/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24415	JP	EET ALB	04/16/25 15:49
Total/NA	Analysis	8015M/D		1	24571	AT	EET ALB	04/18/25 03:22

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23303-1

Client Sample ID: BH25-13 4'

Lab Sample ID: 885-23303-4

Date Collected: 04/14/25 09:20

Matrix: Solid

Date Received: 04/16/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24415	JP	EET ALB	04/16/25 15:49
Total/NA	Analysis	8021B		1	24572	AT	EET ALB	04/18/25 03:22
Total/NA	Prep	SHAKE			24457	MI	EET ALB	04/17/25 10:25
Total/NA	Analysis	8015M/D		1	24440	EM	EET ALB	04/18/25 09:39
Total/NA	Prep	300_Prep			24447	JT	EET ALB	04/17/25 09:22
Total/NA	Analysis	300.0		20	24448	DL	EET ALB	04/17/25 19:14

Client Sample ID: BH25-20 0'

Lab Sample ID: 885-23303-5

Date Collected: 04/14/25 12:00

Matrix: Solid

Date Received: 04/16/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24415	JP	EET ALB	04/16/25 15:49
Total/NA	Analysis	8015M/D		1	24571	AT	EET ALB	04/18/25 03:44
Total/NA	Prep	5030C			24415	JP	EET ALB	04/16/25 15:49
Total/NA	Analysis	8021B		1	24572	AT	EET ALB	04/18/25 03:44
Total/NA	Prep	SHAKE			24457	MI	EET ALB	04/17/25 10:25
Total/NA	Analysis	8015M/D		1	24440	EM	EET ALB	04/18/25 09:51
Total/NA	Prep	300_Prep			24447	JT	EET ALB	04/17/25 09:22
Total/NA	Analysis	300.0		20	24448	DL	EET ALB	04/17/25 20:25

Client Sample ID: BH25-20 2'

Lab Sample ID: 885-23303-6

Date Collected: 04/14/25 12:05

Matrix: Solid

Date Received: 04/16/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24415	JP	EET ALB	04/16/25 15:49
Total/NA	Analysis	8015M/D		1	24571	AT	EET ALB	04/18/25 04:06
Total/NA	Prep	5030C			24415	JP	EET ALB	04/16/25 15:49
Total/NA	Analysis	8021B		1	24572	AT	EET ALB	04/18/25 04:06
Total/NA	Prep	SHAKE			24457	MI	EET ALB	04/17/25 10:25
Total/NA	Analysis	8015M/D		1	24440	EM	EET ALB	04/18/25 10:03
Total/NA	Prep	300_Prep			24447	JT	EET ALB	04/17/25 09:22
Total/NA	Analysis	300.0		20	24448	DL	EET ALB	04/17/25 21:07

Client Sample ID: BH25-05 9'

Lab Sample ID: 885-23303-7

Date Collected: 04/14/25 10:10

Matrix: Solid

Date Received: 04/16/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24514	JP	EET ALB	04/17/25 17:17
Total/NA	Analysis	8015M/D		1	24565	JP	EET ALB	04/18/25 18:30
Total/NA	Prep	5030C			24514	JP	EET ALB	04/17/25 17:17
Total/NA	Analysis	8021B		1	24564	JP	EET ALB	04/18/25 18:30

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23303-1

Client Sample ID: BH25-05 9'

Lab Sample ID: 885-23303-7

Date Collected: 04/14/25 10:10

Matrix: Solid

Date Received: 04/16/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			24714	MI	EET ALB	04/22/25 13:55
Total/NA	Analysis	8015M/D		1	24693	MI	EET ALB	04/22/25 19:38
Total/NA	Prep	300_Prep			24447	JT	EET ALB	04/17/25 09:22
Total/NA	Analysis	300.0		20	24448	DL	EET ALB	04/17/25 21:21

Client Sample ID: BH25-05 5'

Lab Sample ID: 885-23303-8

Date Collected: 04/14/25 10:00

Matrix: Solid

Date Received: 04/16/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24514	JP	EET ALB	04/17/25 17:17
Total/NA	Analysis	8015M/D		10	24668	JP	EET ALB	04/21/25 20:21
Total/NA	Prep	5030C			24514	JP	EET ALB	04/17/25 17:17
Total/NA	Analysis	8021B		1	24564	JP	EET ALB	04/18/25 18:54
Total/NA	Prep	5030C			24514	JP	EET ALB	04/17/25 17:17
Total/NA	Analysis	8021B		10	24669	JP	EET ALB	04/21/25 20:21
Total/NA	Prep	SHAKE			24714	MI	EET ALB	04/22/25 13:55
Total/NA	Analysis	8015M/D		10	24693	MI	EET ALB	04/22/25 20:02
Total/NA	Prep	300_Prep			24447	JT	EET ALB	04/17/25 09:22
Total/NA	Analysis	300.0		20	24448	DL	EET ALB	04/17/25 21:36

Laboratory References:

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

Accreditation/Certification Summary

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23303-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-27-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total
Oregon	NELAP	NM100001	02-26-26



Chain-of-Custody Record

Client: Vertex (bill to Mack Energy, Matt Buckles)

Mailing Address: (On File)

Phone #:

email or Fax#:

QA/QC Package:

Standard Level 4 (Full Validation)

Accreditation: Az Compliance

NELAC Other

EDD (Type)

Turn-Around Time:

X Standard

Project Name:

Jackson B #065

Project #:

25A-01340

Project Manager:

Sally Carttar

SCarttar@vertexresource.com

Sampler: S. McCarty

On Ice: Yes No

of Coolers: 1

Cooler Temp (including CP): 4.4 +0.2 - 4.6 °C

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
04.14.25	9:00	Soil	BH25-01 3'	1, 4oz jar	ICE	
04.14.25	9:05	Soil	BH25-01 4'	1, 4oz jar	ICE	
04.14.25	9:15	Soil	BH25-13 3'	1, 4oz jar	ICE	
04.14.25	9:20	Soil	BH25-13 4'	1, 4oz jar	ICE	
04.14.25	12:00	Soil	BH25-20 0'	1, 4oz jar	ICE	
04.14.25	12:05	Soil	BH25-20 2'	1, 4oz jar	ICE	
04.14.25	10:10	Soil	BH25-05 9'	1, 4oz jar	ICE	
04.14.25	10:00	Soil	BH25-05 5'	1, 4oz jar	ICE	

Date: 4/14/25 1700

Relinquished by: *Steph Mack*

Date: 4/15/25 1900

Relinquished by: *Sally Carttar*

Received by:

Sally Carttar
Via: *Vertex*

Date

4/15/25 1000

Time

7:55

RTX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl ⁻ , Br ⁻ , NO ₃ ⁻ , NO ₂ ⁻ , PO ₄ ⁻ , SO ₄ ⁻	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			

Remarks:

Direct Bill to Mack Energy: ATTN: Matt Buckles
CC: Sally Carttar (SCarttar@vertexresource.com), Austin Harris (aharris@vertexresource.com), Stephanie McCarty (smccarty@vertexresource.com) for Final Report.

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



Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-23303-1

Login Number: 23303

List Source: Eurofins Albuquerque

List Number: 1

Creator: Casarrubias, Tracy

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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	





Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 4/29/2025 7:18:29 AM

JOB DESCRIPTION

Jackson B #065

JOB NUMBER

885-23731-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109



Eurofins Albuquerque

Job Notes

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

Authorization



Generated
4/29/2025 7:18:29 AM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)338-8812

Client: Vertex
Project/Site: Jackson B #065

Laboratory Job ID: 885-23731-1

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Definitions/Glossary

Client: Vertex

Job ID: 885-23731-1

Project/Site: Jackson B #065

Glossary

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

Case Narrative

Client: Vertex
Project: Jackson B #065

Job ID: 885-23731-1

Job ID: 885-23731-1

Eurofins Albuquerque

Job Narrative 885-23731-1

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

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

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

Receipt

The samples were received on 4/24/2025 7:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.5°C.

Gasoline Range Organics

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

GC VOA

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

Diesel Range Organics

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

HPLC/IC

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

Eurofins Albuquerque



Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23731-1

Client Sample ID: BH25-22 2'

Lab Sample ID: 885-23731-1

Date Collected: 04/22/25 10:15

Matrix: Solid

Date Received: 04/24/25 07:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/24/25 13:31	04/25/25 19:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		35 - 166			04/24/25 13:31	04/25/25 19:20	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/24/25 13:31	04/25/25 19:20	1
Ethylbenzene	ND		0.049	mg/Kg		04/24/25 13:31	04/25/25 19:20	1
Toluene	ND		0.049	mg/Kg		04/24/25 13:31	04/25/25 19:20	1
Xylenes, Total	ND		0.098	mg/Kg		04/24/25 13:31	04/25/25 19:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		48 - 145			04/24/25 13:31	04/25/25 19:20	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3	mg/Kg		04/25/25 11:22	04/25/25 22:31	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		04/25/25 11:22	04/25/25 22:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	99		62 - 134			04/25/25 11:22	04/25/25 22:31	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	970		60	mg/Kg		04/25/25 10:01	04/25/25 20:30	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23731-1

Client Sample ID: BH25-22 4'

Lab Sample ID: 885-23731-2

Date Collected: 04/22/25 10:18

Matrix: Solid

Date Received: 04/24/25 07:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/24/25 13:31	04/25/25 19:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		35 - 166			04/24/25 13:31	04/25/25 19:42	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/24/25 13:31	04/25/25 19:42	1
Ethylbenzene	ND		0.049	mg/Kg		04/24/25 13:31	04/25/25 19:42	1
Toluene	ND		0.049	mg/Kg		04/24/25 13:31	04/25/25 19:42	1
Xylenes, Total	ND		0.097	mg/Kg		04/24/25 13:31	04/25/25 19:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		48 - 145			04/24/25 13:31	04/25/25 19:42	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		04/25/25 11:22	04/28/25 14:04	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		04/25/25 11:22	04/28/25 14:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	114		62 - 134			04/25/25 11:22	04/28/25 14:04	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2800		60	mg/Kg		04/25/25 10:01	04/25/25 21:11	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23731-1

Client Sample ID: BH25-22 5'

Lab Sample ID: 885-23731-3

Date Collected: 04/22/25 10:20

Matrix: Solid

Date Received: 04/24/25 07:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/24/25 13:31	04/25/25 20:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		35 - 166			04/24/25 13:31	04/25/25 20:04	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/24/25 13:31	04/25/25 20:04	1
Ethylbenzene	ND		0.048	mg/Kg		04/24/25 13:31	04/25/25 20:04	1
Toluene	ND		0.048	mg/Kg		04/24/25 13:31	04/25/25 20:04	1
Xylenes, Total	ND		0.097	mg/Kg		04/24/25 13:31	04/25/25 20:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		48 - 145			04/24/25 13:31	04/25/25 20:04	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8	mg/Kg		04/25/25 11:22	04/25/25 23:18	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		04/25/25 11:22	04/25/25 23:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	96		62 - 134			04/25/25 11:22	04/25/25 23:18	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2100		60	mg/Kg		04/25/25 10:01	04/25/25 21:24	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23731-1

Client Sample ID: BH25-22 6'

Lab Sample ID: 885-23731-4

Date Collected: 04/22/25 10:22

Matrix: Solid

Date Received: 04/24/25 07:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/24/25 13:31	04/25/25 20:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		35 - 166			04/24/25 13:31	04/25/25 20:25	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/24/25 13:31	04/25/25 20:25	1
Ethylbenzene	ND		0.049	mg/Kg		04/24/25 13:31	04/25/25 20:25	1
Toluene	ND		0.049	mg/Kg		04/24/25 13:31	04/25/25 20:25	1
Xylenes, Total	ND		0.099	mg/Kg		04/24/25 13:31	04/25/25 20:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		48 - 145			04/24/25 13:31	04/25/25 20:25	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		04/25/25 11:22	04/25/25 23:42	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/25/25 11:22	04/25/25 23:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	96		62 - 134			04/25/25 11:22	04/25/25 23:42	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	540		61	mg/Kg		04/25/25 10:01	04/25/25 21:38	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23731-1

Client Sample ID: BH25-26 0'

Lab Sample ID: 885-23731-5

Date Collected: 04/22/25 10:00

Matrix: Solid

Date Received: 04/24/25 07:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/24/25 15:41	04/26/25 05:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		35 - 166			04/24/25 15:41	04/26/25 05:06	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/24/25 15:41	04/26/25 05:06	1
Ethylbenzene	ND		0.048	mg/Kg		04/24/25 15:41	04/26/25 05:06	1
Toluene	ND		0.048	mg/Kg		04/24/25 15:41	04/26/25 05:06	1
Xylenes, Total	ND		0.095	mg/Kg		04/24/25 15:41	04/26/25 05:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		48 - 145			04/24/25 15:41	04/26/25 05:06	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		04/25/25 11:22	04/26/25 00:06	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		04/25/25 11:22	04/26/25 00:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	99		62 - 134			04/25/25 11:22	04/26/25 00:06	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/25/25 10:01	04/25/25 19:08	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23731-1

Client Sample ID: BH25-26 2'

Lab Sample ID: 885-23731-6

Date Collected: 04/22/25 10:05

Matrix: Solid

Date Received: 04/24/25 07:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/24/25 15:41	04/26/25 06:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		35 - 166			04/24/25 15:41	04/26/25 06:11	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/24/25 15:41	04/26/25 06:11	1
Ethylbenzene	ND		0.048	mg/Kg		04/24/25 15:41	04/26/25 06:11	1
Toluene	ND		0.048	mg/Kg		04/24/25 15:41	04/26/25 06:11	1
Xylenes, Total	ND		0.096	mg/Kg		04/24/25 15:41	04/26/25 06:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		48 - 145			04/24/25 15:41	04/26/25 06:11	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		04/25/25 11:22	04/26/25 00:30	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		04/25/25 11:22	04/26/25 00:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	102		62 - 134			04/25/25 11:22	04/26/25 00:30	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		04/25/25 10:03	04/25/25 19:22	20

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23731-1

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

Lab Sample ID: MB 885-24899/1-A
Matrix: Solid
Analysis Batch: 24979

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24899

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/24/25 11:02	04/25/25 11:23	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		35 - 166			04/24/25 11:02	04/25/25 11:23	1

Lab Sample ID: LCS 885-24899/2-A
Matrix: Solid
Analysis Batch: 24979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24899

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics [C6 - C10]	25.0	29.3		mg/Kg		117	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	228		35 - 166					

Lab Sample ID: MB 885-24930/1-A
Matrix: Solid
Analysis Batch: 25063

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24930

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/24/25 15:41	04/25/25 22:14	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		35 - 166			04/24/25 15:41	04/25/25 22:14	1

Lab Sample ID: LCS 885-24930/2-A
Matrix: Solid
Analysis Batch: 25063

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24930

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics [C6 - C10]	25.0	26.9		mg/Kg		108	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	212		35 - 166					

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-24899/1-A
Matrix: Solid
Analysis Batch: 24980

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24899

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/24/25 11:02	04/25/25 11:23	1
Ethylbenzene	ND		0.050	mg/Kg		04/24/25 11:02	04/25/25 11:23	1
Toluene	ND		0.050	mg/Kg		04/24/25 11:02	04/25/25 11:23	1
Xylenes, Total	ND		0.10	mg/Kg		04/24/25 11:02	04/25/25 11:23	1

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QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23731-1

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

Lab Sample ID: MB 885-24899/1-A
Matrix: Solid
Analysis Batch: 24980

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24899

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		48 - 145	04/24/25 11:02	04/25/25 11:23	1

Lab Sample ID: LCS 885-24899/3-A
Matrix: Solid
Analysis Batch: 24980

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24899

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Benzene	1.00	1.02		mg/Kg		102	70 - 130	
Ethylbenzene	1.00	1.02		mg/Kg		102	70 - 130	
m,p-Xylene	2.00	2.01		mg/Kg		101	70 - 130	
o-Xylene	1.00	1.02		mg/Kg		102	70 - 130	
Toluene	1.00	0.989		mg/Kg		99	70 - 130	
Xylenes, Total	3.00	3.03		mg/Kg		101	70 - 130	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		48 - 145

Lab Sample ID: MB 885-24930/1-A
Matrix: Solid
Analysis Batch: 25062

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24930

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/24/25 15:41	04/25/25 22:14	1
Ethylbenzene	ND		0.050	mg/Kg		04/24/25 15:41	04/25/25 22:14	1
Toluene	ND		0.050	mg/Kg		04/24/25 15:41	04/25/25 22:14	1
Xylenes, Total	ND		0.10	mg/Kg		04/24/25 15:41	04/25/25 22:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		48 - 145	04/24/25 15:41	04/25/25 22:14	1

Lab Sample ID: LCS 885-24930/3-A
Matrix: Solid
Analysis Batch: 25062

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24930

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Benzene	1.00	0.968		mg/Kg		97	70 - 130	
Ethylbenzene	1.00	0.967		mg/Kg		97	70 - 130	
m,p-Xylene	2.00	1.93		mg/Kg		96	70 - 130	
o-Xylene	1.00	0.979		mg/Kg		98	70 - 130	
Toluene	1.00	0.952		mg/Kg		95	70 - 130	
Xylenes, Total	3.00	2.91		mg/Kg		97	70 - 130	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		48 - 145

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QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23731-1

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

Lab Sample ID: 885-23731-5 MS
Matrix: Solid
Analysis Batch: 25062

Client Sample ID: BH25-26 0'
Prep Type: Total/NA
Prep Batch: 24930

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits	
	Result	Qualifier	Added	Result	Qualifier						
Benzene	ND		0.954	1.06		mg/Kg		111		70 - 130	
Ethylbenzene	ND		0.954	1.06		mg/Kg		112		70 - 130	
m,p-Xylene	ND		1.91	2.16		mg/Kg		113		70 - 130	
o-Xylene	ND		0.954	1.09		mg/Kg		114		70 - 130	
Toluene	ND		0.954	1.04		mg/Kg		109		70 - 130	
Xylenes, Total	ND		2.86	3.24		mg/Kg		113		70 - 130	
		MS	MS								
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	96		48 - 145								

Lab Sample ID: 885-23731-5 MSD
Matrix: Solid
Analysis Batch: 25062

Client Sample ID: BH25-26 0'
Prep Type: Total/NA
Prep Batch: 24930

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	Limits	RPD	
	Result	Qualifier	Added	Result	Qualifier						RPD	Limit
Benzene	ND		0.956	1.08		mg/Kg		113		70 - 130	2	20
Ethylbenzene	ND		0.956	1.08		mg/Kg		113		70 - 130	2	20
m,p-Xylene	ND		1.91	2.18		mg/Kg		114		70 - 130	1	20
o-Xylene	ND		0.956	1.10		mg/Kg		115		70 - 130	1	20
Toluene	ND		0.956	1.08		mg/Kg		113		70 - 130	3	20
Xylenes, Total	ND		2.87	3.28		mg/Kg		114		70 - 130	1	20
		MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits									
4-Bromofluorobenzene (Surr)	99		48 - 145									

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

Lab Sample ID: MB 885-25000/1-A
Matrix: Solid
Analysis Batch: 24973

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25000

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		04/25/25 11:22	04/25/25 16:09	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		04/25/25 11:22	04/25/25 16:09	1
		MB	MB					
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
Di-n-octyl phthalate (Surr)	96		62 - 134	04/25/25 11:22	04/25/25 16:09	1		

Lab Sample ID: LCS 885-25000/2-A
Matrix: Solid
Analysis Batch: 24974

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25000

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec	Limits
		Result	Qualifier					
Diesel Range Organics [C10-C28]	50.0	41.8		mg/Kg		84		51 - 148
		LCS	LCS					
Surrogate	%Recovery	Qualifier	Limits					
Di-n-octyl phthalate (Surr)	113		62 - 134					

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QC Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23731-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-24986/1-A
 Matrix: Solid
 Analysis Batch: 25010

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 24986

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5	mg/Kg		04/25/25 10:01	04/25/25 13:13	1

Lab Sample ID: LCS 885-24986/3-A
 Matrix: Solid
 Analysis Batch: 25010

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 24986

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	15.0	15.1		mg/Kg		101	90 - 110

Lab Sample ID: LLCS 885-24986/2-A
 Matrix: Solid
 Analysis Batch: 25010

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 24986

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	1.50	1.56		mg/Kg		104	50 - 150

Lab Sample ID: MB 885-24987/1-A
 Matrix: Solid
 Analysis Batch: 25010

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 24987

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5	mg/Kg		04/25/25 10:03	04/25/25 13:54	1

Lab Sample ID: LCS 885-24987/2-A
 Matrix: Solid
 Analysis Batch: 25010

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 24987

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	15.0	15.2		mg/Kg		101	90 - 110

QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23731-1

GC VOA

Prep Batch: 24899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23731-1	BH25-22 2'	Total/NA	Solid	5030C	
885-23731-2	BH25-22 4'	Total/NA	Solid	5030C	
885-23731-3	BH25-22 5'	Total/NA	Solid	5030C	
885-23731-4	BH25-22 6'	Total/NA	Solid	5030C	
MB 885-24899/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-24899/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-24899/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Prep Batch: 24930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23731-5	BH25-26 0'	Total/NA	Solid	5030C	
885-23731-6	BH25-26 2'	Total/NA	Solid	5030C	
MB 885-24930/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-24930/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-24930/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-23731-5 MS	BH25-26 0'	Total/NA	Solid	5030C	
885-23731-5 MSD	BH25-26 0'	Total/NA	Solid	5030C	

Analysis Batch: 24979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23731-1	BH25-22 2'	Total/NA	Solid	8015M/D	24899
885-23731-2	BH25-22 4'	Total/NA	Solid	8015M/D	24899
885-23731-3	BH25-22 5'	Total/NA	Solid	8015M/D	24899
885-23731-4	BH25-22 6'	Total/NA	Solid	8015M/D	24899
MB 885-24899/1-A	Method Blank	Total/NA	Solid	8015M/D	24899
LCS 885-24899/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24899

Analysis Batch: 24980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23731-1	BH25-22 2'	Total/NA	Solid	8021B	24899
885-23731-2	BH25-22 4'	Total/NA	Solid	8021B	24899
885-23731-3	BH25-22 5'	Total/NA	Solid	8021B	24899
885-23731-4	BH25-22 6'	Total/NA	Solid	8021B	24899
MB 885-24899/1-A	Method Blank	Total/NA	Solid	8021B	24899
LCS 885-24899/3-A	Lab Control Sample	Total/NA	Solid	8021B	24899

Analysis Batch: 25062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23731-5	BH25-26 0'	Total/NA	Solid	8021B	24930
885-23731-6	BH25-26 2'	Total/NA	Solid	8021B	24930
MB 885-24930/1-A	Method Blank	Total/NA	Solid	8021B	24930
LCS 885-24930/3-A	Lab Control Sample	Total/NA	Solid	8021B	24930
885-23731-5 MS	BH25-26 0'	Total/NA	Solid	8021B	24930
885-23731-5 MSD	BH25-26 0'	Total/NA	Solid	8021B	24930

Analysis Batch: 25063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23731-5	BH25-26 0'	Total/NA	Solid	8015M/D	24930
885-23731-6	BH25-26 2'	Total/NA	Solid	8015M/D	24930
MB 885-24930/1-A	Method Blank	Total/NA	Solid	8015M/D	24930
LCS 885-24930/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24930

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QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23731-1

GC Semi VOA

Analysis Batch: 24973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23731-1	BH25-22 2'	Total/NA	Solid	8015M/D	25000
885-23731-3	BH25-22 5'	Total/NA	Solid	8015M/D	25000
885-23731-4	BH25-22 6'	Total/NA	Solid	8015M/D	25000
885-23731-5	BH25-26 0'	Total/NA	Solid	8015M/D	25000
885-23731-6	BH25-26 2'	Total/NA	Solid	8015M/D	25000
MB 885-25000/1-A	Method Blank	Total/NA	Solid	8015M/D	25000

Analysis Batch: 24974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 885-25000/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	25000

Prep Batch: 25000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23731-1	BH25-22 2'	Total/NA	Solid	SHAKE	
885-23731-2	BH25-22 4'	Total/NA	Solid	SHAKE	
885-23731-3	BH25-22 5'	Total/NA	Solid	SHAKE	
885-23731-4	BH25-22 6'	Total/NA	Solid	SHAKE	
885-23731-5	BH25-26 0'	Total/NA	Solid	SHAKE	
885-23731-6	BH25-26 2'	Total/NA	Solid	SHAKE	
MB 885-25000/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-25000/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 25056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23731-2	BH25-22 4'	Total/NA	Solid	8015M/D	25000

HPLC/IC

Prep Batch: 24986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23731-1	BH25-22 2'	Total/NA	Solid	300_Prep	
885-23731-2	BH25-22 4'	Total/NA	Solid	300_Prep	
885-23731-3	BH25-22 5'	Total/NA	Solid	300_Prep	
885-23731-4	BH25-22 6'	Total/NA	Solid	300_Prep	
885-23731-5	BH25-26 0'	Total/NA	Solid	300_Prep	
MB 885-24986/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-24986/3-A	Lab Control Sample	Total/NA	Solid	300_Prep	
LLCS 885-24986/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Prep Batch: 24987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23731-6	BH25-26 2'	Total/NA	Solid	300_Prep	
MB 885-24987/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-24987/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 25010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23731-1	BH25-22 2'	Total/NA	Solid	300.0	24986
885-23731-2	BH25-22 4'	Total/NA	Solid	300.0	24986
885-23731-3	BH25-22 5'	Total/NA	Solid	300.0	24986
885-23731-4	BH25-22 6'	Total/NA	Solid	300.0	24986

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23731-1

HPLC/IC (Continued)

Analysis Batch: 25010 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23731-5	BH25-26 0'	Total/NA	Solid	300.0	24986
885-23731-6	BH25-26 2'	Total/NA	Solid	300.0	24987
MB 885-24986/1-A	Method Blank	Total/NA	Solid	300.0	24986
MB 885-24987/1-A	Method Blank	Total/NA	Solid	300.0	24987
LCS 885-24986/3-A	Lab Control Sample	Total/NA	Solid	300.0	24986
LCS 885-24987/2-A	Lab Control Sample	Total/NA	Solid	300.0	24987
LLCS 885-24986/2-A	Lab Control Sample	Total/NA	Solid	300.0	24986

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Lab Chronicle

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-23731-1

Client Sample ID: BH25-22 2'

Lab Sample ID: 885-23731-1

Date Collected: 04/22/25 10:15

Matrix: Solid

Date Received: 04/24/25 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24899	JE	EET ALB	04/24/25 13:31
Total/NA	Analysis	8015M/D		1	24979	AT	EET ALB	04/25/25 19:20
Total/NA	Prep	5030C			24899	JE	EET ALB	04/24/25 13:31
Total/NA	Analysis	8021B		1	24980	AT	EET ALB	04/25/25 19:20
Total/NA	Prep	SHAKE			25000	MI	EET ALB	04/25/25 11:22
Total/NA	Analysis	8015M/D		1	24973	MI	EET ALB	04/25/25 22:31
Total/NA	Prep	300_Prep			24986	DL	EET ALB	04/25/25 10:01
Total/NA	Analysis	300.0		20	25010	ES	EET ALB	04/25/25 20:30

Client Sample ID: BH25-22 4'

Lab Sample ID: 885-23731-2

Date Collected: 04/22/25 10:18

Matrix: Solid

Date Received: 04/24/25 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24899	JE	EET ALB	04/24/25 13:31
Total/NA	Analysis	8015M/D		1	24979	AT	EET ALB	04/25/25 19:42
Total/NA	Prep	5030C			24899	JE	EET ALB	04/24/25 13:31
Total/NA	Analysis	8021B		1	24980	AT	EET ALB	04/25/25 19:42
Total/NA	Prep	SHAKE			25000	MI	EET ALB	04/25/25 11:22
Total/NA	Analysis	8015M/D		1	25056	EM	EET ALB	04/28/25 14:04
Total/NA	Prep	300_Prep			24986	DL	EET ALB	04/25/25 10:01
Total/NA	Analysis	300.0		20	25010	ES	EET ALB	04/25/25 21:11

Client Sample ID: BH25-22 5'

Lab Sample ID: 885-23731-3

Date Collected: 04/22/25 10:20

Matrix: Solid

Date Received: 04/24/25 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24899	JE	EET ALB	04/24/25 13:31
Total/NA	Analysis	8015M/D		1	24979	AT	EET ALB	04/25/25 20:04
Total/NA	Prep	5030C			24899	JE	EET ALB	04/24/25 13:31
Total/NA	Analysis	8021B		1	24980	AT	EET ALB	04/25/25 20:04
Total/NA	Prep	SHAKE			25000	MI	EET ALB	04/25/25 11:22
Total/NA	Analysis	8015M/D		1	24973	MI	EET ALB	04/25/25 23:18
Total/NA	Prep	300_Prep			24986	DL	EET ALB	04/25/25 10:01
Total/NA	Analysis	300.0		20	25010	ES	EET ALB	04/25/25 21:24

Client Sample ID: BH25-22 6'

Lab Sample ID: 885-23731-4

Date Collected: 04/22/25 10:22

Matrix: Solid

Date Received: 04/24/25 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24899	JE	EET ALB	04/24/25 13:31
Total/NA	Analysis	8015M/D		1	24979	AT	EET ALB	04/25/25 20:25

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23731-1

Client Sample ID: BH25-22 6'

Lab Sample ID: 885-23731-4

Date Collected: 04/22/25 10:22

Matrix: Solid

Date Received: 04/24/25 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24899	JE	EET ALB	04/24/25 13:31
Total/NA	Analysis	8021B		1	24980	AT	EET ALB	04/25/25 20:25
Total/NA	Prep	SHAKE			25000	MI	EET ALB	04/25/25 11:22
Total/NA	Analysis	8015M/D		1	24973	MI	EET ALB	04/25/25 23:42
Total/NA	Prep	300_Prep			24986	DL	EET ALB	04/25/25 10:01
Total/NA	Analysis	300.0		20	25010	ES	EET ALB	04/25/25 21:38

Client Sample ID: BH25-26 0'

Lab Sample ID: 885-23731-5

Date Collected: 04/22/25 10:00

Matrix: Solid

Date Received: 04/24/25 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24930	JP	EET ALB	04/24/25 15:41
Total/NA	Analysis	8015M/D		1	25063	AT	EET ALB	04/26/25 05:06
Total/NA	Prep	5030C			24930	JP	EET ALB	04/24/25 15:41
Total/NA	Analysis	8021B		1	25062	AT	EET ALB	04/26/25 05:06
Total/NA	Prep	SHAKE			25000	MI	EET ALB	04/25/25 11:22
Total/NA	Analysis	8015M/D		1	24973	MI	EET ALB	04/26/25 00:06
Total/NA	Prep	300_Prep			24986	DL	EET ALB	04/25/25 10:01
Total/NA	Analysis	300.0		20	25010	ES	EET ALB	04/25/25 19:08

Client Sample ID: BH25-26 2'

Lab Sample ID: 885-23731-6

Date Collected: 04/22/25 10:05

Matrix: Solid

Date Received: 04/24/25 07:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24930	JP	EET ALB	04/24/25 15:41
Total/NA	Analysis	8015M/D		1	25063	AT	EET ALB	04/26/25 06:11
Total/NA	Prep	5030C			24930	JP	EET ALB	04/24/25 15:41
Total/NA	Analysis	8021B		1	25062	AT	EET ALB	04/26/25 06:11
Total/NA	Prep	SHAKE			25000	MI	EET ALB	04/25/25 11:22
Total/NA	Analysis	8015M/D		1	24973	MI	EET ALB	04/26/25 00:30
Total/NA	Prep	300_Prep			24987	DL	EET ALB	04/25/25 10:03
Total/NA	Analysis	300.0		20	25010	ES	EET ALB	04/25/25 19:22

Laboratory References:

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

Accreditation/Certification Summary

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-23731-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-27-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total
Oregon	NELAP	NM100001	02-26-26

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HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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



885-23731 COC

Turn-Around Time: X Standard X Rush 5 Day

Project Name: **Jackson B #065**

Project #: **25A-01340**

Project Manager: **Sally Carttar**
SCarttar@vertexresource.com

Sampler: **S. McCarty**

On Ice: Yes No

of Coolers: 1

Cooler Temp (including CF): 1.3 to 1.8 MU 1.0

Client: **Vertex (bill to Mack Energy, Matt Buckles)**

Mailing Address: (On File)

Phone #: **25A-01340**

email or Fax#:

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

Accreditation: Az Compliance NELAC Other

EDD (Type)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	C _F , Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
04.22.25	10:15	Soil	BH25-22 2'	1, 4oz jar	ICE		X					X			
04.22.25	10:18	Soil	BH25-22 4'	1, 4oz jar	ICE		X					X			
04.22.25	10:20	Soil	BH25-22 5'	1, 4oz jar	ICE		X					X			
04.22.25	10:22	Soil	BH25-22 6'	1, 4oz jar	ICE		X					X			
04.22.25	10:00	Soil	BH25-26 0'	1, 4oz jar	ICE		X					X			
04.22.25	10:05	Soil	BH25-26 2'	1, 4oz jar	ICE		X					X			

Relinquished by: Steph McCarty Date: 4/22/25 Time: 18:00

Relinquished by: Alumina Date: 4/29/25 Time: 19:00

Received by: Alumina Via: 4/23/25 Date: 1000

Received by: Alumina Via: 4/29/25 Date: 7:35

Remarks: Direct Bill to Mack Energy: ATTN: Matt Buckles
 CC:Sally Carttar (SCarttar@vertexresource.com), Austin Harris (aharris@vertexresource.com), Stephanie McCarty (smccarty@vertexresource.com) for Final Report.

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



Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-23731-1

Login Number: 23731

List Source: Eurofins Albuquerque

List Number: 1

Creator: Dominguez, Desiree

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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	





Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 5/7/2025 2:03:37 PM

JOB DESCRIPTION

Jackson B #065

JOB NUMBER

885-24124-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109



Eurofins Albuquerque

Job Notes

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

Authorization



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5/7/2025 2:03:37 PM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)338-8812

Client: Vertex
Project/Site: Jackson B #065

Laboratory Job ID: 885-24124-1



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Definitions/Glossary

Client: Vertex

Job ID: 885-24124-1

Project/Site: Jackson B #065

Glossary

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

Case Narrative

Client: Vertex
Project: Jackson B #065

Job ID: 885-24124-1

Job ID: 885-24124-1

Eurofins Albuquerque

Job Narrative 885-24124-1

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

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

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

Receipt

The samples were received on 5/2/2025 7:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.5°C.

Receipt Exceptions

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

Gasoline Range Organics

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

GC VOA

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

Diesel Range Organics

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

HPLC/IC

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

Eurofins Albuquerque



Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24124-1

Client Sample ID: BS25-01 2'

Lab Sample ID: 885-24124-1

Date Collected: 04/30/25 10:00

Matrix: Solid

Date Received: 05/02/25 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		05/02/25 12:58	05/05/25 16:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		35 - 166			05/02/25 12:58	05/05/25 16:51	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/02/25 12:58	05/05/25 16:51	1
Ethylbenzene	ND		0.050	mg/Kg		05/02/25 12:58	05/05/25 16:51	1
Toluene	ND		0.050	mg/Kg		05/02/25 12:58	05/05/25 16:51	1
Xylenes, Total	ND		0.10	mg/Kg		05/02/25 12:58	05/05/25 16:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		48 - 145			05/02/25 12:58	05/05/25 16:51	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	17		9.2	mg/Kg		05/05/25 08:40	05/05/25 11:31	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		05/05/25 08:40	05/05/25 11:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	113		62 - 134			05/05/25 08:40	05/05/25 11:31	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3800		60	mg/Kg		05/04/25 13:07	05/05/25 10:53	20

Client Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-24124-1

Client Sample ID: BS25-02 2'

Lab Sample ID: 885-24124-2

Date Collected: 04/30/25 10:10

Matrix: Solid

Date Received: 05/02/25 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		05/02/25 12:58	05/05/25 17:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		35 - 166			05/02/25 12:58	05/05/25 17:12	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/02/25 12:58	05/05/25 17:12	1
Ethylbenzene	ND		0.049	mg/Kg		05/02/25 12:58	05/05/25 17:12	1
Toluene	ND		0.049	mg/Kg		05/02/25 12:58	05/05/25 17:12	1
Xylenes, Total	ND		0.097	mg/Kg		05/02/25 12:58	05/05/25 17:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		48 - 145			05/02/25 12:58	05/05/25 17:12	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	53		9.3	mg/Kg		05/05/25 08:40	05/05/25 11:43	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		05/05/25 08:40	05/05/25 11:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	111		62 - 134			05/05/25 08:40	05/05/25 11:43	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4500		60	mg/Kg		05/04/25 13:07	05/05/25 11:03	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24124-1

Client Sample ID: BS25-03 2'

Lab Sample ID: 885-24124-3

Date Collected: 04/30/25 10:20

Matrix: Solid

Date Received: 05/02/25 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		05/02/25 12:58	05/05/25 17:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		35 - 166			05/02/25 12:58	05/05/25 17:34	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/02/25 12:58	05/05/25 17:34	1
Ethylbenzene	ND		0.050	mg/Kg		05/02/25 12:58	05/05/25 17:34	1
Toluene	ND		0.050	mg/Kg		05/02/25 12:58	05/05/25 17:34	1
Xylenes, Total	ND		0.10	mg/Kg		05/02/25 12:58	05/05/25 17:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		48 - 145			05/02/25 12:58	05/05/25 17:34	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		05/05/25 08:40	05/05/25 11:55	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		05/05/25 08:40	05/05/25 11:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	113		62 - 134			05/05/25 08:40	05/05/25 11:55	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2600		60	mg/Kg		05/04/25 13:07	05/05/25 11:13	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24124-1

Client Sample ID: BS25-04 2'

Lab Sample ID: 885-24124-4

Date Collected: 04/30/25 10:30

Matrix: Solid

Date Received: 05/02/25 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		05/02/25 12:58	05/05/25 18:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		35 - 166			05/02/25 12:58	05/05/25 18:17	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/02/25 12:58	05/05/25 18:17	1
Ethylbenzene	ND		0.050	mg/Kg		05/02/25 12:58	05/05/25 18:17	1
Toluene	ND		0.050	mg/Kg		05/02/25 12:58	05/05/25 18:17	1
Xylenes, Total	ND		0.10	mg/Kg		05/02/25 12:58	05/05/25 18:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		48 - 145			05/02/25 12:58	05/05/25 18:17	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4	mg/Kg		05/05/25 08:40	05/05/25 12:07	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		05/05/25 08:40	05/05/25 12:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	112		62 - 134			05/05/25 08:40	05/05/25 12:07	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2700		60	mg/Kg		05/04/25 13:07	05/05/25 11:23	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24124-1

Client Sample ID: BS25-05 2'

Lab Sample ID: 885-24124-5

Date Collected: 04/30/25 10:40

Matrix: Solid

Date Received: 05/02/25 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		05/02/25 12:58	05/05/25 18:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		35 - 166			05/02/25 12:58	05/05/25 18:39	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/02/25 12:58	05/05/25 18:39	1
Ethylbenzene	ND		0.049	mg/Kg		05/02/25 12:58	05/05/25 18:39	1
Toluene	ND		0.049	mg/Kg		05/02/25 12:58	05/05/25 18:39	1
Xylenes, Total	ND		0.099	mg/Kg		05/02/25 12:58	05/05/25 18:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		48 - 145			05/02/25 12:58	05/05/25 18:39	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	79		9.4	mg/Kg		05/05/25 08:40	05/05/25 12:19	1
Motor Oil Range Organics [C28-C40]	66		47	mg/Kg		05/05/25 08:40	05/05/25 12:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	119		62 - 134			05/05/25 08:40	05/05/25 12:19	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5400		61	mg/Kg		05/04/25 13:07	05/05/25 11:52	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24124-1

Client Sample ID: BS25-06 2'

Lab Sample ID: 885-24124-6

Date Collected: 04/30/25 10:50

Matrix: Solid

Date Received: 05/02/25 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		05/02/25 12:58	05/05/25 19:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		35 - 166			05/02/25 12:58	05/05/25 19:01	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/02/25 12:58	05/05/25 19:01	1
Ethylbenzene	ND		0.050	mg/Kg		05/02/25 12:58	05/05/25 19:01	1
Toluene	ND		0.050	mg/Kg		05/02/25 12:58	05/05/25 19:01	1
Xylenes, Total	ND		0.10	mg/Kg		05/02/25 12:58	05/05/25 19:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		48 - 145			05/02/25 12:58	05/05/25 19:01	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	49		9.8	mg/Kg		05/05/25 08:40	05/05/25 12:31	1
Motor Oil Range Organics [C28-C40]	52		49	mg/Kg		05/05/25 08:40	05/05/25 12:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	116		62 - 134			05/05/25 08:40	05/05/25 12:31	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2300		60	mg/Kg		05/04/25 13:07	05/05/25 12:02	20

Client Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-24124-1

Client Sample ID: BS25-07 2'

Lab Sample ID: 885-24124-7

Date Collected: 04/30/25 11:00

Matrix: Solid

Date Received: 05/02/25 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		05/02/25 12:58	05/05/25 19:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		35 - 166			05/02/25 12:58	05/05/25 19:22	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/02/25 12:58	05/05/25 19:22	1
Ethylbenzene	ND		0.048	mg/Kg		05/02/25 12:58	05/05/25 19:22	1
Toluene	ND		0.048	mg/Kg		05/02/25 12:58	05/05/25 19:22	1
Xylenes, Total	ND		0.097	mg/Kg		05/02/25 12:58	05/05/25 19:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		48 - 145			05/02/25 12:58	05/05/25 19:22	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		05/05/25 08:40	05/05/25 12:43	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		05/05/25 08:40	05/05/25 12:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	130		62 - 134			05/05/25 08:40	05/05/25 12:43	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4200		61	mg/Kg		05/04/25 13:07	05/05/25 12:12	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24124-1

Client Sample ID: BS25-08 2'

Lab Sample ID: 885-24124-8

Date Collected: 04/30/25 11:10

Matrix: Solid

Date Received: 05/02/25 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		05/02/25 12:58	05/05/25 19:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		35 - 166			05/02/25 12:58	05/05/25 19:44	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/02/25 12:58	05/05/25 19:44	1
Ethylbenzene	ND		0.048	mg/Kg		05/02/25 12:58	05/05/25 19:44	1
Toluene	ND		0.048	mg/Kg		05/02/25 12:58	05/05/25 19:44	1
Xylenes, Total	ND		0.096	mg/Kg		05/02/25 12:58	05/05/25 19:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		48 - 145			05/02/25 12:58	05/05/25 19:44	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		05/05/25 08:40	05/05/25 12:55	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		05/05/25 08:40	05/05/25 12:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	123		62 - 134			05/05/25 08:40	05/05/25 12:55	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4900		60	mg/Kg		05/04/25 13:07	05/05/25 12:22	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24124-1

Client Sample ID: BS25-09 2'

Lab Sample ID: 885-24124-9

Date Collected: 04/30/25 11:20

Matrix: Solid

Date Received: 05/02/25 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		05/02/25 12:58	05/05/25 20:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		35 - 166			05/02/25 12:58	05/05/25 20:06	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/02/25 12:58	05/05/25 20:06	1
Ethylbenzene	ND		0.049	mg/Kg		05/02/25 12:58	05/05/25 20:06	1
Toluene	ND		0.049	mg/Kg		05/02/25 12:58	05/05/25 20:06	1
Xylenes, Total	ND		0.098	mg/Kg		05/02/25 12:58	05/05/25 20:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		48 - 145			05/02/25 12:58	05/05/25 20:06	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	13		9.3	mg/Kg		05/05/25 08:40	05/05/25 13:19	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		05/05/25 08:40	05/05/25 13:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	121		62 - 134			05/05/25 08:40	05/05/25 13:19	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3800		60	mg/Kg		05/04/25 13:07	05/05/25 12:32	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24124-1

Client Sample ID: BS25-10 2'

Lab Sample ID: 885-24124-10

Date Collected: 04/30/25 11:30

Matrix: Solid

Date Received: 05/02/25 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		05/02/25 12:58	05/05/25 20:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		35 - 166			05/02/25 12:58	05/05/25 20:28	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/02/25 12:58	05/05/25 20:28	1
Ethylbenzene	ND		0.050	mg/Kg		05/02/25 12:58	05/05/25 20:28	1
Toluene	ND		0.050	mg/Kg		05/02/25 12:58	05/05/25 20:28	1
Xylenes, Total	ND		0.10	mg/Kg		05/02/25 12:58	05/05/25 20:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		48 - 145			05/02/25 12:58	05/05/25 20:28	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	15		9.9	mg/Kg		05/05/25 08:40	05/05/25 13:31	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		05/05/25 08:40	05/05/25 13:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	113		62 - 134			05/05/25 08:40	05/05/25 13:31	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2100		60	mg/Kg		05/04/25 13:07	05/05/25 12:41	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24124-1

Client Sample ID: BS25-11 2'

Lab Sample ID: 885-24124-11

Date Collected: 04/30/25 11:40

Matrix: Solid

Date Received: 05/02/25 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		05/02/25 12:58	05/05/25 20:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		35 - 166			05/02/25 12:58	05/05/25 20:50	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/02/25 12:58	05/05/25 20:50	1
Ethylbenzene	ND		0.048	mg/Kg		05/02/25 12:58	05/05/25 20:50	1
Toluene	ND		0.048	mg/Kg		05/02/25 12:58	05/05/25 20:50	1
Xylenes, Total	ND		0.097	mg/Kg		05/02/25 12:58	05/05/25 20:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		48 - 145			05/02/25 12:58	05/05/25 20:50	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8	mg/Kg		05/05/25 08:42	05/05/25 13:43	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		05/05/25 08:42	05/05/25 13:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	111		62 - 134			05/05/25 08:42	05/05/25 13:43	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5400		60	mg/Kg		05/04/25 13:07	05/05/25 12:51	20

Client Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-24124-1

Client Sample ID: BS25-12 2'

Lab Sample ID: 885-24124-12

Date Collected: 04/30/25 11:50

Matrix: Solid

Date Received: 05/02/25 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		05/02/25 12:58	05/05/25 21:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		35 - 166			05/02/25 12:58	05/05/25 21:12	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/02/25 12:58	05/05/25 21:12	1
Ethylbenzene	ND		0.048	mg/Kg		05/02/25 12:58	05/05/25 21:12	1
Toluene	ND		0.048	mg/Kg		05/02/25 12:58	05/05/25 21:12	1
Xylenes, Total	ND		0.097	mg/Kg		05/02/25 12:58	05/05/25 21:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		48 - 145			05/02/25 12:58	05/05/25 21:12	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6	mg/Kg		05/05/25 08:42	05/05/25 13:55	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		05/05/25 08:42	05/05/25 13:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	121		62 - 134			05/05/25 08:42	05/05/25 13:55	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4600		60	mg/Kg		05/04/25 13:07	05/05/25 13:01	20

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-24124-1

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

Lab Sample ID: MB 885-25383/1-A
Matrix: Solid
Analysis Batch: 25508

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25383

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		05/02/25 07:07	05/05/25 12:52	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		35 - 166			05/02/25 07:07	05/05/25 12:52	1

Lab Sample ID: LCS 885-25383/2-A
Matrix: Solid
Analysis Batch: 25508

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25383

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	27.9		mg/Kg		111	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	215		35 - 166				

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-25383/1-A
Matrix: Solid
Analysis Batch: 25509

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25383

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/02/25 07:07	05/05/25 12:52	1
Ethylbenzene	ND		0.050	mg/Kg		05/02/25 07:07	05/05/25 12:52	1
Toluene	ND		0.050	mg/Kg		05/02/25 07:07	05/05/25 12:52	1
Xylenes, Total	ND		0.10	mg/Kg		05/02/25 07:07	05/05/25 12:52	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		48 - 145			05/02/25 07:07	05/05/25 12:52	1

Lab Sample ID: LCS 885-25383/3-A
Matrix: Solid
Analysis Batch: 25509

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25383

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	1.03		mg/Kg		103	70 - 130
Ethylbenzene	1.00	1.04		mg/Kg		104	70 - 130
m,p-Xylene	2.00	2.07		mg/Kg		104	70 - 130
o-Xylene	1.00	1.04		mg/Kg		104	70 - 130
Toluene	1.00	1.01		mg/Kg		101	70 - 130
Xylenes, Total	3.00	3.11		mg/Kg		104	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	92		48 - 145				

Eurofins Albuquerque

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-24124-1

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

Lab Sample ID: MB 885-25466/1-A
Matrix: Solid
Analysis Batch: 25465

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25466

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		05/05/25 08:40	05/05/25 11:07	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		05/05/25 08:40	05/05/25 11:07	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	113		62 - 134			05/05/25 08:40	05/05/25 11:07	1

Lab Sample ID: LCS 885-25466/2-A
Matrix: Solid
Analysis Batch: 25465

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25466

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	44.8		mg/Kg		90	51 - 148
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Di-n-octyl phthalate (Surr)	96		62 - 134				

Lab Sample ID: 885-24124-12 MS
Matrix: Solid
Analysis Batch: 25465

Client Sample ID: BS25-12 2'
Prep Type: Total/NA
Prep Batch: 25466

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	ND		47.8	44.0		mg/Kg		92	44 - 136
Surrogate	MS %Recovery	MS Qualifier	Limits						
Di-n-octyl phthalate (Surr)	118		62 - 134						

Lab Sample ID: 885-24124-12 MSD
Matrix: Solid
Analysis Batch: 25465

Client Sample ID: BS25-12 2'
Prep Type: Total/NA
Prep Batch: 25466

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Diesel Range Organics [C10-C28]	ND		48.7	59.8		mg/Kg		123	44 - 136	30	32
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Di-n-octyl phthalate (Surr)	119		62 - 134								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-25451/1-A
Matrix: Solid
Analysis Batch: 25454

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25451

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	mg/Kg		05/04/25 13:07	05/05/25 08:06	1

Eurofins Albuquerque

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-24124-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 885-25451/2-A
Matrix: Solid
Analysis Batch: 25454

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25451

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	30.0	28.5		mg/Kg		95	90 - 110

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

QC Association Summary

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24124-1

GC VOA

Prep Batch: 25383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24124-1	BS25-01 2'	Total/NA	Solid	5030C	
885-24124-2	BS25-02 2'	Total/NA	Solid	5030C	
885-24124-3	BS25-03 2'	Total/NA	Solid	5030C	
885-24124-4	BS25-04 2'	Total/NA	Solid	5030C	
885-24124-5	BS25-05 2'	Total/NA	Solid	5030C	
885-24124-6	BS25-06 2'	Total/NA	Solid	5030C	
885-24124-7	BS25-07 2'	Total/NA	Solid	5030C	
885-24124-8	BS25-08 2'	Total/NA	Solid	5030C	
885-24124-9	BS25-09 2'	Total/NA	Solid	5030C	
885-24124-10	BS25-10 2'	Total/NA	Solid	5030C	
885-24124-11	BS25-11 2'	Total/NA	Solid	5030C	
885-24124-12	BS25-12 2'	Total/NA	Solid	5030C	
MB 885-25383/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-25383/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-25383/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 25508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24124-1	BS25-01 2'	Total/NA	Solid	8015M/D	25383
885-24124-2	BS25-02 2'	Total/NA	Solid	8015M/D	25383
885-24124-3	BS25-03 2'	Total/NA	Solid	8015M/D	25383
885-24124-4	BS25-04 2'	Total/NA	Solid	8015M/D	25383
885-24124-5	BS25-05 2'	Total/NA	Solid	8015M/D	25383
885-24124-6	BS25-06 2'	Total/NA	Solid	8015M/D	25383
885-24124-7	BS25-07 2'	Total/NA	Solid	8015M/D	25383
885-24124-8	BS25-08 2'	Total/NA	Solid	8015M/D	25383
885-24124-9	BS25-09 2'	Total/NA	Solid	8015M/D	25383
885-24124-10	BS25-10 2'	Total/NA	Solid	8015M/D	25383
885-24124-11	BS25-11 2'	Total/NA	Solid	8015M/D	25383
885-24124-12	BS25-12 2'	Total/NA	Solid	8015M/D	25383
MB 885-25383/1-A	Method Blank	Total/NA	Solid	8015M/D	25383
LCS 885-25383/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	25383

Analysis Batch: 25509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24124-1	BS25-01 2'	Total/NA	Solid	8021B	25383
885-24124-2	BS25-02 2'	Total/NA	Solid	8021B	25383
885-24124-3	BS25-03 2'	Total/NA	Solid	8021B	25383
885-24124-4	BS25-04 2'	Total/NA	Solid	8021B	25383
885-24124-5	BS25-05 2'	Total/NA	Solid	8021B	25383
885-24124-6	BS25-06 2'	Total/NA	Solid	8021B	25383
885-24124-7	BS25-07 2'	Total/NA	Solid	8021B	25383
885-24124-8	BS25-08 2'	Total/NA	Solid	8021B	25383
885-24124-9	BS25-09 2'	Total/NA	Solid	8021B	25383
885-24124-10	BS25-10 2'	Total/NA	Solid	8021B	25383
885-24124-11	BS25-11 2'	Total/NA	Solid	8021B	25383
885-24124-12	BS25-12 2'	Total/NA	Solid	8021B	25383
MB 885-25383/1-A	Method Blank	Total/NA	Solid	8021B	25383
LCS 885-25383/3-A	Lab Control Sample	Total/NA	Solid	8021B	25383

Eurofins Albuquerque

QC Association Summary

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24124-1

GC Semi VOA

Analysis Batch: 25465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24124-1	BS25-01 2'	Total/NA	Solid	8015M/D	25466
885-24124-2	BS25-02 2'	Total/NA	Solid	8015M/D	25466
885-24124-3	BS25-03 2'	Total/NA	Solid	8015M/D	25466
885-24124-4	BS25-04 2'	Total/NA	Solid	8015M/D	25466
885-24124-5	BS25-05 2'	Total/NA	Solid	8015M/D	25466
885-24124-6	BS25-06 2'	Total/NA	Solid	8015M/D	25466
885-24124-7	BS25-07 2'	Total/NA	Solid	8015M/D	25466
885-24124-8	BS25-08 2'	Total/NA	Solid	8015M/D	25466
885-24124-9	BS25-09 2'	Total/NA	Solid	8015M/D	25466
885-24124-10	BS25-10 2'	Total/NA	Solid	8015M/D	25466
885-24124-11	BS25-11 2'	Total/NA	Solid	8015M/D	25466
885-24124-12	BS25-12 2'	Total/NA	Solid	8015M/D	25466
MB 885-25466/1-A	Method Blank	Total/NA	Solid	8015M/D	25466
LCS 885-25466/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	25466
885-24124-12 MS	BS25-12 2'	Total/NA	Solid	8015M/D	25466
885-24124-12 MSD	BS25-12 2'	Total/NA	Solid	8015M/D	25466

Prep Batch: 25466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24124-1	BS25-01 2'	Total/NA	Solid	SHAKE	
885-24124-2	BS25-02 2'	Total/NA	Solid	SHAKE	
885-24124-3	BS25-03 2'	Total/NA	Solid	SHAKE	
885-24124-4	BS25-04 2'	Total/NA	Solid	SHAKE	
885-24124-5	BS25-05 2'	Total/NA	Solid	SHAKE	
885-24124-6	BS25-06 2'	Total/NA	Solid	SHAKE	
885-24124-7	BS25-07 2'	Total/NA	Solid	SHAKE	
885-24124-8	BS25-08 2'	Total/NA	Solid	SHAKE	
885-24124-9	BS25-09 2'	Total/NA	Solid	SHAKE	
885-24124-10	BS25-10 2'	Total/NA	Solid	SHAKE	
885-24124-11	BS25-11 2'	Total/NA	Solid	SHAKE	
885-24124-12	BS25-12 2'	Total/NA	Solid	SHAKE	
MB 885-25466/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-25466/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-24124-12 MS	BS25-12 2'	Total/NA	Solid	SHAKE	
885-24124-12 MSD	BS25-12 2'	Total/NA	Solid	SHAKE	

HPLC/IC

Prep Batch: 25451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24124-1	BS25-01 2'	Total/NA	Solid	300_Prep	
885-24124-2	BS25-02 2'	Total/NA	Solid	300_Prep	
885-24124-3	BS25-03 2'	Total/NA	Solid	300_Prep	
885-24124-4	BS25-04 2'	Total/NA	Solid	300_Prep	
885-24124-5	BS25-05 2'	Total/NA	Solid	300_Prep	
885-24124-6	BS25-06 2'	Total/NA	Solid	300_Prep	
885-24124-7	BS25-07 2'	Total/NA	Solid	300_Prep	
885-24124-8	BS25-08 2'	Total/NA	Solid	300_Prep	
885-24124-9	BS25-09 2'	Total/NA	Solid	300_Prep	
885-24124-10	BS25-10 2'	Total/NA	Solid	300_Prep	
885-24124-11	BS25-11 2'	Total/NA	Solid	300_Prep	

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QC Association Summary

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24124-1

HPLC/IC (Continued)

Prep Batch: 25451 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24124-12	BS25-12 2'	Total/NA	Solid	300_Prep	
MB 885-25451/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-25451/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 25454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24124-1	BS25-01 2'	Total/NA	Solid	300.0	25451
885-24124-2	BS25-02 2'	Total/NA	Solid	300.0	25451
885-24124-3	BS25-03 2'	Total/NA	Solid	300.0	25451
885-24124-4	BS25-04 2'	Total/NA	Solid	300.0	25451
885-24124-5	BS25-05 2'	Total/NA	Solid	300.0	25451
885-24124-6	BS25-06 2'	Total/NA	Solid	300.0	25451
885-24124-7	BS25-07 2'	Total/NA	Solid	300.0	25451
885-24124-8	BS25-08 2'	Total/NA	Solid	300.0	25451
885-24124-9	BS25-09 2'	Total/NA	Solid	300.0	25451
885-24124-10	BS25-10 2'	Total/NA	Solid	300.0	25451
885-24124-11	BS25-11 2'	Total/NA	Solid	300.0	25451
885-24124-12	BS25-12 2'	Total/NA	Solid	300.0	25451
MB 885-25451/1-A	Method Blank	Total/NA	Solid	300.0	25451
LCS 885-25451/2-A	Lab Control Sample	Total/NA	Solid	300.0	25451

Lab Chronicle

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-24124-1

Client Sample ID: BS25-01 2'

Lab Sample ID: 885-24124-1

Date Collected: 04/30/25 10:00

Matrix: Solid

Date Received: 05/02/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8015M/D		1	25508	AT	EET ALB	05/05/25 16:51
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8021B		1	25509	AT	EET ALB	05/05/25 16:51
Total/NA	Prep	SHAKE			25466	EM	EET ALB	05/05/25 08:40
Total/NA	Analysis	8015M/D		1	25465	MI	EET ALB	05/05/25 11:31
Total/NA	Prep	300_Prep			25451	JT	EET ALB	05/04/25 13:07
Total/NA	Analysis	300.0		20	25454	RC	EET ALB	05/05/25 10:53

Client Sample ID: BS25-02 2'

Lab Sample ID: 885-24124-2

Date Collected: 04/30/25 10:10

Matrix: Solid

Date Received: 05/02/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8015M/D		1	25508	AT	EET ALB	05/05/25 17:12
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8021B		1	25509	AT	EET ALB	05/05/25 17:12
Total/NA	Prep	SHAKE			25466	EM	EET ALB	05/05/25 08:40
Total/NA	Analysis	8015M/D		1	25465	MI	EET ALB	05/05/25 11:43
Total/NA	Prep	300_Prep			25451	JT	EET ALB	05/04/25 13:07
Total/NA	Analysis	300.0		20	25454	RC	EET ALB	05/05/25 11:03

Client Sample ID: BS25-03 2'

Lab Sample ID: 885-24124-3

Date Collected: 04/30/25 10:20

Matrix: Solid

Date Received: 05/02/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8015M/D		1	25508	AT	EET ALB	05/05/25 17:34
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8021B		1	25509	AT	EET ALB	05/05/25 17:34
Total/NA	Prep	SHAKE			25466	EM	EET ALB	05/05/25 08:40
Total/NA	Analysis	8015M/D		1	25465	MI	EET ALB	05/05/25 11:55
Total/NA	Prep	300_Prep			25451	JT	EET ALB	05/04/25 13:07
Total/NA	Analysis	300.0		20	25454	RC	EET ALB	05/05/25 11:13

Client Sample ID: BS25-04 2'

Lab Sample ID: 885-24124-4

Date Collected: 04/30/25 10:30

Matrix: Solid

Date Received: 05/02/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8015M/D		1	25508	AT	EET ALB	05/05/25 18:17

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24124-1

Client Sample ID: BS25-04 2'

Lab Sample ID: 885-24124-4

Date Collected: 04/30/25 10:30

Matrix: Solid

Date Received: 05/02/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8021B		1	25509	AT	EET ALB	05/05/25 18:17
Total/NA	Prep	SHAKE			25466	EM	EET ALB	05/05/25 08:40
Total/NA	Analysis	8015M/D		1	25465	MI	EET ALB	05/05/25 12:07
Total/NA	Prep	300_Prep			25451	JT	EET ALB	05/04/25 13:07
Total/NA	Analysis	300.0		20	25454	RC	EET ALB	05/05/25 11:23

Client Sample ID: BS25-05 2'

Lab Sample ID: 885-24124-5

Date Collected: 04/30/25 10:40

Matrix: Solid

Date Received: 05/02/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8015M/D		1	25508	AT	EET ALB	05/05/25 18:39
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8021B		1	25509	AT	EET ALB	05/05/25 18:39
Total/NA	Prep	SHAKE			25466	EM	EET ALB	05/05/25 08:40
Total/NA	Analysis	8015M/D		1	25465	MI	EET ALB	05/05/25 12:19
Total/NA	Prep	300_Prep			25451	JT	EET ALB	05/04/25 13:07
Total/NA	Analysis	300.0		20	25454	RC	EET ALB	05/05/25 11:52

Client Sample ID: BS25-06 2'

Lab Sample ID: 885-24124-6

Date Collected: 04/30/25 10:50

Matrix: Solid

Date Received: 05/02/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8015M/D		1	25508	AT	EET ALB	05/05/25 19:01
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8021B		1	25509	AT	EET ALB	05/05/25 19:01
Total/NA	Prep	SHAKE			25466	EM	EET ALB	05/05/25 08:40
Total/NA	Analysis	8015M/D		1	25465	MI	EET ALB	05/05/25 12:31
Total/NA	Prep	300_Prep			25451	JT	EET ALB	05/04/25 13:07
Total/NA	Analysis	300.0		20	25454	RC	EET ALB	05/05/25 12:02

Client Sample ID: BS25-07 2'

Lab Sample ID: 885-24124-7

Date Collected: 04/30/25 11:00

Matrix: Solid

Date Received: 05/02/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8015M/D		1	25508	AT	EET ALB	05/05/25 19:22
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8021B		1	25509	AT	EET ALB	05/05/25 19:22

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Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24124-1

Client Sample ID: BS25-07 2'

Lab Sample ID: 885-24124-7

Date Collected: 04/30/25 11:00

Matrix: Solid

Date Received: 05/02/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			25466	EM	EET ALB	05/05/25 08:40
Total/NA	Analysis	8015M/D		1	25465	MI	EET ALB	05/05/25 12:43
Total/NA	Prep	300_Prep			25451	JT	EET ALB	05/04/25 13:07
Total/NA	Analysis	300.0		20	25454	RC	EET ALB	05/05/25 12:12

Client Sample ID: BS25-08 2'

Lab Sample ID: 885-24124-8

Date Collected: 04/30/25 11:10

Matrix: Solid

Date Received: 05/02/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8015M/D		1	25508	AT	EET ALB	05/05/25 19:44
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8021B		1	25509	AT	EET ALB	05/05/25 19:44
Total/NA	Prep	SHAKE			25466	EM	EET ALB	05/05/25 08:40
Total/NA	Analysis	8015M/D		1	25465	MI	EET ALB	05/05/25 12:55
Total/NA	Prep	300_Prep			25451	JT	EET ALB	05/04/25 13:07
Total/NA	Analysis	300.0		20	25454	RC	EET ALB	05/05/25 12:22

Client Sample ID: BS25-09 2'

Lab Sample ID: 885-24124-9

Date Collected: 04/30/25 11:20

Matrix: Solid

Date Received: 05/02/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8015M/D		1	25508	AT	EET ALB	05/05/25 20:06
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8021B		1	25509	AT	EET ALB	05/05/25 20:06
Total/NA	Prep	SHAKE			25466	EM	EET ALB	05/05/25 08:40
Total/NA	Analysis	8015M/D		1	25465	MI	EET ALB	05/05/25 13:19
Total/NA	Prep	300_Prep			25451	JT	EET ALB	05/04/25 13:07
Total/NA	Analysis	300.0		20	25454	RC	EET ALB	05/05/25 12:32

Client Sample ID: BS25-10 2'

Lab Sample ID: 885-24124-10

Date Collected: 04/30/25 11:30

Matrix: Solid

Date Received: 05/02/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8015M/D		1	25508	AT	EET ALB	05/05/25 20:28
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8021B		1	25509	AT	EET ALB	05/05/25 20:28
Total/NA	Prep	SHAKE			25466	EM	EET ALB	05/05/25 08:40
Total/NA	Analysis	8015M/D		1	25465	MI	EET ALB	05/05/25 13:31

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-24124-1

Client Sample ID: BS25-10 2'

Lab Sample ID: 885-24124-10

Date Collected: 04/30/25 11:30

Matrix: Solid

Date Received: 05/02/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			25451	JT	EET ALB	05/04/25 13:07
Total/NA	Analysis	300.0		20	25454	RC	EET ALB	05/05/25 12:41

Client Sample ID: BS25-11 2'

Lab Sample ID: 885-24124-11

Date Collected: 04/30/25 11:40

Matrix: Solid

Date Received: 05/02/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8015M/D		1	25508	AT	EET ALB	05/05/25 20:50
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8021B		1	25509	AT	EET ALB	05/05/25 20:50
Total/NA	Prep	SHAKE			25466	EM	EET ALB	05/05/25 08:42
Total/NA	Analysis	8015M/D		1	25465	MI	EET ALB	05/05/25 13:43
Total/NA	Prep	300_Prep			25451	JT	EET ALB	05/04/25 13:07
Total/NA	Analysis	300.0		20	25454	RC	EET ALB	05/05/25 12:51

Client Sample ID: BS25-12 2'

Lab Sample ID: 885-24124-12

Date Collected: 04/30/25 11:50

Matrix: Solid

Date Received: 05/02/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8015M/D		1	25508	AT	EET ALB	05/05/25 21:12
Total/NA	Prep	5030C			25383	JE	EET ALB	05/02/25 12:58
Total/NA	Analysis	8021B		1	25509	AT	EET ALB	05/05/25 21:12
Total/NA	Prep	SHAKE			25466	EM	EET ALB	05/05/25 08:42
Total/NA	Analysis	8015M/D		1	25465	MI	EET ALB	05/05/25 13:55
Total/NA	Prep	300_Prep			25451	JT	EET ALB	05/04/25 13:07
Total/NA	Analysis	300.0		20	25454	RC	EET ALB	05/05/25 13:01

Laboratory References:

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

Accreditation/Certification Summary

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24124-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-27-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total
Oregon	NELAP	NM100001	02-26-26



Chain-of-Custody Record

Client: Vertex (bill to Mack)

Mailing Address: on file

Phone #: _____

email or Fax#: _____

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

Accreditation: Az Compliance

NELAC Other

EDD (Type) _____

Turn-Around Time:

Standard Rush

Project Name:

Jackson B #065

Project #:

25A-01340

Project Manager: Sally Carttar

S Carttar@vertexresour.com

Sampler:

On Ice: Yes No

of Coolers: 1

Cooler Temp (including CF): 53.0, 25.5 (°C)

Container Type and #

Hot Ice

Preservative Type

Ice

HEAL No.

12410

TPH:8015D(GRO / DRO / MRO)

X

8081 Pesticides(8082 PCB's)

X

EDB (Method 504.1)

X

PAHs by 8310 or 8270SIMS

X

RCRA 8 Metals

X

CI, F, Br, NO₃, NO₂, PO₄, SO₄

X

8260 (VOA)

X

8270 (Semi-VOA)

X

Total Coliform (Present/Absent)

X

Analysis Request

TPH:8015D(GRO / DRO / MRO)	X
8081 Pesticides(8082 PCB's)	X
EDB (Method 504.1)	X
PAHs by 8310 or 8270SIMS	X
RCRA 8 Metals	X
CI, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	X
8260 (VOA)	X
8270 (Semi-VOA)	X
Total Coliform (Present/Absent)	X

Received by: _____ Date: 5/1/25 Time: 1000

Relinquished by: Shafiq-ayyub

Relinquished by: _____ Date: 5/2/25 Time: 7:30

Remarks: Bill to Mack Energy

ATTN: Matt Buckles@Mec.Com

CC: SCarttar@ventex.ca & Katrina.Taylor@ventex.ca



Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-24124-1

Login Number: 24124

List Source: Eurofins Albuquerque

List Number: 1

Creator: Casarrubias, Tracy

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?	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	





Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 5/13/2025 4:23:48 PM

JOB DESCRIPTION

Jackson B #065

JOB NUMBER

885-24287-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109



Eurofins Albuquerque

Job Notes

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

Authorization



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Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)338-8812

Client: Vertex
Project/Site: Jackson B #065

Laboratory Job ID: 885-24287-1



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Definitions/Glossary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-24287-1

Glossary

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

Case Narrative

Client: Vertex
Project: Jackson B #065

Job ID: 885-24287-1

Job ID: 885-24287-1

Eurofins Albuquerque

Job Narrative 885-24287-1

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

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

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

Receipt

The samples were received on 5/6/2025 7:40 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C.

Receipt Exceptions

The following sample was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): WS25-04 0-2 WS25-04 0-2' (885-24287-9)

Gasoline Range Organics

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

GC VOA

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

Diesel Range Organics

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

HPLC/IC

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

Eurofins Albuquerque



Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24287-1

Client Sample ID: BS25-13 2'

Lab Sample ID: 885-24287-1

Date Collected: 05/01/25 09:00

Matrix: Solid

Date Received: 05/06/25 07:40

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		05/06/25 11:52	05/07/25 12:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		35 - 166			05/06/25 11:52	05/07/25 12:43	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/06/25 11:52	05/07/25 12:43	1
Ethylbenzene	ND		0.050	mg/Kg		05/06/25 11:52	05/07/25 12:43	1
Toluene	ND		0.050	mg/Kg		05/06/25 11:52	05/07/25 12:43	1
Xylenes, Total	ND		0.10	mg/Kg		05/06/25 11:52	05/07/25 12:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		48 - 145			05/06/25 11:52	05/07/25 12:43	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3	mg/Kg		05/08/25 09:39	05/13/25 14:00	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		05/08/25 09:39	05/13/25 14:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	118		62 - 134			05/08/25 09:39	05/13/25 14:00	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4400		60	mg/Kg		05/07/25 06:22	05/07/25 11:49	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24287-1

Client Sample ID: BS25-14 2'

Lab Sample ID: 885-24287-2

Date Collected: 05/01/25 09:10

Matrix: Solid

Date Received: 05/06/25 07:40

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		05/06/25 11:52	05/07/25 13:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		35 - 166			05/06/25 11:52	05/07/25 13:48	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/06/25 11:52	05/07/25 13:48	1
Ethylbenzene	ND		0.050	mg/Kg		05/06/25 11:52	05/07/25 13:48	1
Toluene	ND		0.050	mg/Kg		05/06/25 11:52	05/07/25 13:48	1
Xylenes, Total	ND		0.10	mg/Kg		05/06/25 11:52	05/07/25 13:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		48 - 145			05/06/25 11:52	05/07/25 13:48	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8	mg/Kg		05/08/25 09:39	05/13/25 14:11	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		05/08/25 09:39	05/13/25 14:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	109		62 - 134			05/08/25 09:39	05/13/25 14:11	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2300		60	mg/Kg		05/07/25 06:22	05/07/25 11:59	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24287-1

Client Sample ID: BS25-15 2'

Lab Sample ID: 885-24287-3

Date Collected: 05/01/25 09:20

Matrix: Solid

Date Received: 05/06/25 07:40

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		05/06/25 11:52	05/07/25 14:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		35 - 166			05/06/25 11:52	05/07/25 14:53	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/06/25 11:52	05/07/25 14:53	1
Ethylbenzene	ND		0.049	mg/Kg		05/06/25 11:52	05/07/25 14:53	1
Toluene	ND		0.049	mg/Kg		05/06/25 11:52	05/07/25 14:53	1
Xylenes, Total	ND		0.099	mg/Kg		05/06/25 11:52	05/07/25 14:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		48 - 145			05/06/25 11:52	05/07/25 14:53	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	88		9.3	mg/Kg		05/08/25 09:39	05/13/25 14:22	1
Motor Oil Range Organics [C28-C40]	66		47	mg/Kg		05/08/25 09:39	05/13/25 14:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	110		62 - 134			05/08/25 09:39	05/13/25 14:22	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3400		60	mg/Kg		05/07/25 06:22	05/07/25 12:09	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24287-1

Client Sample ID: BS25-16 2'

Lab Sample ID: 885-24287-4

Date Collected: 05/01/25 09:30

Matrix: Solid

Date Received: 05/06/25 07:40

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		05/06/25 11:52	05/07/25 15:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		35 - 166			05/06/25 11:52	05/07/25 15:15	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/06/25 11:52	05/07/25 15:15	1
Ethylbenzene	ND		0.048	mg/Kg		05/06/25 11:52	05/07/25 15:15	1
Toluene	ND		0.048	mg/Kg		05/06/25 11:52	05/07/25 15:15	1
Xylenes, Total	ND		0.097	mg/Kg		05/06/25 11:52	05/07/25 15:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		48 - 145			05/06/25 11:52	05/07/25 15:15	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3	mg/Kg		05/08/25 09:39	05/13/25 14:33	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		05/08/25 09:39	05/13/25 14:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	110		62 - 134			05/08/25 09:39	05/13/25 14:33	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1900		60	mg/Kg		05/07/25 06:22	05/07/25 12:20	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24287-1

Client Sample ID: BS25-17 2'

Lab Sample ID: 885-24287-5

Date Collected: 05/01/25 09:40

Matrix: Solid

Date Received: 05/06/25 07:40

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		05/06/25 11:52	05/07/25 15:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		35 - 166			05/06/25 11:52	05/07/25 15:36	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/06/25 11:52	05/07/25 15:36	1
Ethylbenzene	ND		0.047	mg/Kg		05/06/25 11:52	05/07/25 15:36	1
Toluene	ND		0.047	mg/Kg		05/06/25 11:52	05/07/25 15:36	1
Xylenes, Total	ND		0.094	mg/Kg		05/06/25 11:52	05/07/25 15:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		48 - 145			05/06/25 11:52	05/07/25 15:36	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	45		9.5	mg/Kg		05/08/25 09:39	05/13/25 14:45	1
Motor Oil Range Organics [C28-C40]	53		47	mg/Kg		05/08/25 09:39	05/13/25 14:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	102		62 - 134			05/08/25 09:39	05/13/25 14:45	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1300		60	mg/Kg		05/07/25 06:22	05/07/25 12:51	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24287-1

Client Sample ID: WS25-01 0-2'

Lab Sample ID: 885-24287-6

Date Collected: 05/01/25 09:50

Matrix: Solid

Date Received: 05/06/25 07:40

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		05/06/25 11:52	05/07/25 15:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		35 - 166			05/06/25 11:52	05/07/25 15:58	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/06/25 11:52	05/07/25 15:58	1
Ethylbenzene	ND		0.048	mg/Kg		05/06/25 11:52	05/07/25 15:58	1
Toluene	ND		0.048	mg/Kg		05/06/25 11:52	05/07/25 15:58	1
Xylenes, Total	ND		0.096	mg/Kg		05/06/25 11:52	05/07/25 15:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		48 - 145			05/06/25 11:52	05/07/25 15:58	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1	mg/Kg		05/08/25 09:39	05/13/25 14:56	1
Motor Oil Range Organics [C28-C40]	ND		45	mg/Kg		05/08/25 09:39	05/13/25 14:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	114		62 - 134			05/08/25 09:39	05/13/25 14:56	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	120		61	mg/Kg		05/07/25 06:22	05/07/25 13:01	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24287-1

Client Sample ID: WS25-02 0-2'

Lab Sample ID: 885-24287-7

Date Collected: 05/01/25 10:00

Matrix: Solid

Date Received: 05/06/25 07:40

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		05/06/25 11:52	05/07/25 16:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		35 - 166			05/06/25 11:52	05/07/25 16:20	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		05/06/25 11:52	05/07/25 16:20	1
Ethylbenzene	ND		0.047	mg/Kg		05/06/25 11:52	05/07/25 16:20	1
Toluene	ND		0.047	mg/Kg		05/06/25 11:52	05/07/25 16:20	1
Xylenes, Total	ND		0.094	mg/Kg		05/06/25 11:52	05/07/25 16:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		48 - 145			05/06/25 11:52	05/07/25 16:20	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2	mg/Kg		05/08/25 09:39	05/13/25 14:34	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		05/08/25 09:39	05/13/25 14:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	109		62 - 134			05/08/25 09:39	05/13/25 14:34	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	400		59	mg/Kg		05/07/25 06:22	05/07/25 13:12	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24287-1

Client Sample ID: WS25-03 0-2'

Lab Sample ID: 885-24287-8

Date Collected: 05/01/25 10:10

Matrix: Solid

Date Received: 05/06/25 07:40

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		05/06/25 11:52	05/07/25 16:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		35 - 166			05/06/25 11:52	05/07/25 16:41	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/06/25 11:52	05/07/25 16:41	1
Ethylbenzene	ND		0.049	mg/Kg		05/06/25 11:52	05/07/25 16:41	1
Toluene	ND		0.049	mg/Kg		05/06/25 11:52	05/07/25 16:41	1
Xylenes, Total	ND		0.098	mg/Kg		05/06/25 11:52	05/07/25 16:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		48 - 145			05/06/25 11:52	05/07/25 16:41	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		05/08/25 09:39	05/13/25 14:47	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		05/08/25 09:39	05/13/25 14:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	128		62 - 134			05/08/25 09:39	05/13/25 14:47	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	250		60	mg/Kg		05/07/25 06:22	05/07/25 13:22	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24287-1

Client Sample ID: WS25-04 0-2'

Lab Sample ID: 885-24287-9

Date Collected: 05/01/25 10:20

Matrix: Solid

Date Received: 05/06/25 07:40

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		05/06/25 11:52	05/07/25 17:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		35 - 166			05/06/25 11:52	05/07/25 17:03	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		05/06/25 11:52	05/07/25 17:03	1
Ethylbenzene	ND		0.047	mg/Kg		05/06/25 11:52	05/07/25 17:03	1
Toluene	ND		0.047	mg/Kg		05/06/25 11:52	05/07/25 17:03	1
Xylenes, Total	ND		0.094	mg/Kg		05/06/25 11:52	05/07/25 17:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		48 - 145			05/06/25 11:52	05/07/25 17:03	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6	mg/Kg		05/08/25 09:39	05/13/25 14:59	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		05/08/25 09:39	05/13/25 14:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	109		62 - 134			05/08/25 09:39	05/13/25 14:59	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	350		60	mg/Kg		05/07/25 06:22	05/07/25 13:32	20

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-24287-1

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

Lab Sample ID: MB 885-25569/1-A
Matrix: Solid
Analysis Batch: 25650

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25569

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		05/06/25 11:52	05/07/25 12:21	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		35 - 166			05/06/25 11:52	05/07/25 12:21	1

Lab Sample ID: LCS 885-25569/2-A
Matrix: Solid
Analysis Batch: 25650

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25569

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	28.0		mg/Kg		112	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	214		35 - 166				

Lab Sample ID: 885-24287-1 MS
Matrix: Solid
Analysis Batch: 25650

Client Sample ID: BS25-13 2'
Prep Type: Total/NA
Prep Batch: 25569

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	ND		25.0	29.2		mg/Kg		117	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	226		35 - 166						

Lab Sample ID: 885-24287-1 MSD
Matrix: Solid
Analysis Batch: 25650

Client Sample ID: BS25-13 2'
Prep Type: Total/NA
Prep Batch: 25569

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		25.0	28.7		mg/Kg		115	70 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	219		35 - 166								

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-25569/1-A
Matrix: Solid
Analysis Batch: 25651

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25569

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/06/25 11:52	05/07/25 12:21	1
Ethylbenzene	ND		0.050	mg/Kg		05/06/25 11:52	05/07/25 12:21	1
Toluene	ND		0.050	mg/Kg		05/06/25 11:52	05/07/25 12:21	1

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QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-24287-1

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

Lab Sample ID: MB 885-25569/1-A
Matrix: Solid
Analysis Batch: 25651

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25569

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Xylenes, Total	ND		0.10	mg/Kg		05/06/25 11:52	05/07/25 12:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		48 - 145			05/06/25 11:52	05/07/25 12:21	1

Lab Sample ID: LCS 885-25569/3-A
Matrix: Solid
Analysis Batch: 25651

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25569

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Benzene	1.00	0.985		mg/Kg		98	70 - 130
Ethylbenzene	1.00	0.988		mg/Kg		99	70 - 130
m,p-Xylene	2.00	2.00		mg/Kg		100	70 - 130
o-Xylene	1.00	0.976		mg/Kg		98	70 - 130
Toluene	1.00	0.973		mg/Kg		97	70 - 130
Xylenes, Total	3.00	2.97		mg/Kg		99	70 - 130
Surrogate	%Recovery	Qualifier	Limits				
4-Bromofluorobenzene (Surr)	98		48 - 145				

Lab Sample ID: 885-24287-2 MS
Matrix: Solid
Analysis Batch: 25651

Client Sample ID: BS25-14 2'
Prep Type: Total/NA
Prep Batch: 25569

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier		Result	Qualifier				
Benzene	ND		0.997	1.02		mg/Kg		103	70 - 130
Ethylbenzene	ND		0.997	1.02		mg/Kg		103	70 - 130
m,p-Xylene	ND		1.99	2.06		mg/Kg		103	70 - 130
o-Xylene	ND		0.997	1.03		mg/Kg		103	70 - 130
Toluene	ND		0.997	1.00		mg/Kg		100	70 - 130
Xylenes, Total	ND		2.99	3.09		mg/Kg		103	70 - 130
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene (Surr)	97		48 - 145						

Lab Sample ID: 885-24287-2 MSD
Matrix: Solid
Analysis Batch: 25651

Client Sample ID: BS25-14 2'
Prep Type: Total/NA
Prep Batch: 25569

Analyte	Sample	Sample	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzene	ND		0.995	1.02		mg/Kg		103	70 - 130	0	20
Ethylbenzene	ND		0.995	1.04		mg/Kg		105	70 - 130	2	20
m,p-Xylene	ND		1.99	2.09		mg/Kg		105	70 - 130	2	20
o-Xylene	ND		0.995	1.03		mg/Kg		103	70 - 130	0	20
Toluene	ND		0.995	1.02		mg/Kg		102	70 - 130	2	20
Xylenes, Total	ND		2.99	3.12		mg/Kg		104	70 - 130	1	20

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QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-24287-1

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

Lab Sample ID: 885-24287-2 MSD
Matrix: Solid
Analysis Batch: 25651

Client Sample ID: BS25-14 2'
Prep Type: Total/NA
Prep Batch: 25569

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		48 - 145

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

Lab Sample ID: MB 885-25724/1-A
Matrix: Solid
Analysis Batch: 25716

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25724

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		05/08/25 09:39	05/08/25 15:12	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		05/08/25 09:39	05/08/25 15:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	113		62 - 134	05/08/25 09:39	05/08/25 15:12	1

Lab Sample ID: LCS 885-25724/2-A
Matrix: Solid
Analysis Batch: 25716

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25724

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	42.9		mg/Kg		86	51 - 148

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	107		62 - 134

Lab Sample ID: 885-24287-9 MS
Matrix: Solid
Analysis Batch: 25996

Client Sample ID: WS25-04 0-2'
Prep Type: Total/NA
Prep Batch: 25724

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	ND		48.2	56.8		mg/Kg		118	44 - 136

Surrogate	MS %Recovery	MS Qualifier	Limits
Di-n-octyl phthalate (Surr)	116		62 - 134

Lab Sample ID: 885-24287-9 MSD
Matrix: Solid
Analysis Batch: 25996

Client Sample ID: WS25-04 0-2'
Prep Type: Total/NA
Prep Batch: 25724

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		47.8	49.6		mg/Kg		104	44 - 136	14	32

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Di-n-octyl phthalate (Surr)	115		62 - 134

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QC Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24287-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-25616/1-A
 Matrix: Solid
 Analysis Batch: 25622

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 25616

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5	mg/Kg		05/07/25 06:22	05/07/25 08:28	1

Lab Sample ID: LCS 885-25616/2-A
 Matrix: Solid
 Analysis Batch: 25622

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 25616

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	15.0	14.2		mg/Kg		95	90 - 110

QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-24287-1

GC VOA

Prep Batch: 25569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24287-1	BS25-13 2'	Total/NA	Solid	5030C	
885-24287-2	BS25-14 2'	Total/NA	Solid	5030C	
885-24287-3	BS25-15 2'	Total/NA	Solid	5030C	
885-24287-4	BS25-16 2'	Total/NA	Solid	5030C	
885-24287-5	BS25-17 2'	Total/NA	Solid	5030C	
885-24287-6	WS25-01 0-2'	Total/NA	Solid	5030C	
885-24287-7	WS25-02 0-2'	Total/NA	Solid	5030C	
885-24287-8	WS25-03 0-2'	Total/NA	Solid	5030C	
885-24287-9	WS25-04 0-2'	Total/NA	Solid	5030C	
MB 885-25569/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-25569/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-25569/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-24287-1 MS	BS25-13 2'	Total/NA	Solid	5030C	
885-24287-1 MSD	BS25-13 2'	Total/NA	Solid	5030C	
885-24287-2 MS	BS25-14 2'	Total/NA	Solid	5030C	
885-24287-2 MSD	BS25-14 2'	Total/NA	Solid	5030C	

Analysis Batch: 25650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24287-1	BS25-13 2'	Total/NA	Solid	8015M/D	25569
885-24287-2	BS25-14 2'	Total/NA	Solid	8015M/D	25569
885-24287-3	BS25-15 2'	Total/NA	Solid	8015M/D	25569
885-24287-4	BS25-16 2'	Total/NA	Solid	8015M/D	25569
885-24287-5	BS25-17 2'	Total/NA	Solid	8015M/D	25569
885-24287-6	WS25-01 0-2'	Total/NA	Solid	8015M/D	25569
885-24287-7	WS25-02 0-2'	Total/NA	Solid	8015M/D	25569
885-24287-8	WS25-03 0-2'	Total/NA	Solid	8015M/D	25569
885-24287-9	WS25-04 0-2'	Total/NA	Solid	8015M/D	25569
MB 885-25569/1-A	Method Blank	Total/NA	Solid	8015M/D	25569
LCS 885-25569/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	25569
885-24287-1 MS	BS25-13 2'	Total/NA	Solid	8015M/D	25569
885-24287-1 MSD	BS25-13 2'	Total/NA	Solid	8015M/D	25569

Analysis Batch: 25651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24287-1	BS25-13 2'	Total/NA	Solid	8021B	25569
885-24287-2	BS25-14 2'	Total/NA	Solid	8021B	25569
885-24287-3	BS25-15 2'	Total/NA	Solid	8021B	25569
885-24287-4	BS25-16 2'	Total/NA	Solid	8021B	25569
885-24287-5	BS25-17 2'	Total/NA	Solid	8021B	25569
885-24287-6	WS25-01 0-2'	Total/NA	Solid	8021B	25569
885-24287-7	WS25-02 0-2'	Total/NA	Solid	8021B	25569
885-24287-8	WS25-03 0-2'	Total/NA	Solid	8021B	25569
885-24287-9	WS25-04 0-2'	Total/NA	Solid	8021B	25569
MB 885-25569/1-A	Method Blank	Total/NA	Solid	8021B	25569
LCS 885-25569/3-A	Lab Control Sample	Total/NA	Solid	8021B	25569
885-24287-2 MS	BS25-14 2'	Total/NA	Solid	8021B	25569
885-24287-2 MSD	BS25-14 2'	Total/NA	Solid	8021B	25569

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-24287-1

GC Semi VOA

Analysis Batch: 25716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-25724/1-A	Method Blank	Total/NA	Solid	8015M/D	25724
LCS 885-25724/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	25724

Prep Batch: 25724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24287-1	BS25-13 2'	Total/NA	Solid	SHAKE	
885-24287-2	BS25-14 2'	Total/NA	Solid	SHAKE	
885-24287-3	BS25-15 2'	Total/NA	Solid	SHAKE	
885-24287-4	BS25-16 2'	Total/NA	Solid	SHAKE	
885-24287-5	BS25-17 2'	Total/NA	Solid	SHAKE	
885-24287-6	WS25-01 0-2'	Total/NA	Solid	SHAKE	
885-24287-7	WS25-02 0-2'	Total/NA	Solid	SHAKE	
885-24287-8	WS25-03 0-2'	Total/NA	Solid	SHAKE	
885-24287-9	WS25-04 0-2'	Total/NA	Solid	SHAKE	
MB 885-25724/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-25724/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-24287-9 MS	WS25-04 0-2'	Total/NA	Solid	SHAKE	
885-24287-9 MSD	WS25-04 0-2'	Total/NA	Solid	SHAKE	

Analysis Batch: 25996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24287-7	WS25-02 0-2'	Total/NA	Solid	8015M/D	25724
885-24287-8	WS25-03 0-2'	Total/NA	Solid	8015M/D	25724
885-24287-9	WS25-04 0-2'	Total/NA	Solid	8015M/D	25724
885-24287-9 MS	WS25-04 0-2'	Total/NA	Solid	8015M/D	25724
885-24287-9 MSD	WS25-04 0-2'	Total/NA	Solid	8015M/D	25724

Analysis Batch: 25997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24287-1	BS25-13 2'	Total/NA	Solid	8015M/D	25724
885-24287-2	BS25-14 2'	Total/NA	Solid	8015M/D	25724
885-24287-3	BS25-15 2'	Total/NA	Solid	8015M/D	25724
885-24287-4	BS25-16 2'	Total/NA	Solid	8015M/D	25724
885-24287-5	BS25-17 2'	Total/NA	Solid	8015M/D	25724
885-24287-6	WS25-01 0-2'	Total/NA	Solid	8015M/D	25724

HPLC/IC

Prep Batch: 25616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24287-1	BS25-13 2'	Total/NA	Solid	300_Prep	
885-24287-2	BS25-14 2'	Total/NA	Solid	300_Prep	
885-24287-3	BS25-15 2'	Total/NA	Solid	300_Prep	
885-24287-4	BS25-16 2'	Total/NA	Solid	300_Prep	
885-24287-5	BS25-17 2'	Total/NA	Solid	300_Prep	
885-24287-6	WS25-01 0-2'	Total/NA	Solid	300_Prep	
885-24287-7	WS25-02 0-2'	Total/NA	Solid	300_Prep	
885-24287-8	WS25-03 0-2'	Total/NA	Solid	300_Prep	
885-24287-9	WS25-04 0-2'	Total/NA	Solid	300_Prep	
MB 885-25616/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-25616/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-24287-1

HPLC/IC

Analysis Batch: 25622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24287-1	BS25-13 2'	Total/NA	Solid	300.0	25616
885-24287-2	BS25-14 2'	Total/NA	Solid	300.0	25616
885-24287-3	BS25-15 2'	Total/NA	Solid	300.0	25616
885-24287-4	BS25-16 2'	Total/NA	Solid	300.0	25616
885-24287-5	BS25-17 2'	Total/NA	Solid	300.0	25616
885-24287-6	WS25-01 0-2'	Total/NA	Solid	300.0	25616
885-24287-7	WS25-02 0-2'	Total/NA	Solid	300.0	25616
885-24287-8	WS25-03 0-2'	Total/NA	Solid	300.0	25616
885-24287-9	WS25-04 0-2'	Total/NA	Solid	300.0	25616
MB 885-25616/1-A	Method Blank	Total/NA	Solid	300.0	25616
LCS 885-25616/2-A	Lab Control Sample	Total/NA	Solid	300.0	25616



Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24287-1

Client Sample ID: BS25-13 2'

Lab Sample ID: 885-24287-1

Date Collected: 05/01/25 09:00

Matrix: Solid

Date Received: 05/06/25 07:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25569	AT	EET ALB	05/06/25 11:52
Total/NA	Analysis	8015M/D		1	25650	AT	EET ALB	05/07/25 12:43
Total/NA	Prep	5030C			25569	AT	EET ALB	05/06/25 11:52
Total/NA	Analysis	8021B		1	25651	AT	EET ALB	05/07/25 12:43
Total/NA	Prep	SHAKE			25724	MI	EET ALB	05/08/25 09:39
Total/NA	Analysis	8015M/D		1	25997	MI	EET ALB	05/13/25 14:00
Total/NA	Prep	300_Prep			25616	JT	EET ALB	05/07/25 06:22
Total/NA	Analysis	300.0		20	25622	RC	EET ALB	05/07/25 11:49

Client Sample ID: BS25-14 2'

Lab Sample ID: 885-24287-2

Date Collected: 05/01/25 09:10

Matrix: Solid

Date Received: 05/06/25 07:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25569	AT	EET ALB	05/06/25 11:52
Total/NA	Analysis	8015M/D		1	25650	AT	EET ALB	05/07/25 13:48
Total/NA	Prep	5030C			25569	AT	EET ALB	05/06/25 11:52
Total/NA	Analysis	8021B		1	25651	AT	EET ALB	05/07/25 13:48
Total/NA	Prep	SHAKE			25724	MI	EET ALB	05/08/25 09:39
Total/NA	Analysis	8015M/D		1	25997	MI	EET ALB	05/13/25 14:11
Total/NA	Prep	300_Prep			25616	JT	EET ALB	05/07/25 06:22
Total/NA	Analysis	300.0		20	25622	RC	EET ALB	05/07/25 11:59

Client Sample ID: BS25-15 2'

Lab Sample ID: 885-24287-3

Date Collected: 05/01/25 09:20

Matrix: Solid

Date Received: 05/06/25 07:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25569	AT	EET ALB	05/06/25 11:52
Total/NA	Analysis	8015M/D		1	25650	AT	EET ALB	05/07/25 14:53
Total/NA	Prep	5030C			25569	AT	EET ALB	05/06/25 11:52
Total/NA	Analysis	8021B		1	25651	AT	EET ALB	05/07/25 14:53
Total/NA	Prep	SHAKE			25724	MI	EET ALB	05/08/25 09:39
Total/NA	Analysis	8015M/D		1	25997	MI	EET ALB	05/13/25 14:22
Total/NA	Prep	300_Prep			25616	JT	EET ALB	05/07/25 06:22
Total/NA	Analysis	300.0		20	25622	RC	EET ALB	05/07/25 12:09

Client Sample ID: BS25-16 2'

Lab Sample ID: 885-24287-4

Date Collected: 05/01/25 09:30

Matrix: Solid

Date Received: 05/06/25 07:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25569	AT	EET ALB	05/06/25 11:52
Total/NA	Analysis	8015M/D		1	25650	AT	EET ALB	05/07/25 15:15

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-24287-1

Client Sample ID: BS25-16 2'

Lab Sample ID: 885-24287-4

Date Collected: 05/01/25 09:30

Matrix: Solid

Date Received: 05/06/25 07:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25569	AT	EET ALB	05/06/25 11:52
Total/NA	Analysis	8021B		1	25651	AT	EET ALB	05/07/25 15:15
Total/NA	Prep	SHAKE			25724	MI	EET ALB	05/08/25 09:39
Total/NA	Analysis	8015M/D		1	25997	MI	EET ALB	05/13/25 14:33
Total/NA	Prep	300_Prep			25616	JT	EET ALB	05/07/25 06:22
Total/NA	Analysis	300.0		20	25622	RC	EET ALB	05/07/25 12:20

Client Sample ID: BS25-17 2'

Lab Sample ID: 885-24287-5

Date Collected: 05/01/25 09:40

Matrix: Solid

Date Received: 05/06/25 07:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25569	AT	EET ALB	05/06/25 11:52
Total/NA	Analysis	8015M/D		1	25650	AT	EET ALB	05/07/25 15:36
Total/NA	Prep	5030C			25569	AT	EET ALB	05/06/25 11:52
Total/NA	Analysis	8021B		1	25651	AT	EET ALB	05/07/25 15:36
Total/NA	Prep	SHAKE			25724	MI	EET ALB	05/08/25 09:39
Total/NA	Analysis	8015M/D		1	25997	MI	EET ALB	05/13/25 14:45
Total/NA	Prep	300_Prep			25616	JT	EET ALB	05/07/25 06:22
Total/NA	Analysis	300.0		20	25622	RC	EET ALB	05/07/25 12:51

Client Sample ID: WS25-01 0-2'

Lab Sample ID: 885-24287-6

Date Collected: 05/01/25 09:50

Matrix: Solid

Date Received: 05/06/25 07:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25569	AT	EET ALB	05/06/25 11:52
Total/NA	Analysis	8015M/D		1	25650	AT	EET ALB	05/07/25 15:58
Total/NA	Prep	5030C			25569	AT	EET ALB	05/06/25 11:52
Total/NA	Analysis	8021B		1	25651	AT	EET ALB	05/07/25 15:58
Total/NA	Prep	SHAKE			25724	MI	EET ALB	05/08/25 09:39
Total/NA	Analysis	8015M/D		1	25997	MI	EET ALB	05/13/25 14:56
Total/NA	Prep	300_Prep			25616	JT	EET ALB	05/07/25 06:22
Total/NA	Analysis	300.0		20	25622	RC	EET ALB	05/07/25 13:01

Client Sample ID: WS25-02 0-2'

Lab Sample ID: 885-24287-7

Date Collected: 05/01/25 10:00

Matrix: Solid

Date Received: 05/06/25 07:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25569	AT	EET ALB	05/06/25 11:52
Total/NA	Analysis	8015M/D		1	25650	AT	EET ALB	05/07/25 16:20
Total/NA	Prep	5030C			25569	AT	EET ALB	05/06/25 11:52
Total/NA	Analysis	8021B		1	25651	AT	EET ALB	05/07/25 16:20

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24287-1

Client Sample ID: WS25-02 0-2'

Lab Sample ID: 885-24287-7

Date Collected: 05/01/25 10:00

Matrix: Solid

Date Received: 05/06/25 07:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			25724	MI	EET ALB	05/08/25 09:39
Total/NA	Analysis	8015M/D		1	25996	MI	EET ALB	05/13/25 14:34
Total/NA	Prep	300_Prep			25616	JT	EET ALB	05/07/25 06:22
Total/NA	Analysis	300.0		20	25622	RC	EET ALB	05/07/25 13:12

Client Sample ID: WS25-03 0-2'

Lab Sample ID: 885-24287-8

Date Collected: 05/01/25 10:10

Matrix: Solid

Date Received: 05/06/25 07:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25569	AT	EET ALB	05/06/25 11:52
Total/NA	Analysis	8015M/D		1	25650	AT	EET ALB	05/07/25 16:41
Total/NA	Prep	5030C			25569	AT	EET ALB	05/06/25 11:52
Total/NA	Analysis	8021B		1	25651	AT	EET ALB	05/07/25 16:41
Total/NA	Prep	SHAKE			25724	MI	EET ALB	05/08/25 09:39
Total/NA	Analysis	8015M/D		1	25996	MI	EET ALB	05/13/25 14:47
Total/NA	Prep	300_Prep			25616	JT	EET ALB	05/07/25 06:22
Total/NA	Analysis	300.0		20	25622	RC	EET ALB	05/07/25 13:22

Client Sample ID: WS25-04 0-2'

Lab Sample ID: 885-24287-9

Date Collected: 05/01/25 10:20

Matrix: Solid

Date Received: 05/06/25 07:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			25569	AT	EET ALB	05/06/25 11:52
Total/NA	Analysis	8015M/D		1	25650	AT	EET ALB	05/07/25 17:03
Total/NA	Prep	5030C			25569	AT	EET ALB	05/06/25 11:52
Total/NA	Analysis	8021B		1	25651	AT	EET ALB	05/07/25 17:03
Total/NA	Prep	SHAKE			25724	MI	EET ALB	05/08/25 09:39
Total/NA	Analysis	8015M/D		1	25996	MI	EET ALB	05/13/25 14:59
Total/NA	Prep	300_Prep			25616	JT	EET ALB	05/07/25 06:22
Total/NA	Analysis	300.0		20	25622	RC	EET ALB	05/07/25 13:32

Laboratory References:

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

Accreditation/Certification Summary

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-24287-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-27-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total
Oregon	NELAP	NM100001	02-26-26



Chain-of-Custody Record

Client: Vertex (bill to Mack)

Mailing Address: on file

Phone #: _____

email or Fax#: _____

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

Accreditation: Az Compliance
 NELAC Other

EDD (Type) _____

Turn-Around Time:
 Standard Rush

Project Name:
Jackson B #065

Project #:
25A-01340

Project Manager: S Cartter
S Cartter @ vertexresource.com

Sampler: Katrina Taylor

On Ice: Yes No mejs

of Coolers: 1

Cooler Temp (including CP): 2.4 + 0.2 = 2.8 (°C)

Container Type and #
40Z

Preservative Type
ice

HEAL No.

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
5/11	9:00	Soil	BS25-13 - 2'	40Z	ice	
	9:10		BS25-14 2'			
	9:20		BS25-15 2'			
	9:30		BS25-16 2'			
	9:40		BS25-17 2'			
	9:56		WS25-01 0-2			
	10:00		WS25-02 0-2			
	10:10		WS25-03 0-2			
	10:20		WS25-04 0-2			

Date	Time	Relinquished by	Received by	Via	Date	Time
5/11	5pm	<u>Katrina Taylor</u>	<u>[Signature]</u>		5/13	1300
5/13	1900	<u>[Signature]</u>	<u>[Signature]</u>		5/13	1940

Analysis Request	
BTEX / MTBE / TMB's (8021)	X
TPH:8015D(GRO / DRO / MRO)	X
8081 Pesticides/8082 PCB's	
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	X
Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	X
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	

Remarks: bill to Mack Energy
ATTN: MATEBUCKLES @ Mec.Conn
CC: SCartter@vertex.ca & Katrina.Taylor@vertex.ca

Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-24287-1

Login Number: 24287

List Number: 1

Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received extra sample not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	





Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

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JOB DESCRIPTION

Jackson B #65

JOB NUMBER

885-24755-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109



Eurofins Albuquerque

Job Notes

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

Authorization



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Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)338-8812

Client: Vertex
Project/Site: Jackson B #65

Laboratory Job ID: 885-24755-1

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Definitions/Glossary

Client: Vertex
Project/Site: Jackson B #65

Job ID: 885-24755-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

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

Case Narrative

Client: Vertex
Project: Jackson B #65

Job ID: 885-24755-1

Job ID: 885-24755-1

Eurofins Albuquerque

Job Narrative 885-24755-1

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

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

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

Receipt

The samples were received on 5/13/2025 7:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.0°C.

Receipt Exceptions

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

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. Dates and times of collection were left out. Need all information filled out when submitting COC. Dates of collection used from sample label for login,

Gasoline Range Organics

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

GC VOA

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

Diesel Range Organics

Method 8015D_DRO: The continuing calibration verification (CCV) associated with batch 885-26310 recovered above the upper control limit for Diesel Range Organics [C10-C28]. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are: WS25-05 0-3' (885-24755-1), WS25-06 0-4.5 (885-24755-2), WS25-09 0-4 (885-24755-5), WS25-11 0-4 (885-24755-7), WS25-12 0-4 (885-24755-8) and BS25-23 4 (885-24755-15).

Method 8015D_DRO: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 885-26257 and analytical batch 885-26310 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.

Method 8015D_DRO: Surrogate recovery for the following samples were outside the upper control limit: WS25-05 0-3' (885-24755-1), WS25-11 0-4 (885-24755-7), WS25-12 0-4 (885-24755-8), WS25-13 4-6 (885-24755-9), BS25-19 4.5 (885-24755-11), BS25-23 4 (885-24755-15) and (MB 885-26257/1-A). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8015D_DRO: The laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) for preparation batch 885-26257 and analytical batch 885-26310 recovered outside the upper control limit for the following analytes: Di-n-octyl phthalate (Surr).. The following associated samples have detections: (LCS 885-26257/2-A). All samples with acceptable surrogate or high failing surrogate and are ND will be reported. All samples with failing surrogate and hits will be re-ran or re-extracted.

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

HPLC/IC

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

Eurofins Albuquerque

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: WS25-05 0-3'

Lab Sample ID: 885-24755-1

Date Collected: 05/09/25 09:00

Matrix: Solid

Date Received: 05/13/25 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		05/13/25 14:11	05/17/25 03:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		15 - 150			05/13/25 14:11	05/17/25 03:44	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/13/25 14:11	05/17/25 03:44	1
Ethylbenzene	ND		0.048	mg/Kg		05/13/25 14:11	05/17/25 03:44	1
Toluene	ND		0.048	mg/Kg		05/13/25 14:11	05/17/25 03:44	1
Xylenes, Total	ND		0.096	mg/Kg		05/13/25 14:11	05/17/25 03:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		15 - 150			05/13/25 14:11	05/17/25 03:44	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND	F1	9.3	mg/Kg		05/15/25 14:29	05/16/25 16:46	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		05/15/25 14:29	05/16/25 16:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	160	S1+	62 - 134			05/15/25 14:29	05/16/25 16:46	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	260		60	mg/Kg		05/14/25 08:06	05/14/25 11:21	20

Client Sample Results

Client: Vertex
Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: WS25-06 0-4.5

Lab Sample ID: 885-24755-2

Date Collected: 05/09/25 09:10

Matrix: Solid

Date Received: 05/13/25 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		05/13/25 14:11	05/17/25 04:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		15 - 150			05/13/25 14:11	05/17/25 04:06	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/13/25 14:11	05/17/25 04:06	1
Ethylbenzene	ND		0.047	mg/Kg		05/13/25 14:11	05/17/25 04:06	1
Toluene	ND		0.047	mg/Kg		05/13/25 14:11	05/17/25 04:06	1
Xylenes, Total	ND		0.094	mg/Kg		05/13/25 14:11	05/17/25 04:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		15 - 150			05/13/25 14:11	05/17/25 04:06	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		05/15/25 14:29	05/16/25 17:19	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		05/15/25 14:29	05/16/25 17:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	121		62 - 134			05/15/25 14:29	05/16/25 17:19	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	220		60	mg/Kg		05/14/25 08:06	05/14/25 12:02	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: WS25-07 0-4

Lab Sample ID: 885-24755-3

Date Collected: 05/09/25 09:20

Matrix: Solid

Date Received: 05/13/25 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		05/13/25 14:11	05/17/25 04:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		15 - 150			05/13/25 14:11	05/17/25 04:27	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/13/25 14:11	05/17/25 04:27	1
Ethylbenzene	ND		0.050	mg/Kg		05/13/25 14:11	05/17/25 04:27	1
Toluene	ND		0.050	mg/Kg		05/13/25 14:11	05/17/25 04:27	1
Xylenes, Total	ND		0.10	mg/Kg		05/13/25 14:11	05/17/25 04:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		15 - 150			05/13/25 14:11	05/17/25 04:27	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	33		9.6	mg/Kg		05/20/25 10:36	05/20/25 12:42	1
Motor Oil Range Organics [C28-C40]	50		48	mg/Kg		05/20/25 10:36	05/20/25 12:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	120		62 - 134			05/20/25 10:36	05/20/25 12:42	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	250		59	mg/Kg		05/14/25 08:06	05/14/25 14:04	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: WS25-08 0-4

Lab Sample ID: 885-24755-4

Date Collected: 05/09/25 09:30

Matrix: Solid

Date Received: 05/13/25 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		05/13/25 14:11	05/17/25 04:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		15 - 150			05/13/25 14:11	05/17/25 04:49	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/13/25 14:11	05/17/25 04:49	1
Ethylbenzene	ND		0.048	mg/Kg		05/13/25 14:11	05/17/25 04:49	1
Toluene	ND		0.048	mg/Kg		05/13/25 14:11	05/17/25 04:49	1
Xylenes, Total	ND		0.097	mg/Kg		05/13/25 14:11	05/17/25 04:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		15 - 150			05/13/25 14:11	05/17/25 04:49	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	33		9.2	mg/Kg		05/20/25 10:36	05/20/25 12:53	1
Motor Oil Range Organics [C28-C40]	63		46	mg/Kg		05/20/25 10:36	05/20/25 12:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	119		62 - 134			05/20/25 10:36	05/20/25 12:53	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	130		60	mg/Kg		05/14/25 08:06	05/14/25 14:18	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: WS25-09 0-4

Lab Sample ID: 885-24755-5

Date Collected: 05/09/25 09:40

Matrix: Solid

Date Received: 05/13/25 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		05/13/25 14:11	05/17/25 05:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		15 - 150			05/13/25 14:11	05/17/25 05:11	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/13/25 14:11	05/17/25 05:11	1
Ethylbenzene	ND		0.047	mg/Kg		05/13/25 14:11	05/17/25 05:11	1
Toluene	ND		0.047	mg/Kg		05/13/25 14:11	05/17/25 05:11	1
Xylenes, Total	ND		0.095	mg/Kg		05/13/25 14:11	05/17/25 05:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		15 - 150			05/13/25 14:11	05/17/25 05:11	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2	mg/Kg		05/15/25 14:29	05/16/25 17:52	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		05/15/25 14:29	05/16/25 17:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	114		62 - 134			05/15/25 14:29	05/16/25 17:52	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	340		60	mg/Kg		05/14/25 08:06	05/14/25 14:31	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: WS25-10 0-4

Lab Sample ID: 885-24755-6

Date Collected: 05/09/25 09:50

Matrix: Solid

Date Received: 05/13/25 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		0.098	mg/Kg		05/13/25 14:11	05/17/25 05:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		15 - 150			05/13/25 14:11	05/17/25 05:33	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00049	mg/Kg		05/13/25 14:11	05/17/25 05:33	1
Ethylbenzene	ND		0.00098	mg/Kg		05/13/25 14:11	05/17/25 05:33	1
Toluene	ND		0.00098	mg/Kg		05/13/25 14:11	05/17/25 05:33	1
Xylenes, Total	ND		0.0020	mg/Kg		05/13/25 14:11	05/17/25 05:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		15 - 150			05/13/25 14:11	05/17/25 05:33	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	11		10	mg/Kg		05/15/25 14:29	05/16/25 18:03	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		05/15/25 14:29	05/16/25 18:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	133		62 - 134			05/15/25 14:29	05/16/25 18:03	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	550		60	mg/Kg		05/14/25 08:06	05/14/25 14:45	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: WS25-11 0-4

Lab Sample ID: 885-24755-7

Date Collected: 05/09/25 10:00

Matrix: Solid

Date Received: 05/13/25 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		05/13/25 14:11	05/17/25 06:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		15 - 150			05/13/25 14:11	05/17/25 06:16	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/13/25 14:11	05/17/25 06:16	1
Ethylbenzene	ND		0.049	mg/Kg		05/13/25 14:11	05/17/25 06:16	1
Toluene	ND		0.049	mg/Kg		05/13/25 14:11	05/17/25 06:16	1
Xylenes, Total	ND		0.097	mg/Kg		05/13/25 14:11	05/17/25 06:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		15 - 150			05/13/25 14:11	05/17/25 06:16	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		05/15/25 14:29	05/16/25 18:14	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		05/15/25 14:29	05/16/25 18:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	151	S1+	62 - 134			05/15/25 14:29	05/16/25 18:14	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	76		60	mg/Kg		05/14/25 08:06	05/14/25 14:59	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: WS25-12 0-4

Lab Sample ID: 885-24755-8

Date Collected: 05/09/25 10:10

Matrix: Solid

Date Received: 05/13/25 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		05/13/25 14:11	05/17/25 06:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		15 - 150			05/13/25 14:11	05/17/25 06:38	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/13/25 14:11	05/17/25 06:38	1
Ethylbenzene	ND		0.047	mg/Kg		05/13/25 14:11	05/17/25 06:38	1
Toluene	ND		0.047	mg/Kg		05/13/25 14:11	05/17/25 06:38	1
Xylenes, Total	ND		0.095	mg/Kg		05/13/25 14:11	05/17/25 06:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		15 - 150			05/13/25 14:11	05/17/25 06:38	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1	mg/Kg		05/15/25 14:29	05/16/25 18:36	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		05/15/25 14:29	05/16/25 18:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	150	S1+	62 - 134			05/15/25 14:29	05/16/25 18:36	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	110		60	mg/Kg		05/14/25 08:06	05/14/25 15:12	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: WS25-13 4-6

Lab Sample ID: 885-24755-9

Date Collected: 05/09/25 10:20

Matrix: Solid

Date Received: 05/13/25 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		05/13/25 14:11	05/17/25 06:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		15 - 150			05/13/25 14:11	05/17/25 06:59	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		05/13/25 14:11	05/17/25 06:59	1
Ethylbenzene	ND		0.047	mg/Kg		05/13/25 14:11	05/17/25 06:59	1
Toluene	ND		0.047	mg/Kg		05/13/25 14:11	05/17/25 06:59	1
Xylenes, Total	ND		0.094	mg/Kg		05/13/25 14:11	05/17/25 06:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		15 - 150			05/13/25 14:11	05/17/25 06:59	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	400		9.7	mg/Kg		05/20/25 10:36	05/20/25 13:04	1
Motor Oil Range Organics [C28-C40]	360		49	mg/Kg		05/20/25 10:36	05/20/25 13:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	115		62 - 134			05/20/25 10:36	05/20/25 13:04	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3300		60	mg/Kg		05/14/25 08:06	05/14/25 16:20	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: BS25-18 3

Lab Sample ID: 885-24755-10

Date Collected: 05/09/25 10:30

Matrix: Solid

Date Received: 05/13/25 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		05/13/25 14:11	05/17/25 07:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		15 - 150			05/13/25 14:11	05/17/25 07:21	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/13/25 14:11	05/17/25 07:21	1
Ethylbenzene	ND		0.048	mg/Kg		05/13/25 14:11	05/17/25 07:21	1
Toluene	ND		0.048	mg/Kg		05/13/25 14:11	05/17/25 07:21	1
Xylenes, Total	ND		0.096	mg/Kg		05/13/25 14:11	05/17/25 07:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		15 - 150			05/13/25 14:11	05/17/25 07:21	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	16		9.3	mg/Kg		05/15/25 14:29	05/16/25 18:59	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		05/15/25 14:29	05/16/25 18:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	117		62 - 134			05/15/25 14:29	05/16/25 18:59	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		05/14/25 08:06	05/14/25 16:34	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: BS25-19 4.5

Lab Sample ID: 885-24755-11

Date Collected: 05/09/25 10:40

Matrix: Solid

Date Received: 05/13/25 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		05/13/25 14:11	05/17/25 07:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		15 - 150			05/13/25 14:11	05/17/25 07:43	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/13/25 14:11	05/17/25 07:43	1
Ethylbenzene	ND		0.047	mg/Kg		05/13/25 14:11	05/17/25 07:43	1
Toluene	ND		0.047	mg/Kg		05/13/25 14:11	05/17/25 07:43	1
Xylenes, Total	ND		0.095	mg/Kg		05/13/25 14:11	05/17/25 07:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		15 - 150			05/13/25 14:11	05/17/25 07:43	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	120		9.4	mg/Kg		05/20/25 10:36	05/20/25 13:14	1
Motor Oil Range Organics [C28-C40]	290		47	mg/Kg		05/20/25 10:36	05/20/25 13:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	115		62 - 134			05/20/25 10:36	05/20/25 13:14	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5200		60	mg/Kg		05/14/25 08:06	05/14/25 16:48	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: BS25-20 6

Lab Sample ID: 885-24755-12

Date Collected: 05/09/25 10:50

Matrix: Solid

Date Received: 05/13/25 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		05/13/25 14:11	05/17/25 08:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		15 - 150			05/13/25 14:11	05/17/25 08:05	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/13/25 14:11	05/17/25 08:05	1
Ethylbenzene	ND		0.048	mg/Kg		05/13/25 14:11	05/17/25 08:05	1
Toluene	ND		0.048	mg/Kg		05/13/25 14:11	05/17/25 08:05	1
Xylenes, Total	ND		0.095	mg/Kg		05/13/25 14:11	05/17/25 08:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		15 - 150			05/13/25 14:11	05/17/25 08:05	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	390		9.9	mg/Kg		05/15/25 14:29	05/16/25 19:54	1
Motor Oil Range Organics [C28-C40]	600		49	mg/Kg		05/15/25 14:29	05/16/25 19:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	119		62 - 134			05/15/25 14:29	05/16/25 19:54	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1800		59	mg/Kg		05/14/25 08:06	05/14/25 17:01	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: BS25-21 6

Lab Sample ID: 885-24755-13

Date Collected: 05/09/25 11:00

Matrix: Solid

Date Received: 05/13/25 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		05/13/25 14:11	05/17/25 08:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		15 - 150			05/13/25 14:11	05/17/25 08:27	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/13/25 14:11	05/17/25 08:27	1
Ethylbenzene	ND		0.048	mg/Kg		05/13/25 14:11	05/17/25 08:27	1
Toluene	ND		0.048	mg/Kg		05/13/25 14:11	05/17/25 08:27	1
Xylenes, Total	ND		0.097	mg/Kg		05/13/25 14:11	05/17/25 08:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		15 - 150			05/13/25 14:11	05/17/25 08:27	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	210		9.9	mg/Kg		05/15/25 14:29	05/16/25 20:38	1
Motor Oil Range Organics [C28-C40]	310		50	mg/Kg		05/15/25 14:29	05/16/25 20:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	121		62 - 134			05/15/25 14:29	05/16/25 20:38	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3200		60	mg/Kg		05/14/25 08:06	05/14/25 17:15	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: BS25-22 4

Lab Sample ID: 885-24755-14

Date Collected: 05/09/25 11:10

Matrix: Solid

Date Received: 05/13/25 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		05/13/25 14:11	05/17/25 08:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		15 - 150			05/13/25 14:11	05/17/25 08:48	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/13/25 14:11	05/17/25 08:48	1
Ethylbenzene	ND		0.049	mg/Kg		05/13/25 14:11	05/17/25 08:48	1
Toluene	ND		0.049	mg/Kg		05/13/25 14:11	05/17/25 08:48	1
Xylenes, Total	ND		0.097	mg/Kg		05/13/25 14:11	05/17/25 08:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		15 - 150			05/13/25 14:11	05/17/25 08:48	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	31		9.8	mg/Kg		05/15/25 14:29	05/16/25 20:49	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		05/15/25 14:29	05/16/25 20:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	118		62 - 134			05/15/25 14:29	05/16/25 20:49	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1600		60	mg/Kg		05/14/25 08:06	05/14/25 17:29	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: BS25-23 4

Lab Sample ID: 885-24755-15

Date Collected: 05/09/25 11:20

Matrix: Solid

Date Received: 05/13/25 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		05/13/25 14:11	05/17/25 09:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		15 - 150			05/13/25 14:11	05/17/25 09:10	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/13/25 14:11	05/17/25 09:10	1
Ethylbenzene	ND		0.049	mg/Kg		05/13/25 14:11	05/17/25 09:10	1
Toluene	ND		0.049	mg/Kg		05/13/25 14:11	05/17/25 09:10	1
Xylenes, Total	ND		0.098	mg/Kg		05/13/25 14:11	05/17/25 09:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		15 - 150			05/13/25 14:11	05/17/25 09:10	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		05/15/25 14:29	05/16/25 21:00	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		05/15/25 14:29	05/16/25 21:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	143	S1+	62 - 134			05/15/25 14:29	05/16/25 21:00	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	850		60	mg/Kg		05/14/25 08:06	05/14/25 19:04	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: BS25-24 4

Lab Sample ID: 885-24755-16

Date Collected: 05/09/25 11:30

Matrix: Solid

Date Received: 05/13/25 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		05/13/25 14:11	05/17/25 09:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		15 - 150			05/13/25 14:11	05/17/25 09:32	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		05/13/25 14:11	05/17/25 09:32	1
Ethylbenzene	ND		0.048	mg/Kg		05/13/25 14:11	05/17/25 09:32	1
Toluene	ND		0.048	mg/Kg		05/13/25 14:11	05/17/25 09:32	1
Xylenes, Total	ND		0.096	mg/Kg		05/13/25 14:11	05/17/25 09:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		15 - 150			05/13/25 14:11	05/17/25 09:32	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	36		9.8	mg/Kg		05/15/25 14:29	05/16/25 21:11	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		05/15/25 14:29	05/16/25 21:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	131		62 - 134			05/15/25 14:29	05/16/25 21:11	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	620		60	mg/Kg		05/14/25 08:06	05/14/25 19:18	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: BS25-25 4

Lab Sample ID: 885-24755-17

Date Collected: 05/09/25 11:40

Matrix: Solid

Date Received: 05/13/25 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		05/14/25 12:39	05/15/25 21:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		15 - 150			05/14/25 12:39	05/15/25 21:58	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/14/25 12:39	05/15/25 21:58	1
Ethylbenzene	ND		0.050	mg/Kg		05/14/25 12:39	05/15/25 21:58	1
Toluene	ND		0.050	mg/Kg		05/14/25 12:39	05/15/25 21:58	1
Xylenes, Total	ND		0.099	mg/Kg		05/14/25 12:39	05/15/25 21:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		15 - 150			05/14/25 12:39	05/15/25 21:58	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	32		9.9	mg/Kg		05/15/25 14:29	05/16/25 21:33	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		05/15/25 14:29	05/16/25 21:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	134		62 - 134			05/15/25 14:29	05/16/25 21:33	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	360		60	mg/Kg		05/15/25 07:58	05/15/25 09:33	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: BS25-26 4

Lab Sample ID: 885-24755-18

Date Collected: 05/09/25 11:50

Matrix: Solid

Date Received: 05/13/25 07:50

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		05/14/25 12:39	05/15/25 23:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		15 - 150			05/14/25 12:39	05/15/25 23:03	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/14/25 12:39	05/15/25 23:03	1
Ethylbenzene	ND		0.050	mg/Kg		05/14/25 12:39	05/15/25 23:03	1
Toluene	ND		0.050	mg/Kg		05/14/25 12:39	05/15/25 23:03	1
Xylenes, Total	ND		0.099	mg/Kg		05/14/25 12:39	05/15/25 23:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		15 - 150			05/14/25 12:39	05/15/25 23:03	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	63		9.8	mg/Kg		05/15/25 14:29	05/16/25 21:44	1
Motor Oil Range Organics [C28-C40]	96		49	mg/Kg		05/15/25 14:29	05/16/25 21:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	130		62 - 134			05/15/25 14:29	05/16/25 21:44	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1700		60	mg/Kg		05/15/25 07:58	05/15/25 10:02	20

QC Sample Results

Client: Vertex
Project/Site: Jackson B #65

Job ID: 885-24755-1

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

Lab Sample ID: MB 885-26055/1-A
Matrix: Solid
Analysis Batch: 26378

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26055

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		05/13/25 14:11	05/17/25 00:29	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		15 - 150			05/13/25 14:11	05/17/25 00:29	1

Lab Sample ID: LCS 885-26055/2-A
Matrix: Solid
Analysis Batch: 26378

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	30.2		mg/Kg		121	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	229		15 - 150				

Lab Sample ID: MB 885-26157/1-A
Matrix: Solid
Analysis Batch: 26318

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26157

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		05/14/25 12:39	05/15/25 20:31	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		15 - 150			05/14/25 12:39	05/15/25 20:31	1

Lab Sample ID: LCS 885-26157/2-A
Matrix: Solid
Analysis Batch: 26318

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26157

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	31.2		mg/Kg		125	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	242		15 - 150				

Lab Sample ID: 885-24755-17 MS
Matrix: Solid
Analysis Batch: 26318

Client Sample ID: BS25-25 4
Prep Type: Total/NA
Prep Batch: 26157

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	ND		24.9	28.7		mg/Kg		116	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	224		15 - 150						

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QC Sample Results

Client: Vertex
Project/Site: Jackson B #65

Job ID: 885-24755-1

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

Lab Sample ID: 885-24755-17 MSD
Matrix: Solid
Analysis Batch: 26318

Client Sample ID: BS25-25 4
Prep Type: Total/NA
Prep Batch: 26157

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		25.0	29.0		mg/Kg		116	70 - 130	1	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	225		15 - 150								

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-26055/1-A
Matrix: Solid
Analysis Batch: 26379

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26055

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/13/25 14:11	05/17/25 00:29	1
Ethylbenzene	ND		0.050	mg/Kg		05/13/25 14:11	05/17/25 00:29	1
Toluene	ND		0.050	mg/Kg		05/13/25 14:11	05/17/25 00:29	1
Xylenes, Total	ND		0.10	mg/Kg		05/13/25 14:11	05/17/25 00:29	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		15 - 150			05/13/25 14:11	05/17/25 00:29	1

Lab Sample ID: LCS 885-26055/3-A
Matrix: Solid
Analysis Batch: 26379

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.984		mg/Kg		98	70 - 130
Ethylbenzene	1.00	1.01		mg/Kg		101	70 - 130
m,p-Xylene	2.00	2.00		mg/Kg		100	70 - 130
o-Xylene	1.00	1.01		mg/Kg		101	70 - 130
Toluene	1.00	0.972		mg/Kg		97	70 - 130
Xylenes, Total	3.00	3.00		mg/Kg		100	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	96		15 - 150				

Lab Sample ID: MB 885-26157/1-A
Matrix: Solid
Analysis Batch: 26319

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26157

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		05/14/25 12:39	05/15/25 20:31	1
Ethylbenzene	ND		0.050	mg/Kg		05/14/25 12:39	05/15/25 20:31	1
Toluene	ND		0.050	mg/Kg		05/14/25 12:39	05/15/25 20:31	1
Xylenes, Total	ND		0.10	mg/Kg		05/14/25 12:39	05/15/25 20:31	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		15 - 150			05/14/25 12:39	05/15/25 20:31	1

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QC Sample Results

Client: Vertex
Project/Site: Jackson B #65

Job ID: 885-24755-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: LCS 885-26157/3-A
Matrix: Solid
Analysis Batch: 26319

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26157

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.979		mg/Kg		98	70 - 130
Ethylbenzene	1.00	0.992		mg/Kg		99	70 - 130
m,p-Xylene	2.00	2.03		mg/Kg		101	70 - 130
o-Xylene	1.00	1.01		mg/Kg		101	70 - 130
Toluene	1.00	0.965		mg/Kg		96	70 - 130
Xylenes, Total	3.00	3.03		mg/Kg		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		15 - 150

Lab Sample ID: 885-24755-18 MS
Matrix: Solid
Analysis Batch: 26319

Client Sample ID: BS25-26 4
Prep Type: Total/NA
Prep Batch: 26157

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		0.997	0.991		mg/Kg		99	70 - 130
Ethylbenzene	ND		0.997	1.04		mg/Kg		104	70 - 130
m,p-Xylene	ND		1.99	2.09		mg/Kg		105	70 - 130
o-Xylene	ND		0.997	1.05		mg/Kg		106	70 - 130
Toluene	ND		0.997	0.992		mg/Kg		100	70 - 130
Xylenes, Total	ND		2.99	3.14		mg/Kg		105	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		15 - 150

Lab Sample ID: 885-24755-18 MSD
Matrix: Solid
Analysis Batch: 26319

Client Sample ID: BS25-26 4
Prep Type: Total/NA
Prep Batch: 26157

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	ND		0.994	0.880		mg/Kg		89	70 - 130	12	20
Ethylbenzene	ND		0.994	0.900		mg/Kg		90	70 - 130	14	20
m,p-Xylene	ND		1.99	1.83		mg/Kg		92	70 - 130	13	20
o-Xylene	ND		0.994	0.909		mg/Kg		91	70 - 130	15	20
Toluene	ND		0.994	0.868		mg/Kg		87	70 - 130	13	20
Xylenes, Total	ND		2.98	2.74		mg/Kg		92	70 - 130	14	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		15 - 150

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

Lab Sample ID: MB 885-26257/1-A
Matrix: Solid
Analysis Batch: 26310

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26257

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		05/15/25 14:29	05/16/25 16:25	1

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QC Sample Results

Client: Vertex
Project/Site: Jackson B #65

Job ID: 885-24755-1

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

Lab Sample ID: MB 885-26257/1-A
Matrix: Solid
Analysis Batch: 26310

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26257

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		05/15/25 14:29	05/16/25 16:25	1
Surrogate	%Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	167	S1+	62 - 134			05/15/25 14:29	05/16/25 16:25	1

Lab Sample ID: LCS 885-26257/2-A
Matrix: Solid
Analysis Batch: 26310

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26257

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	72.9		mg/Kg		146	51 - 148
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Di-n-octyl phthalate (Surr)	164	S1+	62 - 134				

Lab Sample ID: 885-24755-1 MS
Matrix: Solid
Analysis Batch: 26310

Client Sample ID: WS25-05 0-3'
Prep Type: Total/NA
Prep Batch: 26257

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	ND	F1	45.8	64.5	F1	mg/Kg		141	44 - 136
Surrogate	MS %Recovery	MS Qualifier	Limits						
Di-n-octyl phthalate (Surr)	186	S1+	62 - 134						

Lab Sample ID: 885-24755-1 MSD
Matrix: Solid
Analysis Batch: 26310

Client Sample ID: WS25-05 0-3'
Prep Type: Total/NA
Prep Batch: 26257

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND	F1	46.0	56.1		mg/Kg		122	44 - 136	14	32
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Di-n-octyl phthalate (Surr)	155	S1+	62 - 134								

Lab Sample ID: MB 885-26537/1-A
Matrix: Solid
Analysis Batch: 26524

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26537

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		05/20/25 10:36	05/20/25 12:20	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		05/20/25 10:36	05/20/25 12:20	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	112		62 - 134			05/20/25 10:36	05/20/25 12:20	1

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QC Sample Results

Client: Vertex
Project/Site: Jackson B #65

Job ID: 885-24755-1

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

Lab Sample ID: LCS 885-26537/2-A
Matrix: Solid
Analysis Batch: 26524

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26537

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	52.5		mg/Kg		105	51 - 148

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	104		62 - 134

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-26093/1-A
Matrix: Solid
Analysis Batch: 26117

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26093

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5	mg/Kg		05/14/25 08:06	05/14/25 10:54	1

Lab Sample ID: LCS 885-26093/2-A
Matrix: Solid
Analysis Batch: 26117

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26093

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	15.0	15.3		mg/Kg		102	90 - 110

Lab Sample ID: 885-24755-1 MS
Matrix: Solid
Analysis Batch: 26117

Client Sample ID: WS25-05 0-3'
Prep Type: Total/NA
Prep Batch: 26093

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	260		30.3	297	4	mg/Kg		128	50 - 150

Lab Sample ID: 885-24755-1 MSD
Matrix: Solid
Analysis Batch: 26117

Client Sample ID: WS25-05 0-3'
Prep Type: Total/NA
Prep Batch: 26093

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	260		30.1	289	4	mg/Kg		104	50 - 150	3	20

Lab Sample ID: 885-24755-2 MS
Matrix: Solid
Analysis Batch: 26117

Client Sample ID: WS25-06 0-4.5
Prep Type: Total/NA
Prep Batch: 26093

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	220		30.2	249	4	mg/Kg		88	50 - 150

Lab Sample ID: MB 885-26200/1-A
Matrix: Solid
Analysis Batch: 26207

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 26200

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5	mg/Kg		05/15/25 07:58	05/15/25 09:13	1

Eurofins Albuquerque

QC Sample Results

Client: Vertex
Project/Site: Jackson B #65

Job ID: 885-24755-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 885-26200/2-A
Matrix: Solid
Analysis Batch: 26207

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 26200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	15.0	14.2		mg/Kg		95	90 - 110

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

QC Association Summary

Client: Vertex
Project/Site: Jackson B #65

Job ID: 885-24755-1

GC VOA

Prep Batch: 26055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24755-1	WS25-05 0-3'	Total/NA	Solid	5030C	
885-24755-2	WS25-06 0-4.5	Total/NA	Solid	5030C	
885-24755-3	WS25-07 0-4	Total/NA	Solid	5030C	
885-24755-4	WS25-08 0-4	Total/NA	Solid	5030C	
885-24755-5	WS25-09 0-4	Total/NA	Solid	5030C	
885-24755-6	WS25-10 0-4	Total/NA	Solid	5030C	
885-24755-7	WS25-11 0-4	Total/NA	Solid	5030C	
885-24755-8	WS25-12 0-4	Total/NA	Solid	5030C	
885-24755-9	WS25-13 4-6	Total/NA	Solid	5030C	
885-24755-10	BS25-18 3	Total/NA	Solid	5030C	
885-24755-11	BS25-19 4.5	Total/NA	Solid	5030C	
885-24755-12	BS25-20 6	Total/NA	Solid	5030C	
885-24755-13	BS25-21 6	Total/NA	Solid	5030C	
885-24755-14	BS25-22 4	Total/NA	Solid	5030C	
885-24755-15	BS25-23 4	Total/NA	Solid	5030C	
885-24755-16	BS25-24 4	Total/NA	Solid	5030C	
MB 885-26055/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-26055/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-26055/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Prep Batch: 26157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24755-17	BS25-25 4	Total/NA	Solid	5030C	
885-24755-18	BS25-26 4	Total/NA	Solid	5030C	
MB 885-26157/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-26157/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-26157/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-24755-17 MS	BS25-25 4	Total/NA	Solid	5030C	
885-24755-17 MSD	BS25-25 4	Total/NA	Solid	5030C	
885-24755-18 MS	BS25-26 4	Total/NA	Solid	5030C	
885-24755-18 MSD	BS25-26 4	Total/NA	Solid	5030C	

Analysis Batch: 26318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24755-17	BS25-25 4	Total/NA	Solid	8015M/D	26157
885-24755-18	BS25-26 4	Total/NA	Solid	8015M/D	26157
MB 885-26157/1-A	Method Blank	Total/NA	Solid	8015M/D	26157
LCS 885-26157/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	26157
885-24755-17 MS	BS25-25 4	Total/NA	Solid	8015M/D	26157
885-24755-17 MSD	BS25-25 4	Total/NA	Solid	8015M/D	26157

Analysis Batch: 26319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24755-17	BS25-25 4	Total/NA	Solid	8021B	26157
885-24755-18	BS25-26 4	Total/NA	Solid	8021B	26157
MB 885-26157/1-A	Method Blank	Total/NA	Solid	8021B	26157
LCS 885-26157/3-A	Lab Control Sample	Total/NA	Solid	8021B	26157
885-24755-18 MS	BS25-26 4	Total/NA	Solid	8021B	26157
885-24755-18 MSD	BS25-26 4	Total/NA	Solid	8021B	26157

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QC Association Summary

Client: Vertex
Project/Site: Jackson B #65

Job ID: 885-24755-1

GC VOA

Analysis Batch: 26378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24755-1	WS25-05 0-3'	Total/NA	Solid	8015M/D	26055
885-24755-2	WS25-06 0-4.5	Total/NA	Solid	8015M/D	26055
885-24755-3	WS25-07 0-4	Total/NA	Solid	8015M/D	26055
885-24755-4	WS25-08 0-4	Total/NA	Solid	8015M/D	26055
885-24755-5	WS25-09 0-4	Total/NA	Solid	8015M/D	26055
885-24755-6	WS25-10 0-4	Total/NA	Solid	8015M/D	26055
885-24755-7	WS25-11 0-4	Total/NA	Solid	8015M/D	26055
885-24755-8	WS25-12 0-4	Total/NA	Solid	8015M/D	26055
885-24755-9	WS25-13 4-6	Total/NA	Solid	8015M/D	26055
885-24755-10	BS25-18 3	Total/NA	Solid	8015M/D	26055
885-24755-11	BS25-19 4.5	Total/NA	Solid	8015M/D	26055
885-24755-12	BS25-20 6	Total/NA	Solid	8015M/D	26055
885-24755-13	BS25-21 6	Total/NA	Solid	8015M/D	26055
885-24755-14	BS25-22 4	Total/NA	Solid	8015M/D	26055
885-24755-15	BS25-23 4	Total/NA	Solid	8015M/D	26055
885-24755-16	BS25-24 4	Total/NA	Solid	8015M/D	26055
MB 885-26055/1-A	Method Blank	Total/NA	Solid	8015M/D	26055
LCS 885-26055/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	26055

Analysis Batch: 26379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24755-1	WS25-05 0-3'	Total/NA	Solid	8021B	26055
885-24755-2	WS25-06 0-4.5	Total/NA	Solid	8021B	26055
885-24755-3	WS25-07 0-4	Total/NA	Solid	8021B	26055
885-24755-4	WS25-08 0-4	Total/NA	Solid	8021B	26055
885-24755-5	WS25-09 0-4	Total/NA	Solid	8021B	26055
885-24755-6	WS25-10 0-4	Total/NA	Solid	8021B	26055
885-24755-7	WS25-11 0-4	Total/NA	Solid	8021B	26055
885-24755-8	WS25-12 0-4	Total/NA	Solid	8021B	26055
885-24755-9	WS25-13 4-6	Total/NA	Solid	8021B	26055
885-24755-10	BS25-18 3	Total/NA	Solid	8021B	26055
885-24755-11	BS25-19 4.5	Total/NA	Solid	8021B	26055
885-24755-12	BS25-20 6	Total/NA	Solid	8021B	26055
885-24755-13	BS25-21 6	Total/NA	Solid	8021B	26055
885-24755-14	BS25-22 4	Total/NA	Solid	8021B	26055
885-24755-15	BS25-23 4	Total/NA	Solid	8021B	26055
885-24755-16	BS25-24 4	Total/NA	Solid	8021B	26055
MB 885-26055/1-A	Method Blank	Total/NA	Solid	8021B	26055
LCS 885-26055/3-A	Lab Control Sample	Total/NA	Solid	8021B	26055

GC Semi VOA

Prep Batch: 26257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24755-1	WS25-05 0-3'	Total/NA	Solid	SHAKE	
885-24755-2	WS25-06 0-4.5	Total/NA	Solid	SHAKE	
885-24755-5	WS25-09 0-4	Total/NA	Solid	SHAKE	
885-24755-6	WS25-10 0-4	Total/NA	Solid	SHAKE	
885-24755-7	WS25-11 0-4	Total/NA	Solid	SHAKE	
885-24755-8	WS25-12 0-4	Total/NA	Solid	SHAKE	
885-24755-10	BS25-18 3	Total/NA	Solid	SHAKE	

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QC Association Summary

Client: Vertex
Project/Site: Jackson B #65

Job ID: 885-24755-1

GC Semi VOA (Continued)

Prep Batch: 26257 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24755-12	BS25-20 6	Total/NA	Solid	SHAKE	
885-24755-13	BS25-21 6	Total/NA	Solid	SHAKE	
885-24755-14	BS25-22 4	Total/NA	Solid	SHAKE	
885-24755-15	BS25-23 4	Total/NA	Solid	SHAKE	
885-24755-16	BS25-24 4	Total/NA	Solid	SHAKE	
885-24755-17	BS25-25 4	Total/NA	Solid	SHAKE	
885-24755-18	BS25-26 4	Total/NA	Solid	SHAKE	
MB 885-26257/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-26257/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-24755-1 MS	WS25-05 0-3'	Total/NA	Solid	SHAKE	
885-24755-1 MSD	WS25-05 0-3'	Total/NA	Solid	SHAKE	

Analysis Batch: 26310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24755-1	WS25-05 0-3'	Total/NA	Solid	8015M/D	26257
885-24755-2	WS25-06 0-4.5	Total/NA	Solid	8015M/D	26257
885-24755-5	WS25-09 0-4	Total/NA	Solid	8015M/D	26257
885-24755-6	WS25-10 0-4	Total/NA	Solid	8015M/D	26257
885-24755-7	WS25-11 0-4	Total/NA	Solid	8015M/D	26257
885-24755-8	WS25-12 0-4	Total/NA	Solid	8015M/D	26257
885-24755-10	BS25-18 3	Total/NA	Solid	8015M/D	26257
885-24755-12	BS25-20 6	Total/NA	Solid	8015M/D	26257
885-24755-13	BS25-21 6	Total/NA	Solid	8015M/D	26257
885-24755-14	BS25-22 4	Total/NA	Solid	8015M/D	26257
885-24755-15	BS25-23 4	Total/NA	Solid	8015M/D	26257
885-24755-16	BS25-24 4	Total/NA	Solid	8015M/D	26257
885-24755-17	BS25-25 4	Total/NA	Solid	8015M/D	26257
885-24755-18	BS25-26 4	Total/NA	Solid	8015M/D	26257
MB 885-26257/1-A	Method Blank	Total/NA	Solid	8015M/D	26257
LCS 885-26257/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	26257
885-24755-1 MS	WS25-05 0-3'	Total/NA	Solid	8015M/D	26257
885-24755-1 MSD	WS25-05 0-3'	Total/NA	Solid	8015M/D	26257

Analysis Batch: 26524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24755-3	WS25-07 0-4	Total/NA	Solid	8015M/D	26537
885-24755-4	WS25-08 0-4	Total/NA	Solid	8015M/D	26537
885-24755-9	WS25-13 4-6	Total/NA	Solid	8015M/D	26537
885-24755-11	BS25-19 4.5	Total/NA	Solid	8015M/D	26537
MB 885-26537/1-A	Method Blank	Total/NA	Solid	8015M/D	26537
LCS 885-26537/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	26537

Prep Batch: 26537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24755-3	WS25-07 0-4	Total/NA	Solid	SHAKE	
885-24755-4	WS25-08 0-4	Total/NA	Solid	SHAKE	
885-24755-9	WS25-13 4-6	Total/NA	Solid	SHAKE	
885-24755-11	BS25-19 4.5	Total/NA	Solid	SHAKE	
MB 885-26537/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-26537/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Jackson B #65

Job ID: 885-24755-1

HPLC/IC

Prep Batch: 26093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24755-1	WS25-05 0-3'	Total/NA	Solid	300_Prep	
885-24755-2	WS25-06 0-4.5	Total/NA	Solid	300_Prep	
885-24755-3	WS25-07 0-4	Total/NA	Solid	300_Prep	
885-24755-4	WS25-08 0-4	Total/NA	Solid	300_Prep	
885-24755-5	WS25-09 0-4	Total/NA	Solid	300_Prep	
885-24755-6	WS25-10 0-4	Total/NA	Solid	300_Prep	
885-24755-7	WS25-11 0-4	Total/NA	Solid	300_Prep	
885-24755-8	WS25-12 0-4	Total/NA	Solid	300_Prep	
885-24755-9	WS25-13 4-6	Total/NA	Solid	300_Prep	
885-24755-10	BS25-18 3	Total/NA	Solid	300_Prep	
885-24755-11	BS25-19 4.5	Total/NA	Solid	300_Prep	
885-24755-12	BS25-20 6	Total/NA	Solid	300_Prep	
885-24755-13	BS25-21 6	Total/NA	Solid	300_Prep	
885-24755-14	BS25-22 4	Total/NA	Solid	300_Prep	
885-24755-15	BS25-23 4	Total/NA	Solid	300_Prep	
885-24755-16	BS25-24 4	Total/NA	Solid	300_Prep	
MB 885-26093/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-26093/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-24755-1 MS	WS25-05 0-3'	Total/NA	Solid	300_Prep	
885-24755-1 MSD	WS25-05 0-3'	Total/NA	Solid	300_Prep	
885-24755-2 MS	WS25-06 0-4.5	Total/NA	Solid	300_Prep	

Analysis Batch: 26117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24755-1	WS25-05 0-3'	Total/NA	Solid	300.0	26093
885-24755-2	WS25-06 0-4.5	Total/NA	Solid	300.0	26093
885-24755-3	WS25-07 0-4	Total/NA	Solid	300.0	26093
885-24755-4	WS25-08 0-4	Total/NA	Solid	300.0	26093
885-24755-5	WS25-09 0-4	Total/NA	Solid	300.0	26093
885-24755-6	WS25-10 0-4	Total/NA	Solid	300.0	26093
885-24755-7	WS25-11 0-4	Total/NA	Solid	300.0	26093
885-24755-8	WS25-12 0-4	Total/NA	Solid	300.0	26093
885-24755-9	WS25-13 4-6	Total/NA	Solid	300.0	26093
885-24755-10	BS25-18 3	Total/NA	Solid	300.0	26093
885-24755-11	BS25-19 4.5	Total/NA	Solid	300.0	26093
885-24755-12	BS25-20 6	Total/NA	Solid	300.0	26093
885-24755-13	BS25-21 6	Total/NA	Solid	300.0	26093
885-24755-14	BS25-22 4	Total/NA	Solid	300.0	26093
885-24755-15	BS25-23 4	Total/NA	Solid	300.0	26093
885-24755-16	BS25-24 4	Total/NA	Solid	300.0	26093
MB 885-26093/1-A	Method Blank	Total/NA	Solid	300.0	26093
LCS 885-26093/2-A	Lab Control Sample	Total/NA	Solid	300.0	26093
885-24755-1 MS	WS25-05 0-3'	Total/NA	Solid	300.0	26093
885-24755-1 MSD	WS25-05 0-3'	Total/NA	Solid	300.0	26093
885-24755-2 MS	WS25-06 0-4.5	Total/NA	Solid	300.0	26093

Prep Batch: 26200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24755-17	BS25-25 4	Total/NA	Solid	300_Prep	
885-24755-18	BS25-26 4	Total/NA	Solid	300_Prep	
MB 885-26200/1-A	Method Blank	Total/NA	Solid	300_Prep	

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Jackson B #65

Job ID: 885-24755-1

HPLC/IC (Continued)

Prep Batch: 26200 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 885-26200/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 26207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-24755-17	BS25-25 4	Total/NA	Solid	300.0	26200
885-24755-18	BS25-26 4	Total/NA	Solid	300.0	26200
MB 885-26200/1-A	Method Blank	Total/NA	Solid	300.0	26200
LCS 885-26200/2-A	Lab Control Sample	Total/NA	Solid	300.0	26200

- 1
- 2
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- 10
- 11

Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: WS25-05 0-3'

Lab Sample ID: 885-24755-1

Date Collected: 05/09/25 09:00

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8015M/D		1	26378	AT	EET ALB	05/17/25 03:44
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8021B		1	26379	AT	EET ALB	05/17/25 03:44
Total/NA	Prep	SHAKE			26257	MI	EET ALB	05/15/25 14:29
Total/NA	Analysis	8015M/D		1	26310	EM	EET ALB	05/16/25 16:46
Total/NA	Prep	300_Prep			26093	DL	EET ALB	05/14/25 08:06
Total/NA	Analysis	300.0		20	26117	DL	EET ALB	05/14/25 11:21

Client Sample ID: WS25-06 0-4.5

Lab Sample ID: 885-24755-2

Date Collected: 05/09/25 09:10

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8015M/D		1	26378	AT	EET ALB	05/17/25 04:06
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8021B		1	26379	AT	EET ALB	05/17/25 04:06
Total/NA	Prep	SHAKE			26257	MI	EET ALB	05/15/25 14:29
Total/NA	Analysis	8015M/D		1	26310	EM	EET ALB	05/16/25 17:19
Total/NA	Prep	300_Prep			26093	DL	EET ALB	05/14/25 08:06
Total/NA	Analysis	300.0		20	26117	DL	EET ALB	05/14/25 12:02

Client Sample ID: WS25-07 0-4

Lab Sample ID: 885-24755-3

Date Collected: 05/09/25 09:20

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8015M/D		1	26378	AT	EET ALB	05/17/25 04:27
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8021B		1	26379	AT	EET ALB	05/17/25 04:27
Total/NA	Prep	SHAKE			26537	EM	EET ALB	05/20/25 10:36
Total/NA	Analysis	8015M/D		1	26524	EM	EET ALB	05/20/25 12:42
Total/NA	Prep	300_Prep			26093	DL	EET ALB	05/14/25 08:06
Total/NA	Analysis	300.0		20	26117	DL	EET ALB	05/14/25 14:04

Client Sample ID: WS25-08 0-4

Lab Sample ID: 885-24755-4

Date Collected: 05/09/25 09:30

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8015M/D		1	26378	AT	EET ALB	05/17/25 04:49

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: WS25-08 0-4

Lab Sample ID: 885-24755-4

Date Collected: 05/09/25 09:30

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8021B		1	26379	AT	EET ALB	05/17/25 04:49
Total/NA	Prep	SHAKE			26537	EM	EET ALB	05/20/25 10:36
Total/NA	Analysis	8015M/D		1	26524	EM	EET ALB	05/20/25 12:53
Total/NA	Prep	300_Prep			26093	DL	EET ALB	05/14/25 08:06
Total/NA	Analysis	300.0		20	26117	DL	EET ALB	05/14/25 14:18

Client Sample ID: WS25-09 0-4

Lab Sample ID: 885-24755-5

Date Collected: 05/09/25 09:40

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8015M/D		1	26378	AT	EET ALB	05/17/25 05:11
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8021B		1	26379	AT	EET ALB	05/17/25 05:11
Total/NA	Prep	SHAKE			26257	MI	EET ALB	05/15/25 14:29
Total/NA	Analysis	8015M/D		1	26310	EM	EET ALB	05/16/25 17:52
Total/NA	Prep	300_Prep			26093	DL	EET ALB	05/14/25 08:06
Total/NA	Analysis	300.0		20	26117	DL	EET ALB	05/14/25 14:31

Client Sample ID: WS25-10 0-4

Lab Sample ID: 885-24755-6

Date Collected: 05/09/25 09:50

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8015M/D		1	26378	AT	EET ALB	05/17/25 05:33
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8021B		1	26379	AT	EET ALB	05/17/25 05:33
Total/NA	Prep	SHAKE			26257	MI	EET ALB	05/15/25 14:29
Total/NA	Analysis	8015M/D		1	26310	EM	EET ALB	05/16/25 18:03
Total/NA	Prep	300_Prep			26093	DL	EET ALB	05/14/25 08:06
Total/NA	Analysis	300.0		20	26117	DL	EET ALB	05/14/25 14:45

Client Sample ID: WS25-11 0-4

Lab Sample ID: 885-24755-7

Date Collected: 05/09/25 10:00

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8015M/D		1	26378	AT	EET ALB	05/17/25 06:16
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8021B		1	26379	AT	EET ALB	05/17/25 06:16

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Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: WS25-11 0-4

Lab Sample ID: 885-24755-7

Date Collected: 05/09/25 10:00

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			26257	MI	EET ALB	05/15/25 14:29
Total/NA	Analysis	8015M/D		1	26310	EM	EET ALB	05/16/25 18:14
Total/NA	Prep	300_Prep			26093	DL	EET ALB	05/14/25 08:06
Total/NA	Analysis	300.0		20	26117	DL	EET ALB	05/14/25 14:59

Client Sample ID: WS25-12 0-4

Lab Sample ID: 885-24755-8

Date Collected: 05/09/25 10:10

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8015M/D		1	26378	AT	EET ALB	05/17/25 06:38
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8021B		1	26379	AT	EET ALB	05/17/25 06:38
Total/NA	Prep	SHAKE			26257	MI	EET ALB	05/15/25 14:29
Total/NA	Analysis	8015M/D		1	26310	EM	EET ALB	05/16/25 18:36
Total/NA	Prep	300_Prep			26093	DL	EET ALB	05/14/25 08:06
Total/NA	Analysis	300.0		20	26117	DL	EET ALB	05/14/25 15:12

Client Sample ID: WS25-13 4-6

Lab Sample ID: 885-24755-9

Date Collected: 05/09/25 10:20

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8015M/D		1	26378	AT	EET ALB	05/17/25 06:59
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8021B		1	26379	AT	EET ALB	05/17/25 06:59
Total/NA	Prep	SHAKE			26537	EM	EET ALB	05/20/25 10:36
Total/NA	Analysis	8015M/D		1	26524	EM	EET ALB	05/20/25 13:04
Total/NA	Prep	300_Prep			26093	DL	EET ALB	05/14/25 08:06
Total/NA	Analysis	300.0		20	26117	DL	EET ALB	05/14/25 16:20

Client Sample ID: BS25-18 3

Lab Sample ID: 885-24755-10

Date Collected: 05/09/25 10:30

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8015M/D		1	26378	AT	EET ALB	05/17/25 07:21
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8021B		1	26379	AT	EET ALB	05/17/25 07:21
Total/NA	Prep	SHAKE			26257	MI	EET ALB	05/15/25 14:29
Total/NA	Analysis	8015M/D		1	26310	EM	EET ALB	05/16/25 18:59

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Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: BS25-18 3

Lab Sample ID: 885-24755-10

Date Collected: 05/09/25 10:30

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			26093	DL	EET ALB	05/14/25 08:06
Total/NA	Analysis	300.0		20	26117	DL	EET ALB	05/14/25 16:34

Client Sample ID: BS25-19 4.5

Lab Sample ID: 885-24755-11

Date Collected: 05/09/25 10:40

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8015M/D		1	26378	AT	EET ALB	05/17/25 07:43
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8021B		1	26379	AT	EET ALB	05/17/25 07:43
Total/NA	Prep	SHAKE			26537	EM	EET ALB	05/20/25 10:36
Total/NA	Analysis	8015M/D		1	26524	EM	EET ALB	05/20/25 13:14
Total/NA	Prep	300_Prep			26093	DL	EET ALB	05/14/25 08:06
Total/NA	Analysis	300.0		20	26117	DL	EET ALB	05/14/25 16:48

Client Sample ID: BS25-20 6

Lab Sample ID: 885-24755-12

Date Collected: 05/09/25 10:50

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8015M/D		1	26378	AT	EET ALB	05/17/25 08:05
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8021B		1	26379	AT	EET ALB	05/17/25 08:05
Total/NA	Prep	SHAKE			26257	MI	EET ALB	05/15/25 14:29
Total/NA	Analysis	8015M/D		1	26310	EM	EET ALB	05/16/25 19:54
Total/NA	Prep	300_Prep			26093	DL	EET ALB	05/14/25 08:06
Total/NA	Analysis	300.0		20	26117	DL	EET ALB	05/14/25 17:01

Client Sample ID: BS25-21 6

Lab Sample ID: 885-24755-13

Date Collected: 05/09/25 11:00

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8015M/D		1	26378	AT	EET ALB	05/17/25 08:27
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8021B		1	26379	AT	EET ALB	05/17/25 08:27
Total/NA	Prep	SHAKE			26257	MI	EET ALB	05/15/25 14:29
Total/NA	Analysis	8015M/D		1	26310	EM	EET ALB	05/16/25 20:38
Total/NA	Prep	300_Prep			26093	DL	EET ALB	05/14/25 08:06
Total/NA	Analysis	300.0		20	26117	DL	EET ALB	05/14/25 17:15

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: BS25-22 4

Lab Sample ID: 885-24755-14

Date Collected: 05/09/25 11:10

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8015M/D		1	26378	AT	EET ALB	05/17/25 08:48
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8021B		1	26379	AT	EET ALB	05/17/25 08:48
Total/NA	Prep	SHAKE			26257	MI	EET ALB	05/15/25 14:29
Total/NA	Analysis	8015M/D		1	26310	EM	EET ALB	05/16/25 20:49
Total/NA	Prep	300_Prep			26093	DL	EET ALB	05/14/25 08:06
Total/NA	Analysis	300.0		20	26117	DL	EET ALB	05/14/25 17:29

Client Sample ID: BS25-23 4

Lab Sample ID: 885-24755-15

Date Collected: 05/09/25 11:20

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8015M/D		1	26378	AT	EET ALB	05/17/25 09:10
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8021B		1	26379	AT	EET ALB	05/17/25 09:10
Total/NA	Prep	SHAKE			26257	MI	EET ALB	05/15/25 14:29
Total/NA	Analysis	8015M/D		1	26310	EM	EET ALB	05/16/25 21:00
Total/NA	Prep	300_Prep			26093	DL	EET ALB	05/14/25 08:06
Total/NA	Analysis	300.0		20	26117	DL	EET ALB	05/14/25 19:04

Client Sample ID: BS25-24 4

Lab Sample ID: 885-24755-16

Date Collected: 05/09/25 11:30

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8015M/D		1	26378	AT	EET ALB	05/17/25 09:32
Total/NA	Prep	5030C			26055	AT	EET ALB	05/13/25 14:11
Total/NA	Analysis	8021B		1	26379	AT	EET ALB	05/17/25 09:32
Total/NA	Prep	SHAKE			26257	MI	EET ALB	05/15/25 14:29
Total/NA	Analysis	8015M/D		1	26310	EM	EET ALB	05/16/25 21:11
Total/NA	Prep	300_Prep			26093	DL	EET ALB	05/14/25 08:06
Total/NA	Analysis	300.0		20	26117	DL	EET ALB	05/14/25 19:18

Client Sample ID: BS25-25 4

Lab Sample ID: 885-24755-17

Date Collected: 05/09/25 11:40

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26157	AT	EET ALB	05/14/25 12:39
Total/NA	Analysis	8015M/D		1	26318	AT	EET ALB	05/15/25 21:58

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Client Sample ID: BS25-25 4

Lab Sample ID: 885-24755-17

Date Collected: 05/09/25 11:40

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26157	AT	EET ALB	05/14/25 12:39
Total/NA	Analysis	8021B		1	26319	AT	EET ALB	05/15/25 21:58
Total/NA	Prep	SHAKE			26257	MI	EET ALB	05/15/25 14:29
Total/NA	Analysis	8015M/D		1	26310	EM	EET ALB	05/16/25 21:33
Total/NA	Prep	300_Prep			26200	DL	EET ALB	05/15/25 07:58
Total/NA	Analysis	300.0		20	26207	DL	EET ALB	05/15/25 09:33

Client Sample ID: BS25-26 4

Lab Sample ID: 885-24755-18

Date Collected: 05/09/25 11:50

Matrix: Solid

Date Received: 05/13/25 07:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			26157	AT	EET ALB	05/14/25 12:39
Total/NA	Analysis	8015M/D		1	26318	AT	EET ALB	05/15/25 23:03
Total/NA	Prep	5030C			26157	AT	EET ALB	05/14/25 12:39
Total/NA	Analysis	8021B		1	26319	AT	EET ALB	05/15/25 23:03
Total/NA	Prep	SHAKE			26257	MI	EET ALB	05/15/25 14:29
Total/NA	Analysis	8015M/D		1	26310	EM	EET ALB	05/16/25 21:44
Total/NA	Prep	300_Prep			26200	DL	EET ALB	05/15/25 07:58
Total/NA	Analysis	300.0		20	26207	DL	EET ALB	05/15/25 10:02

Laboratory References:

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

Accreditation/Certification Summary

Client: Vertex
 Project/Site: Jackson B #65

Job ID: 885-24755-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-27-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total
Oregon	NELAP	NM100001	02-26-26



Chain-of-Custody Record

Client: Vertex (bill to Mack)

Mailing Address: 3101 Boyd dr
Carlsbad NM, 88220

Phone #: an file

email or Fax#:

QAVQC Package: Standard Level 4 (Full Validation)

Accreditation: Az Compliance NELAC Other

EDD (Type)

Turn-Around Time: Standard Rush 5 Day

Project Name: Jackson B #65

Project #: 2SA-01340

Project Manager: Sally Carttar

Sampler: Sally Carttar

On Ice: Yes No mg/L

of Coolers: 1

Cooler Temp (including CF): 4.8 to 2 = 5.0 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
5/9	9:00	Soil	WS25-05 0-3	402, 1	ILC	
	9:10		WS25-06 0-4.5			
	9:20		WS25-07 0-4			
	9:30		WS25-08 0-4			
	9:40		WS25-09 0-4			
	9:50		WS25-10 0-4			
	10:00		WS25-11 0-4			
	10:10		WS25-12 0-4			
	10:20		WS25-13 4-6			
	10:30		BS25-18 3			
	10:40		BS25-19 4.5			
	10:50		BS25-20 6			

Received by XXXXXXXXXX Date 5/10/25 Time 10:00

Received by XXXXXXXXXX Date 5/13/25 Time 7:50

Analysis Request	
BTEX / MTBE / TMB's (8021)	X
TPH:8015D(GRO / DRO / MRO)	X
8081 Pesticides/8082 PCB's	
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	X
Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	X
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	

Remarks: Bill to Mack Energy
ATTN: Matt Buckles @ mec..com
CC: SCarttar@vertex.ca & Katrina.Taylor@vertex.ca



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

885-24755 COC

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



Chain-of-Custody Record

Client: Vertex resource Group
 (bill to Mack Energy)
 Mailing Address: 3101 Boyd Dr.
Carlsbad, NM 88220
 Phone #: on file
 email or Fax#: _____
 QA/QC Package: Standard Level 4 (Full Validation)
 Accreditation: Az Compliance
 NELAC Other _____
 EDD (Type) _____

Turn-Around Time: Standard Rush 5 DAM
 Project Name: Jackson B # 65
 Project #: 25A-01540
 Project Manager: Sally Carttar
 Sampler: _____
 On Ice: Yes No mg/L
 # of Coolers: 1
 Cooler Temp (including CF): 4.8 + 0.2 = 5.0 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
5/9	11:00		BS25-21	4oz, 1	ICC	
	11:10		BS25-22			
	11:20		BS25-23			
	11:30		BS25-24			
	11:40		BS25-25			
	11:50		BS25-26			
5/13/25						

Date: _____ Time: _____
 Relinquished by: _____
 Date: 5/13/25 Time: 19:00
 Relinquished by: [Signature]
 Date: 5/13/25 Time: 7:50
 Received by: [Signature] Date: 5/13/25 Time: 1800
 Received by: [Signature] Date: 5/13/25 Time: 7:50



HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Analysis Request

Analysis Request	Result
BTEX / MTBE / TMB's (8021)	X
TPH:8015D(GRO / DRO / MRO)	X
8081 Pesticides/8082 PCB's	
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	X
Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	X
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	

Remarks: bill to Mack Energy
ATTN: matt buckles@mec.com
CC: Sally Carttar (SCarttar@vertex.com)
4901



Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-24755-1

Login Number: 24755

List Source: Eurofins Albuquerque

List Number: 1

Creator: Casarrubias, Tracy

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.	False	No sample date and/or time on COC, logged in per container labels.
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	True	

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Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 6/11/2025 11:33:43 AM

JOB DESCRIPTION

Jackson B #065

JOB NUMBER

885-26094-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109



Eurofins Albuquerque

Job Notes

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

Authorization



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6/11/2025 11:33:43 AM

Authorized for release by
Cheyenne Cason, Project Manager
cheyenne.cason@et.eurofinsus.com
(505)338-8812

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Client: Vertex
Project/Site: Jackson B #065

Laboratory Job ID: 885-26094-1



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Definitions/Glossary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-26094-1

Glossary

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

Case Narrative

Client: Vertex
Project: Jackson B #065

Job ID: 885-26094-1

Job ID: 885-26094-1

Eurofins Albuquerque

Job Narrative 885-26094-1

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

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

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

Receipt

The samples were received on 6/5/2025 7:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.9°C.

Receipt Exceptions

The samples were received on 6/5/2025 7:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.9°C. The soil sample jars were slightly colder than the 0-6 C temperature limit but these were not soil samples and no ice was present in the soil jars. Samples were processed as normal.

Gasoline Range Organics

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

Diesel Range Organics

Method 8015D_DRO: Surrogate recovery for the following samples is outside the upper control limit: (CCV 885-27738/20) and (CCV 885-27738/21). Corresponding CCV are showing high for surrogate. However, samples are showing acceptable surrogate within range. Therefore, Data is reportable.

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

Eurofins Albuquerque



Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-26094-1

Client Sample ID: Backfill Caliche

Lab Sample ID: 885-26094-1

Date Collected: 06/03/25 14:00

Matrix: Solid

Date Received: 06/05/25 07:45

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		06/05/25 11:48	06/07/25 04:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		15 - 150			06/05/25 11:48	06/07/25 04:33	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		06/05/25 11:48	06/07/25 04:33	1
Ethylbenzene	ND		0.050	mg/Kg		06/05/25 11:48	06/07/25 04:33	1
Toluene	ND		0.050	mg/Kg		06/05/25 11:48	06/07/25 04:33	1
Xylenes, Total	ND		0.10	mg/Kg		06/05/25 11:48	06/07/25 04:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		15 - 150			06/05/25 11:48	06/07/25 04:33	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		06/06/25 09:21	06/06/25 13:04	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		06/06/25 09:21	06/06/25 13:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	119		62 - 134			06/06/25 09:21	06/06/25 13:04	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		06/07/25 12:24	06/07/25 22:24	20

Client Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-26094-1

Client Sample ID: Backfill Topsoil

Lab Sample ID: 885-26094-2

Date Collected: 06/03/25 14:30

Matrix: Solid

Date Received: 06/05/25 07:45

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		06/05/25 11:48	06/07/25 05:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		15 - 150			06/05/25 11:48	06/07/25 05:45	1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		06/05/25 11:48	06/07/25 05:45	1
Ethylbenzene	ND		0.050	mg/Kg		06/05/25 11:48	06/07/25 05:45	1
Toluene	ND		0.050	mg/Kg		06/05/25 11:48	06/07/25 05:45	1
Xylenes, Total	ND		0.10	mg/Kg		06/05/25 11:48	06/07/25 05:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		15 - 150			06/05/25 11:48	06/07/25 05:45	1

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4	mg/Kg		06/06/25 09:21	06/06/25 13:28	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		06/06/25 09:21	06/06/25 13:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	124		62 - 134			06/06/25 09:21	06/06/25 13:28	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		61	mg/Kg		06/07/25 12:24	06/07/25 22:38	20

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-26094-1

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

Lab Sample ID: MB 885-27673/1-A
Matrix: Solid
Analysis Batch: 27817

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27673

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		06/05/25 11:48	06/07/25 04:09	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		15 - 150			06/05/25 11:48	06/07/25 04:09	1

Lab Sample ID: LCS 885-27673/2-A
Matrix: Solid
Analysis Batch: 27817

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27673

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	27.4		mg/Kg		110	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	221		15 - 150				

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-27673/1-A
Matrix: Solid
Analysis Batch: 27818

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27673

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		06/05/25 11:48	06/07/25 04:09	1
Ethylbenzene	ND		0.050	mg/Kg		06/05/25 11:48	06/07/25 04:09	1
Toluene	ND		0.050	mg/Kg		06/05/25 11:48	06/07/25 04:09	1
Xylenes, Total	ND		0.10	mg/Kg		06/05/25 11:48	06/07/25 04:09	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		15 - 150			06/05/25 11:48	06/07/25 04:09	1

Lab Sample ID: LCS 885-27673/3-A
Matrix: Solid
Analysis Batch: 27818

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27673

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	1.10		mg/Kg		110	70 - 130
Ethylbenzene	1.00	1.07		mg/Kg		107	70 - 130
m,p-Xylene	2.00	2.23		mg/Kg		111	70 - 130
o-Xylene	1.00	1.07		mg/Kg		107	70 - 130
Toluene	1.00	1.07		mg/Kg		107	70 - 130
Xylenes, Total	3.00	3.30		mg/Kg		110	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	108		15 - 150				

Eurofins Albuquerque

QC Sample Results

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-26094-1

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

Lab Sample ID: 885-26094-2 MS
Matrix: Solid
Analysis Batch: 27818

Client Sample ID: Backfill Topsoil
Prep Type: Total/NA
Prep Batch: 27673

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Benzene	ND		0.997	1.04		mg/Kg		105		70 - 130
Ethylbenzene	ND		0.997	1.02		mg/Kg		102		70 - 130
m,p-Xylene	ND		1.99	2.17		mg/Kg		109		70 - 130
o-Xylene	ND		0.997	1.06		mg/Kg		106		70 - 130
Toluene	ND		0.997	1.04		mg/Kg		104		70 - 130
Xylenes, Total	ND		2.99	3.23		mg/Kg		108		70 - 130
MS MS										
Surrogate	%Recovery	Qualifier	Limits							
4-Bromofluorobenzene (Surr)	111		15 - 150							

Lab Sample ID: 885-26094-2 MSD
Matrix: Solid
Analysis Batch: 27818

Client Sample ID: Backfill Topsoil
Prep Type: Total/NA
Prep Batch: 27673

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	Limits	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						RPD	Limit
Benzene	ND		1.00	1.06		mg/Kg		106		70 - 130	2	20
Ethylbenzene	ND		1.00	1.05		mg/Kg		105		70 - 130	3	20
m,p-Xylene	ND		2.00	2.21		mg/Kg		111		70 - 130	2	20
o-Xylene	ND		1.00	1.07		mg/Kg		107		70 - 130	1	20
Toluene	ND		1.00	1.05		mg/Kg		105		70 - 130	1	20
Xylenes, Total	ND		3.00	3.28		mg/Kg		109		70 - 130	2	20
MSD MSD												
Surrogate	%Recovery	Qualifier	Limits									
4-Bromofluorobenzene (Surr)	111		15 - 150									

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

Lab Sample ID: MB 885-27751/1-A
Matrix: Solid
Analysis Batch: 27738

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 27751

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		06/06/25 09:21	06/06/25 11:29	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		06/06/25 09:21	06/06/25 11:29	1
MB MB								
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
Di-n-octyl phthalate (Surr)	117		62 - 134	06/06/25 09:21	06/06/25 11:29	1		

Lab Sample ID: LCS 885-27751/2-A
Matrix: Solid
Analysis Batch: 27738

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 27751

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec	Limits
		Result	Qualifier					
Diesel Range Organics [C10-C28]	50.0	47.3		mg/Kg		95		51 - 148
LCS LCS								
Surrogate	%Recovery	Qualifier	Limits					
Di-n-octyl phthalate (Surr)	117		62 - 134					

Eurofins Albuquerque

QC Sample Results

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-26094-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-27832/1-A
 Matrix: Solid
 Analysis Batch: 27834

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 27832

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5	mg/Kg		06/07/25 12:24	06/07/25 13:54	1

Lab Sample ID: LCS 885-27832/2-A
 Matrix: Solid
 Analysis Batch: 27834

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 27832

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	15.0	15.5		mg/Kg		103	90 - 110

QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-26094-1

GC VOA

Prep Batch: 27673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-26094-1	Backfill Caliche	Total/NA	Solid	5030C	
885-26094-2	Backfill Topsoil	Total/NA	Solid	5030C	
MB 885-27673/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-27673/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-27673/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-26094-2 MS	Backfill Topsoil	Total/NA	Solid	5030C	
885-26094-2 MSD	Backfill Topsoil	Total/NA	Solid	5030C	

Analysis Batch: 27817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-26094-1	Backfill Caliche	Total/NA	Solid	8015M/D	27673
885-26094-2	Backfill Topsoil	Total/NA	Solid	8015M/D	27673
MB 885-27673/1-A	Method Blank	Total/NA	Solid	8015M/D	27673
LCS 885-27673/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	27673

Analysis Batch: 27818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-26094-1	Backfill Caliche	Total/NA	Solid	8021B	27673
885-26094-2	Backfill Topsoil	Total/NA	Solid	8021B	27673
MB 885-27673/1-A	Method Blank	Total/NA	Solid	8021B	27673
LCS 885-27673/3-A	Lab Control Sample	Total/NA	Solid	8021B	27673
885-26094-2 MS	Backfill Topsoil	Total/NA	Solid	8021B	27673
885-26094-2 MSD	Backfill Topsoil	Total/NA	Solid	8021B	27673

GC Semi VOA

Analysis Batch: 27738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-26094-1	Backfill Caliche	Total/NA	Solid	8015M/D	27751
885-26094-2	Backfill Topsoil	Total/NA	Solid	8015M/D	27751
MB 885-27751/1-A	Method Blank	Total/NA	Solid	8015M/D	27751
LCS 885-27751/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	27751

Prep Batch: 27751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-26094-1	Backfill Caliche	Total/NA	Solid	SHAKE	
885-26094-2	Backfill Topsoil	Total/NA	Solid	SHAKE	
MB 885-27751/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-27751/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

HPLC/IC

Prep Batch: 27832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-26094-1	Backfill Caliche	Total/NA	Solid	300_Prep	
885-26094-2	Backfill Topsoil	Total/NA	Solid	300_Prep	
MB 885-27832/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-27832/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 27834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-26094-1	Backfill Caliche	Total/NA	Solid	300.0	27832

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Jackson B #065

Job ID: 885-26094-1

HPLC/IC (Continued)

Analysis Batch: 27834 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-26094-2	Backfill Topsoil	Total/NA	Solid	300.0	27832
MB 885-27832/1-A	Method Blank	Total/NA	Solid	300.0	27832
LCS 885-27832/2-A	Lab Control Sample	Total/NA	Solid	300.0	27832

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

Lab Chronicle

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-26094-1

Client Sample ID: Backfill Caliche

Lab Sample ID: 885-26094-1

Date Collected: 06/03/25 14:00

Matrix: Solid

Date Received: 06/05/25 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			27673	JE	EET ALB	06/05/25 11:48
Total/NA	Analysis	8015M/D		1	27817	JP	EET ALB	06/07/25 04:33
Total/NA	Prep	5030C			27673	JE	EET ALB	06/05/25 11:48
Total/NA	Analysis	8021B		1	27818	JP	EET ALB	06/07/25 04:33
Total/NA	Prep	SHAKE			27751	MI	EET ALB	06/06/25 09:21
Total/NA	Analysis	8015M/D		1	27738	MI	EET ALB	06/06/25 13:04
Total/NA	Prep	300_Prep			27832	JT	EET ALB	06/07/25 12:24
Total/NA	Analysis	300.0		20	27834	RC	EET ALB	06/07/25 22:24

Client Sample ID: Backfill Topsoil

Lab Sample ID: 885-26094-2

Date Collected: 06/03/25 14:30

Matrix: Solid

Date Received: 06/05/25 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			27673	JE	EET ALB	06/05/25 11:48
Total/NA	Analysis	8015M/D		1	27817	JP	EET ALB	06/07/25 05:45
Total/NA	Prep	5030C			27673	JE	EET ALB	06/05/25 11:48
Total/NA	Analysis	8021B		1	27818	JP	EET ALB	06/07/25 05:45
Total/NA	Prep	SHAKE			27751	MI	EET ALB	06/06/25 09:21
Total/NA	Analysis	8015M/D		1	27738	MI	EET ALB	06/06/25 13:28
Total/NA	Prep	300_Prep			27832	JT	EET ALB	06/07/25 12:24
Total/NA	Analysis	300.0		20	27834	RC	EET ALB	06/07/25 22:38

Laboratory References:

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

Accreditation/Certification Summary

Client: Vertex
 Project/Site: Jackson B #065

Job ID: 885-26094-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-27-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total
Oregon	NELAP	NM100001	02-26-26



Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-26094-1

Login Number: 26094

List Source: Eurofins Albuquerque

List Number: 1

Creator: Proctor, Nancy

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.	False	-0.9 C was the sample temp of the soil jars. Acceptable to run.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	

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

QUESTIONS

Action 545161

QUESTIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 545161
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2508655288
Incident Name	NAPP2508655288 JACKSON B #065 @ 30-015-41191
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received
Incident Well	[30-015-41191] JACKSON B #065

Location of Release Source	
<i>Please answer all the questions in this group.</i>	
Site Name	JACKSON B #065
Date Release Discovered	03/27/2025
Surface Owner	Federal

Incident Details	
<i>Please answer all the questions in this group.</i>	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
<i>Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.</i>	
Crude Oil Released (bbls) Details	Cause: Corrosion Flow Line - Production Crude Oil Released: 7 BBL Recovered: 0 BBL Lost: 7 BBL.
Produced Water Released (bbls) Details	Cause: Corrosion Flow Line - Production Produced Water Released: 7 BBL Recovered: 0 BBL Lost: 7 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS, Page 2

Action 545161

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 545161
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	No
Reasons why this would be considered a submission for a notification of a major release	<i>Unavailable.</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.

Initial Response

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	False
All free liquids and recoverable materials have been removed and managed appropriately	False
If all the actions described above have not been undertaken, explain why	Release occurred outside of containment

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: Sally Carttar Title: Consultant Email: scarttar@vertex.ca Date: 01/21/2026
--	---

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QUESTIONS, Page 3

Action 545161

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 545161
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1/2 and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1/2 and 1 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Between 1 and 5 (mi.)
A wetland	Between 1/2 and 1 (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 1/2 and 1 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

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)	3000
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	7600
GRO+DRO (EPA SW-846 Method 8015M)	4900
BTEX (EPA SW-846 Method 8021B or 8260B)	23
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	04/04/2025
On what date will (or did) the final sampling or liner inspection occur	05/09/2025
On what date will (or was) the remediation complete(d)	05/09/2025
What is the estimated surface area (in square feet) that will be reclaimed	4898
What is the estimated volume (in cubic yards) that will be reclaimed	751
What is the estimated surface area (in square feet) that will be remediated	4898
What is the estimated volume (in cubic yards) that will be remediated	500

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 545161

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 545161
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:

(Select all answers below that apply.)

(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	fEEM0112334510 HALFWAY DISPOSAL AND LANDFILL
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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

I hereby agree and sign off to the above statement	Name: Sally Carttar Title: Consultant Email: scarttar@vertex.ca Date: 01/21/2026
--	---

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 545161

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 545161
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only	
<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 545161

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 545161
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	459555
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	05/09/2025
What was the (estimated) number of samples that were to be gathered	8
What was the sampling surface area in square feet	1500

Remediation Closure Request	
<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	4898
What was the total volume (cubic yards) remediated	500
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	1506
What was the total volume (in cubic yards) reclaimed	249
Summarize any additional remediation activities not included by answers (above)	As detailed in attached report.

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

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required 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: Sally Carttar Title: Consultant Email: scarttar@vertex.ca Date: 01/21/2026
--	---

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

QUESTIONS, Page 7

Action 545161

QUESTIONS (continued)

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 545161
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
<i>Only answer the questions in this group if all reclamation steps have been completed.</i>	
Requesting a reclamation approval with this submission	No

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

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

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CONDITIONS

Action 545161

CONDITIONS

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CONDITIONS

Created By	Condition	Condition Date
scwells	None	2/20/2026